

air pollution control district
SANTA BARBARA COUNTY

2026 Ozone Plan

October 2026

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TABLE OF CONTENTS

Chapter 1 – Introduction.....	1
Background	1
Updating our Plan for Clean Air in Santa Barbara County	1
Chapter 2 – Local Air Quality.....	4
Exceedance Trends	4
Air Quality Indicators – Expected Peak Day Concentrations	6
EPDC Analysis and Designation Values	6
Exceptional Events	10
Chapter 3 – Emission Inventory.....	11
Base Year Inventory	11
Growth Profiles	14
Inventory Forecast	19
Impacts from Marine Shipping	20
Chapter 4 – Stationary and Area Source Control Measures.....	27
Adopted Control Measures Prior to 2026 Ozone Plan	27
Proposed Control Measures	31
Contingency Measures	31
Further Study Measures	33
Chapter 5 – On-Road Transportation Control Measures	35
Vehicle Activity Trends.....	35
Transportation Control Measures	37
Adopted TCMs	38
Implementation Activities for TCMs	40
TCMs Proposed for Adoption and Further Study	44
Chapter 6 – Voluntary Grant and Incentive Strategies	45
Funding Sources.....	45
Clean Air Grants Program	49
Incentive Programs	52
Chapter 7 – Attainment Strategy	56
Stationary Sources	56
Emission Inventory Tracking	56
Land-use/CEQA Review	57
Transportation Control Measures	58
CARB Mobile Source Strategy	58
Voluntary Incentive Strategies.....	59
Prescribed Burn Program.....	60
Public Awareness and Education.....	60
Appendix A – Natural Source Emissions	A-1

CHAPTER 1 – INTRODUCTION

Background

Ozone is a gaseous pollutant consisting of three oxygen atoms (O₃). Ozone is not directly emitted into the atmosphere, but instead, it is produced by photochemical reactions between oxides of nitrogen (NO_x) and reactive organic compounds (ROCs) in the presence of heat and sunlight. Ozone typically follows a diurnal cycle, where the levels tend to increase throughout the day and decrease during the nighttime hours. Ozone levels can also be affected by meteorological conditions (e.g. inversions and stagnant air) and topography that can prevent dispersion and trap polluted air masses close to the ground. Due to these factors as well as the potential for transport winds to move the polluted air masses, ozone is considered a “regional” pollutant. This means that the locations where ozone levels are highest are not necessarily the locations where the precursor pollutants are emitted.

Breathing ground-level ozone can cause a number of health effects in broad segments of the population, and it is especially harmful for children, the elderly, and people with asthma or other respiratory problems. Both the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) have set ambient air quality standards to protect public health. The Santa Barbara County Air Pollution Control District (District) creates planning documents to help attain these health-based standards as it is critical to our mission to protect the people and the environment of Santa Barbara County from the effects of air pollution.

Updating our Plan for Clean Air in Santa Barbara County

The 2026 Ozone Plan (2026 Plan) is the eleventh triennial update to the initial state Air Quality Attainment Plan adopted by the District Board of Directors in 1991. Prior ozone plan updates were completed for 1994, 1998, 2001, 2004, 2007, 2010, 2013, 2016, 2019, and 2022. In the past, the District has prepared air quality attainment plans that have addressed both the state and federal ozone standards. This 2026 Plan addresses the state ozone standards only because the District is designated “attainment” for the federal 8-hour ozone standards. Table 1-1 provides a summary of the state ambient air quality standards for ozone that have been adopted by CARB and the federal ambient air quality standards that have been adopted by EPA.

TABLE 1-1: STATE AND FEDERAL OZONE STANDARDS

Ambient Air Quality Standard	Year Adopted	Statutory Standard	Attainment Status
State 1-Hour	1988	0.09 ppm	Nonattainment-Transitional
State 8-Hour	2005	0.070 ppm	
Federal 1-Hour	1979	0.12 ppm	Attainment ¹
Federal 8-Hour	1997	0.08 ppm	Attainment ²
	2008	0.075 ppm	Attainment
	2015	0.070 ppm	Attainment

Since 1991, the District has adopted or amended 35 control measures aimed at reducing emissions from stationary and area sources of air pollution to help Santa Barbara County attain the state ozone standards. These control measures have substantially reduced NO_x and VOC emissions, which are the precursor pollutants to ozone. Along with the implementation of statewide measures, the District's control measure strategy has successfully improved Santa Barbara County's air quality as demonstrated by the downward trend in ozone exceedances.

In 2016, the County was designated as nonattainment-transitional because less than three ozone exceedances occurred in a single calendar year. The nonattainment-transitional designation meant that the County was close to attaining the state standard, but in order to be designated as attainment, air quality measurements from the most recent 3-year period must show that both the 1-hour and the 8-hour standards are not violated. In 2019, Santa Barbara County was finally designated as attainment for the state ozone standards. However, this designation status was short-lived since varying weather patterns can lead to a different number of exceedances from one year to the next. The County's attainment status has since toggled back to nonattainment and is currently nonattainment-transitional. A summary of the changes in attainment status is shown below in Table 1-2.

TABLE 1-2: CHANGES IN ATTAINMENT STATUS FOR THE STATE OZONE STANDARDS

Designation Years	Attainment Status
1989 - 2015	Nonattainment
2016 - 2018	Nonattainment-Transitional
2019	Attainment
2020 - 2021	Nonattainment
2022 - 2025	Nonattainment-Transitional

¹ Designated as attainment in 2002. Standard revoked in 2005.

² Standard revoked in 2015.

When a region is designated nonattainment or nonattainment-transitional, the California Clean Air Act (as codified in California Health and Safety Code §40910 et seq.) requires the region to report their progress in meeting the state mandates and revise the Air Quality Attainment Plan on a triennial basis. The triennial plan progress report must assess the extent of air quality improvement in the last 3 years, incorporate new data and emission inventory projections, evaluate potential new control measures, and address the overall effectiveness of the air quality program. Table 1-3 provides a more complete list of the triennial plan report requirements and where they are addressed in the 2026 Plan.

TABLE 1-3: TRIENNIAL PLAN REPORT REQUIREMENTS

Requirement	California Health & Safety Code Reference	Ozone Plan Section
Air Quality Trends and Indicators	§40913(a)(1)-(3), §40924(b)(1)	Chapter 2
Emission Inventory Trends and Projections	§40913(a)(4)-(5), §40918(a)(5), §40925(a)	Chapter 3 and Appendix A
Stationary and Area Source Control Measures	§40913(a)(6)-(7), §40918(a)(2), §40918(a)(4), §40924(b)(2)	Chapter 4
Every Feasible Measure Analysis and Contingency Measures	§40914(b), §40915, §40922, §40925.5(b)	Chapter 4
Transportation Control Measures	§40918(a)(3)	Chapter 5
Voluntary Grant & Incentive Strategies	§40918(a)(6)	Chapter 6
Attainment and Maintenance Strategy	§40913(a)	Chapter 7

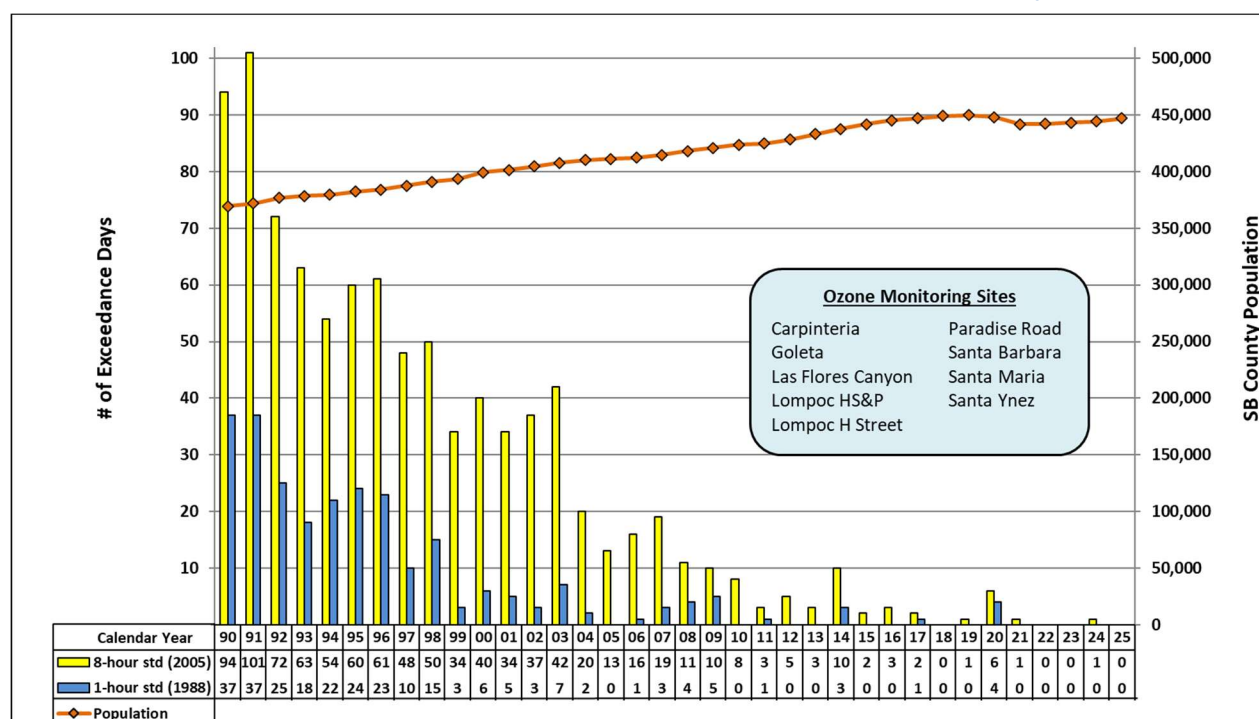
CHAPTER 2 – LOCAL AIR QUALITY

The California Clean Air Act requires the California Air Resources Board (CARB) to evaluate and identify air quality-related indicators for the District to use in assessing its progress toward attainment of the state ozone standard. This chapter highlights those indicators and demonstrates the progress the District has made over the last few decades in improving the air quality throughout Santa Barbara County. Over time, both voluntary and regulatory measures, as well as control technology improvements and better community planning, have led to tremendous improvements in Santa Barbara County’s air quality. As a result of these efforts, the overall exposure to ozone continues to decrease.

Exceedance Trends

Santa Barbara County’s air quality has improved dramatically over the years as evidenced by the declining number of 1-hour and 8-hour ozone exceedances. An *exceedance* is a measured concentration at a monitoring station that surpasses the state ozone standard. As displayed in Figure 2-1, the County experienced 101 exceedances of the 8-hour ozone standard and 37 exceedances of the 1-hour ozone standard in 1991. The number of exceedances has since dropped to zero or near-zero levels in recent years, and these improvements in air quality have occurred despite a 20% increase in countywide population.³ A brief analysis of the most recent exceedances of the 8-hour ozone standard and factors that contributed to each exceedance are described below in Tables 2-1 and 2-2.

FIGURE 2-1: SANTA BARBARA COUNTY OZONE EXCEEDANCES VS POPULATION, 1990 - 2025



³ State of California, Department of Finance, E-4 Population Estimates, 2020 Census Benchmark [May 2025].

TABLE 2-1: SANTA BARBARA COUNTY EXCEEDANCE DAYS, 2019 - 2025

Year	Exceedance Day	8-hour Ozone Concentrations (ppb)								
		Paradise Road	Las Flores Canyon	Carpinteria	Santa Barbara	Goleta	Santa Ynez	Lompoc HS&P	Lompoc H St.	Santa Maria
2019	10/6/2019	71	72	72	66	62	69	64	28	45
2020	8/18/2020	72	45	51	35	38	60	44	17	32
	8/19/2020	86	50	56	45	43	67	40	17	21
	8/20/2020	76	59	43	38	37	41	30	16	20
	8/21/2020	86	46	43	35	34	66	50	14	27
	10/2/2020	62	74	86	72	66	63	64	30	48
	10/3/2020	69	74	83	81	67	62	62	20	35
2021	6/17/2021	72	41	31	40	38	61	40	18	N/A
2024	6/22/2024	73	41	22	32	31	50	N/A	28	29

Values greater than the state 8-hour ozone standard of 70 parts per billion (ppb) [equivalent to 0.070 parts per million (ppm)] are highlighted in yellow.

TABLE 2-2: CONTRIBUTING FACTORS TO THE EXCEEDANCE DAYS, 2019 - 2025

Exceedance Days	Contributing Factors	Max Ambient Temperature at Monitoring Station
10/6/2019	South-eastern transport winds.	Paradise Road: 89°F Las Flores Canyon: 74°F Carpinteria: 76°F
8/18/2020 to 8/21/2020	Northern California Wildfires with northern transport winds: <ul style="list-style-type: none"> LNU (Sonoma–Lake–Napa Unit) Lightning Complex, SCU (Santa Clara Unit) Lightning Complex, CZU (San Mateo–Santa Cruz Unit) Lightning Complex. 	Paradise Road: 105°F, 104°F, 98°F, 99°F
10/2/2020 to 10/3/2020	Creek Fire in Fresno County.	Las Flores Canyon: 97°F, 91°F Carpinteria: 89°F, 83°F Santa Barbara: 85°F, 80°F
6/17/2021	Heat wave with stagnant conditions.	Paradise Road: 99°F
6/22/2024	Heat wave with southerly transport winds.	Paradise Road: 99°F

Air Quality Indicators – Expected Peak Day Concentrations

One of the main indicators that is used to assess air quality trends is the Expected Peak Day Concentration (EPDC). The EPDC is calculated by CARB for each monitoring site and it represents the maximum ozone concentration expected to occur at the site each year. The EPDC is based on a statistical calculation using the daily maximum 1-hour and 8-hour ozone concentrations for the last three calendar years. For example, the 2024 EPDC for a monitoring site uses data from 2022, 2023, and 2024. The EPDC is useful for tracking air quality progress at individual monitoring stations since it is relatively stable, thereby providing a trend indicator that is not heavily influenced by year-to-year changes in meteorological conditions. Figures 2-2 and 2-3 show the 1-hour and 8-hour EPDC trends for the five monitoring sites in Santa Barbara County that typically record the highest ozone concentrations. These figures show that both the 1-hour and 8-hour expected peak day concentrations have significantly decreased since 1991.

The EPDC is an indicator representing the maximum ozone concentration expected to occur at a monitoring station.

EPDC Analysis and Designation Values

For Santa Barbara County to attain the state ozone standard, air quality measurements must show that both the 1-hour and the 8-hour standards were not violated during the previous three calendar years. As shown in Figure 2-1 above, there have been no exceedances of the 1-hour ozone standard and only one exceedance of the 8-hour ozone standard within CARB's most recently reviewed 3-year period (2022 - 2024). However, some exceedances may be excluded from the attainment designation process if they can be categorized as irregular or infrequent events.

For instance, if the measured ozone concentration at a monitoring site is higher than the Expected Peak Day Concentration for the site, then CARB's designation criteria considers it an *extreme concentration event*. Extreme concentration events are not violations of the state ozone standard since they are not representative of normal conditions. They are excluded because irregular conditions were causing the high concentration of ozone.

After these exclusions are applied, the *designation value* for a monitoring site is determined by the highest remaining, representative ozone concentration at that monitoring site over the last three years. If the designation value is higher than the state standard, then it indicates that a violation has occurred and the monitoring site does not attain the ozone standard. Table 2-3 presents the EPDCs and 8-hour ozone designation values for all Santa Barbara County monitoring stations for the last three years.

**FIGURE 2-2: STATE 1-HOUR OZONE EXPECTED PEAK DAY CONCENTRATIONS
AT THE TOP 5 SANTA BARBARA COUNTY MONITORING SITES, 1990 - 2024**

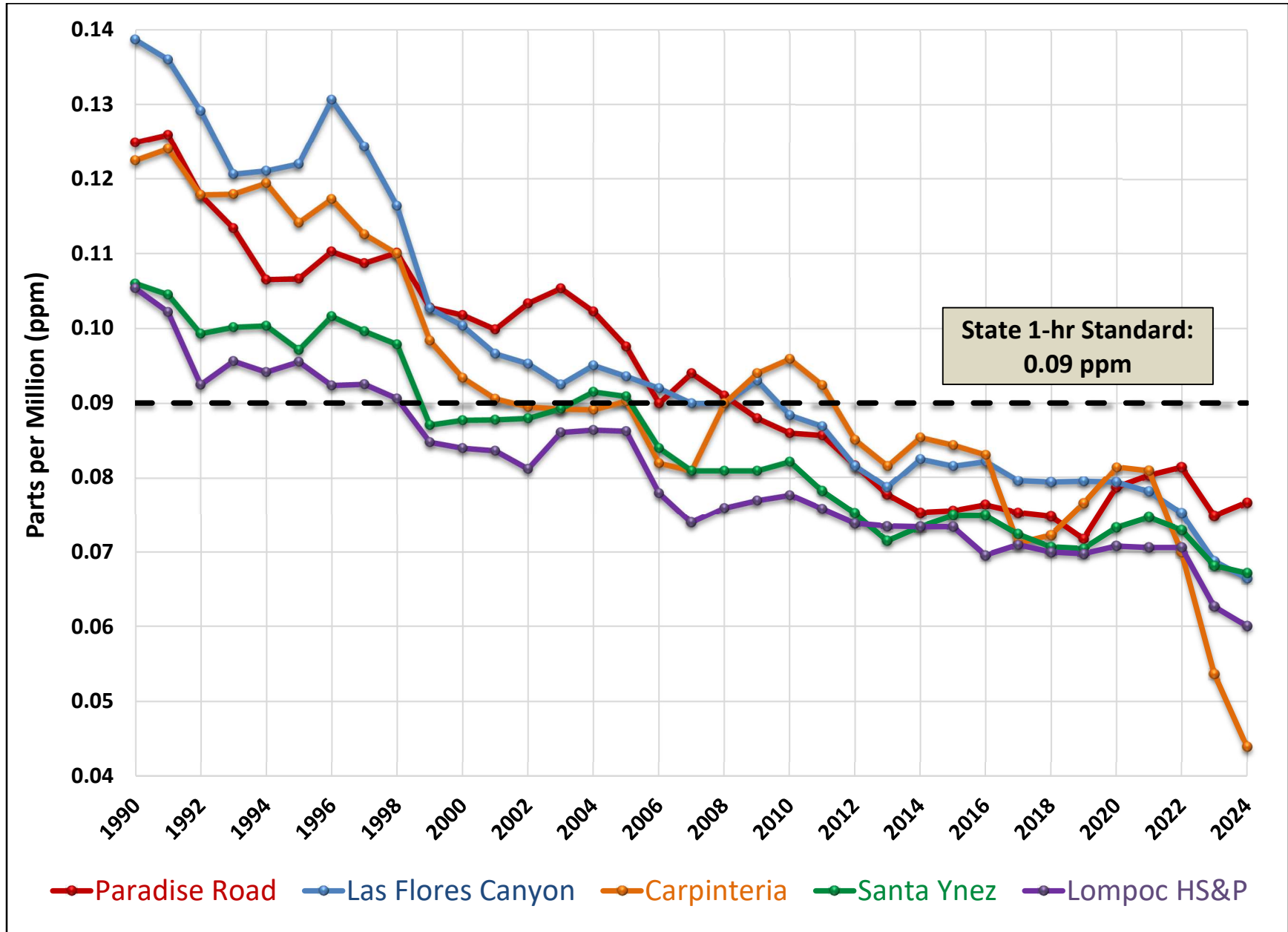


**FIGURE 2-3: STATE 8-HOUR OZONE EXPECTED PEAK DAY CONCENTRATIONS
AT THE TOP 5 SANTA BARBARA COUNTY MONITORING SITES, 1990 - 2024**

