# Coachella Valley Extreme Area Plan for 1997 8-hour Ozone Standard

**Public Consultation Meeting**

**September 25, 2020**

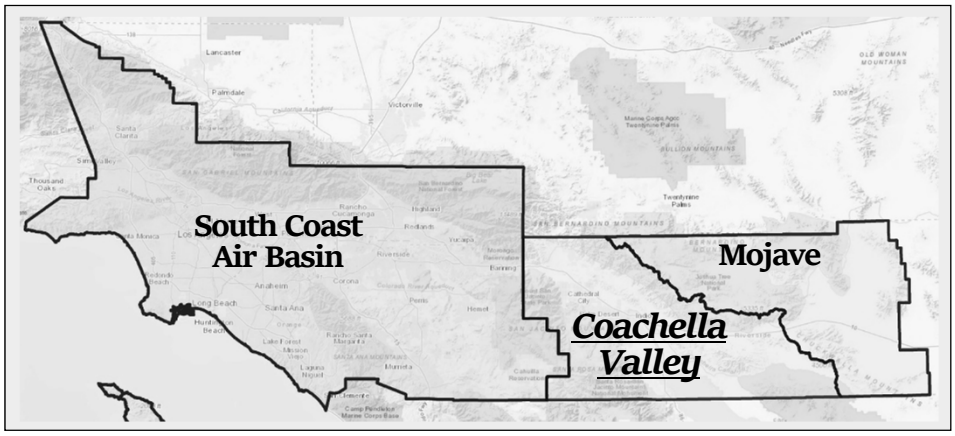
## South Coast Air Quality Management District

- **Local air pollution control agency**
  - **Largest of the 35 local air agencies in CA and in the U.S.**
  - **10,743 square miles**
  - **17 million residents**


- **Responsibilities**
  - **Regulate emissions from stationary sources**
  - **Develop and implement plans to meet national air quality standards**
  - **Permit and inspect 28,400 affected businesses**
  - **Administer over $100 million of incentive funding annually**

2

# Air Basins under South Coast AQMD




3

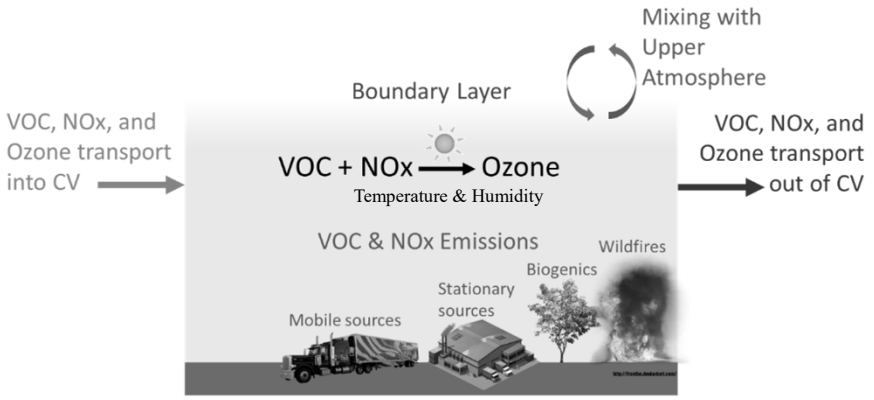
# Ozone National Ambient Air Quality Standards

## Coachella Valley Attainment Status

| 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 (Extreme) | 6/15/2024 |
| | (2008) 8-Hour (0.075 ppm) | Nonattainment (Severe) | 7/20/2027 |
| | (2015) 8-Hour (0.070 ppm) | Nonattainment (Severe) | 8/3/2033 |

