

# Staff Report

## **CARB Review of the Ventura County 2022 Air Quality Management Plan for the 70 ppb 8-Hour Ozone Standard**

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## Executive Summary

This report presents the California Air Resources Board (CARB or Board) staff's assessment of the Ventura County Air Pollution Control District (District) *2022 Ventura County Air Quality Management Plan* for the 70 parts per billion (ppb) 8-hour Ozone Standard (2022 Plan). CARB staff has concluded that the 2022 Plan, with the CARB Staff Report, meets the state implementation plan (SIP) federal Clean Air Act (Act) requirements, including an emission inventory, attainment demonstration, reasonable further progress (RFP) demonstration and associated transportation conformity budgets, and discussion of contingency measures. The Board is scheduled to consider adoption of the 2022 Plan on January 26, 2023. If adopted, CARB will submit the 2022 Plan and Section IV.A.1 and Appendix A of this CARB Staff Report to the U.S. Environmental Protection Agency (U.S. EPA) as a revision to the California SIP.

The Act requires U.S. EPA to set air quality standards and periodically review the latest health research to ensure that standards remain protective of public health. Based on research demonstrating adverse health effects at lower exposure levels, U.S. EPA has set a series of increasingly health protective ozone standards, beginning with a 1-hour ozone standard in 1979. Subsequent health studies demonstrated the greater effects of exposure to ozone over longer time periods, resulting in U.S. EPA establishing an 8-hour ozone standard of 80 ppb in 1997, 75 ppb in 2008, and 70 ppb in 2015. On June 4, 2018, U.S. EPA designated Ventura County as Serious for the federal 70 ppb 8-hour ozone standard<sup>1</sup>, requiring attainment by August 3, 2027. CARB and the District have developed a series of SIPs defining actions needed to meet these standards, with each SIP and the corresponding control programs providing the foundation for subsequent planning efforts. Recently, U.S. EPA determined that Ventura County met the 75 ppb 8-hour ozone standard by the Serious area attainment date<sup>2</sup>. The SIP process established under the Act has been an important driver for air quality progress in Ventura County.

The 2022 Plan addresses the 8-hour ozone standard of 70 ppb, representing the next building block in planning efforts to meet increasingly health protective air quality standards. Since 1979, the District's ozone strategy has relied on concurrent oxides of nitrogen (NO<sub>x</sub>) and reactive organic gases (ROG) emission reductions from stationary and mobile sources. Over the past two decades, ozone levels in Ventura County have shown significant improvement in response to reductions in emissions of NO<sub>x</sub> and ROG from current control programs despite a 25 percent increase in population. Most of these reductions come from on-road mobile sources. CARB's comprehensive strategy to reduce emissions from mobile sources consists of emission standards for new vehicles including zero-emission

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<sup>1</sup> 83 FR 25776, Posted June 4, 2018 and effective August 3, 2018, "Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards", <https://www.govinfo.gov/content/pkg/FR-2018-06-04/pdf/2018-11838.pdf>

<sup>2</sup> 87 FR 63698, Posted October 20, 2022 and effective November 21, 2022, "Determinations of Attainment by the Attainment Date, California Areas Classified as Serious for the 2008 Ozone National Ambient Air Quality Standards and Marginal for the 2015 Ozone National Ambient Air Quality Standards

requirements, in-use programs to reduce emissions from existing vehicles and equipment fleets, cleaner fuels, and incentive programs to accelerate market penetration of the cleanest vehicles beyond what is achieved by regulations alone. These mobile source programs will reduce NOx emissions by 41 percent and ROG emissions by 30 percent in 2026.

Beyond our current programs, staff developed the 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy) to support attainment of the 70 ppb 8-hour ozone standard across the State. The 2022 State SIP Strategy describes the control measures for State-regulated sources that CARB will pursue to reduce emissions to the levels needed for attainment of the 70 ppb 8-hour ozone standard in Ventura County and across California. The measures in the 2022 State SIP Strategy will reduce emissions in the many low-income and underserved communities that continue to experience disproportionately high levels of air pollution and will support other CARB planning efforts. This CARB Staff Report proposes an aggregate commitment of emissions reductions of 0.3 tons per day (tpd) of NOx in Ventura County by 2026, including a subset specifically from on-road mobile source measures of 0.03 tpd NOx to be used for transportation conformity purposes, based on measures included in the 2022 State SIP Strategy.

Table 1 - Proposed CARB Emissions Reductions Commitment in Ventura County

Ventura County	2026 NOx (tpd)
Total Aggregate Emissions Reductions	0.3
Subset from On-Road Mobile Sources	0.03

The Board approved the 2022 State SIP Strategy and the commitments to pursue the measures included therein on September 22, 2022. When coupled with emissions reductions from current programs in the baseline inventory, reductions from measures in the 2022 State SIP Strategy will provide for attainment of the standard by the District’s attainment deadline of 2026<sup>3</sup>. CARB staff has concluded that the 2022 Plan, together with the CARB Staff Report, meets the requirements of the Act for the 70 ppb 8-hour ozone standard, and thus recommends that the Board adopt the aggregate emissions reduction commitment, along with the 2022 Plan and planning emissions inventories contained in the CARB Staff Report as a revision to the California SIP.

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<sup>3</sup> Source: CARB 2022 CEPAM v1.01

## I. Background

Ozone, an important component of smog, is a highly reactive and unstable gas capable of damaging living cells, such as those present in the linings of human lungs. This pollutant forms in the atmosphere through complex reactions between NO<sub>x</sub> and ROG directly emitted from vehicles, industrial plants, consumer products, and many other sources. Ozone is a powerful oxidant – its actions can be compared to household bleach, which can kill living cells (such as germs or human skin cells) upon contact. Depending on the level of exposure, ozone can cause coughing and sore or scratchy throat, make it more difficult to breathe deeply and vigorously and cause pain when taking a deep breath, inflame and damage the airways, make the lungs more susceptible to infection, aggravate lung diseases such as asthma, emphysema, and chronic bronchitis, and increase the frequency of asthma attacks.

The Act requires U.S. EPA to set air quality standards and periodically review the latest health research to ensure that standards remain protective of public health. Based on research demonstrating adverse health effects at lower exposure levels, U.S. EPA has set a series of increasingly health protective ozone standards, beginning with a 1-hour ozone standard in 1979. Subsequent health studies demonstrated the greater effects of exposure to ozone over longer time periods, resulting in U.S. EPA establishing an 8-hour ozone standard of 80 ppb in 1997, 75 ppb in 2008, and, more recently, 70 ppb in 2015.

Effective August 3, 2018, U.S. EPA designated Ventura County nonattainment for the 70 ppb 8-hour ozone standard with a Serious classification and an August 3, 2027 attainment date.<sup>4</sup> To address the 70 ppb 8-hour ozone standard, the District developed and, on December 13, 2022, adopted the 2022 Plan. Due to the timing of the ozone season, the 2022 Plan must demonstrate the Ventura County will attain the standard in the calendar year of 2026, the last full ozone season prior to the attainment date. The 2022 Plan also addresses Act requirements applicable to a Serious ozone nonattainment area, consistent with U.S. EPA's 2018 Implementation Rule for the 70 ppb 8-hour ozone standard (Implementation Rule).<sup>5</sup>

## II. Nature of the Ozone Problem in Ventura County

Ventura County is located west of Los Angeles County and is bordered by Kern County to the north, Santa Barbara County to the west, and the Pacific Ocean to the southwest. It includes the Channel Islands National Park and serves as a gateway to this five-island marine sanctuary. Ventura County's economic base includes agriculture, biotechnology, military testing, oil production, technology, and tourism. Port Hueneme serves as the western U.S.

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<sup>4</sup> 83 FR 25776, Posted June 4, 2018 and effective August 3, 2018, "Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards", <https://www.govinfo.gov/content/pkg/FR-2018-06-04/pdf/2018-11838.pdf>

<sup>5</sup> 83 FR 62998, Posted December 6, 2018 and effective February 4, 2019, "Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements", <https://www.govinfo.gov/content/pkg/FR-2018-12-06/pdf/2018-25424.pdf>

distribution network for many imported vehicles and houses one of the largest refrigerated fruit terminals on the West Coast.

Ventura County has a combination of undeveloped and agricultural lands, as well as developed urban areas. The Los Padres National Forest accounts for 860 square miles of the northern portion of Ventura County (46 percent of Ventura County's land mass). Ventura County's mountains, valleys, and seashore give the area six different microclimates, more than any other county in the nation.

Elevated smog occurs in Ventura County during the late spring through early fall, when high temperatures and stable atmospheric conditions favor ozone formation. Ozone generally reaches peak levels by mid-afternoon and, along with ozone precursors, is often transported inland by the prevailing winds. As a result, inland areas such as Simi Valley, Thousand Oaks, Ojai, and Piru continually have higher ozone levels and more days in exceedance of the federal ozone standard than the County's coastal areas.

Ozone in Ventura County is caused by both locally generated emissions and transport from the South Coast Air Basin; the Los Angeles County portion of the South Coast Air Basin lies directly east of Ventura County. Ocean-going vessels calling on Port Hueneme or the ports of Los Angeles/Long Beach and transiting vessels passing through southern California waters, but without calling at either port, also impact Ventura County's air quality. The ozone nonattainment area includes all of Ventura County out to 3 nautical miles (nm), which is all of the land mass except the Channel Islands.

