

# Informational Meeting:

San Diego County Nonattainment  
Classification for the 2008 & 2015 Ozone  
Standards

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EPA REGION 9

JANUARY 22, 2021

# Agenda

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- **Welcome** – Meredith Kurpius, Assistant Director, EPA Region 9 Air & Radiation Division
- **Introductions** – All
- **Overview/Background** – Khoi Nguyen, EPA Region 9 Air Planning Office
  - Background on the 2008 & 2015 National Ambient Air Quality Standards for Ozone
  - California’s Reclassification Request for the San Diego County Nonattainment Area
  - Reclassification Impacts on Tribes
  - Next Steps and Timing
- **Questions** – All

# Background on the 2008 & 2015 National Ambient Air Quality Standards for Ozone

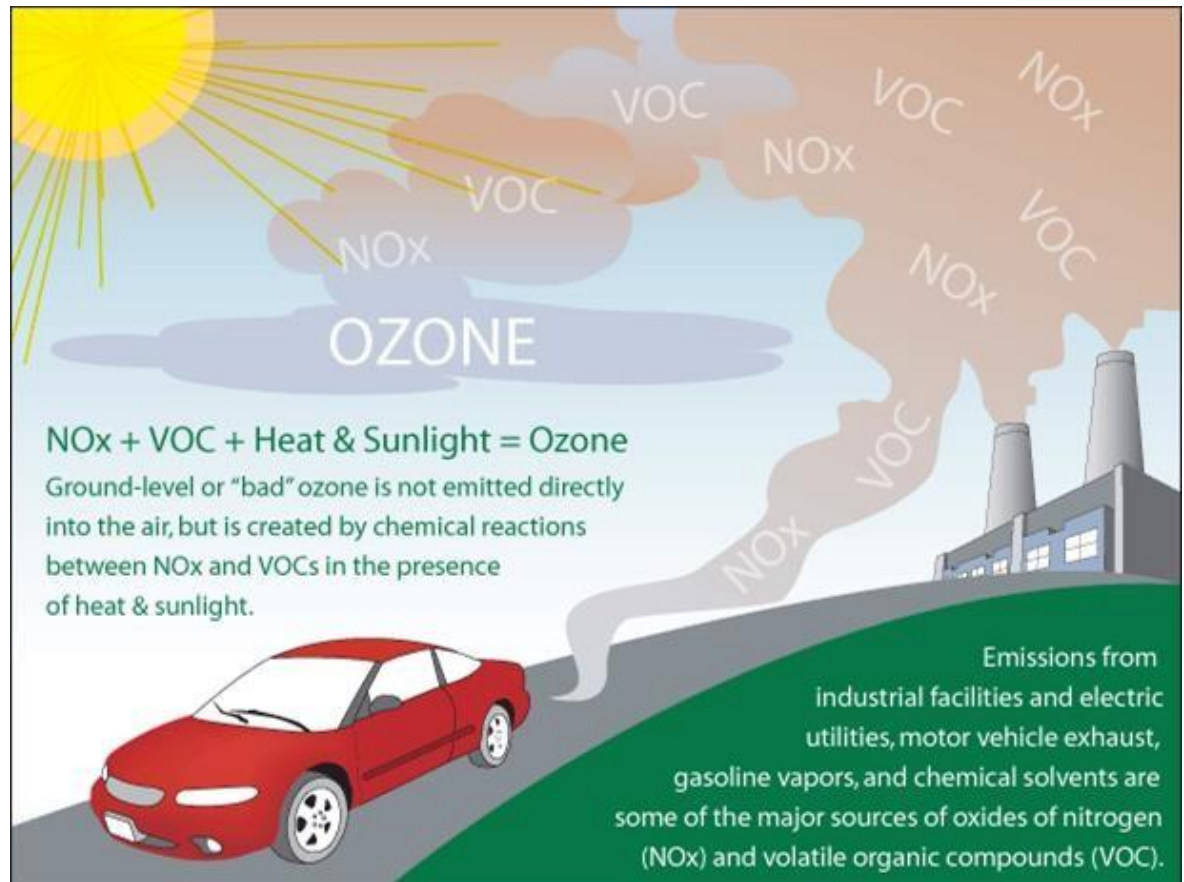
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# Ozone

Ozone in the air we breathe can harm our health

- Chest pain, coughing, and throat irritation
- Reduce lung function and harm lung tissue
- Worsen bronchitis, emphysema, and asthma

Children, the elderly, people with respiratory diseases, and people who are active outdoors are especially sensitive to ozone exposure.



<https://www.epa.gov/ground-level-ozone-pollution>

- In San Diego County, major sources of NO<sub>x</sub> and VOC include automobiles, trucks, construction equipment, boats, and consumer products such as paint and personal care products.
- Ozone is a regional pollutant. It can be transported long distances by wind.