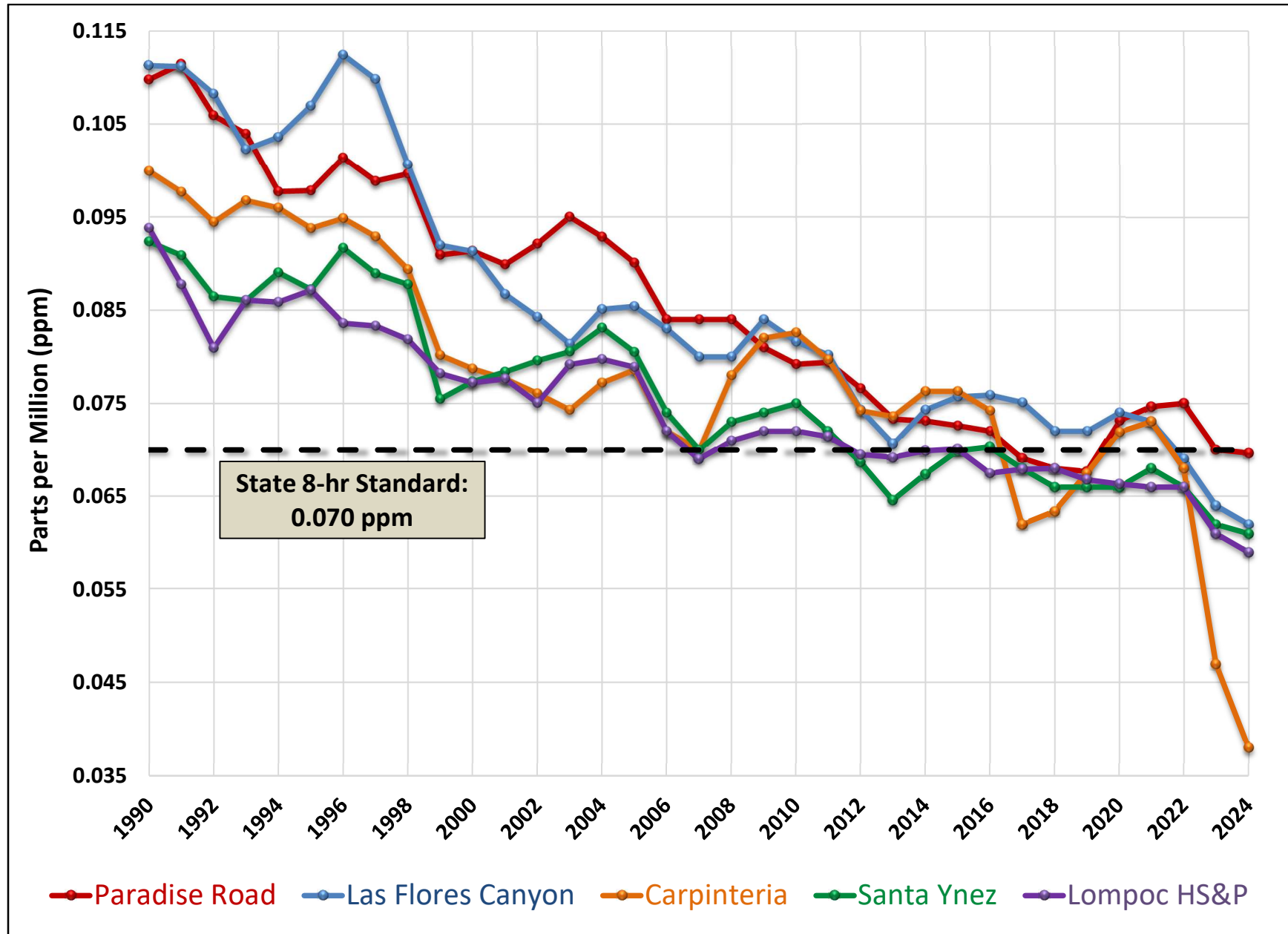


TABLE 2-3: SANTA BARBARA COUNTY 8-HOUR EPDCs AND DESIGNATION VALUES, 2022 - 2024

Monitor Location	State Criteria for 8-hour Ozone	Annual Values (ppm)		
		2022	2023	2024
Paradise Road	EPDC	0.075	0.070	0.070
	Designation Value	0.086	0.072	0.073
Las Flores Canyon	EPDC	0.069	0.064	0.062
	Designation Value	0.069	0.064	0.061
Carpinteria	EPDC	0.068	0.047	0.038
	Designation Value	0.086	0.047	0.038
Santa Barbara	EPDC	0.059	0.056	0.056
	Designation Value	0.058	0.056	0.056
Goleta	EPDC	0.059	0.055	0.055
	Designation Value	0.059	0.055	0.055
Santa Ynez	EPDC	0.066	0.062	0.061
	Designation Value	0.066	0.061	0.060
Lompoc HS&P	EPDC	0.066	0.061	0.059
	Designation Value	0.064	0.062	0.062
Lompoc H St.	EPDC	0.050	0.052	0.051
	Designation Value	0.049	0.052	0.051
Santa Maria	EPDC	*	0.053	0.053
	Designation Value	0.054	0.054	0.055

Invalid EPDC due to insufficient data are highlighted in gray.

Designation values greater than the state ozone standard of 0.070 ppm are highlighted in yellow.

As indicated in the table above, the monitoring sites at Paradise Road, Lompoc HS&P, and Santa Maria had invalid EPDCs in 2024. Paradise Road and Lompoc HS&P are both operated by a third-party consultant, and they experienced issues where the monitoring data did not meet all of the state's quality assurance criteria. These data issues have since been resolved by adjusting the monitoring station operating protocols, but the stations will continue to have invalid EPDCs for the next few years. Invalid EPDCs cannot be used to exclude the extreme concentration events at these sites, and thus, the designation value at these sites is simply the highest measured concentration at the site during the specified three-year period. As for the Santa Maria station, it has an invalid EPDC because the monitoring station was moved to a new location in 2022, and the new site needs to operate for longer before it can have a valid EPDC.

As indicated in the table above, Paradise Road is the only monitoring site with a designation value that is greater than the 8-hour ozone standard in 2024. If the EPDC for the site was valid, the Paradise Road exceedance would have been excluded as an extreme concentration event and not considered as the designation value and the County would have been designated as attainment based on the 2022 - 2024 monitoring data. District staff have discussed the situation

with CARB to see if any additional evaluations could be performed to make the Paradise Road EPDC valid. However, based on CARB’s codified designation criteria, the EPDC for Paradise Road is anticipated to remain invalid until the 2024 - 2026 monitoring data is reviewed and finalized. Hence, the County should expect to remain designated as nonattainment-transitional for the next few years with a potential change to ozone attainment effective January 2028.

Exceptional Events

In contrast to the EPDC process for extreme concentration events, another situation where an exceedance can be excluded is for an *exceptional event*. Exceptional events are identifiable events that are beyond reasonable regulatory control, such as wildfires, windstorms, fireworks, or industrial accidents. To have an exceedance excluded, the exceptional event must be documented in a District analysis and meet the following criteria⁴ before being approved by CARB:

- 1) The event meets the statutory definition of an exceptional event;
- 2) There is a clear causal relationship between the event and the measured exceedance(s);
- 3) The event was not reasonably controllable or preventable;
- 4) The event was a human activity that is unlikely to recur at a particular location, or was a natural event; and
- 5) A 30-day public comment period and the associated review procedures were followed.

If CARB agrees with the District’s assessment, then the event may be excluded for purposes of determining attainment with the ozone standard. The District actively tracks all ozone exceedances within the County and collects the necessary information to potentially make these exceptional event requests. However, the two most recent exceedances in Santa Barbara County in 2021 and 2024 were due to meteorological events involving high temperatures, which do not qualify as exceptional events.

⁴ As specified in the federal Exceptional Events Rule (80 FR 68216).

CHAPTER 3 – EMISSION INVENTORY

This chapter presents the reactive organic compound (ROC) and nitrogen oxide (NO_x) emission inventory used in the development of this 2026 Plan. The District's emission inventory accounts for pollutants emitted from all emission sources such as fuel combustion at industrial facilities, consumer product and solvent usage, and motor vehicles. The emission inventory is compiled through a collaborative effort by the District and CARB, and the emissions are classified under one of the following source categories:

- ❖ **Stationary Sources** – Larger facilities and processes that are typically subject to District permitting requirements.
- ❖ **Area-Wide Sources** – Small, geographically dispersed processes that are typically not subject to District permitting requirements.
- ❖ **Mobile Sources** – This source type is subdivided into two categories:
 - **On-Road Motor Vehicles** – Passenger cars, heavy-duty trucks, buses, etc.
 - **Other Mobile Sources** – Off-road equipment, harbor craft, trains, airplanes, etc.

The inventory includes emissions from two geographical regions: Santa Barbara County and the Outer Continental Shelf (OCS). The Santa Barbara County region encompasses all onshore sources of air pollution within Santa Barbara County and the State Tidelands (all waters within three nautical miles of the shoreline). The OCS extends from the State Tideland boundary out to 100 nautical miles from the shoreline.

The inventory presented in this chapter is a summer-seasonal, planning inventory. This is because most ozone exceedances occur during the warmer months from April to October, commonly referred to as “ozone season.” Hence, the inventory accounts for the seasonal variations from the emitting processes. The planning inventory does not include emission estimates from natural sources (e.g. biogenics, oil and gas seeps, and wildfires) since natural sources are not regulated nor controlled through the implementation of emission control measures. Additional information on natural sources can be found in Appendix A.

Base Year Inventory

For every inventory, a baseline year must be chosen. A base year inventory should represent current and accurate emissions, and so there is a general preference to choose a base year as recent as practical. This 2026 Plan uses 2023 as the base year because the 2023 inventory is the most recent and complete inventory available for all of the required analyses in this Plan. Furthermore, the 2023 base year data is being used in the most recent National Emission Inventory (NEI), and so it has been more thoroughly reviewed and refined for accuracy.

This Plan uses a 2023 Base Year since it is the most recent and complete inventory year for all of the required analyses.

The emission inventory is divided into four major categories: stationary, area, on-road motor vehicle, and other mobile sources. Emissions from each category are calculated with approved methodologies that use the most current data available for the category. For example, most stationary source emissions are calculated with annual data that facilities reported directly to the District. The area source emissions are estimated jointly by CARB and the District. Finally, CARB provides emission estimates for on-road motor vehicles as well other mobile sources such as ocean-going vessels, trains, aircraft, and agricultural equipment using the various calculation models for each sector.

Figure 3-1 shows the emissions and relative contribution of ROC and NO_x during 2023 for each source category. Due to the large amount of marine shipping emissions in the District's emission inventory, the District separates ocean-going vessels from the other mobile source categories so that the relative impact can be more easily identified. Some of the highlights of Figure 3-1 include the following:

- Stationary sources account for about 21% of the ROC inventory. The majority of these emissions are from oil & gas operations and coating and solvent operations.
- Area-wide sources account for about 45% of the ROC inventory. The majority of these emissions are from consumer product usage and pesticide usage.
- 73% of the NO_x inventory is attributed to ocean-going vessels in the OCS. Please see "Impacts from Marine Shipping" at the end of this chapter for further discussion on this source category.

The combined amount of ozone precursors (ROC + NO_x) is shown in Figure 3-2. The stationary source emissions are approximately 12% of the total inventory, which is a positive reflection of the District's stationary source control program.

FIGURE 3-1: BASE YEAR ROC AND NO_x EMISSIONS (TONS PER DAY) AND DISTRIBUTION (%)

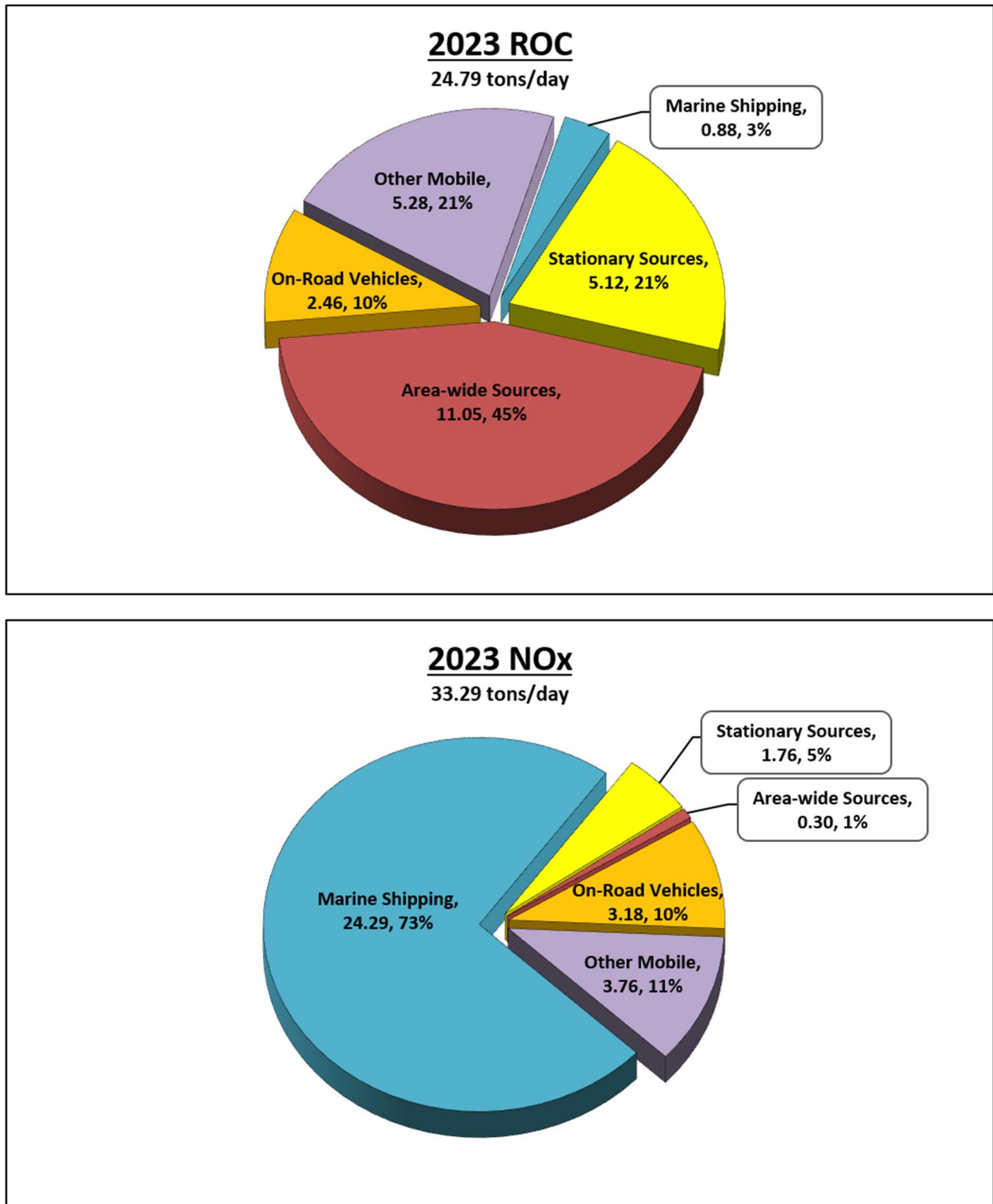
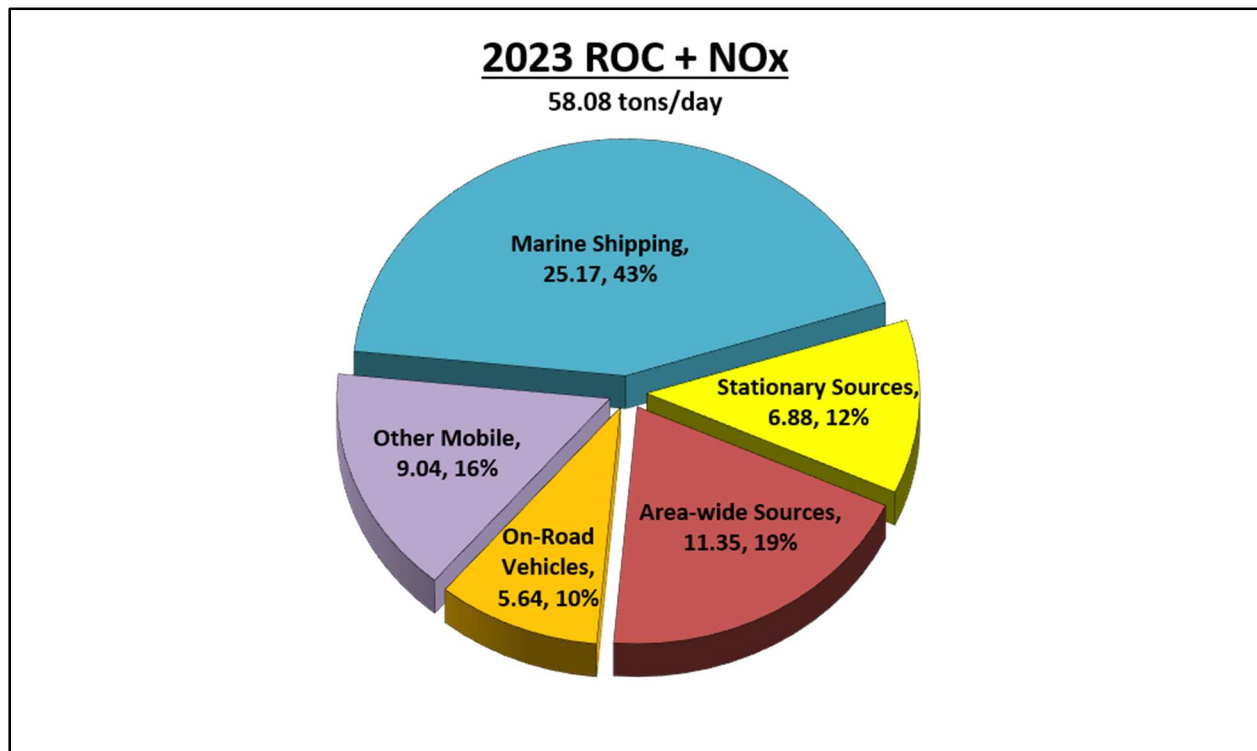


FIGURE 3-2: COMBINED BASE YEAR EMISSIONS (TONS PER DAY) AND DISTRIBUTION (%)



Growth Profiles

To understand how the emission inventory may change over time, the 2023 base year inventory is projected into the future using activity-specific growth profiles. Growth profiles contain the estimated changes in the values of pollution-producing activities, known as “activity indicators.” Examples of activity indicators include population, housing, and vehicle miles travelled. The ratio of these activity indicators (relative to the base year) establishes the growth rate for any linked emission-producing process. CARB has developed dozens of growth profiles by collecting information from reputable sources such as the California Department of Finance, the California Energy Commission, and the California Geologic Energy Management Division (CalGEM). These growth profiles are then applied to the affected source categories to help build the forecasted inventory. If the District has more accurate information or estimates based on local data, the District can work with CARB to refine the growth profiles.

In this plan, the growth profiles help determine what the projected emission inventory could look like in the years 2035 and 2045. Some of the key growth profile data is shown below in Table 3-1.