Significant improvements in Ventura County's air quality have occurred over the last 20 years. Between 2002 and 2022, NO<sub>x</sub> and ROG emissions have been reduced by 66 and 46 percent, respectively. As a result, the District has made significant progress and has attained the federal 1-hour and 80 ppb and 75 ppb 8-hour ozone standards. On May 27, 2009, U.S. EPA determined that Ventura County attained the 1-hour ozone standard by its attainment date.<sup>6</sup> On September 14, 2012, U.S. EPA determined that Ventura County attained the 80 ppb 8-hour ozone standard by its attainment date.<sup>7</sup> On October 20, 2022, U.S. EPA determined that Ventura County attained the 75 ppb 8-hour ozone standard by its attainment date.<sup>8</sup>

Design values are used to demonstrate an area's ozone compliance status in relation to the standard. The design value at each monitoring site is the 4th highest monitored 8-hour ozone value averaged over three years. The nonattainment area design value is the highest value of

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<sup>6</sup> 74 FR 25153, Posted May 27, 2009 and effective July 27, 2009, "Approval and Promulgation of Air Quality Implementation Plans; California; Determination of Attainment of the 1-Hour Ozone Standard for the Ventura County Area", <https://www.gpo.gov/fdsys/pkg/FR-2009-05-27/pdf/E9-12135.pdf>

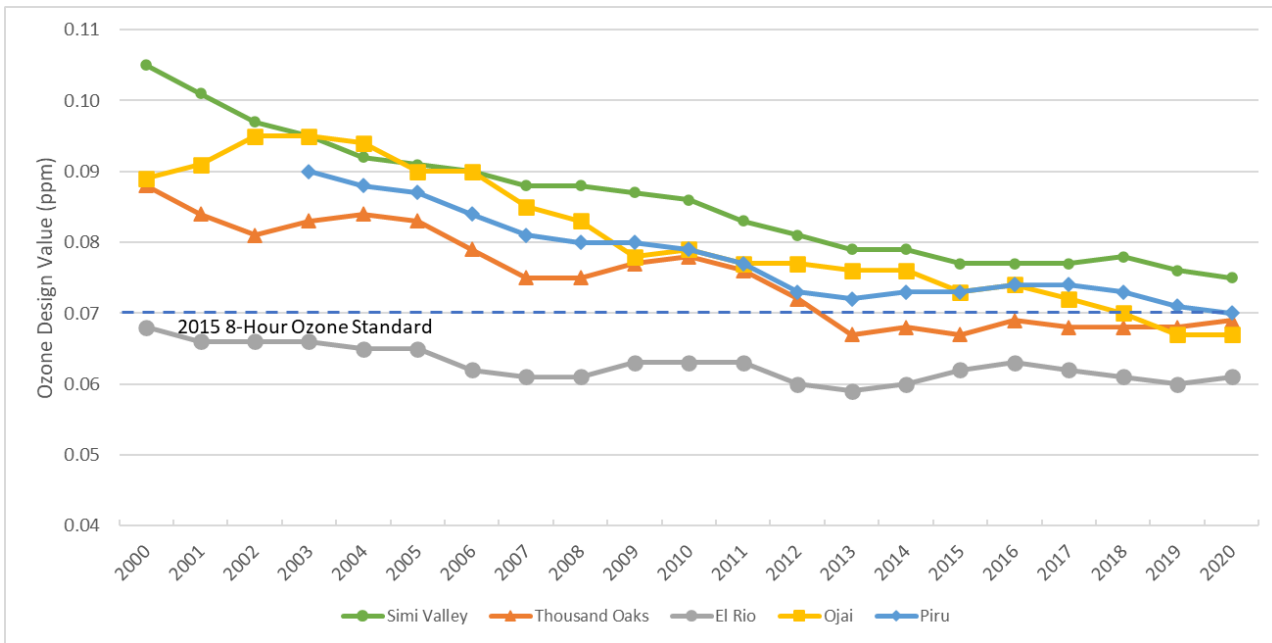
<sup>7</sup> 77 FR 56775, Posted September 14, 2012 and effective November 13, 2012, "Approval and Promulgation of Implementation Plans; California; Determinations of Attainment for the 1997 8-Hour Ozone Standard", <https://www.gpo.gov/fdsys/pkg/FR-2012-09-14/pdf/2012-22469.pdf>

<sup>8</sup> 87 FR 63698, Posted October 20, 2022 and effective November 21, 2022, "Determinations of Attainment by the Attainment Date, California Areas Classified as Serious for the 2008 Ozone National Ambient Air Quality Standards and Marginal for the 2015 Ozone National Ambient Air Quality Standards", <https://www.govinfo.gov/content/pkg/FR-2022-10-20/pdf/2022-22192.pdf>



all of the monitoring sites. **Figure 1** shows the design value concentrations at each monitoring site in Ventura County from 2000 to 2020. Between 2000 and 2020, the area’s 8-hour ozone design value decreased by over 28 percent from 105 ppb to 75 ppb and the number of exceedance days in Ventura County declined by 69 percent. In 2000, all sites, aside from El Rio, exceeded the 70 ppb 8-hour ozone standard. Four out of the five monitoring sites now meet the 70 ppb 8-hour ozone standard. The fifth site, Simi Valley, is on track to meet this standard within the next few years. The continuous improvement in air quality over the years in Ventura County clearly demonstrates the effectiveness of the past and current control strategy in reducing harmful emissions.

Figure 1 - Ozone Design Values at Ventura Monitoring Sites



Source: 2022 Plan, Figure H-7: Ozone Design Values at Ventura County Monitoring Sites

### III. Emissions Inventory

An emissions inventory is a critical tool used to evaluate, control, and mitigate air pollution. At its core, an emissions inventory is a systematic listing of the sources of air pollutants along with the amount of pollutants emitted from each source or category over a given time period. SIPs are required to include emissions inventories for the nonattainment area as a basis for modeling to demonstrate attainment and for identifying what sources may need to be targeted through control measures. The emissions inventory is divided into three major categories: stationary, area-wide, and mobile sources. The summer season inventory is used for ozone planning because it reflects the activity levels and conditions presented when higher ozone levels occur in Ventura County.

The 2022 Plan attainment demonstration uses a 2018 base year inventory; the inventory uses 2018 emissions and activity levels, and inventories for other years are back-cast or forecast from that base year inventory. The inventories reflect District rules submitted through

September 2021. On-road motor vehicle emissions were generated using CARB’s mobile source emissions model, EMFAC2017. On-road motor vehicle activity data reflect projections provided by the Southern California Association of Governments (SCAG) in September 2020. Off-road mobile source emissions were generated using CARB’s OFFROAD model. Both models were developed for use in the 70 ppb 8-hour ozone SIP revisions and represent significant improvements over models used in prior SIP updates.

Although 2018 is used as the base year for the emissions inventory in the modeled attainment demonstration, a 2017 baseline year is used for demonstrating RFP. U.S. EPA guidance requires that inventories be developed and submitted for years that are consistent with the baseline year and milestone years for the RFP demonstration<sup>9</sup>. Specifically, the baseline year emissions inventory should be the emissions inventory for the most recent calendar year, at the time of designations, of which a complete triennial inventory is required to be submitted to U.S. EPA. The RFP demonstration requires that the emissions reductions occur from within the nonattainment area itself, not extending beyond three nautical miles from the coast. Table 2 and Table 3 summarize the in-area NOx and ROG emissions in Ventura County in the planning inventory for the 2017 RFP baseline year, the 2018 modeling base year, the 2023 milestone year, and the 2026 attainment year. Emissions of NOx are predicted to decline by 34 percent and ROG by 7 percent from 2017, with the largest reductions coming from on-road mobile sources. A more detailed planning emissions inventory can be found in Appendix A of this Staff Report.

Table 2 - Ventura County Planning NOx Emissions  
(tpd, summer planning inventory)

Source Category	2017	2018	2023	2026
Stationary and Area-wide	2.71	2.37	3.14	3.00
On-Road Motor Vehicles	7.79	7.03	3.86	2.82
Other Mobile Sources	9.11	8.66	7.49	7.07
<b>TOTAL</b>	<b>19.61</b>	<b>18.09</b>	<b>14.48</b>	<b>12.90</b>

Source: CARB 2022 CEPAM v1.01 within 3 nautical miles  
Numbers may not add up due to rounding

Table 3 - Ventura County Planning ROG Emissions  
(tpd, summer planning inventory)

Source Category	2017	2018	2023	2026
Stationary and Area-wide	17.47	17.60	18.50	19.09
On-Road Motor Vehicles	4.70	4.28	3.01	2.55
Other Mobile Sources	7.78	7.60	6.85	6.13
<b>TOTAL</b>	<b>29.95</b>	<b>29.48</b>	<b>28.35</b>	<b>27.78</b>

<sup>9</sup> [https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-51/subpart-CC/section-51.1310#p-51.1310\(a\)\(2\)](https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-51/subpart-CC/section-51.1310#p-51.1310(a)(2))

Source: CARB 2022 CEPAM v1.01 within 3 nautical miles  
 Numbers may not add up due to rounding

Section 4 and Appendix A of the 2022 Plan presents a summary of the data sources, along with revisions and improvements made to the emission inventory. While the planning emissions inventories (Tables 2 and 3) are limited to in-area, the emissions inventory required for the modeled attainment demonstration is broader, including more emissions that affect the ozone air quality in Ventura County. Table 4 and Table 5 summarize the NOx and ROG emissions in Ventura County in the modeled attainment demonstration, which includes emissions out to 100 nautical miles, for the 2018 base year and 2026 attainment year.

Table 4 - Ventura County Attainment Demonstration NOx Emissions  
 (tpd, summer planning inventory)

Source Category	2018	2026
Stationary and Area-wide	2.37	3.00
On-Road Motor Vehicles	7.03	2.82
Other Mobile Sources	8.66	7.07
Outer Continental Shelf – 100 Miles	13.75	14.49
<b>GRAND TOTAL</b>	<b>31.81</b>	<b>27.38</b>

Source: CARB 2022 CEPAM v1.01  
 Numbers may not add up due to rounding

Table 5 - Ventura County Attainment Demonstration ROG Emissions  
 (tpd, summer planning inventory)

Source Category	2018	2026
Stationary and Area-wide	17.60	19.09
On-Road Motor Vehicles	4.28	2.55
Other Mobile Sources	7.60	6.13
Outer Continental Shelf – 100 Miles	1.85	2.36
<b>GRAND TOTAL</b>	<b>31.33</b>	<b>30.13</b>

Source: CARB 2022 CEPAM v1.01  
 Numbers may not add up due to rounding

Mobile sources comprise the majority of Ventura County’s NOx inventory, with ocean going vessels and on-road mobile sources being the two largest sources. Both mobile and area sources are currently significant contributors to the ROG inventory, however as ROG emissions from mobile sources are projected to decline, area sources are becoming an increasingly significant portion of the ROG inventory.

Federal New Source Review (NSR) rules require new and modified major stationary sources that increase emissions in amounts exceeding specified thresholds to provide emission reduction offsets to mitigate the emission growth. Emission reduction offsets represent either on-site emission reductions or the use of banked emission reduction credits (ERC). ERCs are voluntary, surplus emission reductions, which are registered, or banked, with the District for

future use as offsets. Per U.S. EPA policy, ERCs banked before the plan's emission inventory base year (2018 for this plan) must be explicitly treated as emissions in the air.

Currently, the projected emissions growth from stationary sources for NO<sub>x</sub> is sufficient to account for the potential growth from the use of ERCs as it exceeds the pre-base year banked NO<sub>x</sub> ERCs. However, the pre-base year banked ROG ERC amount exceeds the projected emissions growth for ROG. The District has committed to restricting the use of ROG ERCs to only the amount of growth projected by the inventory – as such, there are no ERCs added to the emissions inventory, RFP, or attainment demonstrations. Further detail on ERCs is provided in Chapter 4 on page 65 of the 2022 Plan.

## IV. Attainment Demonstration

SIPs must identify both the magnitude of reductions and the actions necessary to achieve those reductions as part of demonstrating attainment of the standard. The District has prepared an attainment demonstration that provides for expeditious attainment of the 70 ppb 8-hour ozone standard. The attainment demonstration includes the benefits of CARB and District current control programs that provide ongoing emission reductions. Continued implementation of these programs provides new emission reductions each year. The attainment demonstration also includes aggregate emissions reductions from new measures included in the 2022 State SIP Strategy adopted by the Board in September 2022.