4

# Ozone Formation

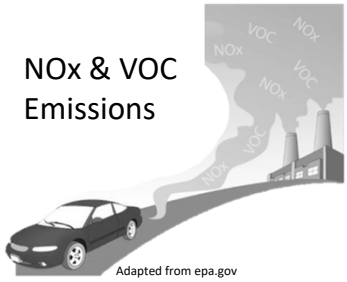



VOC = Volatile Organic Compounds; NOx = Oxides of Nitrogen

5

# Factors that Influence Ozone Levels

NOx & VOC Emissions

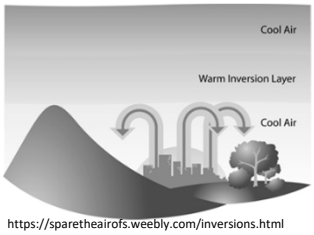



Adapted from epa.gov

US National Park Service

Wikimedia Commons

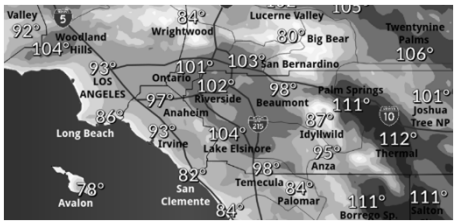
Mixing and Ventilation




https://sparetheairofs.weebly.com/inversions.html

Season

Temperature

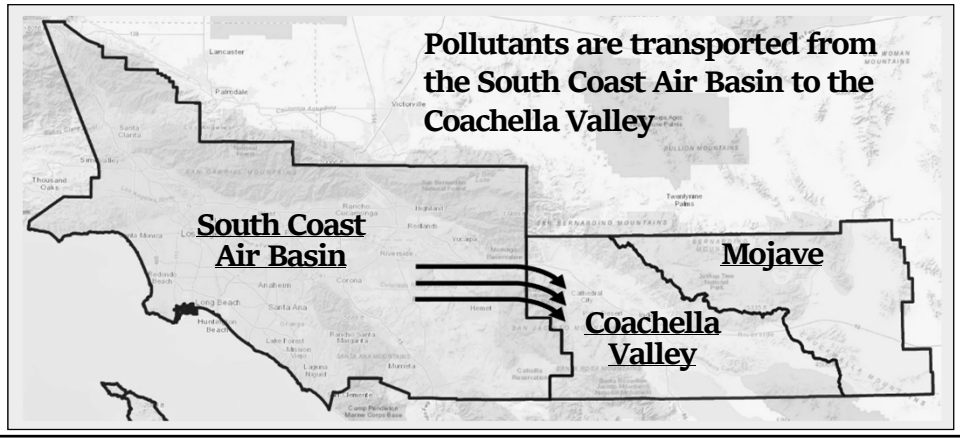



National Weather Service San Diego Office

6

# Air Quality Setting

- **Ozone exceedances in Coachella Valley are primarily due to the direct transport of ozone and its precursors from the South Coast Air Basin**




7

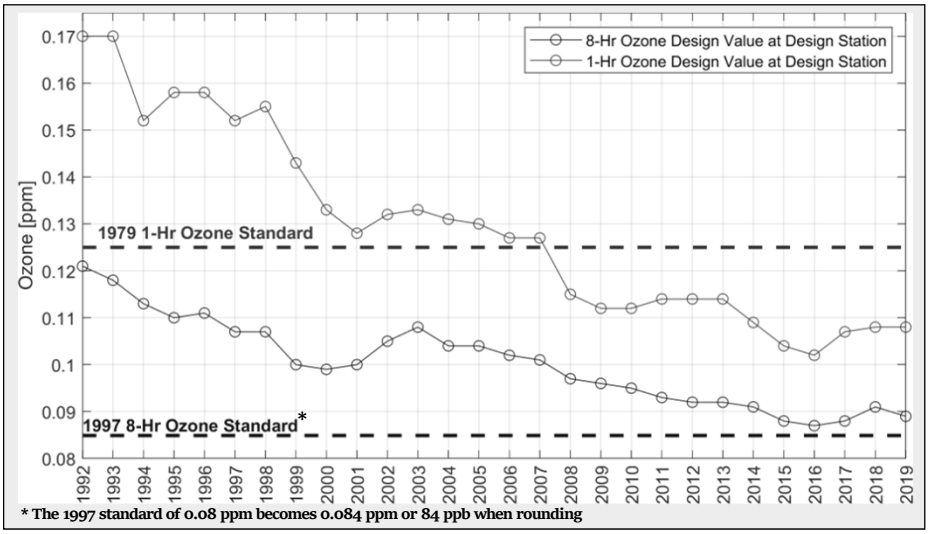
# Attainment Determination Based on Design Value