# National Ambient Air Quality Standards (NAAQS)

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- The Clean Air Act (CAA) requires EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants that are harmful to public health and the environment.
- The NAAQS are science-based standards designed to protect public health and welfare.
- The CAA requires periodic review of the science upon which the standards are based.
- The CAA requires that EPA review the level of the standards every five years to ensure they are set at levels that are sufficiently protective of human health and welfare.

# Nonattainment Area Boundaries & Classifications

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- Areas must be sufficiently large to include all locations with elevated ozone levels, even if they do not have many pollutant emission sources.
- **Nonattainment**—an area has monitors that are violating a standard or pollution sources that are contributing to violations in a nearby area
- **Attainment/Unclassifiable**—an area has clean monitoring data or there is no nearby monitoring data and no pollution sources that could cause a violation in a nearby area.
- Areas designated nonattainment for the 2008 and 2015 ozone NAAQS were classified according to the severity of the ozone problem.
  - Marginal, Moderate, Serious, Severe, Extreme.
  - Areas with higher classifications have stricter requirements.
  - Areas with higher classifications have more time to attain the standard.

# 2008 Ozone NAAQS

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- In 2008, as part of the regular review cycle, EPA revised the ozone standard to a level of 75 parts per billion (ppb) (“2008 Ozone NAAQS”).
- As a part of the designation process, EPA provided outreach, educational materials, and offered consultation to tribes.
- Per [EPA’s Tribal Designations Guidance](#), tribes could, but were not required to, submit recommendations for the updated standard.
- In 2012, EPA designated all areas across the country, including the San Diego County nonattainment area (“San Diego County”).

# 2008 Ozone NAAQS – San Diego County

For the initial designation and each of the reclassifications, EPA provided outreach and consultation to tribes geographically located within the nonattainment area.

Date	Details
May 21, 2012	San Diego County ozone nonattainment area (“San Diego County”), including all tribal lands geographically located within it, was initially classified Marginal Nonattainment for the 2008 Ozone NAAQS
May 4, 2016	EPA determined that San Diego County failed to attain the 2008 Ozone NAAQS by the Marginal attainment date and reclassified the area, including tribal lands, from Marginal to Moderate.
August 23, 2019	EPA determined that San Diego County failed to attain the 2008 Ozone NAAQS by the Moderate attainment date and reclassified the area, including tribal lands, from Moderate to Serious.