The Act requires the use of air quality modeling to relate ozone levels to emissions in a region and simulate future air quality based on changes in emissions. Ventura County is a part of the greater Southern California region. The photochemical model used in this plan covers the entire Southern California region and a portion of northern Mexico. The modeling effort has been performed as a joint project by the South Coast Air Quality Management District (South Coast AQMD), in coordination with all of the air districts in the region.

The modeled attainment demonstration in this plan was prepared using photochemical dispersion and meteorological modeling tools developed in response to U.S. EPA modeling guidelines<sup>10</sup> and recommendations from air quality modeling experts. The model uses emission inventories, with measurements of meteorology and air quality, to establish the relationship between emissions and air quality. The modeling is used to identify the benefits of controlling ozone precursors and the most expeditious attainment date.

The year 2018 was chosen as the modeling base (or reference) year. The future year modeled was 2026, the year attainment must be demonstrated for a Serious ozone nonattainment area. The attainment demonstration modeling includes the benefits of CARB's mobile source control program and District regulations submitted through September 2021. The attainment demonstration further includes aggregate emissions reductions from new measures committed to pursue in the 2022 State SIP Strategy. These measures provide the necessary

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<sup>10</sup> U.S. EPA, 2018, Modeling Guidance for Demonstrating Air Quality Goals for Ozone, PM<sub>2.5</sub>, and Regional Haze, available at [https://www.epa.gov/sites/default/files/2020-10/documents/o3-pm-rh-modeling\\_guidance-2018.pdf](https://www.epa.gov/sites/default/files/2020-10/documents/o3-pm-rh-modeling_guidance-2018.pdf)

control strategy, demonstrating that the Ventura County will meet the 70 ppb 8-hour ozone standard by 2026. Table 6 summarizes the 2026 emissions modeled in the attainment demonstration, including emissions reductions from the CARB measures.

Table 6 - 2026 Modeled Ventura County NOx and ROG Emissions  
(tpd, summer planning inventory)

2026 Emissions	NOx	ROG
Baseline Emissions Inventory	12.90	27.78
Proposed CARB Emissions Reductions Commitment	0.3	<0
<b>Attainment Emissions Inventory</b>	12.60	27.78

Source: CARB 2022 CEPAM v1.01  
Numbers may not add up due to rounding

Further detail on the modeled attainment demonstration is provided in Section 5.1.1 and Appendices G, H, and I of the 2022 Plan.

U.S. EPA modeling guidance requires that modeled attainment demonstrations be accompanied by a weight of evidence (WOE) analysis to provide a set of complementary analyses. Examining an air quality problem in a variety of ways provides a more informed basis for the attainment strategy as well as better understanding of the overall problem and the level and mix of emissions controls needed for attainment. CARB staff prepared the WOE, which is provided in Appendix H of the 2022 Plan. WOE analyses include assessment of trends in ozone air quality, ozone precursor emission trends, meteorology impacts on ozone air quality trends, and summary of corroborating analyses. The WOE indicates that Ventura County is on track to attain the 70 ppb 8-hour ozone standard by 2026, which is consistent with design value projections derived from the regional photochemical modeling assessment conducted by South Coast AQMD.

## A. Control Strategy

The ongoing emission reductions from continued implementation of CARB and District current control programs, together with reductions from the measures described in the 2022 State SIP Strategy, provide the attainment control strategy for the 2022 Plan. The following sections describe the ongoing and new CARB and District control measures that provide the emission reductions included in the attainment demonstration.

### i. CARB Current Control Program

Given the severity of California’s air quality challenges, CARB has implemented the most stringent mobile source emissions control program in the nation. CARB’s comprehensive strategy to reduce emissions from mobile sources consists of emissions standards for new vehicles, in-use programs to reduce emissions from existing vehicle and equipment fleets, cleaner fuels, and incentive programs to accelerate the penetration of the cleanest vehicles beyond that achieved by regulations alone. A detailed description of the current mobile source control programs is included in Appendix C of the 2022 Plan.

## ii. CARB Commitments

SIPs may contain enforceable commitments to achieve the level of emissions necessary to meet federal air quality standards, as defined by the attainment demonstration. The 2022 State SIP Strategy lists new SIP measures and quantifies potential emissions reduction SIP commitments for Ventura County based on the measures identified and quantified to date. Adoption of the 2022 State SIP Strategy and the measure schedule by the Board forms the basis of the commitments for emission reductions by the attainment deadlines for each region that will be proposed for Board consideration alongside the respective nonattainment area's SIP. The commitments consist of two components:

1. A commitment to bring an item to the CARB Board for defined new measures or take other specified actions within CARB's authority; and
2. A commitment to achieve aggregate emission reductions by specific dates.

As part of each SIP needing emission reductions from the State, the total aggregate emission reductions and the obligation to make certain proposals to the Board or take other actions within CARB's authority specified in the 2022 State SIP Strategy would become enforceable upon approval by U.S. EPA. While the 2022 State SIP Strategy discusses a range of measures and actions, those measures and actions would still be subject to CARB's formal approval process and would not be final until the Board takes action.

### Commitment to Act on Measures

On September 22, 2022, the Board adopted the 2022 State SIP Strategy list of measures and corresponding schedule. For each SIP measure from the 2022 State SIP Strategy shown in Table 7, CARB commits to address each measure as described in this document. For each measure committed to, CARB staff would undertake the actions detailed for each measure. In the instance of measures that involve the development of a rule under CARB's regulatory authority, CARB commits to bring a publicly noticed item before the Board that is either a proposed rule or a recommendation that the Board direct staff to not pursue a rule covering that subject matter at that time. That recommendation would be based on an explanation of why such a rule is unlikely to achieve the relevant emission reductions in the relevant timeframe and would include a demonstration that the overall aggregate commitment will be achieved despite that rule not being pursued. This public process and CARB hearing would provide additional opportunity for public and stakeholder input, ongoing technology review, and assessments of costs and environmental impacts.

The measures, as proposed by staff to the Board or adopted by the Board, may provide more or less than the initial emission reduction estimates. In addition, action by the Board may include any action within its discretion.

Table 7 – Measures and Schedule

Measure	Agency	Action	Implementation Begins
<b>On-Road Heavy-Duty</b>			
Advanced Clean Fleets Regulation	CARB	2023	2024
Zero-Emissions Trucks Measure	CARB	2028	2030
<b>On-Road Light-Duty</b>			
On-Road Motorcycle New Emissions Standards	CARB	2022	2025
Clean Miles Standard	CARB	2021	2023
<b>Off-Road Equipment</b>			
Tier 5 Off-Road Vehicles and Equipment	CARB	2025	2029
Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation	CARB	2022	2024
Transport Refrigeration Unit Regulation Part 2	CARB	2026	2028
Commercial Harbor Craft Amendments	CARB	2022	2023
Cargo Handling Equipment Amendments	CARB	2025	2026
Off-Road Zero-Emission Targeted Manufacturer Rule	CARB	2027	2031
Clean Off-Road Fleet Recognition Program	CARB	2025	2027
Spark-Ignition Marine Engine Standards	CARB	2029	2031
<b>Other</b>			
Consumer Products Standards	CARB	2027	2028
Zero-Emission Standard for Space and Water Heaters	CARB	2025	2030
Enhanced Regional Emission Analysis in State Implementation Plans <sup>1</sup>	CARB	2025	2023
Pesticides: 1,3-Dichloropropene Health Risk Mitigation	DPR <sup>2</sup>	2022	2024
<b>Primarily-Federally and Internationally Regulated Sources – CARB Measures</b>			
In-Use Locomotive Regulation	CARB	2023	2024
Future Measures for Aviation Emission Reductions	CARB	2027	2029
Future Measures for Ocean-Going Vessel Emission Reductions	CARB	2027	TBD

## Commitment to Achieve Emission Reductions

The following section describes the estimated emission reductions and commitment from the SIP measures identified and quantified to date for Ventura County. While the 2022 State SIP Strategy includes estimates of the emission reductions from each of the individual new measures, CARB’s overall commitment is to achieve the total emission reductions necessary from State-regulated sources to attain the federal air quality standards, reflecting the combined reductions from the existing control strategy and new measures. Therefore, if a particular measure does not get its expected emission reductions, the State’s overall commitment to achieving the total aggregate emission reductions still exists. If actual emission decreases occur that exceed the projections reflected in the current emission inventory and the 2022 State SIP Strategy, CARB will submit an updated emissions inventory to U.S. EPA as part of a SIP revision. The SIP revision would outline the changes that have

occurred and provide tracking to demonstrate that aggregate emission reductions sufficient for attainment are being achieved through enforceable emission reduction measures. CARB’s emission reduction commitments may be achieved through a combination of actions including but not limited to the implementation of control measures; the expenditure of local, State, or federal incentive funds; or through other enforceable measures.

Air quality modeling indicates that NOx emissions reductions are needed within Ventura County by 2026 in order to provide for attainment. A significant fraction of the needed reductions will come from the existing control program. In addition, although most of the 2016 State SIP Strategy measure commitments have been adopted, there is one (Zero-Emission Forklift) that the Board will be acting upon over the next year, and two that were recently adopted but are not yet accounted for in the baseline emissions inventory (Advanced Clean Cars II, Transport Refrigeration Unit Part 1), as outlined in Table 8. Action will be taken on the remaining measure in the coming year.

Table 8 – Reductions from Remaining 2016 State SIP Strategy Measures

Measure	Action	Implementation Begins	2026 NOx (tpd)	2026 ROG (tpd)
Advanced Clean Cars II	2022	2026	<0.1	<0.1
Transport Refrigeration Unit Part I	2022	2023-2024	<0.1	<0.1
Zero-Emission Forklift	2023	2026	<0.1	<0.1
<b>Total</b>			<b>&lt;0.1</b>	<b>&lt;0.1</b>

Numbers may not add up due to rounding.

Table 9 shows that, collectively, emissions reductions from CARB’s current control program, reductions from the 2016 State SIP Strategy measures still to be adopted, and reductions estimated from the measures in the 2022 State SIP Strategy provide the emissions reductions needed from State sources to support attainment of the 70 ppb 8-hour ozone standard in Ventura County. The measures in Table 10 reflect CARB commitments for State actions and the estimated emissions reductions for Ventura County.

Table 9 – Ventura County NOx Emission Reductions from CARB Programs

CARB Programs in Ventura County	2026 NOx Emission Reductions (tpd)
Current Mobile Source Control Program <sup>1</sup>	4.4
Proposed CARB Emissions Reductions Commitments	0.3
2016 State SIP Strategy Measures (Not yet in baseline inventory)	<0.1
2022 State SIP Strategy Measures	0.3
<b>Total Reductions</b>	<b>4.7</b>

Numbers may not add up due to rounding.