- **Ozone design value is the average of each year's 99th percentile over a three year period**

| Year 1 | Year 2 | Year 3 |
|---|---|---|
| 99th percentile (4th highest) 8-hr daily max | 99th percentile (4th highest) 8-hr daily max | 99th percentile (4th highest) 8-hr daily max |
| Average = Design value | | |

8

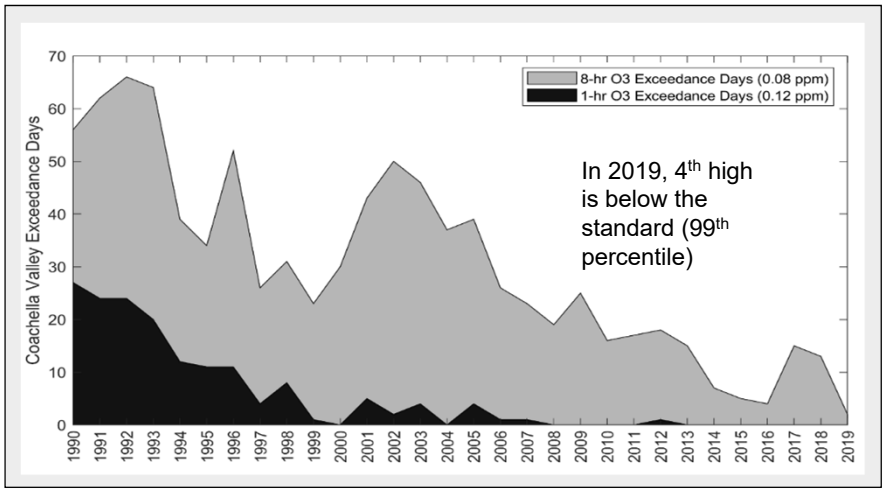
# Ozone Trend in Coachella Valley (Design Value)




* The 1997 standard of 0.08 ppm becomes 0.084 ppm or 84 ppb when rounding

9

# Ozone Trend in Coachella Valley (Number of Exceedance Days)



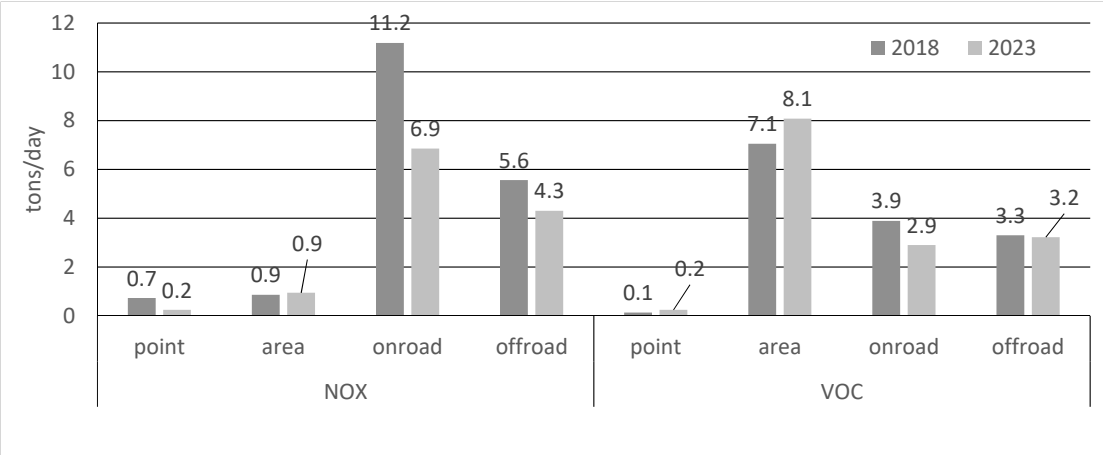

10

# 1997 8-hour Ozone Attainment Status

- Coachella Valley was previously classified as a "Severe" nonattainment area, with an attainment date of June 15, 2019
  - Monitoring data (2016-2018) showed that the area did not attain the standard by the deadline
- On July 10, 2019, Coachella Valley was granted a voluntary reclassification from "Severe" to "Extreme" by the U.S. EPA
  - New attainment date is June 15, 2024
  - A revision to the State Implementation Plan (SIP) is required (due February 2021)
  - Stricter permitting requirements on stationary sources (lower major source threshold)