TABLE 3-1: SANTA BARBARA COUNTY GROWTH PROFILES

Activity Indicator	Units	Value			Growth Rate from 2023		Data Source
		2023	2035	2045	2035	2045	
Population	Residents	443,463	457,286	468,941	3%	6%	1
Housing	Households	151,318	159,930	165,700	6%	10%	1
Vehicle Miles Travelled	Million Daily Miles	9.34	10.33	10.52	11%	13%	2
Natural Gas Combustion: <i>Residential</i>	Million Therms	60.1	58.6	54.6	-3%	-9%	3
Natural Gas Combustion: <i>Commercial</i>	Million Therms	31.7	33.4	34.7	6%	10%	3
Natural Gas Combustion: <i>Industrial</i>	Million Therms	17.1	17.5	20.3	2%	19%	3
Petroleum Wells: <i>Onshore</i>	Active Oil & Gas Wells	876	776	702	-11%	-20%	4
Petroleum Wells: <i>Offshore</i>	Active Oil & Gas Wells	106	173	157	64%	48%	4
Ocean Going Vessels: <i>Auto Carriers</i>	Growth Rate	1.00	1.34	1.60	34%	60%	5
Ocean Going Vessels: <i>Containerships</i>	Growth Rate	1.00	1.39	1.72	39%	72%	5
Ocean Going Vessels: <i>Tankers</i>	Growth Rate	1.00	1.17	1.01	17%	1%	5

Data Source References:

- 1) Department of Finance, which is similar to the SBCAG Regional Growth Forecast 2050
- 2) SBCAG Regional Travel Demand Model and Connected 2050 Regional Transportation Plan and Sustainable Communities Strategy
- 3) REMI (Regional Economic Models, Inc.) output using California Energy Commission data
- 4) Staff estimate based on data from the California Geologic Energy Management Division (CalGEM) and the Marine Minerals Administration (MMA) [formerly Bureau of Ocean Energy Management (BOEM)]
- 5) Freight Analysis Framework model 5.1, compiled by the Bureau of Transportation Statistics and the Federal Highway Administration

Over the last few decades, oil & gas operations have gone through multiple cycles of growth and contraction based on market demands, product transportation methods, and technological innovations. On a statewide level, the California Air Resources Board estimates that oil production in California will decrease by approximately 2.9% each year.⁵ However, for some of the prior plans, the District has used a 0% growth rate for oil & gas-related activities due to uncertainty in the sector for Santa Barbara County over the long term. For the 2026 Plan, staff reviewed the historical records from both the California Geologic Energy Management Division (CalGEM) and the Marine Minerals Administration (MMA) to help establish new growth factors for both onshore and offshore activities based on local data.

Onshore Oil & Gas Growth Profiles

For onshore oil & gas activity, staff recommends using the total active oil & gas wells as the activity factor that correlates best with the actual NOx and ROC emissions from the oil & gas sector. Although idle wells are still a concern due to fugitive emissions from leaking components, active wells typically have more emissions due to the use of steam generators, well pump engines, storage tanks, and/or loading racks. Staff estimates that approximately 1% of active wells will be removed from service each year. This conservative trend is supported by the typical declining production capabilities of older oil wells, as observed from the CalGEM and MMA records.

At the Santa Barbara County Board of Supervisors meeting on October 21, 2025, the Board directed County staff to prepare an ordinance to prohibit the drilling of new oil and gas wells and develop a long-term plan to phase out existing oil and gas facilities and operations in the unincorporated areas of Santa Barbara County.⁶ The effort will be divided into a two-phase approach: (1) Phase I, draft amendments to prohibit drilling new oil and gas wells, and (2) Phase II, develop a plan to phase out existing oil and gas facilities and operations, which will include completion of an amortization study, conducting environmental review under CEQA, and ultimately drafting the necessary code amendments. Phase I of the ordinance was adopted at the Board of Supervisors meeting on September 15, 2026, while Phase II is anticipated to take up to three or more years to complete. Since Phase II of this ordinance is still under development, its impacts have not been fully analyzed nor incorporated into the growth projections in this Plan. District staff will continue to track the progress of the ordinance and incorporate any impacts into the next triennial plan update.

Offshore Oil & Gas Growth Profiles

Offshore emissions in the oil & gas sector have been greatly affected by the rupture of the Plains All American Pipeline, which occurred in May 2015. The shutdown of the pipeline has prevented multiple offshore facilities from producing oil, reducing their economic viability and

⁵ Based on statewide annual production reports from 2000 – 2016 from CalGEM, previously known as the CA Department of Conservation, Division of Oil Gas, and Geothermal Resources (DOGGR).

⁶ <https://santabarbara.legistar.com/LegislationDetail.aspx?ID=7705094&GUID=A0A78855-C3C4-4594-8C58-5AB29C7B1859&Options=&Search=>

forcing some operators to begin the decommissioning of their offshore platforms.

For offshore oil & gas activity, staff also recommends using the total active oil & gas wells as the activity factor that correlates best with both the actual NO_x and ROC emissions and estimates a 1% annual reduction in active wells. In Base Year 2023, approximately 106 wells were actively producing oil in the OCS. However, this plan forecasts that 173 total wells are actively producing oil in the OCS in Future Year 2035, corresponding to an increase in offshore oil & gas emissions by 64%. This forecasted increase is driven by the restart of the Sable Santa Ynez Unit. District staff are aware that there are multiple pending lawsuits and challenges regarding Sable's repair and use of the pipeline to deliver oil to market. These challenges create a high level of uncertainty in any potential emission forecast. Nevertheless, this Plan assumes that the Sable Santa Ynez Unit will be operating in Future Year 2035 based on the source's current operational status.

Under the current federal administration, new analyses are being conducted to propose additional OCS leases for sale for the next five-year period under the National OCS Oil and Gas Leasing Program. In the initial analysis, three OCS lease sales are being proposed in the Southern California region in the years 2027, 2029, and 2030.⁷ These sales could lead to additional emission increases in the surrounding waters of Santa Barbara County. However, due to the uncertainty surrounding these lease sales, no additional adjustments have been made to the OCS growth factors within this Plan.

As for the decommissioning of the existing offshore platforms, MMA published a study that addresses the various phases of the decommissioning process and the estimated air emissions to perform each phase.⁸ The analysis factored in the specific arrangements of each platform (age, location, water depth, bottom slope) and used many assumptions about the potential equipment available for decommissioning. For example, fully decommissioning a platform in shallow water may emit 300 tons of NO_x, while fully decommissioning a platform in deep water may emit up to 1,000 tons of NO_x over the entire project. The primary source of emissions from these projects includes commercial harbor craft, ocean-going vessels, and other construction-related diesel internal combustion engines (generators, compressors, and cranes).

Since there are several foreseeable decommissioning projects in the OCS waters surrounding Santa Barbara County, this Plan forecasts that a decommissioning project will occur in Future Year 2035. Based on the MMA estimates, the equipment used in the decommissionings would produce around 1.33 tons per day of NO_x and 0.11 tons per day of ROC. Due to the unique combination of equipment types being used for these types of projects, these emissions were then presented in a separate category for Platform Decommissioning. A more detailed and accurate emission estimate for platform decommissionings can be produced in future plans

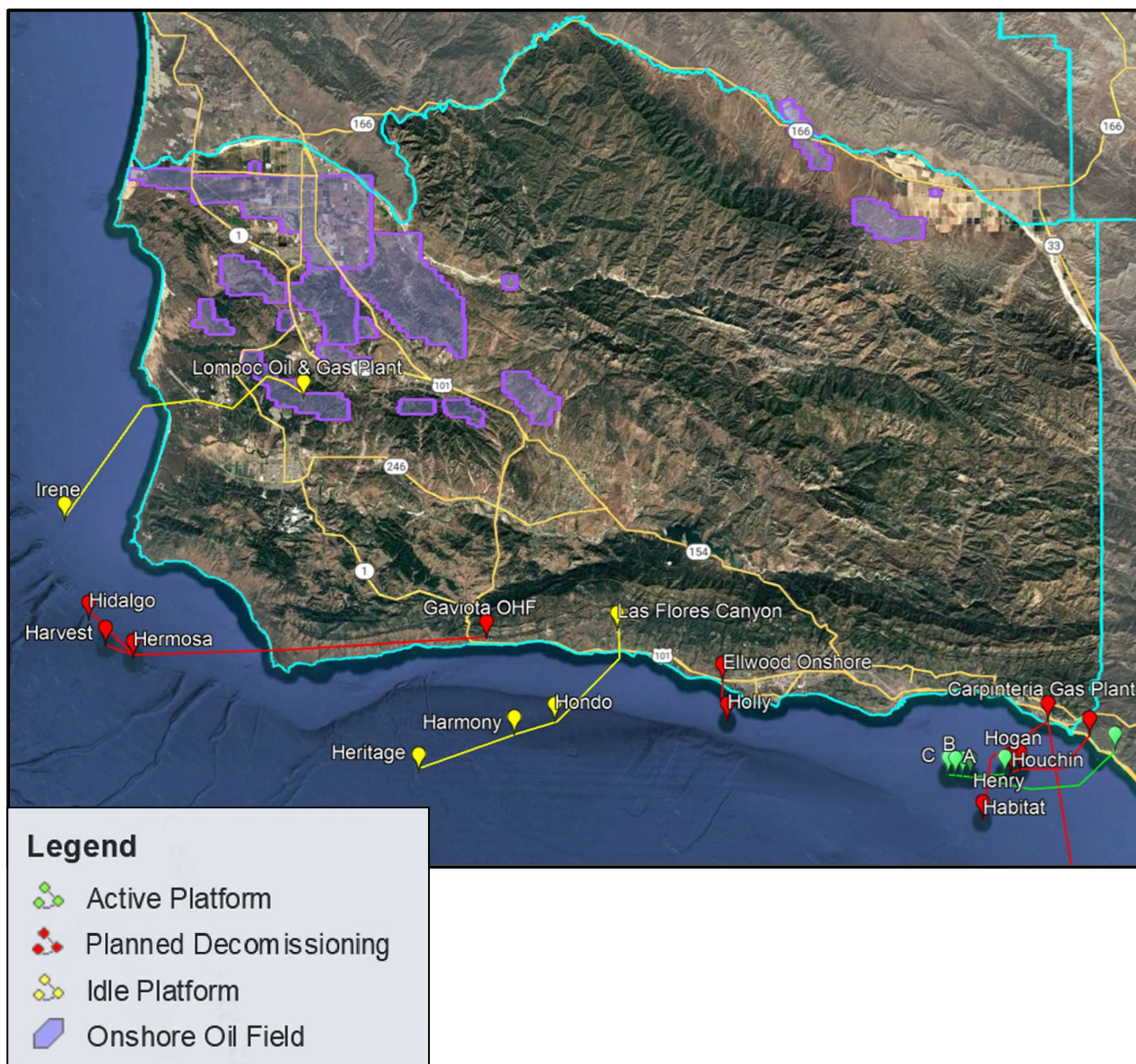
⁷ www.boem.gov/oil-gas-energy/national-program/national-ocs-oil-and-gas-leasing-program

⁸ OCS Study BOEM 2019-016 - US Department of the Interior Bureau of Ocean Energy Management Pacific OCS Region - Air Emissions Associated with Decommissioning Operations for Pacific Outer Continental Shelf Oil and Gas Platforms

when more specific project information becomes available. Additional guidance on the District's permitting requirements for decommissioning projects can be found on the District's website.⁹

To help visualize the various onshore and offshore oil and gas operations, as well as the base year 2023 operating status and planned decommissioning efforts for the offshore platforms, please see Figure 3-3 below.

**FIGURE 3-3: BASE YEAR 2023 -
ONSHORE OIL FIELDS AND OFFSHORE FACILITIES IN SANTA BARBARA COUNTY**



⁹ www.ourair.org/wp-content/uploads/Offshore-Platform-Decommissioning-Air-Quality-Guidance-May-2019-2.pdf

Inventory Forecast

Inventory forecasts are created through CARB’s California Emission Projection Analysis Model (CEPAM). CEPAM applies the growth profiles along with emission control profiles derived from existing local, statewide, and federal rules to forecast the emission inventory for future years. For this 2026 Plan, the growth and control profiles are applied to the 2023 Base Year Inventory to forecast District-wide ozone precursor emissions for 2035 and 2045. Table 3-2 displays a summary of the results grouped by source category. At the end of this chapter, Table 3-3 provides a detailed summary of emissions grouped by source sub-category, and Figures 3-4 and 3-5 provide graphical displays of the historical and projected emissions. Platform decommissioning emission estimates, as described in the “Offshore Oil & Gas Growth Profiles” section above, are also included as a separate line item on each of these tables and figures.

TABLE 3-2: ROC AND NOx EMISSION FORECAST SUMMARY

Source Category	ROC (tons per day)			% Change (2023 – 2045)
	2023	2035	2045	
Stationary Sources	5.12	5.43	5.70	11%
Area-wide Sources	11.05	11.38	11.69	6%
On-Road Vehicles	2.46	1.40	0.88	-64%
Other Mobile ¹⁰	5.28	3.10	2.51	-52%
Marine Shipping	0.88	0.95	0.98	12%
Platform Decommissioning	-	0.11	0.00	-
ERCs	-	0.39	0.39	-
Total	24.79	22.76	22.16	-11%

Source Category	NOx (tons per day)			% Change (2023 – 2045)
	2023	2035	2045	
Stationary Sources	1.76	1.62	1.63	-7%
Area-wide Sources	0.30	0.26	0.25	-18%
On-Road Vehicles	3.18	1.07	0.48	-85%
Other Mobile ¹⁰	3.76	2.76	2.42	-36%
Marine Shipping	24.29	23.88	14.20	-42%
Platform Decommissioning	-	1.33	0.00	-
ERCs	-	0.81	0.81	-
Total	33.29	31.73	19.77	-41%

The emission inventory forecasts have been adjusted upward based on the ERCs that were in the District Source Register as of December 2025. These ERCs represent previous voluntary emission reductions that can be purchased and/or used by a project applicant to compensate for emission increases from a new or modified stationary source. If the ERCs are used for future

¹⁰ Marine Shipping emissions have been broken-out of the “Other Mobile” category in this table.

projects, offset trading ratios may also be applied, further reducing the amount of potential emission increases related to the use of ERCs.

In reviewing the summary tables by source category and source sub-category, some of the overall inventory trends from the growth and control profiles can be identified. For example:

- There are expected increases in ROC emissions from stationary and area sources of pollution due to increases in population, which will increase consumer product and solvent usage.
- The impact of existing regulations for both on-road vehicles and other off-road mobile equipment will substantially reduce the ROC and NOx emissions from these categories over time. Even though the total population of these units is anticipated to increase, the transition to more zero-emission equipment and vehicles will dramatically reduce the emission contributions from these sectors.
- After factoring in the future growth and controls on the marine shipping sector, the emissions are expected to stay relatively stable and then start decreasing in ten years. This is further discussed in more detail in the next section, *Impacts from Marine Shipping*.

Impacts from Marine Shipping

Large ships traveling along the coast of Santa Barbara County produce significant air emissions. Every year, approximately 1,600 different ocean-going vessels (OGVs) make nearly 6,000 total transits through the Santa Barbara Channel Region. Due to the massive engines on these ships, these transits are responsible for more than 73% of the NOx inventory, making marine shipping the single largest source of NOx emissions in the County. The Santa Barbara area frequently experiences a pressure gradient that moves air from offshore to onshore. This means that air pollution produced by ships transiting off the coast can contribute to the ozone levels that are measured onshore.

Marine Shipping Emission Methodology

Marine shipping emissions are estimated by CARB using its OGV methodology. In April 2025, CARB published updates to the methodology which included more recent Automated Information System (AIS) speed data from the vessels. AIS is a tracking system where the location, speed, and directional data of each ocean-going vessel is transmitted to help avoid collisions. For air quality purposes, the AIS data is critical to documenting the impacts of these ships since it helps quantify the amount of fuel burned and pollutants emitted from the various vessel types.

Historically, many ships were travelling through the Santa Barbara Channel at a speed of 16 to 18 knots, but the revised methodology with the recent AIS data accounts for the ships that participate in the Protecting Blue Whales and Blue Skies Vessel Speed Reduction (VSR)

program.¹¹ For this voluntary VSR program, the District and its partners request companies to slow down to 10 knots or less off the California coast during the ozone and whale migration season. By slowing down, the vessels reduce fuel use, help protect endangered whales, and reduce ocean noise. Shipping companies then receive recognition based on their cooperation with the program parameters. This program, as well as other factors that promote slow-steaming operations, have significantly reduced the local NOx emissions from the marine shipping sector.

CARB's OGV methodology also incorporates estimates of future growth and trends in marine shipping activities. CARB is estimating a 3% annual increase in transport commodities, such as furniture, electronics, and other manufactured goods, to the Ports of Los Angeles and Long Beach. However, this does not mean that containership transits and emissions increase by 3% per year. There is an efficiency trend where smaller cargo ships that carried around 5,000 TEU (Twenty-foot Equivalent Units) containers are being replaced with larger vessels with capacities near 15,000 TEU. Containerships with larger capacities are more efficient in terms of energy consumption per TEU delivered, meaning that both fuel usage and air pollution will eventually trend downward.

There are also existing regulations under the International Maritime Organization (IMO) and United States Environmental Protection Agency (EPA) that require lower NOx standards for new vessel engines beginning in 2017. New engines that meet the Tier 3 standard emit approximately 80% less NOx compared to the Tier 1 and Tier 2 engines on existing vessels. However, OGVs are designed to remain in service for 25 years or more, and so it will take a long time to phase out the older, dirtier engines and realize the benefits of the new technologies on newer vessels. As of the 2025 VSR season, about 19% of the vessels visiting California are using Tier 3 engines, and we'll start to see more widespread adoption of these engines in the coming years.

Overall, NOx emissions from the marine shipping sector are forecasted to stay relatively stable over the next decade as the projected growth is counteracted by the natural attrition of the older and smaller vessels. During this time, the marine shipping sector continues to be the largest source of NOx within the County.