Table 10 – Ventura County Expected NOx Emissions Reductions from the 2022 State SIP Strategy Measures



Measure	2026 NO <sub>x</sub> (tpd)	2026 ROG (tpd)
<b>On-Road Heavy-Duty</b>		
Advanced Clean Fleets Regulation	<0.1	<0.1
Zero-Emissions Trucks Measure	<0.1	<0.1
<b>Total On-Road Heavy-Duty Reductions</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>On-Road Light-Duty</b>		
On-Road Motorcycle New Emissions Standards	<0.1	<0.1
Clean Miles Standard	<0.1	<0.1
<b>Total On-Road Light-Duty Reductions</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
<b>Off-Road Equipment</b>		
Tier 5 Off-Road Vehicles and Equipment	<0.1	NYQ <sup>1</sup>
Amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation	<0.1	<0.1
Transport Refrigeration Unit Regulation Part 2	<0.1	<0.1
Commercial Harbor Craft Amendments	0.2	<0.1
Cargo Handling Equipment Amendments	<0.1	<0.1
Off-Road Zero-Emission Targeted Manufacturer Rule	NYQ	NYQ
Clean Off-Road Fleet Recognition Program	NYQ	NYQ
Spark-Ignition Marine Engine Standards	<0.1	<0.1
<b>Total Off-Road Equipment Reductions</b>	<b>0.3</b>	<b>&lt;0.1</b>
<b>Other</b>		
Consumer Products Standards	-	NYQ
Zero-Emission Standard for Space and Water Heaters	NYQ	NYQ
Enhanced Regional Emission Analysis in State Implementation Plans	NYQ	NYQ
Pesticides: 1,3-Dichloropropene Health Risk Mitigation	-	NYQ
<b>Total Other</b>	<b>NYQ</b>	<b>NYQ</b>
<b>Primarily-Federally and Internationally Regulated Sources – CARB Measures</b>		
In-Use Locomotive Regulation	<0.1	NYQ
Future Measures for Aviation Emission Reductions	NYQ	NYQ
Future Measures for Ocean-Going Vessel Emissions Reductions	NYQ	NYQ
<b>Total Primarily-Federally and Internationally Regulated Sources – CARB Measures Reductions</b>	<b>&lt;0.1</b>	<b>NYQ</b>
<b>Aggregate Emissions Reductions</b>	<b>0.3</b>	<b>&lt;0.1</b>

Numbers may not add up due to rounding.

As a part of the aggregate emission reduction commitment for Ventura County, CARB staff proposes to commit to emissions reductions specifically from on-road mobile sources that will be used for transportation conformity. CARB continues to have an aggregate emission reduction commitment which is a sum of emissions reductions from on- and off-road mobile sources, consumer products, and other State-regulated sources as outlined above. The on-road mobile source commitment will provide the enforceability needed to support the use of motor vehicle emissions budgets that factor in reductions from the on-road mobile source measures in the 2022 State SIP Strategy. The proposed on-road mobile source commitment is a subset of emissions reductions from the aggregate emission reduction commitment and is not additive to the aggregate emission reduction commitment.

Table 11 – Emissions Reduction from On-Road Mobile Source Measures

On-Road Mobile Source Reductions	2026 NO <sub>x</sub> (tpd)	2026 ROG (tpd)
Ventura County	0.03	--

## 2022 State SIP Strategy and Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 (Title VI) provides that no person in the United States shall, on the basis of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.<sup>11</sup> As a recipient of federal funds, CARB must ensure it complies with Title VI and U.S. EPA’s Title VI implementation regulations<sup>12</sup> in its relevant programs and policies. In developing the 2022 State SIP Strategy robust suite of control measures, staff engaged in a thorough public process that addresses the requirements of Title VI. CARB will continue to address the requirements of Title VI in implementation of the 2022 State SIP Strategy and related Act implementation activities. Written guidance from U.S. EPA is needed to provide additional detail on Title VI requirements and expectations and support for effective implementation efforts.

Many low-income and disadvantaged communities in nonattainment areas, and across the State, continue to experience disproportionately high levels of air pollution and the resulting detrimental impacts to their health from widespread pollution from a variety of longstanding and widespread activities. Research<sup>13</sup> shows large disparities in exposure to pollution between disadvantaged communities and other communities. There are disparities between white and non-white populations in California, with Black and Latino populations experiencing significantly greater air pollution impacts than white populations. Mobile source pollution exposures show some of the highest disparities.<sup>14</sup> Mobile sources are the largest sources of pollution exposure disparity for Black populations and disadvantaged community residents, when compared to the average population in California. Specifically, mobile sources accounted for 45 percent of exposure disparity for the Black population, and 37 percent of exposure disparity for people in disadvantaged communities. While significant progress has been made in reducing mobile and stationary source pollution in California through regulatory and other program activities, disparities in the location of pollution and cumulative exposures continue despite CARB’s efforts to reduce pollution across the State.

Given the continuing disparate impacts of air pollution, CARB’s policy and planning efforts and programs prioritize environmental justice, incorporating racial equity, and conducting meaningful community engagement to address the longstanding environmental and health inequities from elevated levels of toxic air contaminants, criteria pollutants, and secondary

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<sup>11</sup> 42 U.S.C. section 2000d.

<sup>12</sup> 40 C.F.R. Part 7.

<sup>13</sup> Apte et al (2019). A Method to Prioritize Sources for Reducing High PM<sub>2.5</sub> Exposures in Environmental Justice Communities in California. CARB Research Contract Number 17RD006

<sup>14</sup> Apte et al (2019). A Method to Prioritize Sources for Reducing High PM<sub>2.5</sub> Exposures in Environmental Justice Communities in California. CARB Research Contract Number 17RD006

impacts of climate change. It is imperative to optimize California's control programs to maximize emissions reductions and provide targeted near-term benefits in those communities that continue to bear the brunt of poor air quality. Specific efforts include development of community air monitoring networks to learn about local exposures, development of a racial equity assessment lens to consider benefits and burdens of CARB programmatic work in the planning stages, continuously increasing and improving community engagement efforts, and implementation of AB 617 (C. Garcia, Chapter 136, Statutes of 2017) as described in more detail below. As noted above, while significant progress has been made to address air pollution statewide and in local communities, ensuring all Californians have access to healthy air quality is imperative.

In addition to these important efforts, the 2022 State SIP Strategy measures such as the Advanced Clean Fleets and In-Use Locomotive Regulations will reduce mobile source emissions from heavy-duty trucks and other sources around warehouses, railyards, and ports, as well as reducing other emissions, which in turn will reduce corresponding health risk in California's most impacted communities through the identified measures.

CARB prioritized public participation as an essential part of developing the measures included in the 2022 State SIP Strategy. CARB initiated the public process with a workshop in July 2021. After the workshop, CARB staff reached out to and met with community-based organizations who provided input on the potential control measures. CARB released the Draft Measures document which considered the input from the community-based organizations and comments during the first workshop. CARB staff held a second workshop in October 2021 and received input from stakeholders. CARB staff also participated in air district control measure workshops as part of their SIP development process. CARB staff released the Draft 2022 State SIP Strategy in January 2022, held a third workshop, and presented an informational update to the Board at the Board Meeting in February 2022. The input from numerous interested stakeholders and community-based organizations framed the control measures in the strategy such as the Zero-Emissions Trucks and Pesticide Measures. These workshops and Board updates provided forums in both English and Spanish and allowed special accommodations if requested for the proposed measures to be discussed in a public setting and provide additional opportunity for public feedback, input, and ideas. And finally, CARB released the Proposed 2022 State SIP Strategy and hosted our 4th workshop in August 2022, prior to the CARB Board adopting the 2022 State SIP Strategy in September 2022. The workshops were well attended by stakeholders including community-based organizations. CARB staff listened to stakeholders, evaluated their recommendations, and included some of these recommendations as measures that were appropriate for the 2022 State SIP Strategy.

Following the Board's approval of the 2022 State SIP Strategy, the public processes will continue as each measure within the strategy goes through its own public process to engage with impacted communities and stakeholders to fully develop the measures prior to being brought to the Board for consideration as a regulation or other program. As development and implementation of these measures progress, CARB staff will continue to identify and implement opportunities to mitigate air pollution associated racial inequities and meaningfully engage and partner with communities most impacted to address long standing

disparities and challenges. CARB will also continue to partner with other authorities such as air districts, other State agencies, and the federal government to ensure emissions reduction are achieved.

In addition to SIP efforts and individual regulatory processes reducing air pollution statewide, AB 617 requires community-focused and community-driven action to reduce air pollution and improve public health in communities that experience disproportionate burdens from exposure to air pollutants in California. CARB implements AB 617 through its Community Air Protection Program. AB 617 has created new opportunities for CARB and the local air districts to understand community member concerns through active participation in envisioning, developing, and implementing actions to clean the air in their communities. The Community Air Protection Program was first implemented starting in 2018 and has since had 17 communities selected into the Program as of December 2022. CARB is now engaging in a process to provide greater opportunities and additional support for impacted communities across the State through the revision of the AB 617 Statewide Strategy – also referred to as the Program Blueprint. The revision of the Program Blueprint seeks to design more efficient approaches to maximize similar air quality benefits for more impacted communities. Moving forward, the AB 617 Community Air Protection Program and complementary environmental justice and racial equity work across CARB programs, policies and SIP planning efforts will continue to evolve and grow. These connected efforts, as well as interagency efforts, will provide additional pathways to address Title VI requirements and support achieving the goal where zip code or race does not predict air pollution exposures. CARB has reviewed U.S. EPA and U.S. DOJ resources for Title VI and environmental justice and looks forward to written Title VI guidance from U.S. EPA to address CAA section 110(a)(2)(E) as we develop future clean air plans.

### **iii. District Control Program**

Consistent with its regulatory authority, the District has adopted rules for reducing emissions from a broad scope of stationary and area sources. Section 3.1 of the District’s 2022 Plan highlights the District’s stationary source rules that achieve emission reductions in 2018 and beyond.

As part of the 2022 Plan, the District has recommended a list of new stationary source control measures, detailed in Table 12 below. The new measures identified below and discussed in Section 3.1 of the 2022 Plan are either a revision to an existing District rule or a new rule applicable to a previously unregulated source category and will provide additional emission reductions beyond those in the attainment demonstration.

Table 12 - District Further Study Control Measures

District Rule	Control Measure Name or Rule Title	Adoption Date	Implementation Date
74.35	Flare Minimization	2022	2024
74.22	Fan-Type Central Furnaces	2022	2023
74.32	Composting and Organic Material Conversion Operations	2023	2024
74.36	Oil Well Degassing	2025	2027
70	Storage and Transfer of Gasoline	TBD	TBD
71	Crude Oil and Reactive Organic Compound Liquids	TBD	TBD
71.1	Crude Oil Production and Separation	TBD	TBD
71.2	Organic Liquid Storage and Transfer	TBD	TBD
74.6.1	Batch Loaded Vapor Degreasers	TBD	TBD
74.9	Stationary Internal Combustion Engines	TBD	TBD
74.13	Aerospace Assembly and Component Manufacturing Operations	TBD	TBD
74.14	Polyester Resin Operations	TBD	TBD
74.19.1	Screen Printing Operations	TBD	TBD
74.2	Adhesives and Sealants	TBD	TBD
74.21	Semiconductor Manufacturing	TBD	TBD
74.25	Restaurant Cooking Operations	TBD	TBD
74.26 & 74.27	Storage Tank Degassing Operations	TBD	TBD
TBD	Wastewater Treatment Plants	TBD	TBD
TBD	Vacuum Truck Operations	TBD	TBD

The District has completed the preliminary evaluation for four of these further study measures, and is in the process of either a more comprehensive evaluation or rulemaking. The emission forecasts do not reflect emission reductions from these measures.