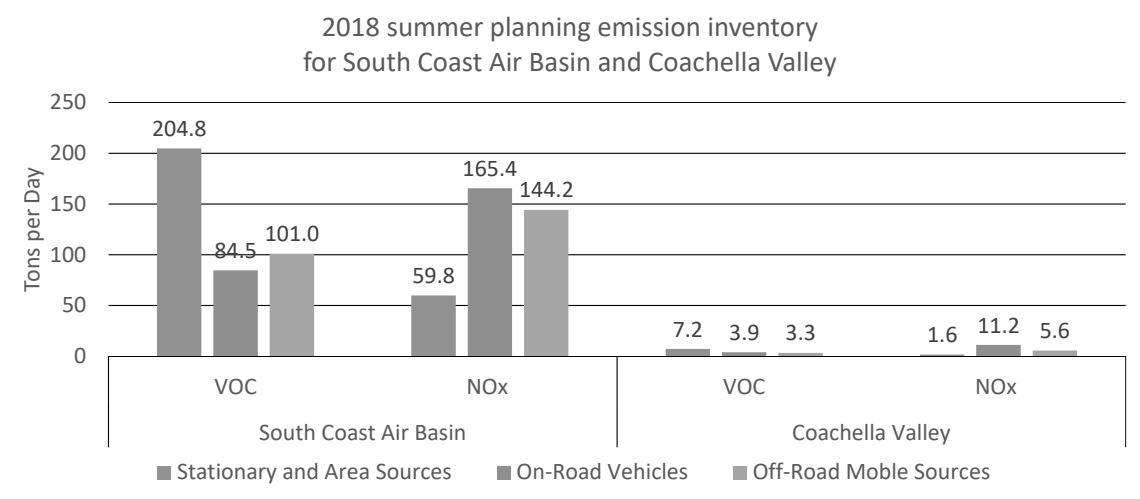
11

# Local Emissions Trends in Coachella Valley



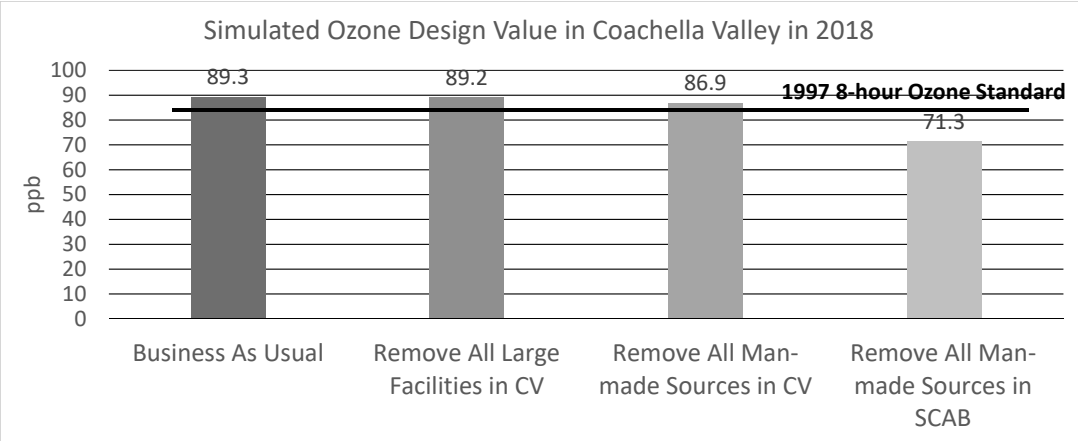

12

# Emissions in South Coast Air Basin and Coachella Valley




13

# Impact of Local and Regional Emissions on Coachella Valley Ozone Levels




ppb : part per billion.