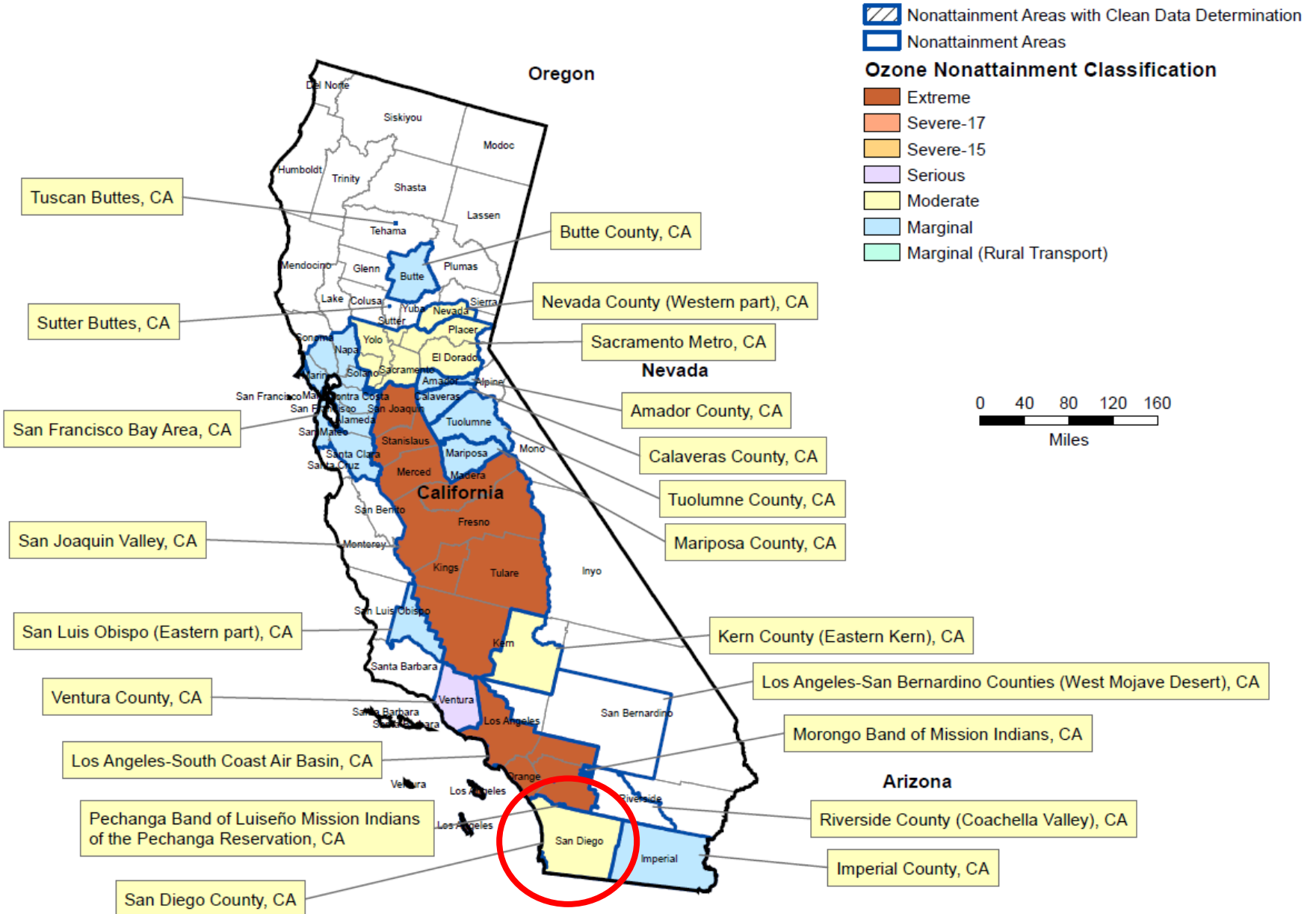


# 2015 Ozone NAAQS

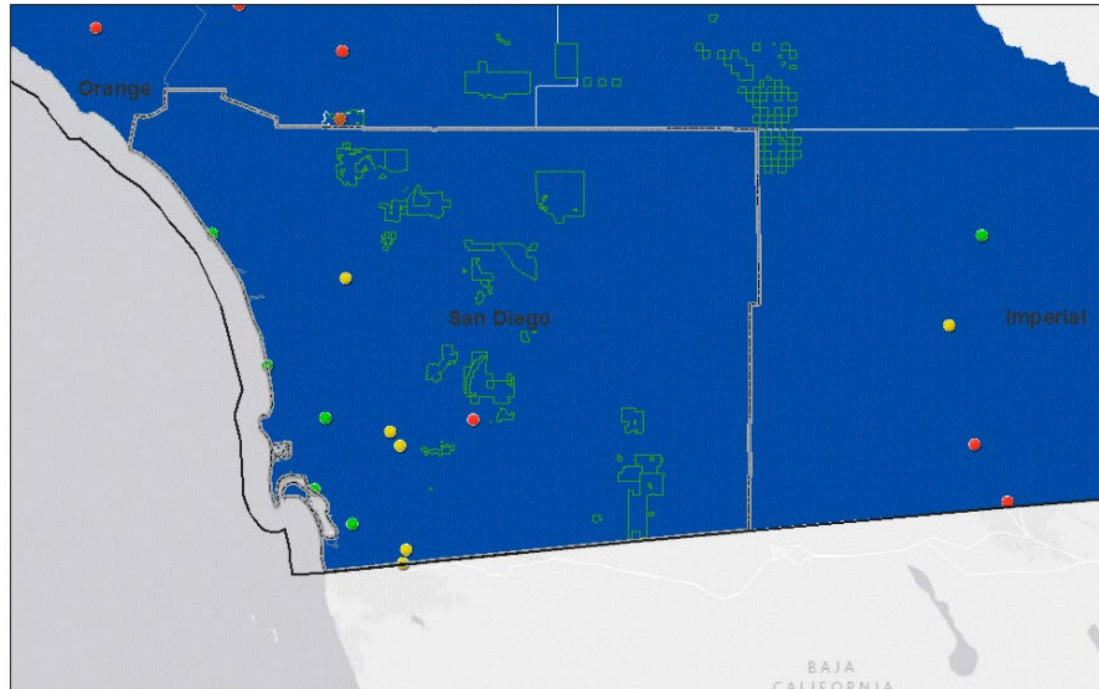
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- In 2015, as part of the regular review cycle, EPA adopted a new 8-hr Ozone NAAQS, reducing it to 70 ppb (“2015 Ozone NAAQS”).
- As a part of the designation process, EPA provided outreach, educational materials, and offered consultation to tribes.
- Per [EPA’s Tribal Designations Guidance](#), tribes could, but were not required to, submit recommendations for the updated standard.
- On June 4, 2018, EPA designated the San Diego County nonattainment area, including tribal lands, as Moderate nonattainment for the 2015 Ozone NAAQS.