Rule 74.35, Flare Minimization

This new control measure would reduce ROG and NOx emissions from flares at landfills, wastewater treatment plants, oil and gas facilities and facilities that handle ROG containing liquids. The emission standards are similar to South Coast AQMD Rule 1118.1, *Control of Emissions from Non-Refinery Flares* and San Joaquin Valley APCD (SJVAPCD) Rule 4311, *Flares*.

Rule 74.22, Fan-Type Central Furnaces

This control measure would reduce NOx emissions from fan-type central furnaces rated at less than 175,000 BTU per hour heat input rate through revisions to District Rule 74.22, *Natural Gas Fan-Type Central Furnaces*. South Coast AQMD revised its Rule 1111, *NOx Emissions from Natural Gas-Fired, Fan-Type Central Furnaces*, applicable to similar source

equipment, on November 6, 2009, reducing the NO<sub>x</sub> limit from 40 nanograms per joule (ng/j) to 14 ng/j.

This control measure was included in the 2016 Ventura County Air Quality Management Plan (2016 AQMP), but adoption was delayed while determining whether the technology-forcing amendments to South Coast AQMD Rule 1111 were achievable. Due to uncertainties in technical feasibility, the District will not adopt the rule until all limits in revised South Coast AQMD Rule 1111 are achieved in practice. Implementation of the new South Coast AQMD limits began on April 1, 2015 and ends on October 1, 2023.

#### Rule 74.32, Composting and Organic Material Conversion Operations

This control measure was included in the 2016 AQMP to implement new District Rule 74.32, *Composting and Organic Material Conversion Operations*, to incorporate requirements similar to South Coast AQMD Rules 1133.1, *Chipping and Grinding Activities*, and 1133.3, *Emission Reductions from Greenwaste Composting Operations*. Since it has been last included in the 2016 AQMP, concerns about meeting State organic waste diversion targets in addition to an evolving landscape of data have delayed implementation of this control measure. The purpose of this control measure is to minimize ROG emissions through inadvertent decomposition during chipping and grinding activities (as Rule 1133.1) and during greenwaste composting operations (as Rule 1133.3).

#### Rule 74.36, Oil Well Degassing

This control measure is a new rule to minimize ROG emissions from rod pump oil well degassing. The emission standards are based on South Coast AQMD Rule 1148.1, *Oil and Gas Production Wells*. Rule 1148.1 was originally adopted on March 5, 2004, and it requires the control of emissions from petroleum well degassing with at least 95 percent control efficiency. Conversations with South Coast AQMD staff confirm this is achieved through the routing of well gas to portable combustion equipment or through carbon adsorption systems.

## **B. Reasonably Available Control Measures Demonstration**

As specified in the Act, the SIP shall provide for the implementation of reasonably available control measures (RACM) as expeditiously as practicable to provide for attainment of the ozone standard. RACM must also include emission reductions from existing sources that may be obtained through the adoption, at a minimum, of reasonably available control technology (RACT). The U.S. EPA has interpreted RACM as those emission control measures that are technologically and economically feasible and, when considered in aggregate, would advance the attainment date by at least one year. The 2022 Plan contains a RACM analysis that demonstrates no new measures were identified that would advance attainment from 2026 to 2025. These analyses are further described in Section 3.5, Appendix D, Appendix E, and Appendix F of the 2022 Plan. The District submitted the required RACT SIP to U.S. EPA on July 28, 2020 as discussed in Section 3.1.4 of the 2022 Plan.

## C. Modeled Results

Results of the attainment demonstration modeling are shown in Table 13. With all control measures, including those in the 2022 State SIP Strategy, the 2026 design values are predicted to be at or below the 70 ppb 8-hour ozone standard at all sites, with design values that range between 58 and 70 ppb including the design site Simi Valley. Although the design values in Table 13 include additional significant figures, consistent with U.S. EPA guidance, the modeled design values are truncated to the significant figures of the standard.

Further information on the modeled attainment demonstration is included in Section 5 and Appendices H, I, and J of the 2022 Plan.

Table 13 - Modeled 8-hour Ozone Design Values Demonstrating Attainment

Site	2018 Design Value	2026 Baseline Design Value	2026 Control Design Value
Thousand Oaks	68.3	65.8	65.1
Piru	71.3	67.6	66.5
Ojai	68.0	65.5	64.8
Simi Valley	75.7	71.7	70.3
El Rio	60.7	59.4	58.9

Source: 2022 Plan, Table 5-1: Regional Modeling Design Value Projections (ppb)

## V. Additional Clean Air Act Requirements

In addition to the elements related to the attainment demonstration, the Act also requires SIPs for Serious ozone nonattainment areas to address the following elements:

- Provisions that demonstrate reasonable further progress (RFP);
- Motor vehicle emission budgets to ensure transportation projects conform to the SIP; and
- Provisions for sufficient contingency measures for RFP and attainment.

### A. Reasonable Further Progress Demonstration

The Act and the Implementation Rule specify that each ozone nonattainment area must demonstrate ongoing emission reductions relative to the RFP baseline year. Per the Implementation Rule, the RFP baseline year should be the most recent calendar year, at the time of designations, for which a complete triennial inventory is required to be submitted to U.S. EPA – for the 70-ppb ozone standard, this year is 2017. Federal law and U.S. EPA guidance requires a 3 percent per year reduction in ROG emissions from the baseline year, averaged over the first 6 years and then each subsequent 3-year period until the attainment year. Where both ROG and NO<sub>x</sub> emissions have been shown to contribute to high ozone levels, the Act and guidance allow NO<sub>x</sub> emission reductions to augment ROG emission reductions in order to demonstrate RFP.

The 2022 Plan includes an RFP demonstration that meets the Act's requirements based on the baseline year of 2017. The analysis demonstrates that the cumulative ROG and NO<sub>x</sub> emission reductions from adopted measures in the current control program in Ventura County meet the RFP targets in the 2023 milestone year and the attainment year, 2026. A detailed emissions inventory for the RFP milestone years was not included in the 2022 Plan. CARB included this detailed emission inventory in Appendix A of this Staff Report. Further information on the RFP demonstration can be found in Section 6 of the 2022 Plan.

### B. Motor Vehicle Emissions Budgets

Under section 176(c) of the Act, transportation plans, programs, and projects that receive federal funding or approval must be fully consistent with the SIP before being approved by a Metropolitan Planning Organization (MPO). U.S. EPA's transportation conformity rule<sup>15</sup> details requirements for establishing motor vehicle emission budgets (MVEBs) in SIPs for the purpose of ensuring the conformity of transportation plans and programs with the SIP.

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<sup>15</sup> Federal transportation conformity regulations are found in 40 CFR Part 51, subpart T – Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. of the Federal Transit Laws. Part 93, subpart A of this chapter was revised by U.S. EPA in the August 15, 1997 Federal Register.



The 2022 Plan establishes county-level on-road MVEBs for each RFP milestone year, as well as for the attainment year for transportation conformity purposes under a Serious 8-hour ozone classification. The MVEBs will apply to all subsequent transportation conformity years, per the federal transportation conformity regulation. MVEBs for NO<sub>x</sub> and ROG were calculated using EMFAC2017 and reflect summer average emissions. Once U.S. EPA approves the MVEBs established in the 2022 Plan, it will serve as the conformity emissions budgets for future transportation conformity determinations in Ventura County. Additional details on the on-road MVEBs can be found in Section 3.3.2 on page 46 of the 2022 Plan.

## C. Contingency Measures

Contingency measures are required by the Clean Air Act to be implemented should an area fail to make RFP or attain the national ambient air quality standard (NAAQS) by the required date. U.S. EPA has interpreted this requirement to represent one year's worth of RFP, which amounts to three percent of the reductions from measures that are already in place or that would take effect without further rulemaking action. Historically, U.S. EPA allowed contingency measure requirements to be met via excess emission reductions from ongoing implementation of adopted emission reduction programs, a method that CARB and local air districts have used for contingency measures and U.S. EPA has approved in the past. However, although CARB's current programs continue to achieve emissions reductions in future years in excess of what is needed for RFP and attainment, multiple court decisions over the last few years in the U.S. Courts of Appeals for the Ninth Circuit and the District of Columbia Circuit have effectively disallowed this approach. As a result of the court decisions, U.S. EPA convened a nation-wide internal task force to develop guidance to provide clarity and direction for states in their development of contingency measures. CARB and the local districts have been awaiting this guidance for a year to ensure any contingency measures developed will meet requirements.

Given the courts' decisions over the last few years and under existing guidance, CARB and local air districts will need to implement contingency measures that, when triggered, would achieve one year's worth of emissions reductions, or at least the relevant portion equivalent to the contribution of sources primarily regulated at the State and local level, unless a reasoned rationale for achieving less emission reductions can be provided. At this time, CARB is implementing the most stringent control programs and including a zero-emission component in most of our regulations, both those recently adopted and those that are in development. Beyond the wide array of sources CARB has been regulating over the last few decades, and especially considering those we are driving to zero-emission, there are few sources of emissions left for CARB to implement additional controls upon under its authorities. The few source categories that do not have control measures are primarily federally and internationally regulated, categories which will account for approximately 46 percent of Statewide NO<sub>x</sub> emissions by 2026.<sup>16</sup> Considering the air quality challenges California and local air districts face, if an additional measure were available, CARB would

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<sup>16</sup> Source: CARB 2022 CEPAM v1.01; based on 2026 emissions totals.

implement this to support expeditious attainment of the NAAQS rather than withhold it for contingency measure purposes. That said, CARB and the District continue to explore potential contingency measures while awaiting U.S. EPA’s written guidance and fully intend to meet the contingency requirement as required by the Clean Air Act. Further discussion of contingency measures can be found in Section 7 of the 2022 Plan.

## VI. Requirements Addressed Through Separate Submittals

In addition to all of the SIP requirements that are addressed in the 2022 Plan, there are many other requirements under the 70 ppb 8-hour ozone standard that have been addressed through separate submittals in recent years, or will be in the future, as listed in Table 14 and described in more detail below.