14 **14**

# Base and Future Year Design Values

| Station | 2018 Base Year Design Values (ppb) | 2023 Future Year Design value (ppb)* |
|---|---|---|
| Palm Springs | 89.3 | 83.2 |
| Indio | 84.3 | 79.1 |

* Based on preliminary modeling, 2022 design value is also expected to be below the standard.

15

# Pathway to Attainment

- Attainment is expected to be achieved by 2023 based on emission reductions from existing regulations and programs
- Recently adopted regulations since 2016 AQMP provide further assurance for attainment by 2023
- Earlier attainment was evaluated; however not considered since no additional feasible measures were identified which could be adopted and implemented in time to accelerate attainment date
- Based on preliminary modeling, attainment may be earlier by 2022

16

# Extreme Area Plan – Key Requirements

**Emission Inventory and Attainment Demonstration**

- ✓ Updated emissions inventory;
- ✓ Expeditious attainment expected by 2023 based on baseline emissions (existing regulations)

**Control Strategy Analysis**

- ✓ Continued implementation of control strategy in 2016 Air Quality Management Plan
- ✓ Analysis of Reasonably Available Control Technology / Reasonably Available Control Measures (RACT/RACM)

**Reasonable Further Progress**

- ✓ Achieved based on reductions in baseline emissions

**Change Major Source and Major Modification Thresholds for Both NOx and VOC**

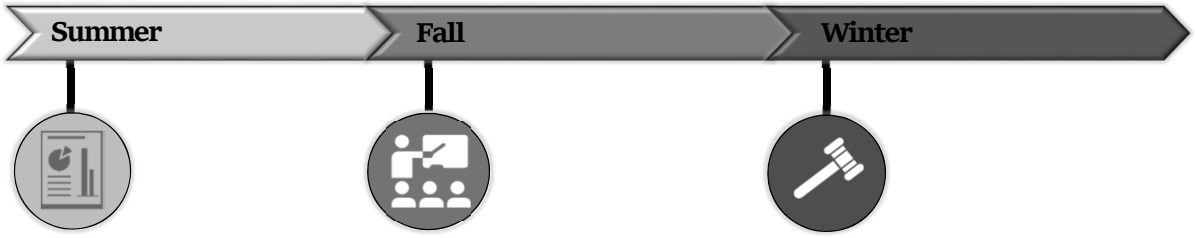
- ✓ Amendments to New Source Review, RECLAIM, and Title V Programs underway

**Contingency Measures**

- ✓ Contingency provisions to be included in a rule

17

# Public Process




**Summer**

**Aug 26 – AB 617 East Coachella Valley Community Steering Committee**

**Sep 3 – AQMP Advisory Group**

**Sep 11 – Release Draft Plan**

**Fall**

**Sep 18 – South Coast AQMD Mobile Source Committee**

**Sep 25 – Public Consultation Meeting**

**Oct 13 – Public Comments Due**

**Nov 3 – Release Draft Final Plan**

**Nov 20 – South Coast AQMD Mobile Source Committee**

**Winter**

**Dec 4 – South Coast AQMD Board Consideration**

**Submittal to CARB/U.S. EPA following Board Approval**

18

# Supporting Documents Available

- Draft Coachella Valley Extreme Area Ozone Plan
- Notice of Public Consultation Meeting for Coachella Valley Extreme Area Ozone Plan for 1997 8-Hour Ozone Standard and Public Workshop for Proposed Amended Regulations XIII, XX, and XXX
- Fact Sheet for Coachella Valley Extreme Area Ozone Plan

http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/other-state-implementation-plan-(sip)-revisions

19

# Submission of Documents or Comments

Please address questions, comments, documents or other relevant information to:

Kalam Cheung
Program Supervisor
Planning, Rule Development, and Area Sources
South Coast Air Quality Management District
Email: kcheung@aqmd.gov
Phone: (909) 396-3281

Written comments should be submitted no later than Tuesday, October 13, 2020

20