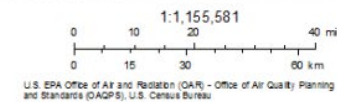
# California 8-hour Ozone Nonattainment Areas (2015 Standard)



**Figure 14.1 EPA's Intended Nonattainment Boundaries for San Diego County, CA.**

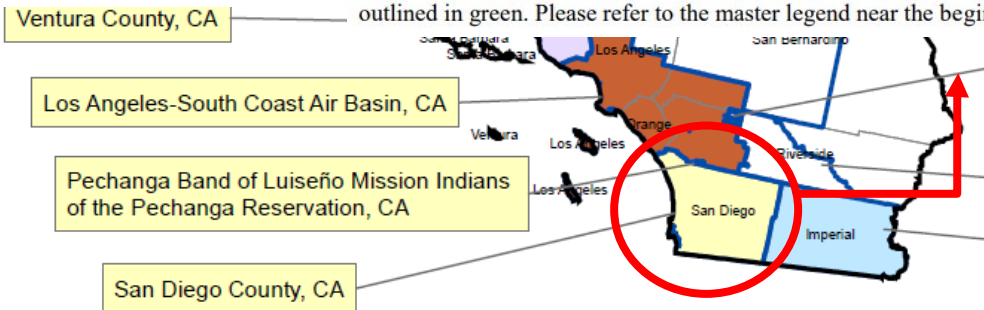


November 30, 2017



Office of Air and Radiation (OAR) - Office of Air Quality Planning and Standards (OAQPS), U.S. Census Bureau | Map Service: USEPA Office of Environmental Information (OEI), U.S. Census Bureau | Source: U.S. Census Bureau |

Figure 14.1 shows the EPA's intended nonattainment boundary for San Diego County, CA as a gray line with a dashed black center. Nonattainment areas for the 2008 and 1997 ozone NAAQS are shown in dark blue areas. Monitors are shown as red (violating), green (attaining), or yellow (invalid) dots based on 2014-2016 design values. Tribal land boundaries are outlined in green. Please refer to the master legend near the beginning of this document.



# Designating Tribal Lands

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- Historically, tribal lands are designated together with nearby state land with similar ozone levels
- Purposes of designating tribal land:
  - Inform the public of air quality in and around tribal lands
  - Not a statement about whether tribal sources contribute to air pollution
- Although EPA has created nonattainment areas that include both state and tribal land, this does not give states any jurisdiction over tribal land or sources located on tribal land.

# California's Reclassification Request for the San Diego County Nonattainment Area

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# California's Reclassification Request

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- January 8, 2021 - EPA received a request from California and the San Diego County Air Pollution Control District (SDCAPCD or District) to reclassify San Diego County:
  - from Serious to Severe for the 2008 Ozone NAAQS, and
  - from Moderate to Severe for the 2015 Ozone NAAQS.
- Recent air quality modeling conducted by the California Air Resources Board (CARB) demonstrates that attaining the 2008 Ozone NAAQS by the Serious attainment date of July 20, 2021 and attaining the 2015 Ozone NAAQS by the Moderate attainment date of August 3, 2024, are infeasible.
- EPA does not have discretion to deny a voluntary reclassification request from a state.

# California's Reclassification Request

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- Attainment Dates

Standard	Current	New
2008 Ozone NAAQS	July 20, 2021	July 20, 2027
2015 Ozone NAAQS	August 3, 2024	August 3, 2033

- The SDCAPCD and CARB would be required to develop and submit to the EPA a new air quality plan showing attainment for the area by the new attainment dates.
- Reclassification would impose additional requirements under the CAA (for example, transportation control strategies and measures to offset emissions increases from vehicle miles traveled) that will help ensure the area has the tools needed to attain the standard.

# Monitoring Sites in San Diego County

- The District currently operates an active network of seven ozone monitoring sites.
- Large gradient in ozone concentrations between the coastal and inland areas due to difference in prevailing meteorological conditions, local pollution sources, and residence time in ozone formation, which generally cause higher ozone concentrations inland.
- Ozone tends to persist longer (with more uniform ozone concentration throughout the day and night) in rural areas than in urban areas as a result of less chemical scavenging from other primary pollutants.