Table 14 - 70 ppb SIP Elements Addressed in Separate Submittals

SIP Element	Submittal Title	Submittal Date
Emissions Statement	2020 Ventura County Emissions Statement Certification	July 29, 2020
Nonattainment New Source Review	Certification of the Nonattainment New Source Review Program Compliance Demonstration for the 2015 Federal Ozone Standard	August 3, 2021
Reasonably Available Control Technology	Ventura County Air Pollution Control District 2020 Reasonably Available Control Technology State Implementation Plan Revision	July 29, 2020
Vehicle Inspection and Maintenance Program	Scheduled: Early 2023	TBD
Clean Fuels for Fleets Program	California Clean Fuels for Fleets Certification for the 70 ppb Ozone Standard (CARB Adopted January 27, 2022)	February 3, 2022

### A. Emissions Statement

Section 182(a)(3)(B) of the Act requires ozone nonattainment areas to submit into the SIP an Emissions Statement rule or program for stationary sources with potential to emit ROG or NOx emissions; the program must mandate stationary sources with emissions over 25 tons per year of NOx or ROG report and certify the accuracy of NOx and ROG emissions annually. District Rule 24, *Source Recordkeeping, Reporting and Emission Statement, Section C, Emissions Statement*, addresses this requirement as stated on page 15 of the 2022 Plan. To meet requirements under the 70 ppb 8-hour ozone standard, the District adopted the 2020 Ventura County Emissions Statement Certification on July 14, 2020. U.S. EPA approved the 2020 Ventura County Emissions Statement Certification into the SIP on July 29, 2022.

## B. Nonattainment New Source Review

Section 182(a)(2)(C) of the Act requires that ozone nonattainment areas submit into the SIP New Source Review rules or programs for permitting the construction and operation of new or modified major stationary sources. District Rule 26, *New Source Review*, which includes Rules 26 through 26.4, addresses this requirement as stated on page 38 of the 2022 Plan. To meet requirements under the 70 ppb 8-hour ozone standard, the District certified District Rules 26, 26.11, 26.1.18, 26.1.19, 26.1.9, 26.2, and 26.4, on June 8, 2021 and CARB submitted it to U.S. EPA for inclusion in the California SIP on August, 3, 2021.

## C. Reasonably Available Control Technology

Section 182(b)(2) of the Act requires implementation of RACT in ozone nonattainment areas classified as Moderate or above. To demonstrate this, areas must develop and submit RACT analyses for stationary sources and applicable rules for which U.S. EPA has published Control Techniques Guidelines (CTG) and for major non-CTG stationary sources. Following U.S. EPA requirements, the District developed the 2020 Reasonably Available Control Technology (RACT) State Implementation Plan (SIP) Revision and reviewed existing stationary source rules to determine if those rules meet RACT requirements under the 70 ppb 8-hour ozone standard. The 2020 RACT SIP Revision was adopted by the District on July 14, 2020, and CARB submitted it to U.S. EPA for inclusion in the California SIP on July 29, 2020. The 2020 RACT SIP concluded that all District rules that apply to ozone precursor emissions fulfill RACT requirements for the 70 ppb 8-hour ozone standard and included negative declarations certifying that no sources are present in the nonattainment area for the applicable CTGs.

## D. Vehicle Inspection and Maintenance Program

Sections 182(a)(2)(B), 182(b)(4), and 182(c)(3) of the Act require ozone nonattainment areas to have in place a vehicle inspection and maintenance (I/M) program to implement Basic and Enhanced I/M in applicable areas that is at least as stringent as the federal program. In California, the Bureau of Automotive Repair (BAR) develops and implements the I/M program. California's I/M program was first submitted and approved by U.S. EPA for inclusion in the California SIP in 1997, and subsequent revisions were approved in 2007 and 2010. To meet requirements under the 70 ppb 8-hour ozone standard, CARB is working with BAR to conduct a performance standard evaluation in order to certify that California's existing program continues to meet requirements. This evaluation is under development and will be brought to the Board for consideration in early 2023.

## E. Clean Fuels for Fleets Program

Sections 182(c)(4) and 246 of the Act require ozone nonattainment areas classified as Serious or above with a 1980 population of 250,000 or more to submit revisions to the SIP to implement a clean fuel vehicle program for fleets. The Clean-Fuel Vehicle Program requires at least a specified percentage of all new covered fleet vehicles purchased by fleet operators to be clean-fuel vehicles and that they use clean alternative fuels when operating in the

nonattainment area. Alternately, the state, and the nonattainment areas within the state that need to meet the Clean-Fuel Vehicle Program requirement, can opt out of the program by submitting a revision into the SIP for a program that will achieve long-term reductions in ozone-producing and toxic air emissions equal to those achievable by the U.S. EPA Program.

CARB's Low-Emission Vehicle (LEV) programs are implemented Statewide and far exceed the level of reduction that would be achieved through implementation of the U.S. EPA Program. As such, California ozone nonattainment areas classified as Serious and above have provided certification to this effect and opted out of the U.S. EPA Program since the first California SIP, 1994 California State Implementation Plan, was submitted to U.S. EPA on November 15, 1994, and approved on September 27, 1999<sup>6</sup>. California has continued to strengthen the requirements for light-duty passenger cars. The second-generation LEV II regulations were adopted in 1998 and the third-generation LEV III regulations in 2012 as part of the Advanced Clean Cars rulemaking package that also includes the State's zero-emission vehicle regulation. The LEV III regulations include increasingly stringent emission standards for criteria pollutants and greenhouse gases for new passenger vehicles through the 2025 model year. In 2022, CARB adopted its Advanced Clean Cars II program that further strengthened the criteria pollutant and zero-emission vehicles standards for model years 2026 and beyond. CARB is working to obtain a waiver of federal preemption for these standards and submit them to U.S. EPA to add to California's SIP.

To meet requirements under the 70 ppb 8-hour ozone standard, CARB developed the California Clean Fuels for Fleets Certification for the 70 ppb Ozone Standard which was adopted by the Board on January 27, 2022 and submitted to U.S. EPA on February 3, 2022.

## VII. Environmental Impacts

### A. Introduction

This chapter provides the basis for CARB's determination that no subsequent or supplemental environmental analysis is required for the proposed 2022 Plan, with the CARB Staff Report ("project"). A brief explanation of this determination is provided in the Analysis subheading below.

CARB's regulatory program which involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans for the protection and enhancement of the State's ambient air quality has been certified by the California Secretary for Natural Resources under Public Resources Code section 21080.5 of the California Environmental Quality Act (CEQA) (see California Code of Regulations (CCR), title 14, section 15251(d)). Public agencies with certified regulatory programs are exempt from certain CEQA requirements, including but not limited to, preparing environmental impact reports, negative declarations, and initial studies. CARB, as a lead agency, prepares a substitute environmental document (referred to as an "Environmental Analysis" or "EA") as part of the Staff Report to comply with CEQA (see 17 CCR §§ 60000-60008). This EA serves as a substitute document equivalent to an addendum to the prior 2022 State SIP Strategy EA to explain CARB's determination that no additional environmental analysis is required for this action.

### B. Prior Environmental Analysis

The District prepared an Initial Study and Negative Declaration for the 2022 Plan.<sup>17</sup> The District's Negative Declaration found that the 2022 Plan did not have the potential to cause any potentially significant environmental impacts. The District's 2022 Plan Negative Declaration is incorporated here by reference.

Further, when the 2022 State SIP Strategy was proposed, CARB prepared an environmental analysis (EA) under its certified regulatory program (17 CCR §§ 60000-60008) to comply with the requirements of CEQA (Public Resources Code section 21080.5). The EA, included as Appendix B to the Proposed 2022 State SIP Strategy entitled Final Environmental Analysis for the proposed 2022 State Strategy for the State Implementation Plan, dated September 16, 2022,<sup>18</sup> determined the 2022 State SIP Strategy could result in the following short-term and long-term impacts: beneficial impacts to air quality (long-term operational-related) and greenhouse gases; less-than-significant impacts to energy demand, mineral resources, population and housing, public services, recreational services and wildfire; and potentially significant and unavoidable adverse impacts to aesthetics, agriculture and forest resources, air quality (short-term construction-related), biological resources, cultural resources, geology

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<sup>17</sup> The District's Initial Study and Negative Declaration for the 2022 Plan is available here: [2022 AQMP ND \(vcapcd.org\)](https://www.vcapcd.org).

<sup>18</sup> The EA and associated documents are available at <https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy>, and are incorporated here by reference.

and soils, hazards and hazardous materials, hydrology and water quality, land use, noise, transportation/traffic, tribal cultural resources, and utilities and service systems.

## C. Analysis

### 1. Legal Standards

When undertaking further planning actions for which an EIR or negative declaration (or equivalent substitute document) has previously been prepared, CARB looks to Public Resources Code section 21166 and CEQA Guidelines section 15162 for guidance on the requirements for subsequent or supplemental environmental review.

CEQA Guidelines section 15162 states:

- (a) *When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:*
  - (1) *Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*
  - (2) *Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or*
  - (3) *New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:*
    - (A) *The project will have one or more significant effects not discussed in the previous EIR or negative declaration.*
    - (B) *Significant effects previously examined will be substantially more severe than shown in the previous EIR.*
    - (C) *Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or*
    - (D) *Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more*

*significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.*

If a subsequent or supplemental EIR or negative declaration is not required, the lead agency may document its decision and supporting evidence in an addendum (14 CCR § 15164 (e)). The addendum and lead agency's findings should include a brief explanation, supported by substantial evidence, of the decision not to prepare a subsequent or supplemental EIR or negative declaration (14 CCR § 15164(e)). An addendum need not be circulated for public review, but must be considered by the lead agency prior to making a decision on the project (14 CCR § 15164(c), (d)).

## **2. Basis for Determination**

As noted above, the District analyzed the potential environmental impacts from the 2022 Plan in its Negative Declaration. Similarly, CARB analyzed the potential environmental impacts from the 2022 State SIP Strategy in the EA developed for that planning effort. The proposed project here involves compiling these measures previously analyzed in the District's 2022 Plan Negative Declaration and CARB's 2022 State SIP Strategy EA, quantifying the emissions reductions associated with them, and submitting them to U.S. EPA for inclusion into the California SIP. This exercise does not involve any modifications to any of the measures. There is no possibility that CARB's quantification of these emissions reductions resulting from measures to which CARB has already committed to pursue may result in a significant adverse impact on the environment, nor any substantial evidence indicating this proposal could adversely affect air quality or any other environmental resource area.

CARB staff has determined that the proposed 2022 Plan and associated CARB Staff Report do not involve any changes that result in any new significant adverse environmental impacts or a substantial increase in the severity of the significant adverse impacts previously disclosed in the 2022 State SIP Strategy EA or the 2022 Plan Negative Declaration. Further, there are no changes in circumstances or new information that would otherwise warrant any subsequent or supplemental environmental review. The 2022 State SIP Strategy EA and the 2022 Plan Negative Declaration fully address the implementation of the proposed project, and no additional environmental analysis is required.

The basis for CARB's determination that none of the conditions requiring further environmental review are triggered by the proposed modifications is based on the following analysis.