¹¹ www.bluewhalesblueskies.org

TABLE 3-3: EMISSIONS BY SOURCE SUB-CATEGORY (TONS PER DAY)

	ROC			NOx		
STATIONARY SOURCES	2023	2035	2045	2023	2035	2045
ELECTRIC UTILITIES	-	-	-	0.01	0.01	0.01
COGENERATION	0.01	0.01	0.01	0.02	0.02	0.03
OIL AND GAS PRODUCTION (COMBUSTION)	0.04	0.04	0.03	0.63	0.61	0.54
PETROLEUM REFINING (COMBUSTION)	-	-	-	-	-	-
MANUFACTURING AND INDUSTRIAL	0.02	0.02	0.02	0.37	0.37	0.42
FOOD AND AGRICULTURAL PROCESSING	0.02	0.01	0.01	0.22	0.17	0.17
SERVICE AND COMMERCIAL	0.05	0.05	0.05	0.33	0.27	0.27
OTHER (FUEL COMBUSTION)	-	-	-	0.04	0.04	0.04
SEWAGE TREATMENT	-	-	-	-	-	-
LANDFILLS	0.08	0.08	0.08	0.02	0.02	0.02
INCINERATORS	-	-	-	0.01	0.01	0.01
SOIL REMEDIATION	-	-	-	-	-	-
OTHER (WASTE DISPOSAL)	0.53	0.56	0.58	-	-	-
LAUNDERING	-	-	-	-	-	-
DEGREASING	0.54	0.60	0.76	-	-	-
COATINGS AND RELATED PROCESS SOLVENTS	0.40	0.46	0.58	-	-	-
PRINTING	0.24	0.25	0.28	-	-	-
ADHESIVES AND SEALANTS	0.38	0.37	0.36	-	-	-
OTHER (CLEANING AND SURFACE COATINGS)	0.09	0.10	0.12	-	-	-
OIL AND GAS PRODUCTION	1.83	1.98	1.79	0.04	0.05	0.04
PETROLEUM REFINING	0.04	0.04	0.04	-	-	-
PETROLEUM MARKETING	0.44	0.34	0.33	-	-	-
OTHER (PETROLEUM)	-	-	-	-	-	-
CHEMICAL	0.25	0.31	0.41	-	-	-
FOOD AND AGRICULTURE	0.16	0.20	0.24	-	-	-
MINERAL PROCESSES	-	-	-	0.04	0.05	0.05
ELECTRONICS	-	-	-	-	-	-
OTHER (INDUSTRIAL PROCESSES)	-	-	-	0.01	0.01	0.01
STATIONARY SOURCE TOTAL	5.12	5.43	5.70	1.76	1.62	1.63

TABLE 3-3: EMISSIONS BY SOURCE SUB-CATEGORY (TONS PER DAY)

AREA SOURCES	ROC			NOx		
	2023	2035	2045	2023	2035	2045
CONSUMER PRODUCTS	2.94	3.29	3.64	-	-	-
ARCHITECTURAL COATINGS AND SOLVENTS	0.68	0.72	0.73	-	-	-
PESTICIDES/FERTILIZERS	6.28	6.37	6.39	-	-	-
ASPHALT PAVING / ROOFING	0.11	0.12	0.12	-	-	-
RESIDENTIAL FUEL COMBUSTION	0.21	0.21	0.21	0.26	0.22	0.21
FARMING OPERATIONS	0.53	0.37	0.31	-	-	-
CONSTRUCTION AND DEMOLITION	-	-	-	-	-	-
PAVED ROAD DUST	-	-	-	-	-	-
UNPAVED ROAD DUST	-	-	-	-	-	-
FUGITIVE WINDBLOWN DUST	-	-	-	-	-	-
FIRES	-	0.01	0.01	-	-	-
MANAGED BURNING AND DISPOSAL	0.26	0.26	0.26	0.04	0.04	0.04
COOKING	0.03	0.03	0.04	-	-	-
OTHER (MISCELLANEOUS PROCESSES)	-	-	-	-	-	-
AREA SOURCE TOTAL	11.05	11.38	11.69	0.30	0.26	0.25

ON-ROAD MOTOR VEHICLES	2023	2035	2045	2023	2035	2045
LIGHT DUTY PASSENGER (LDA)	0.80	0.41	0.19	0.43	0.14	0.03
LIGHT DUTY TRUCKS - 1 (LDT1)	0.25	0.09	0.03	0.15	0.03	0.01
LIGHT DUTY TRUCKS - 2 (LDT2)	0.45	0.31	0.20	0.38	0.15	0.05
MEDIUM DUTY TRUCKS (MDV)	0.44	0.25	0.16	0.39	0.13	0.05
LIGHT HEAVY DUTY TRUCKS - 1 (LHDT1)	0.16	0.06	0.04	0.55	0.16	0.06
LIGHT HEAVY DUTY TRUCKS - 2 (LHDT2)	0.03	0.01	0.01	0.14	0.05	0.02
MEDIUM HEAVY DUTY TRUCKS (MHDT)	0.02	0.01	-	0.35	0.10	0.05
HEAVY HEAVY DUTY TRUCKS (HHDT)	0.01	0.01	0.01	0.61	0.22	0.17
MOTORCYCLES (MCY)	0.27	0.23	0.21	0.03	0.02	0.02
BUSES	0.01	0.01	0.01	0.12	0.05	0.02
MOTOR HOMES (MH)	0.01	-	-	0.02	0.01	0.01
ON-ROAD MOTOR VEHICLE TOTAL	2.46	1.40	0.88	3.18	1.07	0.48

TABLE 3-3: EMISSIONS BY SOURCE SUB-CATEGORY (TONS PER DAY)

	ROC			NOx		
OTHER MOBILE SOURCES	2023	2035	2045	2023	2035	2045
AIRCRAFT	0.12	0.14	0.15	0.17	0.23	0.26
TRAINS	0.01	0.01	0.01	0.30	0.30	0.27
OCEAN GOING VESSELS	0.88	0.95	0.98	24.29	23.88	14.20
COMMERCIAL HARBOR CRAFT	0.03	0.03	0.02	0.44	0.43	0.37
RECREATIONAL BOATS	3.05	1.92	1.59	0.73	0.67	0.67
OFF-ROAD RECREATIONAL VEHICLES	0.22	0.12	0.07	0.01	0.01	0.01
OFF-ROAD EQUIPMENT	1.39	0.56	0.39	0.77	0.44	0.39
OFF-ROAD EQUIPMENT (PERP)	0.02	0.01	0.02	0.15	0.10	0.11
FARM EQUIPMENT	0.27	0.15	0.10	1.19	0.58	0.35
FUEL STORAGE AND HANDLING	0.18	0.15	0.16	-	-	-
OTHER MOBILE SOURCE TOTAL	6.16	4.05	3.50	28.05	26.64	16.61

TOTAL – ALL SOURCE CATEGORIES	24.79	22.26	21.76	33.29	29.59	18.96
OFFSHORE PLATFORM DECOMMISSIONING *	-	0.11	0.00	-	1.33	0.00
EMISSION REDUCTION CREDITS	-	0.39	0.39	-	0.81	0.81
GRAND TOTAL FOR SANTA BARBARA COUNTY	24.79	22.76	22.16	33.29	31.73	19.77

* As described in the section “Offshore Oil & Gas Growth Profiles.”

** Cells with a “-” denote that the source category contributes less than 0.005 tons/day of ROC or NOx.

FIGURE 3-4: ROC EMISSION TRENDS BY SOURCE CATEGORY

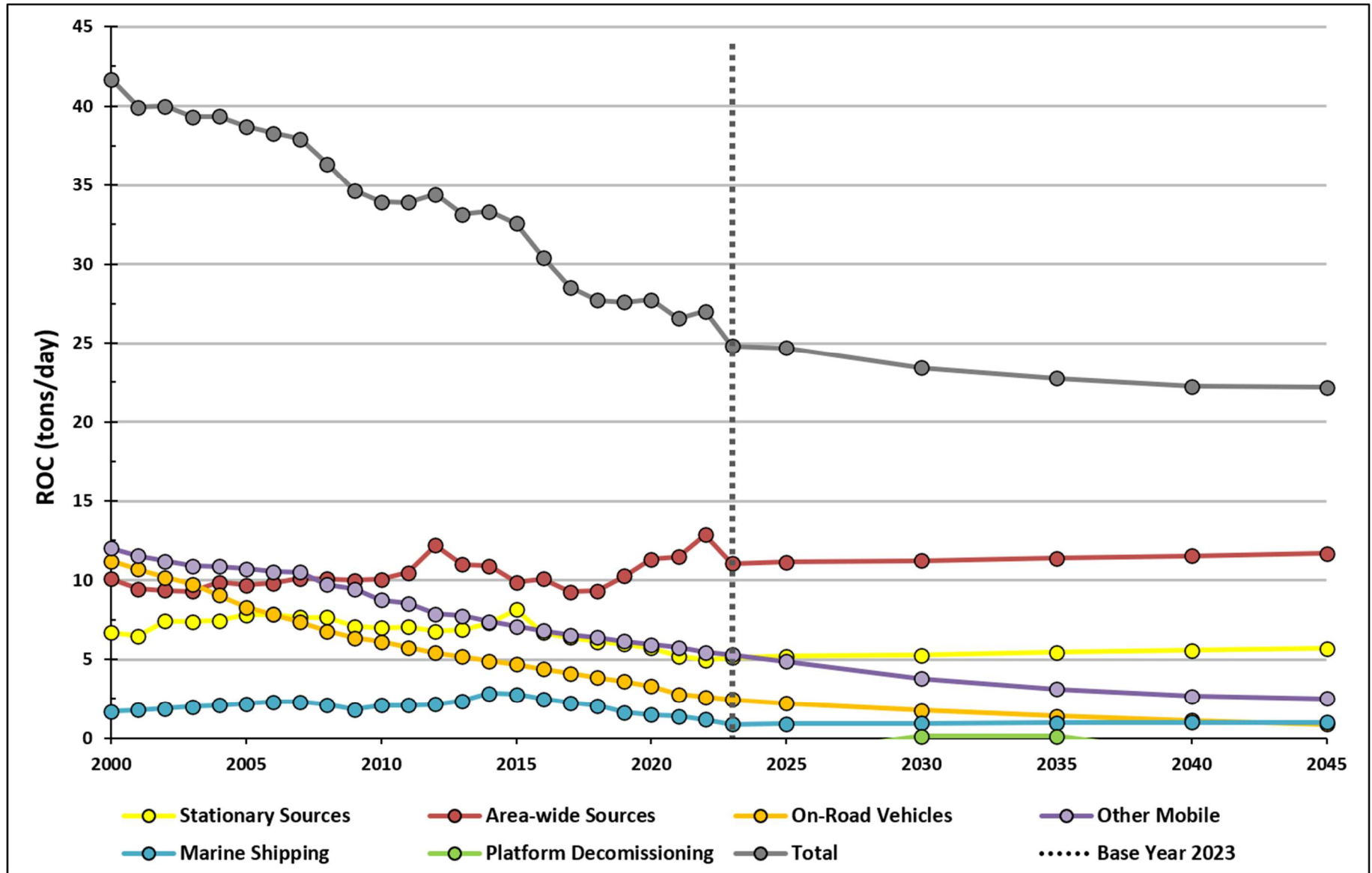
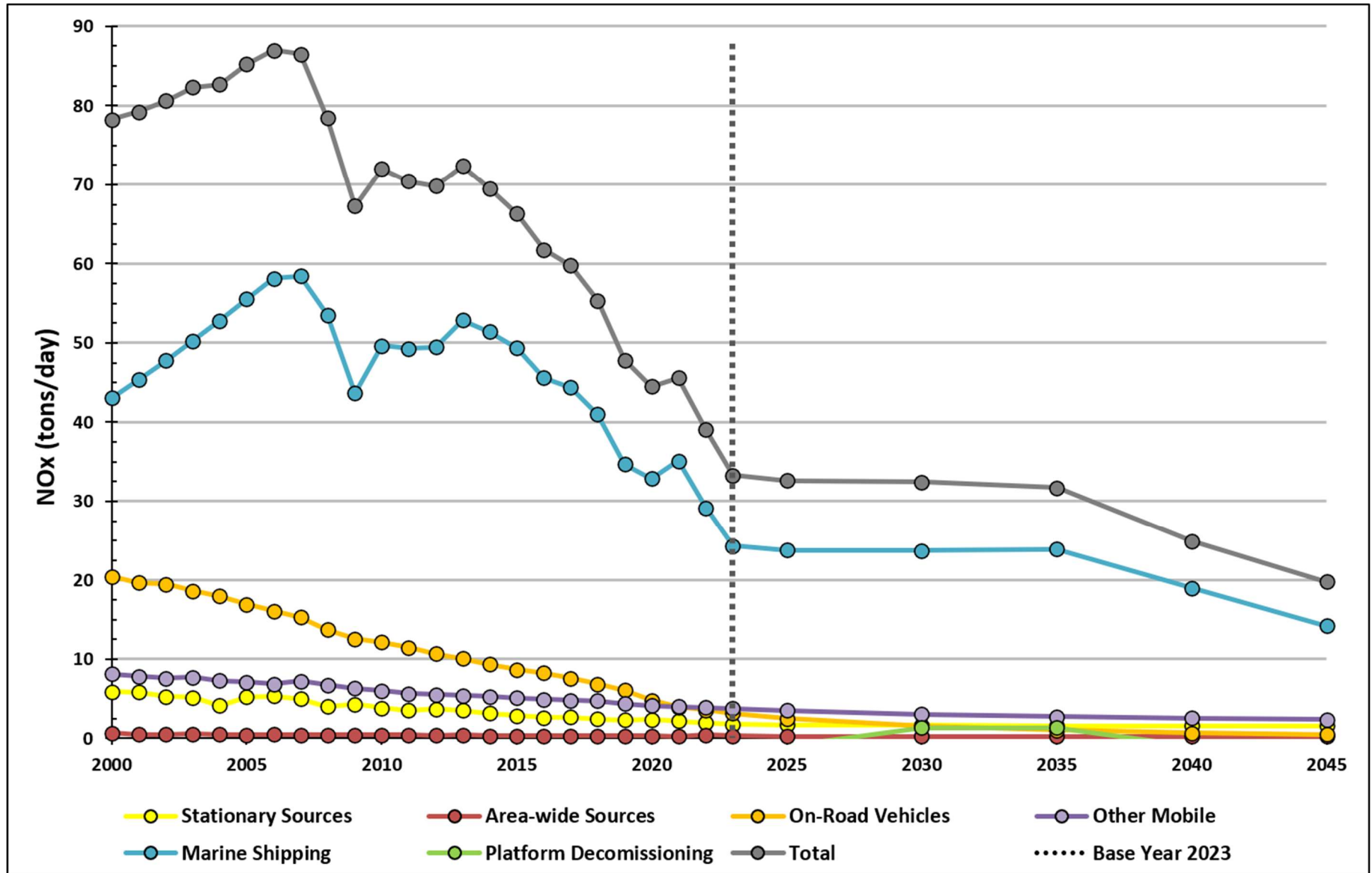


FIGURE 3-5: NOx EMISSION TRENDS BY SOURCE CATEGORY



CHAPTER 4 – STATIONARY AND AREA SOURCE CONTROL MEASURES

This chapter summarizes the emission control measures that reduce reactive organic compounds (ROC) and nitrogen oxides (NO_x) from stationary and area sources of air pollution. Control measures are categorized as *adopted*, *proposed*, *contingency*, or *further study*. The following describes the four control measure types:

- ❖ **Adopted** control measures are those that the District has formally adopted as District rules.
- ❖ **Proposed** control measures are those that the District plans to adopt for the purpose of attaining the state ozone standards by the earliest practicable date.
- ❖ **Contingency** measures are those that may be adopted if CARB determines that the District isn't making adequate progress towards attaining the standard.
- ❖ **Further study** measures are those that the District plans to investigate further before making a commitment to adopt them.

The proposed, contingency, and further study control measures are classified according to an analysis of their applicability to Santa Barbara County, their potential emission reductions, their cost-effectiveness, their feasibility to implement, and whether similar measures have already been adopted in other areas of California. The measures listed in these sections are only initial proposals based on the evaluation of currently available information. Prior to implementation, the measures would be subject to the established rule development process which includes industry outreach, Community Advisory Council meetings, and consideration by the District Board of Directors. During rule development, new information regarding the availability of control technologies, emission reduction potential, and costs of the measures may affect whether they are ultimately adopted or removed from further consideration.

Adopted Control Measures Prior to 2026 Ozone Plan

Since the original 1991 Air Quality Attainment Plan for the state ozone standard, the District has adopted 35 control measures that reduced ROC and NO_x emissions from stationary and area sources of air pollution. These control measures cover a wide-range of categories, which includes oil & gas facilities, automotive coating operations, residential furnaces, and internal combustion engines. The various control measures, their adoption dates, and the estimated emission reductions at the time of adoption can be found below in Tables 4-1 and 4-2.

TABLE 4-1: ROC EMISSION CONTROL MEASURES ADOPTED PRIOR TO THE 2026 OZONE PLAN

Rule	Control Measure	Adoption Date (Year - Month)	Main Change	Est. Reductions (tons per year)
339	Motor Vehicle and Mobile Equipment Coating	1991 - 11	New Rule	124 tpy
331	Fugitive Emissions Inspection and Maintenance	1991 - 12	Expand Monitoring	1,700 tpy
329	Cutback and Emulsified Asphalt Paving Materials	1992 - 02	Lower ROC limits	331 tpy
346	Loading of Organic Liquid Cargo Carriers	1992 - 10	New Rule	11 tpy
349	Polyester Resin Operations	1993 - 04	New Rule	3 tpy
351	Surface Coating of Wood Products	1993 - 08	New Rule	21 tpy
343	Petroleum Storage Tank Degassing	1993 - 12	New Rule	13 tpy
326	Storage of Reactive Organic Compound Liquids	1993 - 12	Expand Applicability	171 tpy
325	Crude Oil Production and Separation	1994 - 01	Expand Applicability	
354	Graphic Arts	1994 - 06	New Rule	15 tpy
344	Petroleum Sumps, Pits and Well Cellars	1994 - 11	New Rule	255 tpy
341	Municipal Solid Waste Landfills	1997 - 09	New Rule	92 tpy
353	Adhesives and Sealants	1999 - 08	New Rule	79 tpy
323	Architectural Coatings	2001 - 11	Lower ROC limits	41 tpy
339	Motor Vehicle and Mobile Equipment Coating	2008 - 06	Lower ROC limits	51 tpy
321	Solvent Cleaning Operations	2010 - 09	Lower ROC limits	192 tpy
330	Surface Coating of Metal Parts and Products	2012 - 06	Lower ROC limits	5 tpy
337	Surface Coating of Aerospace Vehicles	2012 - 06	Lower ROC limits	1 tpy
349	Polyester Resin Operations	2012 - 06	Lower ROC limits	1 tpy
353	Adhesives and Sealants	2012 - 06	Lower ROC limits	2 tpy
323.1	Architectural Coatings	2014 - 06	Lower ROC limits	98 tpy
Total: 3,204 tons/year ROC (or 8.78 tons/day)				

TABLE 4-2: NO_x EMISSION CONTROL MEASURES ADOPTED PRIOR TO THE 2026 OZONE PLAN

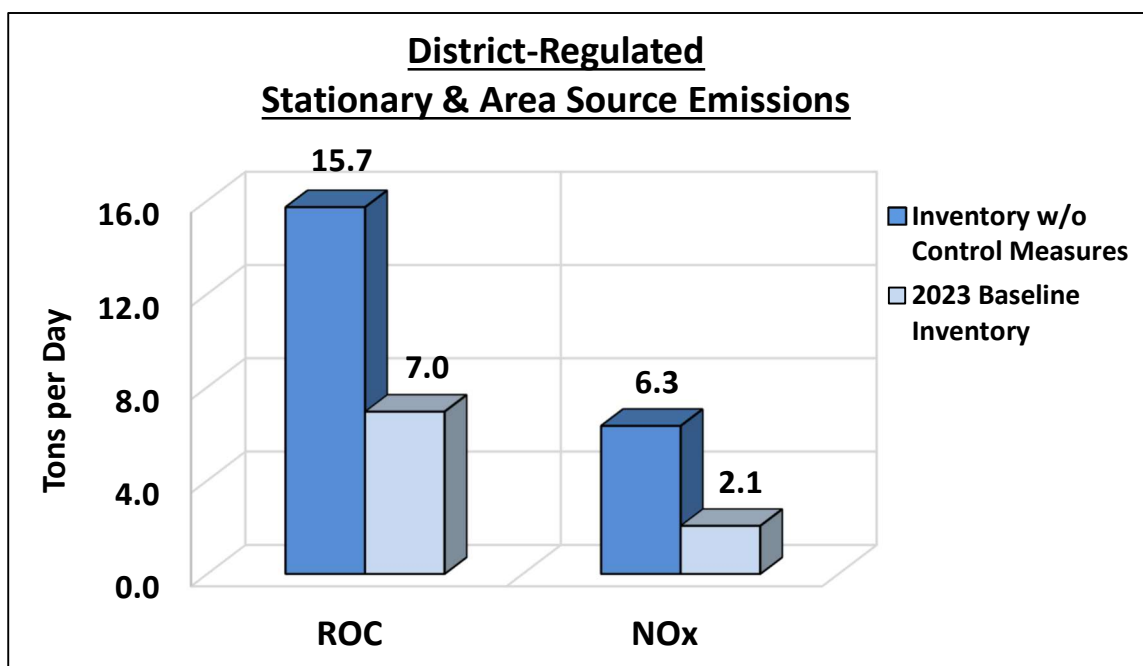
Rule	Control Measure	Adoption Date (Year - Month)	Main Change	Est. Reductions (tons per year)
333	Reciprocating Internal Combustion Engines	1991 - 12	New Rule	1,200 tpy
342	Boilers, Steam Generators (5+ MMBtu/hr)	1992 - 03	New Rule	82 tpy
359	Flares and Thermal Oxidizers	1994 - 06	New Rule	7 tpy
352	Natural Gas Furnaces and Small Water Heaters	1999 - 09	New Rule	22 tpy
360	Boilers and Water Heaters (0.075 - 2 MMBtu/hr)	2002 - 10	New Rule	38 tpy
361	Boilers, Steam Generators, Heaters (2 - 5 MMBtu/hr)	2008 - 01	New Rule	17 tpy
333	Reciprocating Internal Combustion Engines	2008 - 06	Expand Applicability	7 tpy
352	Natural Gas Furnaces and Small Water Heaters	2011 - 10	Lower NO _x limits	60 tpy
360	Boilers and Water Heaters (0.075 - 2 MMBtu/hr)	2018 - 03	Lower NO _x limits	21 tpy
361	Boilers, Steam Generators, Heaters (2 - 5 MMBtu/hr)	2019 - 06	Lower NO _x limits	8 tpy
342	Boilers, Steam Generators, Heaters (5+ MMBtu/hr)	2019 - 06	Lower NO _x limits	9 tpy
--	BARCT - Reciprocating Internal Combustion Engines	2023 - 03	Lower NO _x limits	73 tpy
--	BARCT - Miscellaneous Combustion Sources	2023 - 10	Lower NO _x limits	1 tpy ¹²
--	BARCT - Stationary Gas Turbines	2024 - 01	Lower NO _x limits	19 tpy ¹³
Total: 1,563 tons/year NO_x (or 4.28 tons/day)				

¹² Emission reductions only apply if the low-use exemption for the affected equipment is exceeded.