**Figure M-1**  
**2019 Ozone Monitoring Sites in San Diego County**

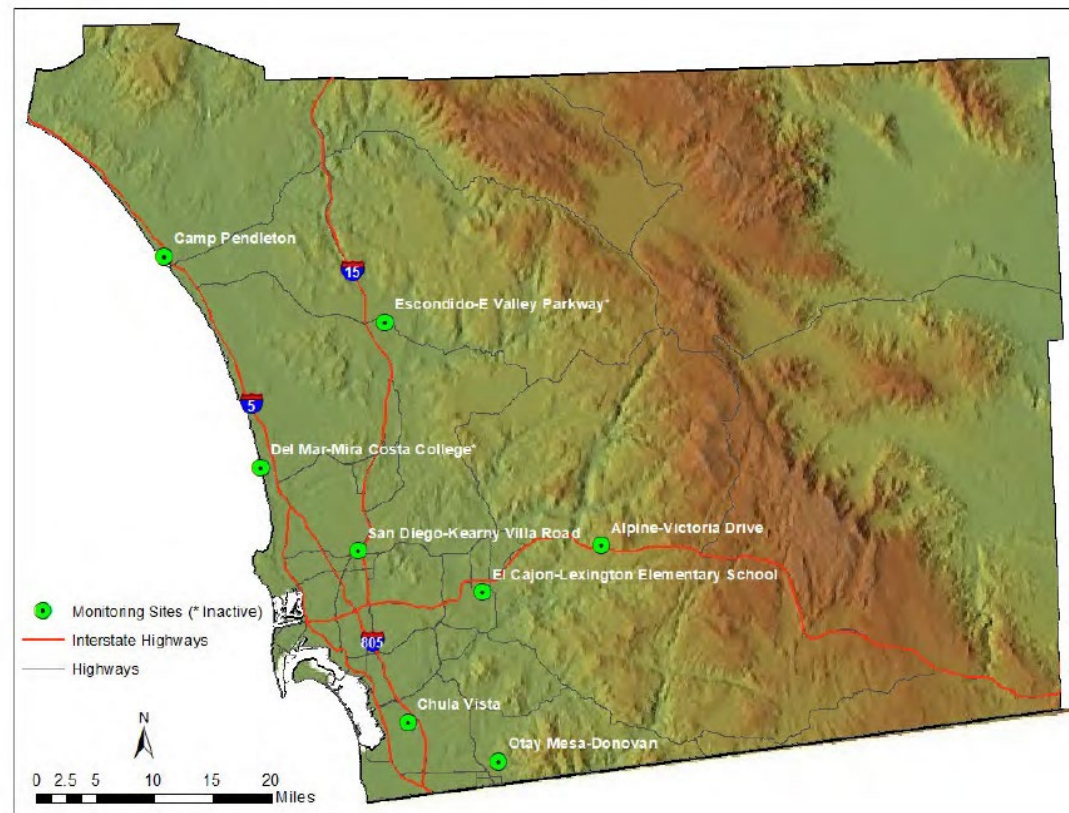


Figure from page M-5 of San Diego County Attainment Plan



# San Diego County Ozone Trends and Design Values

A monitor's **design value** is the metric or statistic that indicates whether that monitor attains a specified air quality standard.

For the ozone standards, the **design value** is calculated as the 4<sup>th</sup> highest daily maximum 8-hour average concentration, averaged over a 3-year period.