- (1) *There are no substantial changes to the components of the proposed project that were previously analyzed in the 2022 SIP Strategy EA and the 2022 Plan Negative Declaration which require major revisions involving new significant environmental effects or a substantial increase in the severity of previously identified effects.*

The Initial Study and Negative Declaration for the 2022 Plan and the Final EA for the 2022 State SIP Strategy fully address the implementation of the 2022 Plan and CARB Staff Report, and no additional environmental analysis is required. CARB has determined that the

proposed project does not involve any changes that result in any new significant adverse environmental impacts or a substantial increase in the severity of the significant adverse impacts previously disclosed in the Final EA for the 2022 State SIP Strategy or the District's Negative Declaration. CARB does not propose to modify any of the commitments previously analyzed in those documents. The proposed project involves compiling these existing measures from the District's 2022 Plan and CARB's 2022 State SIP Strategy, quantifying the emissions reductions associated with them, and submitting them to U.S. EPA for inclusion into the California SIP. As noted above, this exercise does not involve any modifications to any of the previously approved measures.

- (2) *There are no substantial changes with respect to the circumstances under which the proposed project is being undertaken which require major revisions to the previous CEQA analyses involving new significant environmental effects or a substantial increase in the severity of previously identified effects.*

There are no changes in circumstances that would otherwise warrant any subsequent or supplemental environmental review. CARB has determined that the proposed project does not involve any changes in circumstances that result in any new significant adverse environmental impacts or a substantial increase in the severity of the significant adverse impacts previously disclosed in the Final EA for the 2022 State SIP Strategy or the District's Negative Declaration. As noted above, CARB does not propose to modify any of the commitments previously analyzed in the Final EA for the 2022 State SIP Strategy or the District's Negative Declaration. The proposed project involves compiling these existing measures from the District's 2022 Plan and CARB's 2022 State SIP Strategy, quantifying the emissions reductions associated with them, and submitting them to U.S. EPA for inclusion into the California SIP. As noted above, this exercise does not involve any modifications to any of the previously approved measures.

- (3) *There is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous CEQA analyses were completed, that changes the conclusions of the environmental analyses with regard to impacts, mitigation measures, or alternatives;*

There is no new information that would otherwise warrant any subsequent or supplemental environmental review. CARB has determined that the proposed project does not involve any new information that changes the conclusions of the Final EA for the 2022 State SIP Strategy or the District's Negative Declaration. As noted above, CARB does not propose to modify any of the commitments previously analyzed in the Final EA for the 2022 State SIP Strategy or the District's Negative Declaration. The proposed project involves compiling these existing measures from the District's 2022 Plan and CARB's 2022 State SIP Strategy, quantifying the emissions reductions associated with them, and submitting them to U.S. EPA for inclusion into the California SIP. As noted above, this exercise does not involve any modifications to any of the previously approved measures.

The District certified its Negative Declaration in December 2022, and CARB certified the EA for the 2022 State SIP Strategy in September 2022. No supplemental or subsequent



environmental analysis is required for the proposed project because, as described above, the proposed project does not result in any new environmental impacts or in a substantial increase in the severity of the impacts previously disclosed for the 2022 Plan or the 2022 State SIP Strategy. Further, there are no changes in circumstances or new information that would otherwise warrant any additional environmental review.

Finally, while in an abundance of caution CARB has prepared an addendum-equivalent analysis here, CARB notes that this SIP action also likely does not constitute a CEQA “project” in the first instance. As to the District-proposed measures, CARB lacks jurisdiction to modify or remove these measures for any purpose other than compliance with Clean Air Act requirements. Therefore, CARB’s review of those components is effectively ministerial. (See *San Diego Navy Broadway Complex Coalition v. City of San Diego* (2010) 185 Cal.App.4th 924, 934.) As to the CARB-derived measures, CARB has already committed to pursuing these measures as part of the 2022 State SIP Strategy. CARB’s actions here do not modify those previous commitments made at the time CARB approved the 2022 State SIP Strategy; rather, it amounts to quantifying the anticipated reductions from those commitments, and reaffirming CARB’s commitment to those reductions.

## VIII. Staff Recommendation

CARB staff has reviewed the 2022 Plan and has concluded that, along with the aggregate emissions reduction commitment and planning emissions inventories contained in the CARB Staff Report, it meets the requirements of the Act for the 70 ppb 8-hour ozone standard. CARB staff recommends that the Board:

1. Adopt the State commitment to achieve aggregate emissions reductions of 0.3 tpd of NO<sub>x</sub> in Ventura County by 2026, including a subset to come specifically from on-road mobile source measures of 0.03 tpd NO<sub>x</sub> as described in section IV.A.ii of the CARB Staff Report.
2. Adopt the 2022 Plan, including the emission inventories, attainment demonstration, RACM demonstration, RFP demonstration and associated motor vehicle emissions budgets, discussion of contingency measures, and the planning emissions inventory as included in Appendix A of the CARB Staff Report, as a revision to the California SIP.
3. Direct the Executive Officer to submit the 2022 Plan and the above elements of the CARB Staff Report (2026 aggregate emissions reduction commitment for Ventura County, and the planning emissions inventory) to U.S. EPA as a revision to the California SIP.

# Appendix A

## Ventura County Ozone Nonattainment Area Planning Emissions Inventory

## Ventura County Ozone Nonattainment Area NOx Emissions (tpd)<sup>19 20</sup>

Source: CARB 2022 CEPAM v1.01

### Stationary Sources

SUMMARY CATEGORY NAME	2017	2023	2026
ELECTRIC UTILITIES	0.72	1.24	1.09
COGENERATION	0.02	0.02	0.02
OIL AND GAS PRODUCTION (COMBUSTION)	0.16	0.17	0.20
PETROLEUM REFINING (COMBUSTION)	0.00	0.00	0.00
MANUFACTURING AND INDUSTRIAL	0.26	0.21	0.21
FOOD AND AGRICULTURAL PROCESSING	0.30	0.27	0.26
SERVICE AND COMMERCIAL	0.27	0.24	0.23
OTHER (FUEL COMBUSTION)	0.18	0.15	0.15
<b>TOTAL FUEL COMBUSTION</b>	<b>1.91</b>	<b>2.29</b>	<b>2.16</b>
SEWAGE TREATMENT	0.01	0.00	0.00
LANDFILLS	0.05	0.07	0.07
INCINERATORS	0.01	0.00	0.01
SOIL REMEDIATION	0.00	0.00	0.00
OTHER (WASTE DISPOSAL)	0.00	0.00	0.00
<b>TOTAL WASTE DISPOSAL</b>	<b>0.06</b>	<b>0.08</b>	<b>0.08</b>
LAUNDERING	0.00	0.00	0.00
DEGREASING	0.00	0.00	0.00
COATINGS AND RELATED PROCESS SOLVENTS	0.00	0.00	0.00
PRINTING	0.00	0.00	0.00
ADHESIVES AND SEALANTS	0.00	0.00	0.00
OTHER (CLEANING AND SURFACE COATINGS)	0.00	0.00	0.00
<b>TOTAL CLEANING AND SURFACE COATINGS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
OIL AND GAS PRODUCTION	0.07	0.13	0.15
PETROLEUM REFINING	0.00	0.00	0.00
PETROLEUM MARKETING	0.00	0.00	0.00
OTHER (PETROLEUM PRODUCTION AND MARKETING)	0.00	0.00	0.00
<b>TOTAL PETROLEUM PRODUCTION AND MARKETING</b>	<b>0.07</b>	<b>0.13</b>	<b>0.15</b>
CHEMICAL	0.00	0.00	0.00
FOOD AND AGRICULTURE	0.00	0.00	0.00
MINERAL PROCESSES	0.00	0.00	0.00
METAL PROCESSES	0.00	0.00	0.00
WOOD AND PAPER	0.00	0.00	0.00
ELECTRONICS	0.00	0.00	0.00
OTHER (INDUSTRIAL PROCESSES)	0.06	0.06	0.06
<b>TOTAL INDUSTRIAL PROCESSES</b>	<b>0.06</b>	<b>0.06</b>	<b>0.06</b>
<b>TOTAL STATIONARY</b>	<b>2.09</b>	<b>2.56</b>	<b>2.44</b>

<sup>19</sup> Emissions may appear as zero due to rounding.

<sup>20</sup> Emissions included out to 3 nautical miles.

Ventura County Ozone Nonattainment Area NOx Emissions (tpd)<sup>21 22</sup>  
 Source: CARB 2022 CEPAM v1.01

Areawide Sources

SUMMARY CATEGORY NAME	2017	2023	2026
CONSUMER PRODUCTS	0.00	0.00	0.00
ARCHITECTURAL COATINGS AND RELATED PROCESS SOLVENTS	0.00	0.00	0.00
PESTICIDES/FERTILIZERS	0.00	0.00	0.00
ASPHALT PAVING / ROOFING	0.00	0.00	0.00
<b>TOTAL SOLVENT EVAPORATION</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
RESIDENTIAL FUEL COMBUSTION	0.60	0.56	0.54
FARMING OPERATIONS	0.00	0.00	0.00
CONSTRUCTION AND DEMOLITION	0.00	0.00	0.00
PAVED ROAD DUST	0.00	0.00	0.00
UNPAVED ROAD DUST	0.00	0.00	0.00
FUGITIVE WINDBLOWN DUST	0.00	0.00	0.00
FIRES	0.01	0.01	0.01
MANAGED BURNING AND DISPOSAL	0.01	0.02	0.02
COOKING	0.00	0.00	0.00
OTHER (MISCELLANEOUS PROCESSES)	0.00	0.00	0.00
<b>TOTAL MISCELLANEOUS PROCESSES</b>	<b>0.61</b>	<b>0.58</b>	<b>0.56</b>
<b>TOTAL AREAWIDE</b>	<b>0.61</b>	<b>0.58</b>	<b>0.56</b>

<sup>21</sup> Emissions may appear as zero due to rounding.

<sup>22</sup> Emissions included out to 3 nautical miles.