¹³ Emission reductions only apply if the affected oil & gas facility restarts operations. Estimates are based on normal operating parameters for the affected facility.

To help demonstrate the impact of these adopted control measures, District staff created a simple scenario of what the stationary and area source emission inventory could look like without the measures. This scenario starts with the 2023 Baseline inventory, but excludes specific area source categories that are outside of the District’s regulatory purview such as consumer products and pesticides & fertilizers.¹⁴ This District-regulated baseline inventory is then compared to a new total where the estimated emission reductions, as shown in Tables 4-1 and 4-2 above, are added to the baseline. As shown in Figure 4-1 below, this simplified methodology shows that the stationary and area source emission inventory would be more than twice as large if no emission control measures had been adopted and implemented by the District.

FIGURE 4-1: ESTIMATED IMPACT OF DISTRICT CONTROL MEASURES



Assembly Bill 617 (AB 617) Best Available Retrofit Control Technology

For the last three-year period, rule development efforts have been focused on researching and implementing the AB 617 Best Available Retrofit Control Technology (BARCT) requirements for the industrial sources of air pollution within the County.¹⁵ Under the AB 617 mandate, the District completed three BARCT assessments in the last three-year period as shown above in Table 4-2. All of these BARCT assessments were completed without a formal rule proceeding since the affected facilities incorporated all BARCT requirements directly into their operating permits. The NOx reductions achieved from implementing BARCT at these sources will help the District attain and maintain the ozone standard.

¹⁴ CARB has been in charge of regulating consumer products for more than 30 years and the California Department of Pesticide Regulation (DPR) is in charge of regulating pesticides & fertilizers.

¹⁵ “AB 617 industrial sources” are large sources in the County that are subject to the CARB Cap and Trade Program due to their greenhouse gas emissions.

Proposed Control Measures

Under the California Clean Air Act, each air district that is nonattainment for the state ozone standard must demonstrate a 5% reduction in emissions per year or adopt every feasible measure available. Since previous Ozone Plans have shown that the District cannot achieve emission reductions of 5% per year, the District has historically taken the approach of evaluating and adopting every feasible measure on an expeditious adoption schedule. To ensure that the District has adopted or has proposed to adopt every feasible measure, staff performed the following:

- Compared the District's rules to rules currently adopted by other California air districts;
- Reviewed new staff reports and guidance documents on any recent or upcoming revisions to other California air district, CARB, and EPA rules; and
- Considered the magnitude of the emissions reductions, the cost-effectiveness of the measures, and the feasibility to implement the new requirements.

Since 2017, the District has also considered the nonattainment-transitional designation in determining whether any new stationary or area source control measures are needed to accomplish expeditious attainment of the state ozone standards. In making this determination, the District needs to consider air quality trends, the current and projected emission inventory, and any other upcoming state regulations or trends that can influence the emission inventory. The District's 2017 analysis also showed that the region tends to be NO_x-limited, and so focusing on additional NO_x reductions can be more effective at reducing regional ozone concentrations.

In reviewing the literature and all the factors described above, no new feasible control measures were identified for adoption within the upcoming 3-year period covered by this Plan.

Contingency Measures

Contingency measures are potential control measures that may be adopted if CARB determines that the District isn't making adequate progress towards attaining the standard. If CARB makes such a determination, the District has 180 days to adopt the contingency measure as a rule. This means that a contingency measure needs to be refined enough that it could be adopted under the timeline required by California Health and Safety Code. The two solvent-related measures from the prior 2022 Plan have been retained as contingency measures for this 2026 Plan. The contingency measures are shown in Table 4-3 below, and a brief description of each measure is included to provide context.

TABLE 4-3: CONTINGENCY MEASURES FOR THE 2026 PLAN

Rule	Description	Potential Emission Reductions
321	Solvent Cleaning Machines and Solvent Cleaning Revisions to lower the general cleaning ROC limit from 50 grams per liter (g/L) to 25 g/L.	6.4 tpy ROC
351	Surface Coating of Wood Products Revisions to include solvent cleaning provisions at 25 g/L.	0.4 tpy ROC

Solvent Cleaning Machines and Solvent Cleaning

Many industries use solvents to help clean their manufactured products or to maintain their production equipment and general work areas. The District originally adopted Rule 321 in February 1975 with very basic solvent requirements. In 2010, the rule was revamped as it transitioned many industries from using organic-based solvents, which typically have a ROC content of around 800 grams per liter, to aqueous solvents with a ROC content of 50 g/L. This contingency measure would implement an even lower 25 g/L ROC standard. The 25 g/L standard is already incorporated into other prohibitory rules at the District, such as Rules 330, 337, 349, and 353 (which affect Metal Parts, Aerospace, Polyester Resin, and Adhesive operations). The lower standard would be applicable to general solvent operations not covered by the aforementioned rules, and it would require operators to further dilute their solvent mixture or to switch to another compliant solvent. More information on compliant solvents can be found at the South Coast AQMD's Clean Air Solvent website.¹⁶

Surface Coating of Wood Products

Similar to the solvent cleaning measure above, this Contingency Measure would add more solvent cleaning provisions to Rule 351, which is only applicable to operations performed in wood shop applications. Rule 351 was originally adopted in 1993 to establish ROC limits on wood coating operations, and only very basic solvent requirements were included at the time. This contingency measure would implement a 25 g/L ROC standard for solvents used at a wood shop, and the measure may require the facilities to use a spray gun washer to clean the spray guns used in the coating operation. These solvent standards have been in place at a number of other air districts since 2010.

¹⁶ www.aqmd.gov/home/programs/business/business-detail?title=certified-clean-air-solvents

Further Study Measures

Further Study measures are potential control measures that the District plans to track and investigate further to determine if they are feasible to adopt within Santa Barbara County. The further study measures are shown below in Table 4-4, and a brief description of each source category is included to provide context about the measure.

TABLE 4-4: FURTHER STUDY MEASURES FOR THE 2026 PLAN

Rule	Description	Potential Emission Reductions
—	Organic Material Composting Operations Require management practices for small composting facilities and control devices for larger facilities.	28 tpy ROC
352	Natural Gas-Fired Furnaces and Small Water Heaters Revisions to lower the NOx emission limits from 55 ppm to 20 ppm for new residential furnaces [Point of Sale rule].	60 tpy NOx

Organic Material Composting Operations

Composting is a relatively new source category that involves the aerobic decomposition of organic solid waste materials, such as green waste, manures, biosolids, and food waste. The composting process can generate odors as well as a substantial amount of ROC and ammonia emissions. Composting facilities are under the regulatory umbrella of CalRecycle, with many regulations being enforced by the Local Enforcement Agency (Santa Barbara County Public Health – Environmental Health Services).

Composting has been on the District’s Further Study list since the 2013 Plan, but this source category is still being evaluated on a statewide level due to the implications of Senate Bill (SB) 1383, enacted in 2016. SB 1383 mandates that CalRecycle reduces the disposal of organic materials in landfills by 75% by 2025 (compared to a 2014 baseline year). This means that new or expanded compost operations will be required statewide, and additional collaboration is necessary among the various stakeholders to address the challenges of the expansion as it relates to the existing air quality laws and requirements. Potential emission control strategies for composting operations include using best management practices or control devices to reduce ROC and ammonia emissions. District staff will continue to track new information on this item and assess whether an official rule development proceeding is warranted.

Natural Gas-Fired Furnaces and Small Water Heaters

The District adopted Rule 352 in September 1999 to address NOx certification requirements for newly installed natural gas furnaces and water heaters. Rule 352 applies to furnaces that have a heat input capacity less than 175,000 Btu/hr and water heaters that have a heat input capacity less than 75,000 Btu/hr. These units are typically installed in residences and do not require a Permit to Operate from the District, and so the rule is organized as a “Point of Sale” rule where the manufacturers must sell units that are certified to the NOx standards. A 55 ppm NOx standard for both water heaters and furnaces was initially adopted for the 1999 rule, and the certification level for water heaters was lowered to 15 ppm NOx during the 2011 rule amendments.¹⁷

For this Further Study measure, District staff is investigating whether a 20 ppm NOx certification level for new furnaces is warranted. The South Coast AQMD and the San Joaquin Valley APCD have already adopted the 20 ppm NOx standard, and the San Diego County APCD has recently followed suit. In Santa Barbara County, residential furnaces contribute approximately 95 tons per year of NOx to the emission inventory. If this measure was adopted locally, it may reduce emissions by 60 tons per year after the end of the 20-year implementation period (which is the expected lifespan of the equipment). To achieve the 20 ppm NOx standard, manufacturers may incorporate ultra-low NOx burners into the furnace design. The additional costs of these burners would most likely be passed to the consumer, resulting in an increase of approximately \$500 per furnace.

At this time, staff proposes to keep this measure as Further Study due to recent efforts by the California Air Resources Board as they explore a zero-emission standard for this type of equipment. Under their 2022 Statewide SIP strategy, CARB is evaluating a new zero-emission standard for furnaces and water heaters sold in California that have a rated heat input capacity up to 2,000,000 Btu/hour. This measure may require that beginning in 2030, new furnaces and water heaters sold in California (for either new construction or replacement of existing equipment) would need to meet a zero-emission NOx standard. It is expected that this regulation would rely heavily on electric heat pump technologies, and most natural gas units would be phased out. The Bay Area AQMD has already adopted a similar measure for their jurisdiction in 2023, with additional amendments being discussed to address affordability and additional exemptions. District staff will continue to track new information on these proceedings and assess whether a zero-emission standard is feasible within Santa Barbara County.

¹⁷ NOx ppm values are all referenced to 3% stack gas oxygen.

CHAPTER 5 – ON-ROAD TRANSPORTATION CONTROL MEASURES

In June 1993, the boards of the Santa Barbara County Association of Governments (SBCAG) and the Santa Barbara County Air Pollution Control District (District) jointly approved a Memorandum of Understanding (MOU), which allowed for SBCAG to incorporate the necessary transportation elements into the District's air quality plans. Throughout this cooperative effort, a number of transportation control measures (TCMs) have been analyzed and implemented. These TCMs have helped reduce the rate of increase in passenger vehicle trips and vehicle miles travelled (VMT), as required by California Health and Safety Code. This chapter includes a discussion of the TCMs and an update on the recent vehicle activity trends within the County.

Vehicle Activity Trends

On-road vehicle emissions make up a large portion of the District's inventory as tens of thousands of cars and trucks are driven on the roadways every day. As each vehicle travels a different distance, the main trend to look at is the total amount of daily VMT within the County.¹⁸ The total amount of daily VMT between 1990 and 2024 is shown in Figure 5-1 below, and the data was compared against the population within the County. Although there are noticeable spikes and dips over the years, the overall VMT growth for the entire period from 1990 to 2024 is less than the population growth (i.e., 20% growth in population and a 15% growth in VMT). To help identify any changes in driving behavior over the various time periods, Table 5-1 shows the average annual growth rates for population and VMT broken down into smaller time periods.

¹⁸ Countywide VMT data is the Caltrans Public Road data derived from the Highway Performance Monitoring System.

FIGURE 5-1: VEHICLE ACTIVITY TRENDS, SANTA BARBARA COUNTY, 1990 - 2024

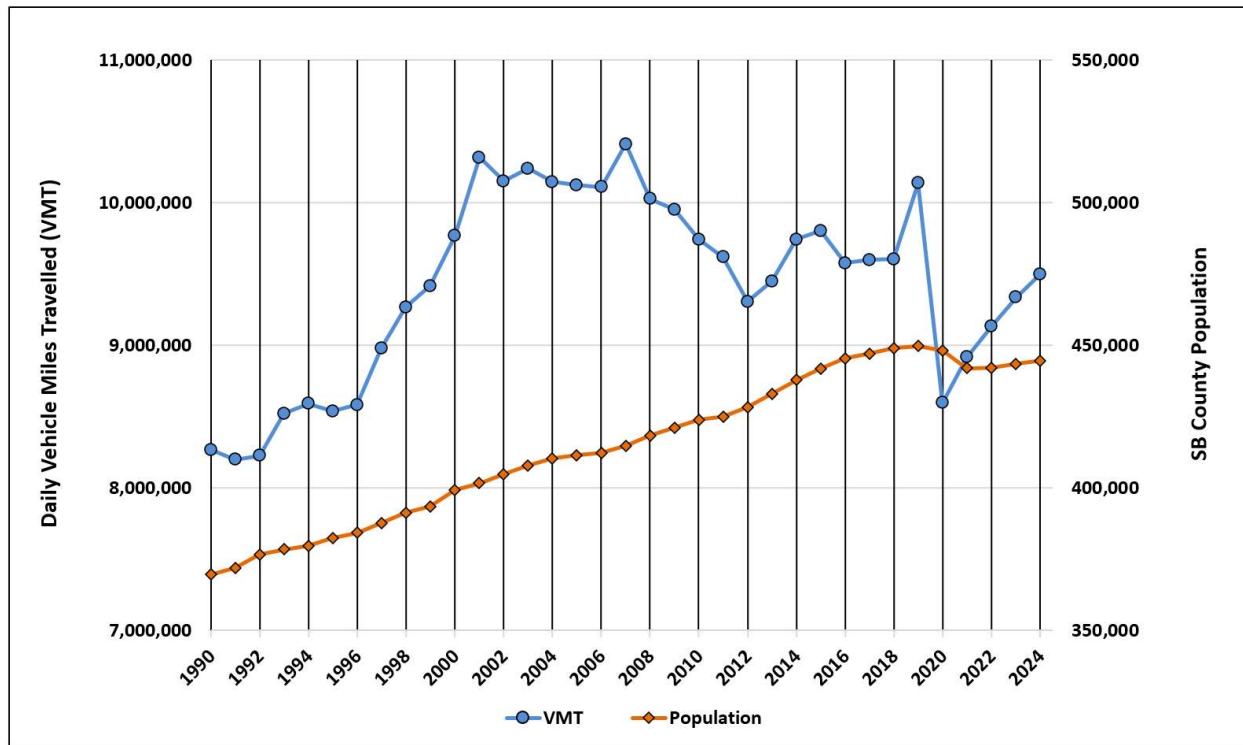


TABLE 5-1: POPULATION AND VMT ANNUAL GROWTH RATES, BY TIME PERIOD

Time Period	Population Average Annual Growth Rate	VMT Average Annual Growth Rate	Time Period Analysis
1990 - 2001	0.79%	2.25%	VMT Growth
2001 - 2007	0.54%	0.15%	VMT Stable
2007 - 2012	0.66%	- 2.12%	Great Recession
2012 - 2019	0.72%	1.28%	Recovery
2019 - 2020	- 0.35%	- 15.20%	COVID-19
2020 - 2024	- 0.21%	2.63%	Recovery
1990 - 2024	0.60%	0.44%	Overall

As shown in the table, VMT growth significantly outpaced population growth during the 1990s. Whereas in the early 2000s, the trend reversed. VMT growth slowed down and was held to near-zero levels, partly due to the successful implementation of TCMs. However, many factors can influence the region’s VMT, such as the unemployment rate, the price of fuel, and the cost of housing.

The COVID-19 global pandemic and subsequent emergency shut-downs beginning in March 2020 had a tremendous influence on regional travel patterns. As shown in Figure 5-1,

countywide VMT decreased by approximately 15% in 2020, to levels not seen for nearly 25 years. COVID-19 also forced many companies to analyze how people work and allowed for more telecommuting options. Although the Countywide daily VMT is starting to recover to its pre-pandemic levels, businesses may continue policies that allow for telecommuting, thereby reducing countywide VMT. The lasting effects of the COVID-19 global pandemic will require careful analysis and monitoring going forward.

Transportation Control Measures

The main way SBCAG and the District help reduce the amount of VMT is through the implementation of locally adopted transportation control measures. The California Health and Safety Code defines “transportation control measures” as:

...any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions. (CH&SC §40717(g))

Under the federal Clean Air Act, a transportation control measure is any measure:

...listed in CAA §108, or any other measure for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions.

Notwithstanding the above, vehicle technology-based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs for the purposes of this subpart. (40 CFR 93.101)

Generally, TCMs are programs or activities that states and localities can implement to encourage the traveling public to rely less on the automobile or to use the automobile more efficiently. TCMs reduce emissions from on-road motor vehicles by improving the existing transportation system to allow vehicles to operate more efficiently, inducing people to change their travel behavior to less polluting modes, or ensuring emission control technologies are expeditiously realized. Examples of TCMs include:

- 1) Improved public transit programs,
- 2) Adding new pedestrian paths and bicycle lanes,
- 3) Restriction of roads to high-occupancy vehicles,
- 4) Programs for shared-ride services,
- 5) Adding park-and-ride facilities,
- 6) Traffic flow improvement projects,
- 7) Programs to control extended vehicle idling,
- 8) Transportation demand management programs, and
- 9) Programs that facilitate the voluntary removal of older light-duty autos and trucks.