**Figure M-11  
Ozone Design Values in San Diego County, 2000-2019**

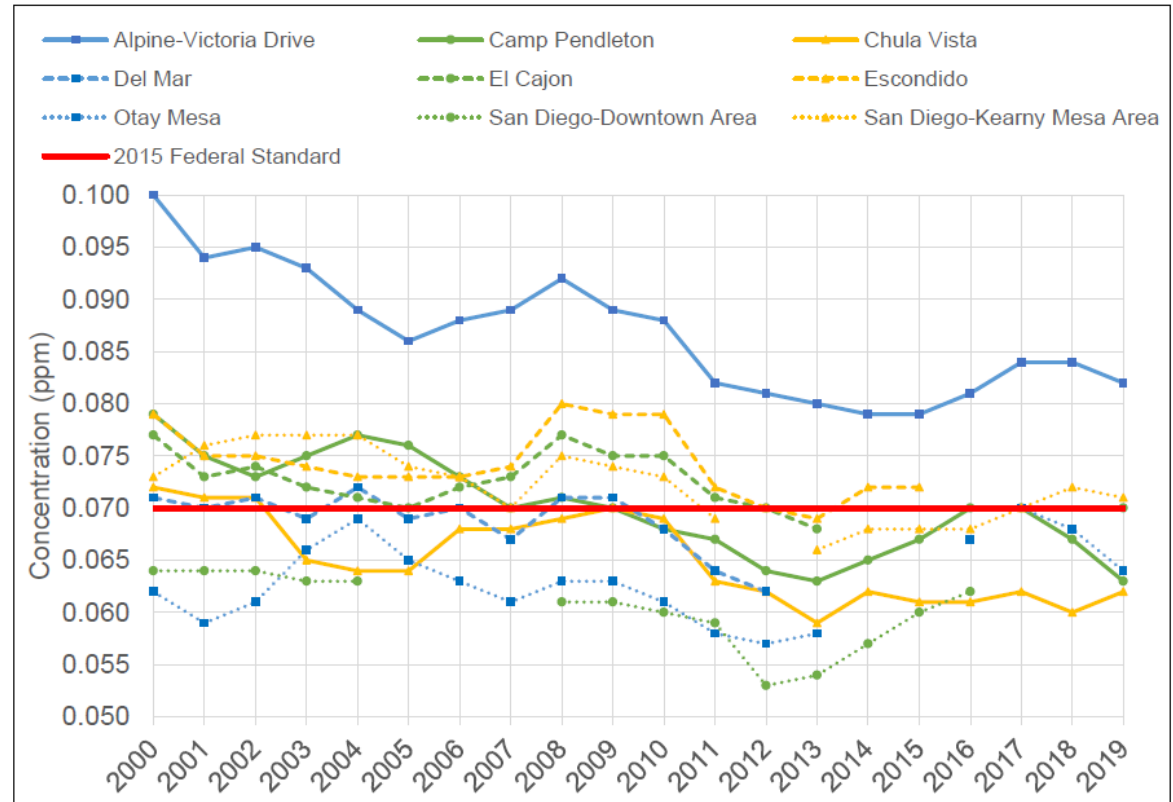


Figure from page M-19 of San Diego County Attainment Plan

# Attainment Demonstration (Modeling)

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- The reclassification request includes an attainment demonstration that summarizes the results of photochemical air quality modeling.
- Air quality models mathematically simulate each of the physical and chemical processes that govern air pollution in the lower atmosphere (e.g., pollutant releases into the air, pollutant transport and diffusion by the wind, pollutant creation and destruction in the air through chemical reactions, deposition of pollutant).
- The model uses emission inventories, together with measurements of meteorology and air quality, to establish the relationship between emissions and air quality.

**Table 3. Modeled 8-hour Ozone Design Values (DV) Demonstrating Attainment**

Monitoring Site	2017 Base Year DV (ppb)	2026 Future Year DV (ppb)	2032 Future Year DV (ppb)
Alpine	84	74	70
Chula Vista	62	61	61
Camp Pendleton	70	65	64
Otay Mesa-Donovan	70	65	64
San Diego-Kearny Villa Rd.	70	68	66

Source: 2020 Plan, Table 3-5: Calculation of Model-Predicted 2026 Design Values at San Diego County Monitoring Sites, 2008 Ozone NAAQS, and Table 4-7: Calculation of Model-Predicted 2032 Design Values at San Diego County Monitoring Sites, 2015 Ozone NAAQS.

# Reclassification Impacts on Tribes

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# Tribes within the San Diego County Nonattainment Area

EPA does not have discretion to deny a voluntary reclassification from a state.

EPA does have discretion to decide whether reclassification would apply on tribal lands.

- Barona Group of Capitan Grande of Mission Indians of the Barona Reservation
- Campo Band of Diegueno Mission Indians of the Campo Indian Reservation
- Capitan Grande Band of Diegueno Mission Indians of California
- Ewiiapaayp Band of Kumeyaay Indians
- Lipay Nation of Santa Ysabel
- Inaja Band of Diegueno Mission Indians of the Inaja and Cosmit Reservation
- Jamul Indian Village of California
- La Jolla Band of Luiseno Indians
- La Posta Band of Diegueno Mission Indians of the La Posta Indian Reservation
- Los Coyotes Band of Cahuilla and Cupeno Indians
- Manzanita Band of Diegueno Mission Indians of the Manzanita Reservation
- Mesa Grande Band of Diegueno Mission Indians of the Mesa Grande Reservation
- Pala Band of Mission Indians
- Pauma Band of Luiseno Mission Indians of the Pauma and Yuima Reservation
- Rincon Band of Luiseno Mission Indians of the Rincon Reservation
- San Pasqual Band of Diegueno Mission Indians of California
- Sycuan Band of the Kumeyaay Nation
- Viejas (Baron Long) Group of Capitan Grande Band of Mission Indians of the Viejas Reservation

# Reclassifying Tribal Lands

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If EPA does not apply the reclassification request on tribal lands:

- The 2008 and 2015 ozone attainment dates would remain unchanged for tribal lands (July 20, 2021, and August 3, 2024)
- Within 6 months after the attainment date, the CAA requires EPA to determine whether an area attained by its attainment date
- Mandatory reclassification to higher level after finding of failure to attain

# Implications of Reclassification of Tribal Lands

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- Tribes are not required to submit an air quality plan
- The increased requirements that the state and district need to enact upon provide more tools available to help improve air quality throughout the air basin, benefiting all residents, including tribal communities
- Cleaner air and protection of public health and welfare on tribal lands
- Reclassification to a higher ozone nonattainment classification typically imposes stricter requirements to better protect air quality in the area, including:
  - Lower major source thresholds for VOC and NO<sub>x</sub> for stationary sources seeking construction, modification, or operating permits under the Tribal Major New Source Review (NSR) and title V programs of the CAA
  - Higher emission offset ratios for construction or modification of a major stationary source.
  - Lower thresholds for a conformity determination for actions for which federal funding or approvals are required (General Conformity Rule)