## Ventura County Ozone Nonattainment Area NOx Emissions (tpd)<sup>23 24</sup>

Source: CARB 2022 CEPAM v1.01

### Mobile Sources

SUMMARY CATEGORY NAME	2017	2023	2026
LIGHT DUTY PASSENGER (LDA)	1.21	0.61	0.48
LIGHT DUTY TRUCKS - 1 (LDT1)	0.33	0.16	0.11
LIGHT DUTY TRUCKS - 2 (LDT2)	0.86	0.37	0.27
MEDIUM DUTY TRUCKS (MDV)	0.79	0.34	0.22
LIGHT HEAVY DUTY GAS TRUCKS - 1 (LHDGT1)	0.13	0.07	0.06
LIGHT HEAVY DUTY GAS TRUCKS - 2 (LHDGT2)	0.02	0.01	0.01
MEDIUM HEAVY DUTY GAS TRUCKS (MHDGT)	0.04	0.02	0.01
HEAVY HEAVY DUTY GAS TRUCKS (HHDGT)	0.00	0.00	0.00
LIGHT HEAVY DUTY DIESEL TRUCKS - 1 (LHDDT1)	0.82	0.45	0.31
LIGHT HEAVY DUTY DIESEL TRUCKS - 2 (LHDDT2)	0.23	0.13	0.09
MEDIUM HEAVY DUTY DIESEL TRUCKS (MHDDT)	1.20	0.47	0.40
HEAVY HEAVY DUTY DIESEL TRUCKS (HHDDT)	1.69	0.97	0.61
MOTORCYCLES (MCY)	0.11	0.10	0.09
HEAVY DUTY DIESEL URBAN BUSES (UBD)	0.08	0.01	0.01
HEAVY DUTY GAS URBAN BUSES (UBG)	0.00	0.00	0.00
SCHOOL BUSES - GAS (SBG)	0.01	0.00	0.00
SCHOOL BUSES - DIESEL (SBD)	0.13	0.09	0.07
OTHER BUSES - GAS (OBG)	0.01	0.01	0.01
OTHER BUSES - MOTOR COACH - DIESEL (OBC)	0.01	0.00	0.00
ALL OTHER BUSES - DIESEL (OBD)	0.05	0.01	0.01
MOTOR HOMES (MH)	0.08	0.05	0.05
<b>TOTAL ON-ROAD MOTOR VEHICLES</b>	<b>7.79</b>	<b>3.86</b>	<b>2.82</b>
AIRCRAFT	0.39	0.49	0.58
TRAINS	0.47	0.23	0.23
OCEAN GOING VESSELS	1.29	1.38	1.42
COMMERCIAL HARBOR CRAFT	1.13	1.22	1.30
RECREATIONAL BOATS	0.53	0.49	0.48
OFF-ROAD RECREATIONAL VEHICLES	0.01	0.01	0.01
OFF-ROAD EQUIPMENT	2.82	1.99	1.64
OFF-ROAD EQUIPMENT (PERP)	0.31	0.17	0.14
FARM EQUIPMENT	2.17	1.52	1.29
FUEL STORAGE AND HANDLING	0.00	0.00	0.00
<b>TOTAL OTHER MOBILE SOURCES</b>	<b>9.11</b>	<b>7.49</b>	<b>7.08</b>
<b>TOTAL MOBILE</b>	<b>16.90</b>	<b>11.35</b>	<b>9.89</b>
<b>GRAND TOTAL</b>	<b>19.61</b>	<b>14.48</b>	<b>12.90</b>

<sup>23</sup> Emissions may appear as zero due to rounding.

<sup>24</sup> Emissions included out to 3 nautical miles.

## Ventura County Ozone Nonattainment Area ROG Emissions (tpd)<sup>25 26</sup>

Source: CARB 2022 CEPAM v1.01

### Stationary Sources

SUMMARY CATEGORY NAME	2017	2023	2026
ELECTRIC UTILITIES	0.07	0.13	0.14
COGENERATION	0.00	0.00	0.00
OIL AND GAS PRODUCTION (COMBUSTION)	0.02	0.02	0.02
PETROLEUM REFINING (COMBUSTION)	0.00	0.00	0.00
MANUFACTURING AND INDUSTRIAL	0.02	0.02	0.02
FOOD AND AGRICULTURAL PROCESSING	0.02	0.01	0.01
SERVICE AND COMMERCIAL	0.02	0.02	0.02
OTHER (FUEL COMBUSTION)	0.01	0.01	0.01
<b>TOTAL FUEL COMBUSTION</b>	<b>0.16</b>	<b>0.21</b>	<b>0.21</b>
SEWAGE TREATMENT	0.01	0.00	0.00
LANDFILLS	0.11	0.11	0.11
INCINERATORS	0.00	0.00	0.00
SOIL REMEDIATION	0.00	0.00	0.00
OTHER (WASTE DISPOSAL)	0.67	0.70	0.70
<b>TOTAL WASTE DISPOSAL</b>	<b>0.79</b>	<b>0.81</b>	<b>0.82</b>
LAUNDERING	0.04	0.05	0.05
DEGREASING	1.95	2.04	2.09
COATINGS AND RELATED PROCESS SOLVENTS	0.94	0.99	1.02
PRINTING	0.14	0.16	0.17
ADHESIVES AND SEALANTS	0.44	0.44	0.43
OTHER (CLEANING AND SURFACE COATINGS)	0.63	0.66	0.68
<b>TOTAL CLEANING AND SURFACE COATINGS</b>	<b>4.14</b>	<b>4.33</b>	<b>4.43</b>
OIL AND GAS PRODUCTION	1.23	1.60	1.87
PETROLEUM REFINING	0.00	0.00	0.00
PETROLEUM MARKETING	1.07	0.96	0.93
OTHER (PETROLEUM PRODUCTION AND MARKETING)	0.00	0.00	0.00
<b>TOTAL PETROLEUM PRODUCTION AND MARKETING</b>	<b>2.30</b>	<b>2.56</b>	<b>2.79</b>
CHEMICAL	0.09	0.09	0.09
FOOD AND AGRICULTURE	0.01	0.02	0.02
MINERAL PROCESSES	0.01	0.02	0.02
METAL PROCESSES	0.00	0.00	0.00
WOOD AND PAPER	0.14	0.09	0.10
ELECTRONICS	0.02	0.03	0.03
OTHER (INDUSTRIAL PROCESSES)	0.30	0.32	0.32
<b>TOTAL INDUSTRIAL PROCESSES</b>	<b>0.59</b>	<b>0.56</b>	<b>0.57</b>
<b>TOTAL STATIONARY</b>	<b>7.97</b>	<b>8.47</b>	<b>8.83</b>

<sup>25</sup> Emissions may appear as zero due to rounding.

<sup>26</sup> Emissions included out to 3 nautical miles.

Ventura County Ozone Nonattainment Area ROG Emissions (tpd)<sup>27 28</sup>

Source: CARB 2022 CEPAM v1.01

Areawide Sources

SUMMARY CATEGORY NAME	2017	2023	2026
CONSUMER PRODUCTS	5.46	5.77	5.97
ARCHITECTURAL COATINGS AND RELATED PROCESS SOLVENTS	1.47	1.48	1.50
PESTICIDES/FERTILIZERS	1.25	1.40	1.39
ASPHALT PAVING / ROOFING	0.73	0.79	0.81
<b>TOTAL SOLVENT EVAPORATION</b>	<b>8.90</b>	<b>9.44</b>	<b>9.67</b>
RESIDENTIAL FUEL COMBUSTION	0.39	0.41	0.41
FARMING OPERATIONS	0.12	0.11	0.10
CONSTRUCTION AND DEMOLITION	0.00	0.00	0.00
PAVED ROAD DUST	0.00	0.00	0.00
UNPAVED ROAD DUST	0.00	0.00	0.00
FUGITIVE WINDBLOWN DUST	0.00	0.00	0.00
FIRES	0.01	0.01	0.01
MANAGED BURNING AND DISPOSAL	0.04	0.02	0.02
COOKING	0.05	0.05	0.05
OTHER (MISCELLANEOUS PROCESSES)	0.00	0.00	0.00
<b>TOTAL MISCELLANEOUS PROCESSES</b>	<b>0.60</b>	<b>0.60</b>	<b>0.60</b>
<b>TOTAL AREAWIDE</b>	<b>9.51</b>	<b>10.03</b>	<b>10.26</b>

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<sup>27</sup> Emissions may appear as zero due to rounding.

<sup>28</sup> Emissions included out to 3 nautical miles.



## Ventura County Ozone Nonattainment Area ROG Emissions (tpd)<sup>29 30</sup>

Source: CARB 2022 CEPAM v1.01

### Mobile Sources

SUMMARY CATEGORY NAME	2017	2023	2026
LIGHT DUTY PASSENGER (LDA)	1.66	1.03	0.87
LIGHT DUTY TRUCKS - 1 (LDT1)	0.48	0.29	0.23
LIGHT DUTY TRUCKS - 2 (LDT2)	0.86	0.56	0.47
MEDIUM DUTY TRUCKS (MDV)	0.80	0.50	0.40
LIGHT HEAVY DUTY GAS TRUCKS - 1 (LHDGT1)	0.16	0.10	0.08
LIGHT HEAVY DUTY GAS TRUCKS - 2 (LHDGT2)	0.02	0.01	0.01
MEDIUM HEAVY DUTY GAS TRUCKS (MHDGT)	0.02	0.01	0.01
HEAVY HEAVY DUTY GAS TRUCKS (HHDGT)	0.00	0.00	0.00
LIGHT HEAVY DUTY DIESEL TRUCKS - 1 (LHDDT1)	0.02	0.02	0.01
LIGHT HEAVY DUTY DIESEL TRUCKS - 2 (LHDDT2)	0.01	0.01	0.00
MEDIUM HEAVY DUTY DIESEL TRUCKS (MHDDT)	0.06	0.00	0.00
HEAVY HEAVY DUTY DIESEL TRUCKS (HHDDT)	0.07	0.02	0.02
MOTORCYCLES (MCY)	0.50	0.44	0.41
HEAVY DUTY DIESEL URBAN BUSES (UBD)	0.01	0.00	0.00
HEAVY DUTY GAS URBAN BUSES (UBG)	0.00	0.00	0.00
SCHOOL BUSES - GAS (SBG)	0.00	0.00	0.00
SCHOOL BUSES - DIESEL (SBD)	0.00	0.00	0.00
OTHER BUSES - GAS (OBG)	0.01	0.00	0.00
OTHER BUSES - MOTOR COACH - DIESEL (OBC)	0.00	0.00	0.00
ALL OTHER BUSES - DIESEL (OBD)	0.00	0.00	0.00
MOTOR HOMES (MH)	0.01	0.00	0.00
<b>TOTAL ON-ROAD MOTOR VEHICLES</b>	<b>4.70</b>	<b>3.01</b>	<b>2.55</b>
AIRCRAFT	0.47	0.60	0.70
TRAINS	0.02	0.01	0.01
OCEAN GOING VESSELS	0.05	0.06	0.06
COMMERCIAL HARBOR CRAFT	0.10	0.12	0.13
RECREATIONAL BOATS	3.17	2.45	2.17
OFF-ROAD RECREATIONAL VEHICLES	0.22	0.19	0.17
OFF-ROAD EQUIPMENT	2.84	2.69	2.23
OFF-ROAD EQUIPMENT (PERP)	0.03	0.02	0.02
FARM EQUIPMENT	0.43	0.36	0.31
FUEL STORAGE AND HANDLING	0.45	0.37	0.34
<b>TOTAL OTHER MOBILE SOURCES</b>	<b>7.78</b>	<b>6.85</b>	<b>6.13</b>
<b>TOTAL MOBILE</b>	<b>12.48</b>	<b>9.85</b>	<b>8.68</b>
<b>GRAND TOTAL</b>	<b>29.96</b>	<b>28.35</b>	<b>27.78</b>

<sup>29</sup> Emissions may appear as zero due to rounding.

<sup>30</sup> Emissions included out to 3 nautical miles.