SBCAG’s Connected 2050 Regional Transportation Plan and Sustainable Communities Strategy (RTP-SCS) explores the region’s land use and travel patterns, accounts for the demographic growth that will force new demands on both, and presents a vision for how they can work together to satisfy the goals important to the region.¹⁹ One of the five goals of the RTP-SCS focuses on the environment, and it aims to “Foster patterns of growth, development and transportation that protect natural resources and lead to a healthy environment.” Some of the objectives under this goal include: reducing criteria pollutant and greenhouse gas emissions, reducing vehicle miles traveled, promoting transit use and alternative transportation, and encouraging affordable housing and mixed-use development within urban boundaries.²⁰ The goals and objectives outlined in the RTP-SCS are consistent with the implementation of TCMs. Additional information on how the RTP-SCS dovetails with the transportation control measures in this 2026 Plan is provided later in this Chapter, under *“Implementation Activities for TCMs.”*

Adopted TCMs

TCMs are originally developed by SBCAG prior to being incorporated into the District’s Ozone Plan. Once adopted by SBCAG, the TCMs are thoroughly reviewed by District staff and incorporated into the next Ozone Plan to be approved by the District Board. All of the adopted TCMs are listed below in Table 5-2. The table also summarizes the implementation characteristics of the adopted TCMs, as they form the basis for the local on-road vehicle control strategy.

¹⁹ Santa Barbara County Connected 2050 Regional Transportation Plan and Sustainable Community Strategy, Chapter 3, SBCAG, August 2021.

²⁰ See Connected 2050 RTP-SCS, Table 2-2.

TABLE 5-2: SANTA BARBARA COUNTY TRANSPORTATION CONTROL MEASURES

TCM	TCM Name	TCM Type	Adopting Agency	Implementing Agency	Commitments	Monitoring Mechanism [Agency]
T-1 T-2	Trip Reduction Program; Employer-Based TDM Program	Voluntary; Programmed	County and Cities	County and Cities; SBCAG Traffic Solutions	Resolution of Commitments from Affected Jurisdictions; City and County TDM Programs	Transportation Demand Management (TDM) Program [SBCAG]
T-3	Work Schedule Changes	Voluntary	County and Cities	County and Cities; Private Sector	Adopted County Policy (1988)	TDM Program [SBCAG]
T-4	Area-wide Ridesharing Incentives	Voluntary	County and Cities	SBCAG	Interagency Agreement	TDM Program [SBCAG]
T-5	Improve Commuter Public Transit Service	Programmed	County and Cities	SBCAG; SBCAPCD; Other County Transit Operators	Federal Transportation Improvement Program (FTIP) and Regional Transportation Improvement Program (RTIP); Short Range Transit Plan (SRTP)	RTP List of Programmed Projects [SBCAG]
T-6	High Occupancy Vehicle Lanes	Programmed	Caltrans; SBCAG	Caltrans; SBCAG	FTIP and RTIP; Measure A Strategic Plan	RTP List of Programmed Projects [SBCAG]
T-7	Traffic Flow Improvements	Programmed	County and Cities	County and Cities; Caltrans; SBMTD; SBCAG	FTIP and RTIP	RTP List of Programmed Projects [SBCAG]
T-8	Parking Management	Programmed	City of Santa Barbara	City of Santa Barbara	Parking Ordinance	Parking Task Force [City of Santa Barbara]
T-9	Park-and-Ride Lots / Fringe Parking	Voluntary; Programmed	County and Cities	County and Cities; Caltrans	FTIP and RTIP; Park and Ride Plan	RTP List of Programmed Projects [SBCAG]; Caltrans, District 5
T-10	Bicycle and Pedestrian Programs	Programmed	County and Cities	County and Cities; Caltrans; SBCAG	FTIP and RTIP; General Bikeway Elements; Bikeway Master Plans	RTP List of Programmed Projects [SBCAG]
T-13	Accelerated Retirement of Vehicles	Voluntary	SBCAPCD	SBCAPCD	SBCAPCD Contract	Old Car Buy Back Program [SBCAPCD]
T-14	Activity Centers	Voluntary	SBCAG	County and Cities; SBMTD	Sustainable Community Strategy (SCS)	SBCAG RTP-SCS [CARB]
T-17	Telecommunications	Voluntary	County and Cities	County and Cities; Private Sector	Not Applicable	TDM Program [SBCAG]
T-18	Alternative Fuels	Voluntary	SBCAPCD	County and Cities; SBCAPCD	Not Applicable	Various Plans [SBCAPCD]
T-19	Public Education	Committal; Voluntary	County and Cities; SBCAPCD; SBCAG	County and Cities; SBCAPCD; SBCAG	Not Applicable	Not Applicable

Implementation Activities for TCMs

Once TCMs are adopted, they can be implemented through a variety of programs and projects over varying time periods. Since the last triennial update to the Ozone Plan, many activities, programs, and construction projects have been completed, or are currently being completed, to implement the adopted TCMs. TCMs can be regional in nature, or they can be implemented via projects or programs in specific jurisdictions. TCM implementation is subject to local planning efforts, goals, and priorities, as well as funding constraints. Although not a complete listing, Table 5-3 lists several ongoing projects related to the adopted TCMs that have been implemented during the 2022-2025 reporting period. Following is a more detailed description of some of these projects/programs.

TABLE 5-3: PROJECTS COMPLETED OR ONGOING UNDER PREVIOUSLY ADOPTED TCMs

TCM	TCM Name	Project Sponsor	Project Description
T-5	Improve Commuter Public Transit Service	SBCAG, Ventura CTC	Measure A – South Coast Interregional Transit Program
T-6	High-Occupancy Vehicle Lanes	SBCAG, Caltrans	US 101 HOV Lanes: Carpinteria
T-10	Bicycle and Pedestrian Programs	SBCAG, County and Cities	Measure A Bicycle, Pedestrian and Safe Routes to School Projects and Programs (Countywide on-going)
		SBCAG Traffic Solutions	Open Streets Events (Countywide on-going)
			EZ Bike Project
		SBCAG, Caltrans, County and Cities	Active Transportation Program
T-13	Accelerated Retirement of Vehicles	SBCAPCD	The Old Car Buy Back Program pays Santa Barbara County vehicle owners \$2,200 to voluntarily retire 2002 or older light or medium-duty vehicles
T-14	Activity Centers	SBCAG, SBMTD, County and Cities	Sustainable Community Strategy implementation
T-18	Alternative Fuels	SBCAPCD and other agencies	EV Readiness Plan for the Central Coast
		SBCAPCD	Tri-Counties Hydrogen Readiness Plan
		SBCAPCD, County and other agencies	Central Coast Alternative Fuel Vehicle Readiness Plan
		SBCAPCD and other agencies	Central Coast Go-Zero: Zero Emission Vehicle Readiness Implementation Plan
		SBCAG	Central Coast Zero Emission Vehicle Strategy
		Central Coast Clean Cities Coalition	U.S. Department of Energy Clean Cities and Communities Coalition Outreach, Education, and Performance Tracking Program

Santa Barbara County Sustainable Community Strategy (Part of T-14)

The SBCAG Sustainable Community Strategy was initially incorporated into the 2013 Plan under the Activity Centers (T-14) measure. In August 2021, SBCAG adopted the Connected 2050 RTP-SCS, which shows how the region will achieve the required greenhouse gas (GHG) per capita emission targets as well as the co-benefits of reducing criteria pollutants. The Connected 2050 RTP-SCS builds on the groundwork laid out in the initial RTP-SCS and is based on a preferred land use and transportation scenario, which lays out one possible pattern of future growth and transportation investment for the region. The RTP-SCS preferred scenario emphasizes a transit-oriented development and infill approach to land use and housing, supported by complementary transportation and transit investments. Population and job growth is allocated principally within existing urban areas near public transit. Allocation of future growth directly addresses the jobs-housing balance by emphasizing job growth in the North County and housing growth in the South County.

The RTP-SCS consists of three core, inter-related components:

- 1) A land use plan, including residential densities and building intensities sufficient to accommodate projected population, household, and employment growth;
- 2) A multi-modal transportation network to serve the region's transportation needs; and
- 3) A "regional greenprint" cataloguing open space, habitat, and farmland as constraints to urban development.

Consistent with the region's SCS, TCM T-14 emphasizes transit-oriented development, infill growth, and complementary investments in a multi-modal transportation network, which will result in reductions of ozone precursor emissions. It should be noted that the RTP-SCS does not intend to and has no authority to prescribe local land uses or to limit the authority and autonomy of local jurisdictions planning for their own land use needs. SB 375 expressly preserves local governments' right to plan their own land use.²¹

Alternative Fuels Planning and Infrastructure (Part of T-18)

The California Air Resources Board's Zero Emission Vehicle (ZEV) regulation (initially adopted in 1990) requires auto manufacturers to implement technology improvements and make the cleanest cars available for sale to the general public.²² This regulation has encouraged the auto sector to innovate and further develop battery electric vehicles, fuel cell electric vehicles, and other alternative fuel technologies. In 2018, Governor Brown issued Executive Order B-48-18, setting ambitious targets of 200 hydrogen fueling stations and 250,000 electric vehicle chargers to support 1.5 million ZEVs by 2025 and 5 million ZEVs on California roads by 2030. These milestones were further bolstered in 2020 when Governor Newsom issued Executive Order N-

²¹ California Government Code §65080(b)(2)(K).

²² ww2.arb.ca.gov/our-work/programs/zero-emission-vehicle-program/about

79-20, which calls for all new cars and passenger trucks sold in California to be zero-emission vehicles by 2035.

To complement and support California's efforts in transitioning to ZEVs statewide, various regional projects and plans have been implemented by a number of agencies. This includes the EV Readiness Plan for the Central Coast, the Tri-Counties Hydrogen Readiness Plan, the District's Clean Air Grants for Infrastructure Program, the District's lead role in the Central Coast Clean Cities Coalition, and other alternative fuel and infrastructure planning efforts.

Since 2011, the District has taken a lead role in working with the Electric Ride 805 coalition to prepare our region for ZEVs by securing grants to lay the groundwork for planning electric vehicle charging stations and hydrogen fueling infrastructure in the Central Coast region. The Electric Ride 805 Steering Committee oversees and directs the actions of the coalition and is comprised of representatives from the Community Environmental Council, the Central Coast Clean Cities Coalition (C5), the Ventura County Regional Energy Alliance, the County of Santa Barbara, University of California – Santa Barbara, and the Air Pollution Control Districts of Ventura, Santa Barbara, and San Luis Obispo Counties. The collaborative efforts of this group led to the preparation of the Electric Vehicle Readiness Plan for Ventura, Santa Barbara, and San Luis Obispo Counties,²³ which includes a vision for electric vehicle adoption and infrastructure in the Central Coast region. The EV Readiness Plan includes siting recommendations for electric vehicle charging sites throughout the Central Coast, taking into consideration that U.S. 101 serves as an inter-regional connection between Southern and Northern California. Locating direct current (DC) fast chargers every 30 to 40 miles along U.S. 101, from Ventura County through Santa Barbara County and on to San Luis Obispo County, will enable battery electric vehicles to take longer trips and recharge from near empty to 80% charge in approximately 30 minutes. The EV Readiness Plan also includes recommendations for locating charging stations near workplaces, regional commercial centers, and major destination centers, as well as single-family and multi-family residences, and identifies outreach strategies for marketing, training, and education for local government and for members of the public.

In 2017, with funding provided by a California Energy Commission (CEC) grant, the District led the efforts to develop a Tri-Counties Hydrogen Readiness Plan.²⁴ The plan was a joint effort among the Electric Ride 805 coalition partners and involved significant contributions from several other organizations in the region. The plan addresses the siting of hydrogen fueling infrastructure, establishes key public and private stakeholders, implements community outreach efforts, and includes resources for planners, permitting staff and first responders to safely and effectively prepare for the use of hydrogen and fuel cell electric vehicles in the tri-counties region. The plan identified three key priorities for ongoing hydrogen readiness planning efforts in the Tri-Counties: (1) to secure funding to support hydrogen infrastructure

²³ Electric Vehicle Readiness Plan for Ventura, Santa Barbara, and San Luis Obispo Counties (Central Coast), EV Communities Alliance, April 2014

²⁴ Tri-Counties Hydrogen Readiness Plan, Santa Barbara County Air Pollution Control District, May 2017

build-out, vehicle incentives, and outreach efforts; (2) to develop a strategy for creating commercial opportunities locally for the production and delivery of low-carbon hydrogen; and (3) to increase public awareness of hydrogen and fuel cell electric vehicles to facilitate early adoption and create a foundation for broader consumer acceptance in the future. The development of this plan coincided with the installation of the first hydrogen fueling station in the Central Coast region, which opened in May 2016. The SBCAPCD, Community Environmental Council, and C5 – along with dozens of supporters and fuel cell electric vehicle drivers – celebrated the opening of the station with a highly publicized ribbon cutting ceremony.

In 2019, with funding provided by a CEC grant, the Electric Ride 805 coalition partners completed several tasks identified in the Central Coast Go-Zero: Zero Emission Vehicle Readiness Implementation Plan.²⁵ These tasks were designed to accelerate the Central Coast region’s deployment of zero emission vehicle infrastructure and expand the regional adoption of ZEVs among both consumers and fleet operators. Key implementation tasks for the plan included (1) creation of a ZEV ombudsman; (2) analysis of strategic EV infrastructure siting opportunities using mobile device data; (3) acceleration of medium- and heavy-duty ZEV adoption by regional fleet operators; (4) coordination of site assessments for EV charging stations; (5) ZEV awareness; (6) ZEV safety training for first responders; and (7) site assessments for hydrogen fueling stations.

Another key initiative in this work effort is the continued implementation of the District’s Clean Air Grants for Infrastructure Program²⁶, which provides grants of up to \$250,000 to public, private, and nonprofit entities in Santa Barbara County for the installation of electric vehicle charging stations and hydrogen fueling stations. Since 2011, the SBCAPCD has provided funding for 429 Level 2 charging stations and 87 DC fast chargers in Santa Barbara County. As of April 21, 2026, there are a total of 761 Level 2 charging stations and 262 DC fast chargers that are available for public use in Santa Barbara County.²⁷ If agencies have prioritized zero-emission vehicle technology in their long-term plans, this grant program can help provide infrastructure as they expand their fleets. For example, the Santa Barbara Metropolitan Transit District has adopted a goal of a 100% zero-emission fleet by the year 2030, and this program could help them meet their goal.²⁸

In 2020, the District became the lead administrator for C5, which is a nonprofit entity consisting of a group of local stakeholders whose mission is to expand the use of alternative fuel vehicles and fueling infrastructure throughout the Central Coast region. C5 is a U.S. Department of Energy designated coalition in the Clean Cities and Communities Partnership, and the coalition’s

²⁵ Central Coast Go Zero: Zero Emission Readiness Implementation Plan, San Luis Obispo County Air Pollution Control District, October 2019.

²⁶ www.ourair.org/ev-charging-program/

²⁷ California Energy Commission (2025). Electric Vehicle Chargers in California. Data last updated April 26, 2026. Retrieved July 8, 2026 from www.energy.ca.gov/zevstats

²⁸ <https://sbmtd.gov/electricfuture/>

objectives include implementing educational and training programs, acting as an information clearinghouse, and organizing green car shows and other outreach activities to show the benefits of alternative fuel vehicles and fueling infrastructure.

Since 2008, the California Energy Commission's Clean Transportation Program has also provided funding to support innovation and accelerate the development and deployment of advanced transportation and fuel technologies. Funded by the CEC and implemented by the Center for Sustainable Energy, the California Electric Vehicle Infrastructure Project (CALeVIP) provides incentives for EV charger installations and works with local partners to develop and implement projects that meet current and future regional needs for Level 2 and DC fast charging. In August 2021, the South Central Coast Incentive Project (SCCIP) launched in San Luis Obispo, Santa Barbara, and Ventura counties. The SCCIP leveraged over \$12 million of CEC funds with local partner contributions from Central Coast Community Energy, Clean Power Alliance, and the Air Pollution Control Districts of San Luis Obispo, Santa Barbara, and Ventura Counties. In Santa Barbara County, approximately \$5 million dollars is being invested from the SCCIP to help fund an estimated 433 new EV chargers countywide. CALeVIP is a major initiative to help fund the deployment of electric vehicle charging stations across the Central Coast region.

TCMs Proposed for Adoption and Further Study

No new TCMs are proposed for adoption or further study at this time. However, as described above, SBCAG and the District remain committed to continue implementing the TCMs that were adopted in previous air quality attainment plans, thereby continuing to reduce mobile source emissions through a variety of transportation control strategies, programs, and projects.

CHAPTER 6 – VOLUNTARY GRANT AND INCENTIVE STRATEGIES

The District's voluntary grant and incentive programs provide funding opportunities to reduce additional ROC, NOx, and particulate matter (PM) emissions within Santa Barbara County. Voluntary grant and incentive programs achieve cost-effective emission reductions related to a variety of equipment types including on-road transportation, marine vessels, agricultural irrigation pumps, and off-road vehicles. These programs primarily retire older, higher-polluting equipment and replace them with newer, cleaner alternatives, thereby reducing ozone precursor emissions and achieving community health benefits. Since 1988, the District has collaborated with local government agencies, commercial businesses, and other local operators to implement a variety of emission reduction projects throughout Santa Barbara County. During this time, the District has awarded over \$60 million for projects that have eliminated several thousand tons of smog-forming pollution and particulate matter, both of which harm human health.

Funding Sources

Over the past several years, there has been increased financial support from the California State Legislature to allocate funds for voluntary emission reduction programs. A brief description of six grant and incentive funding sources and programs is provided below:

1. Carl Moyer Program Funds

The California State Legislature created the Carl Moyer Program in 1998, named after the late Dr. Carl Moyer to recognize his work in the air quality field and his efforts to develop this important program that reduces emissions from heavy-duty diesel engines. The Carl Moyer Program provides grants to replace, repower, or retrofit heavy-duty diesel vehicles, vessels, and agricultural pumps with cleaner engines. The new engines substantially reduce emissions of NOx, ROC, and PM, which complements California's and the District's regulatory clean air programs.

The Carl Moyer Program is a cooperative effort between the California Air Resources Board (CARB) and local air pollution agencies. Each year, CARB awards grants to various California air districts that apply for funds for the local implementation of the Carl Moyer Program. In turn, air districts follow guidelines adopted by CARB and provide grants to public and private entities for the incremental cost of cleaner-than-required engines, equipment, and other sources of air pollution to obtain early emission reductions. To qualify for funding, projects must meet cost-effectiveness requirements.

CARB also implements the Carl Moyer State Reserve Program, which contains a portion of Carl Moyer funds set aside annually for the specific purpose to achieve emission reductions from a

targeted type of emission category, such as off-road equipment, school buses, landscape equipment, and zero emission projects.

The District is now implementing the 28th Year of the Carl Moyer Program and has received approximately \$19.1 million to implement Carl Moyer eligible grant projects.

2. Community Air Protection (AB 617) Program Funds

Assembly Bill 617 was signed into law in September 2017. In response to this legislation, CARB created the Community Air Protection (CAP) program. The program's focus is to reduce exposure in communities most impacted by air pollution. CARB staff have been working with local air districts, community groups, environmental organizations, and regulated industries to develop a new community-focused action framework for community air protection. The effort includes community air monitoring in prioritized areas, community emissions reduction programs, incentive funding to deploy cleaner technologies, best available retrofit control technology from industrial facilities, criteria and toxic reporting enhancements, and grants to support community participation in the AB 617 process.