# Permitting and Thresholds

	Current Thresholds	Reclassification Thresholds
Tribal Minor New Source Review	VOC: 2 tpy NO <sub>x</sub> : 5 tpy	VOC: 2 tpy (same) NO <sub>x</sub> : 5 tpy (same)
Tribal Major New Source Review	VOC: 50 tpy NO <sub>x</sub> : 50 tpy	VOC: 25 tpy NO <sub>x</sub> : 25 tpy
Emission offset ratio	1.2 to 1	1.3 to 1
De minimis thresholds under the General Conformity regulation	VOC: 50 tpy NO <sub>x</sub> : 50 tpy	VOC: 25 tpy NO <sub>x</sub> : 25 tpy

tpy = tons per year

**1.3 to 1 emission offset ratio** – For example, a new major facility to be constructed in San Diego County has the potential to emit 100 tpy of NO<sub>x</sub> and 100 tpy of VOC, then the company wanting to build the facility would need to obtain 130 tpy of NO<sub>x</sub> offsets and 130 tpy of VOC offsets.

**General conformity determination** – Applies to projects that require federal funding, permitting, or approval (e.g., airports).

# Federal Reformulated Gasoline (RFG)

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- RFG is gasoline blended to burn more cleanly than conventional gasoline and to reduce smog-forming and toxic pollutants in the air.
- San Diego County is one of the “covered” areas for RFG, and as such, the use of RFG is currently required under the mobile source requirements.
- California gasoline (California Phase III Reformulated Gasoline or “CaRFG3”) can also be used to satisfy federal RFG requirements.
- The RFG requirement will continue to apply within San Diego County upon reclassification to Severe.



<https://www.epa.gov/gasoline-standards>



# Next Steps and Timing

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# Tribal Consultation on Ozone

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- On December 11, 2020, the EPA emailed tribes geographically located in the San Diego County nonattainment area, inviting them to consult on the reclassification request.
- If tribes are interested in participating in government-to-government consultation, we requested that tribes please notify us by January 30, 2021.
- Tribal Consultation is being conducted in accordance with the [“EPA Policy on Consultation and Coordination with Indian Tribes”](#)

# Next Steps

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- The EPA is currently reviewing California and the San Diego County Air Pollution Control District's reclassification request.
- We are working towards a proposed action on the request in late spring. We will consider tribal comments in developing our proposed action.
- Following proposal, we will take comments from the public.
- We will consider public comments prior to finalizing our action.

# EPA Contacts

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For general questions on tribal  
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# Questions?

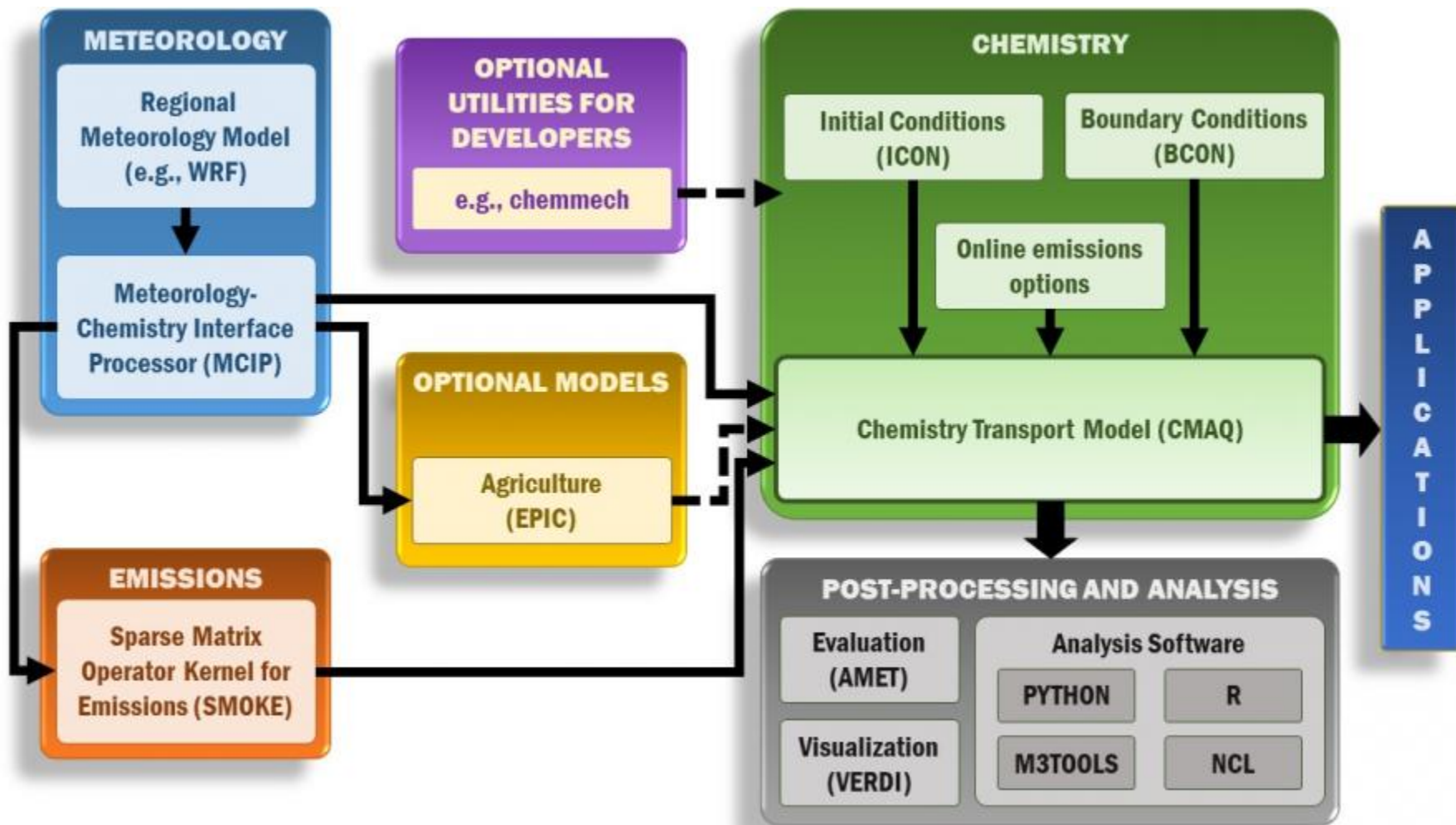
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# Supplementary Slides