The Community Air Protection program requires the District to identify high priority communities within disadvantaged and low-income areas and conduct targeted outreach to individuals and organizations within those communities to determine what types of projects would benefit those communities. Using tools, maps, and guidance provided by CARB and the California Environmental Protection Agency (CalEPA), such as CalEnviroScreen²⁹, District staff are able to identify and prioritize census tracts in Santa Barbara County that are designated by the State as either low-income or disadvantaged communities. The California Climate Investments Priority Populations map of those communities within Santa Barbara County is shown below in Figure 6-1.³⁰ It should be noted that CalEPA released their Preliminary 2026 Designation of Disadvantaged Communities³¹ in July 2026, which designates an additional census tract in Santa Barbara County as a disadvantaged community in the City of Santa Barbara's Eastside neighborhood.

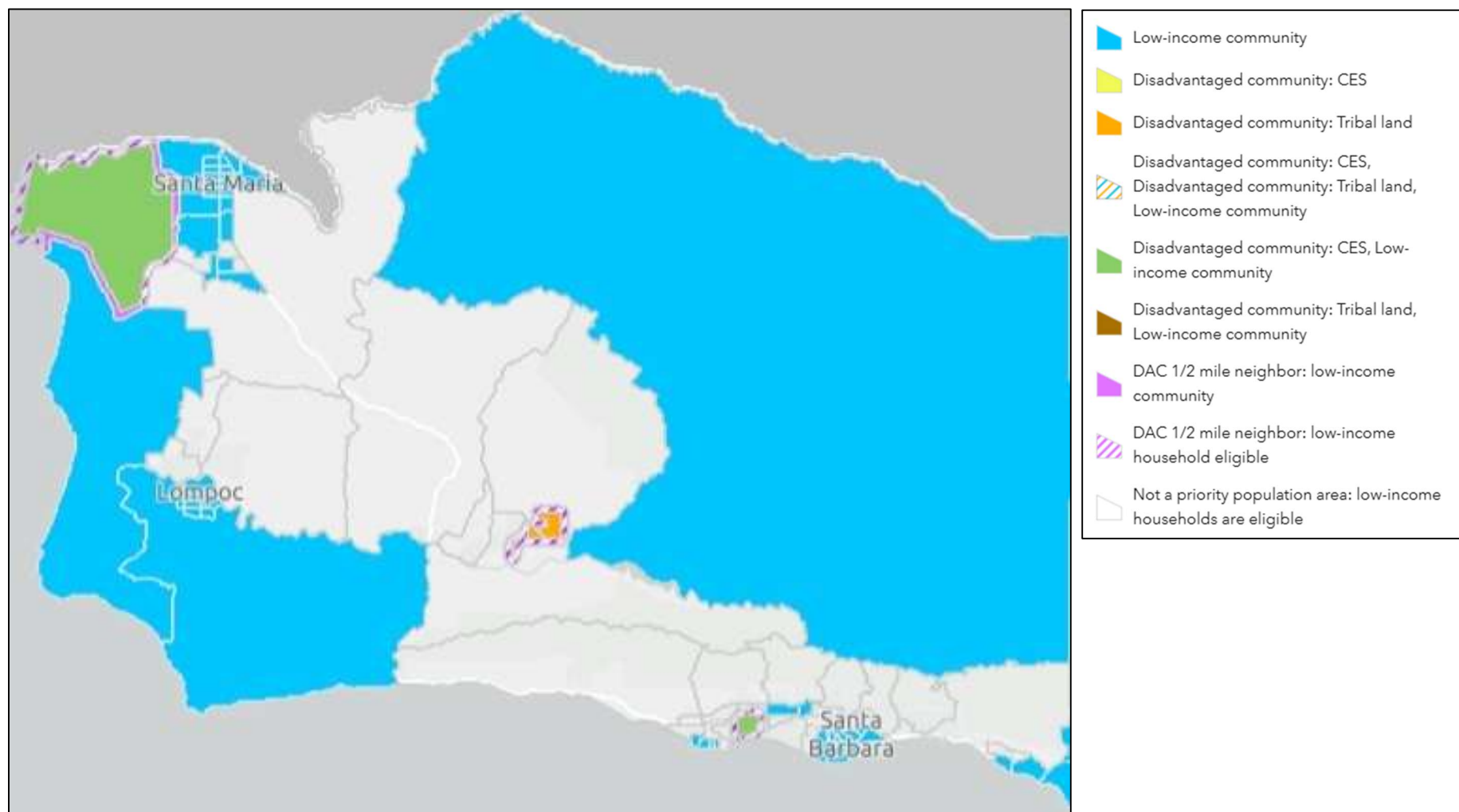
The CAP program provides valuable economic incentives to businesses, health benefits to community members, and also helps fund the District's efforts to engage with the community and meet the legislative requirements of AB 617. The District is now implementing the 9th Year of the Community Air Protection program and has received approximately \$8 million to implement CAP eligible grant projects.

²⁹ <https://oehha.ca.gov/calenviroscreen>

³⁰ The full map of all California communities (California Climate Investments Priority Populations) can be found at <https://www.caclimateinvestments.ca.gov/priority-populations>

³¹ https://calepa.ca.gov/wp-content/uploads/2026/07/2026-Preliminary-DAC-Designation_English1.pdf

FIGURE 6-1: DISADVANTAGED AND LOW-INCOME COMMUNITIES IN SANTA BARBARA COUNTY



3. Funding Agricultural Replacement Measures for Emission Reductions (FARMER)

In 2017, AB 109 and AB 134 were signed into law to reduce agricultural sector emissions by providing grants and financial incentives. The Funding Agricultural Replacement Measures for Emission Reductions (FARMER) Program was created by CARB to satisfy the new mandates. The FARMER program provides grants, rebates, and other financial incentives for agricultural equipment including zero emission utility vehicles, heavy-duty trucks, irrigation pump engines, tractors, and other equipment used in agricultural operations.

The District will be implementing the 8th Year of the FARMER program and has received approximately \$4.4 million to implement FARMER eligible grant projects.

4. \$2 DMV Surcharge Funds

In 2004, AB 923 authorized air districts to collect a \$2 surcharge on vehicle registrations. These funds can be used for many types of projects that include, but are not limited to:

- Carl Moyer Program eligible projects;
- School bus replacements;
- Alternative fuel and electric vehicle charging infrastructure purchase and installation;
- Accelerated vehicle retirement projects.

The District is currently implementing Year 22 of the \$2 DMV Surcharge program and has received approximately \$14.9 million to implement eligible grant projects.

5. The Clean Air Fund

The Clean Air Fund was established by the District Board in 2019. Funded by excess revenues from Notices of Violation, the Clean Air Fund was established to fund projects undertaken by the District and/or third parties that provide air quality and human health benefits for communities throughout Santa Barbara County, in innovative ways unlike traditional grant fund programs. Clean Air Fund projects are consistent with the District's mission, and past projects have included:

- Electric landscape equipment replacement programs;
- Regional electric vehicle charging infrastructure programs;
- Clean Air Room programs;
- Clean Air Center programs;
- Clean Air Classroom programs;
- Community outreach and engagement;
- Air quality education programs;
- Diesel-fueled back-up generator replacement programs.

To implement the Clean Air Fund, District staff evaluate potential projects or programs and prepare specific proposals for Board approval. Each proposal includes goals and parameters,

such as the amount of incentive funding to be used, timelines, target audience, emission control technology to be used, or specific requirements for equipment, outreach, studies, monitoring methods, or reporting.

6. CARB Woodsmoke Reduction Program Funds

Through the state's Greenhouse Gas Reduction Fund, some funds are allocated by CARB to distribute through the California Air Pollution Control Officers Association in conjunction with local air districts. The grant funds help homeowners replace a wood-burning uncertified stove, fireplace insert, or fireplace used as a primary source of heat with a cleaner-burning and more efficient device. In 2022, the state Legislature allocated an additional \$5 million statewide to support the program.

Clean Air Grants Program

The District annually solicits the public to submit project applications to be funded through our Clean Air Grants program. These grant projects benefit public health by cost-effectively replacing old, high-polluting equipment, vehicles, and engines with newer, low, near-zero, and zero-emission equipment, vehicles, and engines. These replacements occur earlier than required by regulation or normal attrition. Grant projects are required to be implemented with a multi-year grant agreement and the grant funds range from \$10,000 to \$250,000 per project. Priority for grant funds is given to projects using zero-emission technology as well as projects located within disadvantaged communities, as defined by SB 535. The District currently operates the following eight grant programs:

1. On-Road Vehicle Replacement Grant Program

On-road diesel-fueled vehicles are a major contributor to air pollution, including toxic diesel particulate matter, in Santa Barbara County and statewide. The District has included an on-road portion of the Clean Air Grants Program intermittently since 1999. Currently, the District's program incentivizes heavy-duty vehicle owners to turn over their fleets ahead of regulatory requirements by providing funds to replace trucks, buses, solid waste collection vehicles, public agency and utility vehicles, emergency vehicles, and transportation refrigeration units with a zero-emission counterpart. Existing vehicles must be heavy-duty (greater than 14,000 GVWR – Gross Vehicle Weight Rating), diesel-fueled, compliant with all CARB regulations, and meet engine model year requirements to be eligible for a replacement project.

Since the program's start, the District has repowered or replaced 21 vehicles including 12 engine repowers, three diesel particulate filter retrofits, the purchase of four new CNG-fueled refuse trucks, and most recently, the purchase of two battery electric urban transit buses for a local transit agency. Altogether, the program has reduced 153 tons of pollutants (PM and NOx).

2. Infrastructure Grant Program

As on-road vehicles continue to be a large source of emissions within Santa Barbara County, the District has worked collectively with neighboring air districts and other groups for several years to advance both publicly available and private electric vehicle (EV) charging infrastructure. Since its inception in 2011, the District's EV charging infrastructure program has provided funding for a total of 516 EV charging ports (429 Level 2 and 87 Level 3) in Santa Barbara County. Under the current program parameters, public, private, and non-profit entities are eligible to apply, as well as multi-unit dwelling properties that have five or more units.

With every additional charging station, consumers are more likely to transition from driving conventional gasoline vehicles to electric alternatives. New stations also increase the uptime of existing electric vehicles as owners can easily and conveniently charge their vehicle at multiple locations. This meets the program's goal of improving local air quality and reducing greenhouse gas emissions.

Initially, EV charging infrastructure projects were funded using local air quality mitigation funds. However, since 2019, the District has utilized funds from the Carl Moyer, \$2 DMV, and Community Air Protection programs to partially fund infrastructure projects that meet specific requirements. In addition to EV charging infrastructure projects being eligible under the Carl Moyer Program guidelines, the District also can fund hydrogen fueling stations, stationary agricultural pump electrification, shore power, and portable power projects. In addition to 516 EV charging ports, the District has funded one shore power project and one portable power project. There is no cost-effectiveness threshold for infrastructure projects.

3. School Bus Replacement Grant Program

Since 2001, the District has invested \$4.7 million of grant funds into local school district transportation bus fleets. This has included fleet expansions with five zero-emission battery-electric school buses, the replacement of 39 older, high-polluting diesel-powered school buses with new lower-emission school buses, the retrofit of 33 school buses with diesel particulate filters to capture toxic exhaust, the replacement of compressed natural gas (CNG) fuel tanks in four school buses, the replacement of 17 CNG fueling hoses, and the installation of 8 EV charging ports at local school districts.

4. Off-Road Equipment Replacement Grant Program

Since the inception of the Carl Moyer Program (Moyer) in 1998, the Air District has invested more than \$17 million into the Off-Road Equipment Replacement Program (ORERP). Moyer was the primary source of ORERP funding for many years, until 2017 when Assembly Bills 617, 109, and 134 were signed into law, creating two additional funding programs: the Community Air Protection (CAP) program and the Funding Agriculture Replacement Measures for Emission Reductions (FARMER) program.

The ORERP incentivizes the replacement of stationary and portable off-road compression-ignition (CI or diesel) and large spark-ignition (LSI) engines. Projects are often conducted to replace construction, industrial, and agricultural equipment.

Currently, there are no compliance deadlines for the replacement of equipment in this category, yet the ORERP has been our most popular program to date with more than 260 funded projects with emission reductions totaling more than 1,350 tons (ROC, NOX, and PM). Assisting in the replacement of older equipment has not only helped improve air quality, but it has incentivized local businesses to upgrade their fleets with newer, cleaner technology. The District expects this program to remain popular for the foreseeable future as new technology becomes more feasible to adopt, operate, and maintain.

5. Agricultural Engine Repower Grant Program

This program has been funding agricultural pump repower projects for over 25 years. For the majority of that time, the District helped fund the replacement of old diesel-powered engines with newer, cleaner diesel-powered engines. Not until very recently did the District change the format of this program to focus funding efforts solely on repowers to new electric pumps.

The District has helped fund over 85 projects with emission reductions totaling more than 700 tons (ROC, NOx, and PM). This is a unique project type for the District as we can provide funding for both the purchase of the new electric pump as well as the required infrastructure to power the electric pump.

6. Marine Engine Repower Grant Program

The Marine Program has been extremely popular with vessel owners based in Santa Barbara County. Since its inception, we have been able to fund over 100 projects with emission reductions totaling more than 275 tons (ROC, NOx, and PM). Currently, the District's Marine Program offers incentives to marine vessels to turn over their existing, older diesel-fueled engines ahead of regulatory requirements listed in the Commercial Harbor Craft Regulation. These older engines must be diesel-fueled, and currently compliant with all CARB regulations, including the most recent 2022 amendments to the statewide regulation. The marine community is aware of the upcoming deadlines and is actively reaching out to the District for guidance on how to best remain in compliance. We continually work with the local marine community, relaying the availability of grant funds, and working with them to assist in the transition to a compliant status, prior to their specific deadline.

7. Locomotive Grant Program

The Locomotive Program is a relatively new category and the District has yet to implement any locomotive replacement projects. The goal of the program is to replace an existing Class 1, 2, or 3 diesel-powered locomotive with a near-zero or zero-emission locomotive.

8. Climate Heat Impact Response Program (CHIRP)

The CHIRP incentive program was created through a State of Emergency in California proclaimed by Governor Gavin Newsom in 2021, due to an extreme heat event, which combined with reduced electricity supply caused by severe drought conditions and wildfires, placed a significant demand and strain on California's energy grid. CARB was directed to develop a state-funded plan to mitigate the effects of additional emissions from increased use of diesel-fueled back-up generators and power plants that were allowed to operate outside of normal permit requirements during grid emergencies and periods of extreme heat. The intent of the program is to primarily fund projects that involve the scrap and replacement of emergency diesel-fueled back-up generators. CHIRP incentives may also fund projects that are eligible under the Carl Moyer Program or Community Air Protection Incentives. The District received \$490,834 from CARB to implement the program and supplemented that total with \$400,000 from the District's Clean Air Fund. The District's CHIRP Program will run in tandem with the Clean Air Grants program.

Incentive Programs

The District currently operates four highly popular and successful incentive programs. These programs vary in scope and include light-duty vehicle scrap, electrified landscape equipment, wood burning heater replacements, and marine vessel speed reduction. Unlike the grant programs that require a multi-year contractual grant agreement for each project, the incentive programs generally operate as short-term voucher programs with incentive amounts less than \$10,000 per project.

1. Old Car Buy Back Incentive Program

Cars and trucks are a major source of smog pollution in Santa Barbara County, and older vehicles cause much more air pollution than newer ones. Since 1993, the Old Car Buy Back Program has accelerated the removal of older vehicles from the on-road fleet to reduce air pollution. Individuals receive a financial incentive to take their older vehicles off the road voluntarily. The District updated the program's parameters in 2025, increasing the payout to participants from \$1,000 to \$2,200 per vehicle, and expanding vehicle model year eligibility from 1997 to 2002 and older vehicles.

Participants with eligible vehicles work directly with licensed auto dismantlers who permanently destroy (i.e., crush) the old cars and trucks. The five dismantlers in Santa Barbara County that implement this program on the District's behalf are Steelhead Recyclers in Goleta, Central Valley Auto in Lompoc, Bedlo in Lompoc, Santa Maria Recycling Center in Santa Maria, and SA Recycling in Santa Maria. The dismantlers perform these five critical steps:

1. Interface with the vehicle owner;
2. Verify vehicle eligibility (registration history, vehicle title, smog check, and functionality);
3. Issue payment to the vehicle owner;

4. Dismantle the vehicles, and;
5. Submit required documentation to the District.

This program provides broad community benefits and is an effective partnership between staff and dismantlers. Over the past 33 years, the District has used \$9.8 million in funds to implement the program. Funds were primarily obtained from \$2 DMV surcharge fees, but it has also been supplemented with Carl Moyer Program funds, mutual settlement penalty fees, and local air quality mitigation fees. This program has cost-effectively retired or repaired over 8,370 vehicles and reduced an estimated 995 tons of NO_x, ROC, and PM emissions throughout the County.

2. Landscape Equipment Electrification Incentive Program

Gasoline- and diesel-powered landscape equipment emit nitrogen oxides, particulate matter, carbon dioxide, and other pollutants. They contribute to regional smog and increased health risk for long-term operators of the equipment. In 2021 CARB amended the Small Off-road Engine (SORE) Regulation to transition this sector to zero-emission with manufacturers required to sell primarily electric-only new landscape equipment starting in 2024.

The District's Landscape Equipment Electrification Funds (LEEF) Program provides incentives to landscaping businesses, public agencies, schools, and non-profits to purchase zero-emission electric landscape equipment. The District has operated four cycles of the LEEF Program with the first program starting in 2020. The latest cycles (LEEF 3 and LEEF 4) were funded with \$850,000 in funds from the Carl Moyer State Reserve Program and supplemented with \$476,913 from \$2 DMV funds due to the program's popularity. The program is operated in accordance with the Carl Moyer Program Guidelines. Participants must destroy a like-for-like piece of gas landscape equipment for each piece of electric equipment purchased through the program. Together LEEF 3 and LEEF 4 incentivized the purchase of 1,502 pieces of electric landscape equipment, reducing 14,373 pounds of pollutants (PM, NO_x and ROCs).

3. Woodsmoke Reduction Incentive Program

Woodsmoke contains a variety of air contaminants, such as ozone precursors, particulate matter, and air toxic pollutants. Inhalation of woodsmoke can cause significant health and respiratory issues that are detrimental to the quality of one's life. Reducing regional and near-source exposure to woodsmoke is critically important to protecting the health and safety of the community.

The Woodsmoke Reduction Program helps property owners and renters voluntarily replace an uncertified wood-burning stove, fireplace insert, or fireplace used as a primary source of heat with a cleaner-burning and more efficient heater. The program is designed to maximize benefits to low-income households and communities by providing a higher incentive amount for these change-out projects. The fourth cycle of the program titled the Heat Clean Program launched in the spring of 2025 with a focus on replacements with electric heaters such as electric fireplace

inserts and heat pumps. The program is funded with a total of \$445,004 from CARB's Woodsmoke Reduction Program funds and follows CARB's Woodsmoke Reduction Program Guidelines which were modified in 2023. Incentive amounts have been increased with the highest incentive level of \$12,000 allocated for heat pump projects located in a low-income household or a household located in a low-income or disadvantaged community or on tribal lands. Altogether to date, the four cycles of the program have funded 182 change-outs, with 119 change-outs located in low-income households or communities. Overall, over the course of the equipment's project life, the program will reduce more than 500 tons of criteria pollutants (PM, NOx, and ROCs) and operate with a cost-effectiveness of approximately \$4,357 per ton of PM_{2.5} reduced.