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# Components of the Modeling System

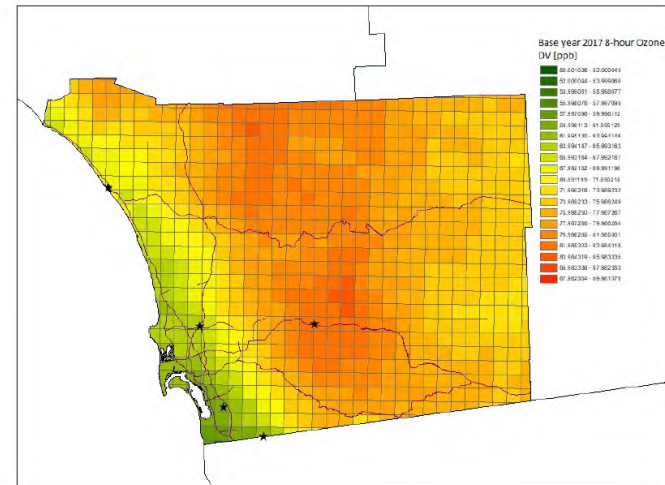




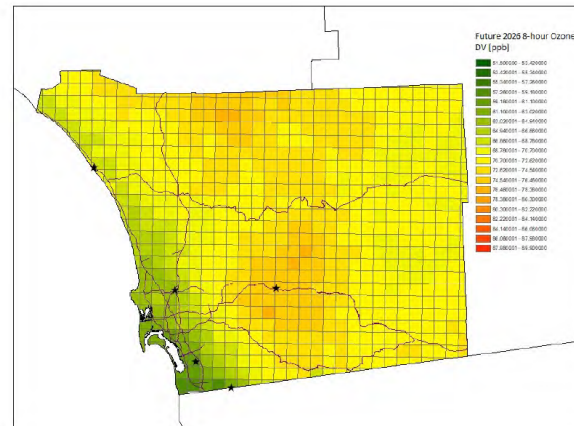
# Unmonitored Area Analysis

The unmonitored area analysis was conducted to estimate the design values at unmonitored locations.

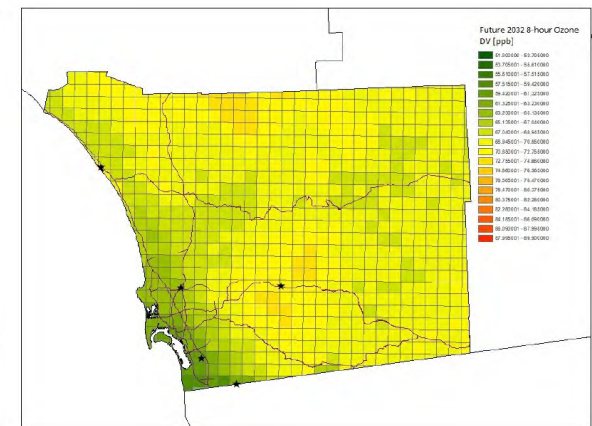
**Figure K-19**  
Interpolated 2016-2018 reference design values.  
Monitoring stations are notated with black stars.



**Figure K-22**  
2026 predicted 8-hour ozone design values.  
Monitoring stations are notated with black stars.



**Figure K-23**  
2032 predicted 8-hour ozone design values.  
Monitoring stations are notated with black stars.



Figures from San Diego County Attainment Plan