4. Blue Whales & Blue Skies Vessel Speed Reduction Incentive Program

The District has worked for decades to raise awareness of the local impact of marine shipping emissions, identifying these emissions in Clean Air Plans since 1994, and calling for additional regulations to reduce emissions. Significant gains have been made as state, federal, and international measures are in place that will help reduce pollution from the marine sector over the long term, but marine shipping emissions still dominate the County's emission inventory. Achieving additional NOx reductions from shipping is key to ensuring continued progress towards attaining and maintaining the state ozone standards.

For the last 12 years, the District and its partners have implemented the Protecting Blue Whales and Blue Skies voluntary Vessel Speed Reduction (VSR) incentive program for immediate air quality and whale protection benefits. Reducing vessel speeds increases the operational efficiency of most vessel types by reducing fuel usage and air emissions. VSR does not require any capital investments for control equipment, and it also reduces the noise impacts and risk of lethal ship strikes on endangered whales off the coast. The Santa Barbara Channel, as well as other regions along the California coast, are seasonal feeding grounds and migration paths for several whale species, including blues, fins, and humpbacks, which travel in and around the shipping lanes.

The program began as a VSR Trial in 2014, and due to its success, the program continues to grow larger with every iteration. The 2025 program began on May 1, 2025 and ended on January 15, 2026, as these dates typically coincide with ozone season and the seasonal presence of whales along the coast of California. The program requests that companies with container ships, auto carriers, tankers, and bulk and general cargo vessels slow down their ships to a speed of 10 knots or less. Containerships and auto carriers account for the majority of the transits in our region and they typically travel at higher speeds of 16 - 18 knots. By slowing down to the 10-knot target, vessel transit time through the Channel Region is increased by three to four hours, but it reduces the total amount of fuel burned, resulting in fuel savings and NOx reductions.

The program uses a fleet-based approach, as this encourages companies to slow down their entire fleet of vessels. At the end of each season after all of the ship speed data is analyzed, awards are distributed based on the tiered recognition levels, offering recognition incentives to those companies with a higher fleet participation rate. Recognition efforts can take various forms throughout the year, such as holding ceremonies at the Port of Hueneme or Port of Los Angeles, sending Whale-Tail awards to the high-achieving participants, and promoting the efforts by the shipping companies through outreach campaigns, press coverage, social media, and web advertisements.

The Protecting Blue Whales and Blue Skies program is a collaborative effort involving the Santa Barbara, Ventura, Bay Area, Monterey Bay, San Luis Obispo, San Diego, and Northern Sonoma air districts, as well as federal, state, and nonprofit organizations. With the recent passage of Assembly Bill 14, more partners are expected to join as the program expands statewide. The passage of AB 14 also codifies the state's approval of the voluntary vessel speed reduction program and provides additional support for expanding the emission-reduction impacts statewide. The 2026 statewide voluntary VSR Program launched on April 22 and will run through December 31, 2026. As the VSR Program expands, the District will continue to work with the partners to assess the effectiveness of different recognition strategies and support the analysis of the emission impacts. Funding for the program is currently administered through a CARB Supplemental Environmental Project agreement managed by Ventura County APCD. Additional details about the program, including the 2026 program, are available at the following website: www.bluewhalesblueskies.org.

CHAPTER 7 – ATTAINMENT STRATEGY

Since the District Board adopted the initial state Air Quality Attainment Plan in 1991, the District has prepared plan updates and has adopted control measures that provide the basis for the air quality programs and regulations in place today. Air quality in the region has significantly improved, but additional work is needed to both attain and maintain the state standards for the years to come. The District will continue to implement its core programs, as described in this chapter, which are expected to result in additional emission reductions. The District also relies on the commitments from CARB to help control emissions from on-road and off-road equipment. Even if the District's attainment status changes, all of the District's existing rules and regulations will continue to remain in effect to protect the people and the environment of Santa Barbara County.

Stationary Sources

Regulation VIII, New Source Review (NSR), is a core component of the District's stationary source control program. Pursuant to the anti-backsliding requirements of California Senate Bill 288 – the Protect California Air Act of 2003, the District's New Source Review requirements will remain in effect. The NSR requirements continue to ensure that new, large projects are controlled through the use of Best Available Control Technology (BACT) and that they provide offsets in the form of Emission Reduction Credits (ERCs) to mitigate any increases above the emission offset threshold. This program prevents air quality degradation by both controlling and offsetting emissions generated by new and modified stationary sources, thus ensuring that they do not interfere with the attainment or maintenance of any air quality standard.

New and existing stationary sources with District permits will continue to be inspected and evaluated by the District's Compliance Division, and this will ensure that the sources continue to meet permit requirements and comply with the District's prohibitory rules. The District manages permits for approximately 1,200 permitted or registered stationary facilities. Field inspectors verify compliance by conducting and documenting facility inspections, reviewing records, and taking enforcement action if permit conditions or rule requirements are not met. The inspection is also a valuable tool to educate the facility operators about minimizing air pollution in accordance with their permit.

Emission Inventory Tracking

As discussed in Chapter 3 of this Plan, the District compiles an annual emission inventory and submits the emissions data to CARB, who reviews the data in preparation of their National Emission Inventory submittal to the U.S. EPA. The emission inventory is compiled using activity level throughput data that permitted facilities are required to submit to the District every year through the District's annual reporting process. Annual reports also serve as a compliance tool to ensure that permitted facilities do not exceed their annual throughput or emission limits.

Within the last decade, Assembly Bill 197 (2016) and Assembly Bill 617 (2017) have been passed by the state legislature, further enhancing and streamlining the emission reporting requirements for stationary sources of air pollution. AB 197 created a mandate for CARB to make more emission information readily available on their website for public review. With this directive, CARB created the Pollution Mapping Tool, which displays the reported greenhouse gas, criteria pollutant, and toxic air contaminant emissions for large stationary sources across the state.³² The Pollution Mapping Tool is useful to allow the public to view emission trends over time and to compare the emissions between different facilities. District staff have been working with CARB to ensure that the emissions information is accurate and presented in a clear, straightforward manner.

In response to AB 617, CARB adopted the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants. This regulation is intended to help the air districts, community members, scientists, industry, consultants, and government agencies to better identify regions that are most affected and in need of additional resources to resolve inequities related to air pollution exposure. The District is working with CARB on the implementation of this new regulation, which will require additional emission information from the District's permitted facilities. The District has worked closely with local facilities for many decades and has detailed knowledge of these facilities' permitting and data quantification methodologies.

While we have seen a declining amount of NO_x and ROC emissions produced locally over the last few decades, offshore emissions from the marine shipping sector continue to dominate the emission inventory into the foreseeable future. These projections will be monitored and refined as new data becomes available. The District continues to work with CARB to present the best available information, with the goal of providing the most accurate and complete emission inventory for all emission sectors. Accurate emission projections will help the District evaluate strategies and allocate resources to mitigate air pollution.

Land-use/CEQA Review

Whether it is a newly proposed residential community or a zoning decision for an industrial factory, land use decisions affect air quality. New residential, commercial, and industrial developments contribute to short- and long-term air quality impacts through both the construction and operational emissions of the project. As California continues to grow and the population increases, we expect there to be new developments that emit additional smog-forming pollution in our county. These impacts and projections have been incorporated into the forecasted emission inventory in Chapter 3. However, new development proposals must also be evaluated under the California Environmental Quality Act (CEQA) by the decision-making body (e.g., cities, the County, or other special districts or institutions). CEQA requires state and local agencies to identify and reduce the environmental impacts of land-use decisions. In the context of new development projects, the District typically has either a responsible agency or a

³² ww3.arb.ca.gov/ei/tools/pollution_map/pollution_map.htm

commenting agency role under CEQA, and reviews and comments on 100 or more projects a year. The District will continue to review development proposals and recommend measures to reduce project-related air quality impacts to ensure that new development does not impact our ozone attainment status. In addition, District staff provides tools and guidance on how to quantify and mitigate air quality impacts related to new developments.

Transportation Control Measures

Generally, TCMs are programs or activities that states and localities can implement to encourage the traveling public to rely less on the automobile or to use the automobile more efficiently. Chapter 5 of this Plan provides a more detailed discussion of the TCMs that have been adopted and continue to be implemented through the planning and funding of various transportation projects and programs in Santa Barbara County. The District participates in the Santa Barbara County Association of Government's (SBCAG) technical review committees, as well as SBCAG's process to develop and update their Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The District also participates in a variety of community programs, groups, and events aimed at using automobiles more efficiently or reducing their use, including the Santa Barbara County Regional Climate Collaborative, County of Santa Barbara's Sustainability Committee, the Central Coast Clean Cities Coalition, Electric Ride 805, the Green Business Program of Santa Barbara County, Santa Barbara Car Free, and Open Streets events.

CARB Mobile Source Strategy

CARB staff developed the 2020 Mobile Source Strategy (MSS) by building on the integrated planning approach used in development of the previously-adopted 2016 Strategy. The 2020 MSS outlines the planning requirements and pathways forward for the various mobile sectors in order to achieve California's numerous goals and targets over the next 30 years. Hence, it addresses light-, medium-, and heavy-duty on-road vehicles, as well as a wide range of off-road equipment sectors. Achieving all of the State's near-and long-term goals requires action across the full spectrum of mobile sources. The scenarios and concepts included in the 2020 MSS provide emission reductions for the purpose of meeting federal ambient air quality standards and substantially reducing greenhouse gas emissions. The District relies on these statewide planning efforts to help reduce the emissions from on-road and off-road equipment.

However, California faces new challenges in setting aggressive emission standards for mobile sources due to the recent actions by the EPA. Under the Clean Air Act, CARB typically obtains waivers from the EPA to enforce any new vehicle emission standard by demonstrating that the regulation is needed to address the unique air quality attainment challenges in California. Where required, these waivers are necessary for CARB's ability to enforce the standards for mobile sources. Yet under the current federal administration, recent CARB regulations have had their waivers partially or fully disapproved, which will result in increased emissions and health impacts across the state. An estimate of the statewide emission impacts from the loss of the

waivers was conducted by CARB, and a summary of the estimated Santa Barbara County emission increases in calendar year 2037 is shown below in Table 7-1.

TABLE 7-1: ESTIMATED EMISSION INCREASES DUE TO RECENT FEDERAL ACTIONS IN SANTA BARBARA COUNTY, BY REGULATION

State Regulation	Emission Increases in Calendar Year 2037 (tons per day)		
	NOx	ROC	PM _{2.5}
Heavy-Duty I&M (Out of State Reqs.)	0.142	0	0.001
Heavy-Duty Omnibus	0.020	0	0
Advanced Clean Trucks	0.061	0.004	0.002
Advanced Clean Fleets	0.079	0.007	0.004
Advanced Clean Cars II	0.060	0.113	0.006
In-Use Locomotive	0.237	0.003	0.005
TOTAL – ALL REGULATIONS	0.599	0.127	0.019

The emission increases shown above represent a 13% increase in NOx and a 3% increase in ROC for the County’s onshore mobile source inventory. Additionally, EPA continues to take actions that may lead to emission increases in the mobile source inventory. In June 2026, EPA transmitted four existing mobile source program waivers to Congress for review, presumably with the intent of provoking the use of the Congressional Review Act to disapprove them.³³

In response to these federal actions, Governor Newsom signed Executive Order N-27-25 to help reach California’s emission reduction goals in lieu of the state waivers.³⁴ This executive order requires various state agencies, including CARB, to immediately assess additional actions to advance progress on light, medium, and heavy-duty zero-emission vehicle adoption in California. The assessment should, at a minimum, include strategies to increase consumer protections, strategies to address charging and refueling infrastructure barriers, including enforcement of reliability requirements; voluntary efforts; and efforts that leverage and partner with international and multistate coalitions, and partner governments at the international, state, and local levels. The District is actively tracking the progress of these assessments and their impact on the mobile source emission inventory.

Voluntary Incentive Strategies

The voluntary incentive and grant programs that the District currently implements continue to achieve cost-effective reductions in ozone precursor emissions. As explained in Chapter 6, new

³³ www.epa.gov/newsreleases/epa-fulfills-statutory-obligation-transmitting-four-california-waiver-rules-congress

³⁴ www.gov.ca.gov/wp-content/uploads/2025/06/CRA-Response-EO-N-27-25_-bl-formatted-GGN-Signed-6-11-954pmFinal.pdf

programs have been created and existing programs have been greatly expanded in recent years due to the state allocation of funds and an increased emphasis on addressing air quality impacts in disadvantaged and low-income communities. The District will continue to pursue additional state and federal funds that can be used locally to improve air quality through voluntary programs.

Prescribed Burn Program

Prescribed burning involves setting planned fires to fallen tree branches, dead grasses and trees, and thick undergrowth to help maintain the overall health of a forest. The District coordinates with local, state, and federal land managers [e.g. Santa Barbara County Fire Department, National Forest Service, Vandenberg Space Force Base] to achieve successful burns with minimal impacts. To have a successful prescribed burn, the land manager must submit the required smoke management plan to the District for review and approval. The smoke management plan outlines how the burn will be conducted and includes details such as how many acres the fire will cover, what will be burned, the methods to notify the public about the burn, and the anticipated meteorological conditions to achieve successful smoke dispersion. Since prescribed burns are highly dependent on the weather, they may be rescheduled if the desired conditions aren't met. If the weather unpredictably shifts during the burn and causes adverse smoke impacts, the land manager can order the fire to be extinguished. To make sure that the land managers and the public are aware of any smoke impacts, the District often sets up a portable air monitor in the nearby community.

As catastrophic wildfires continue to be a growing concern in California, the use of prescribed burning to help reduce hazardous fuels is projected to increase. Prescribed burns are designed to burn less intensely than wildfires since they are ignited amid controlled conditions to minimize potential smoke impacts, while wildfire events are more likely to result in episodes of harmful air quality. Furthermore, prescribed burns make forest environments healthier, more stable, and more resilient to change. Due to historical fire suppression efforts, many forests in California contain excess amounts of vegetation that serve as fuel and, as a result, are highly susceptible to catastrophic wildfires. Prescribed burning is an effective way to reduce the potential for destructive wildfire events and maintain healthy forest ecosystems. As part of this attainment plan, the District will continue to work and coordinate with local, state, and federal stakeholders to increase the efficiency of the Prescribed Burn Program.

Public Awareness and Education

The District uses a variety of methods to share information about air quality and District programs. Those methods include the District website, news releases, air quality alerts, social media (Twitter, Instagram, and Nextdoor), media interviews, educational programs, school and civic group presentations, participation at events and festivals, and phone calls with the public. Efforts are made to provide information in both English and Spanish. All of these activities

promote agency awareness and involvement in community programs, encouraging Santa Barbara County residents to consider ways in which they can help reduce air quality impacts.

APPENDIX A – NATURAL SOURCE EMISSIONS

Natural sources are non-anthropogenic sources that include biogenic emissions, petroleum oil & gas seeps (geogenic), and wildfires. A planning inventory does not typically include the emissions from natural sources since they are not regulated nor controlled through the implementation of emission control measures. A brief description of the three natural source categories is provided below.

Biogenic Emissions:

Biogenic emissions mainly consist of isoprenes, terpenes, and other VOC that are emitted from plants and trees. NO_x emissions are also emitted from the natural soils. The California Air Resources Board estimates biogenic VOC emissions using the MEGAN model (Model of Emissions of Gases and Aerosols from Nature) and biogenic NO_x emissions using the DNDC model (Denitrification-Decomposition).

Seeps (or Geogenic Emissions):

Oil and gas seeps have occurred naturally off the coast of California for thousands of years. They are associated with cracks in the Earth's crustal layers in which oil floats to the surface of the water and gas bubbles out and escapes into the air. The emissions are estimated by the District using a combination of various studies surrounding Coal Oil Point, which is located in the Santa Barbara Channel.

Wildfires:

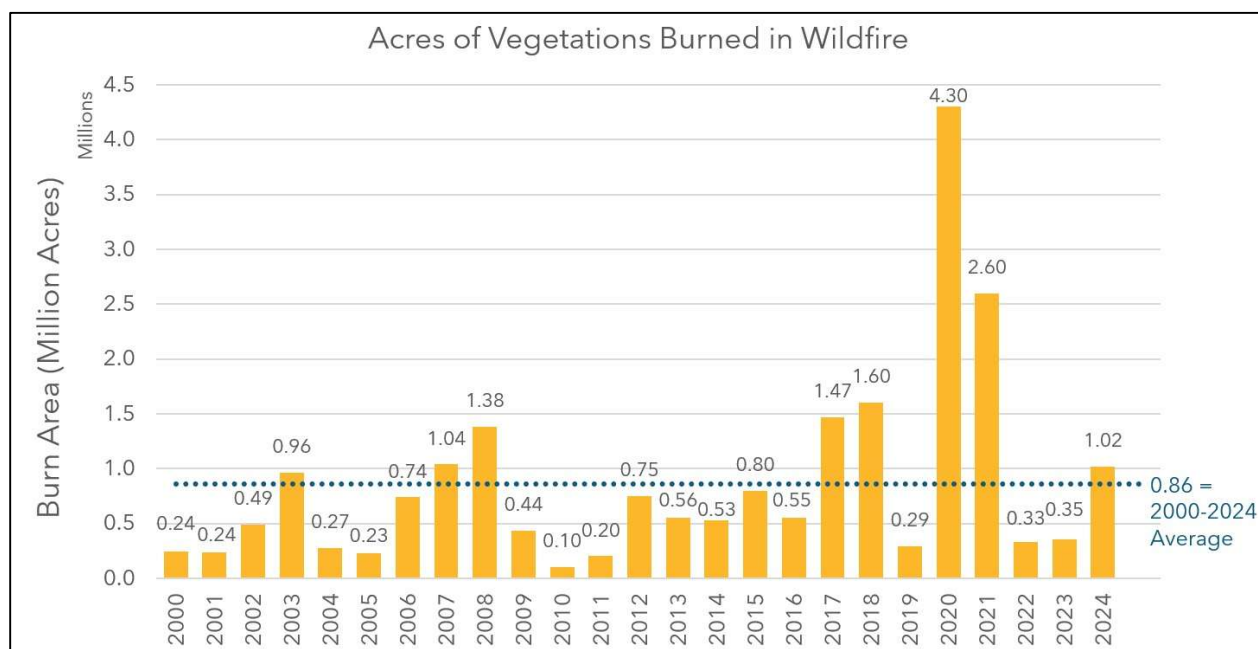
A wildfire is an unplanned, natural event that burns a variety of vegetation types. The California Air Resources Board estimates wildfire emissions using a model that incorporates Geographic Information Systems (GIS) data on the fire perimeters, vegetation composition, fuel density (tons/acre), and fuel moisture. Wildfires do not include prescribed burns because prescribed burns are planned events to ignite the fire for resource or safety benefits. Hence, prescribed burns are included as an area source in the planning emission inventory.

In order to provide additional perspective on the magnitude of emissions from natural sources, Table A-1 provides the local emission estimates for natural sources, and Figure A-1 provides the estimates on the statewide wildfire acreage burned since calendar year 2000.

**TABLE A-1: SANTA BARBARA COUNTY – 2023 NATURAL SOURCE ROC AND NO_x EMISSIONS
(TONS PER DAY)**

NATURAL SOURCES	ROC	NO _x
BIOGENICS	96.85	0.39
SEEPS	26.36	0.00
WILDFIRES ³⁵	3.50	1.13
NATURAL SOURCE TOTAL	126.71	1.52

FIGURE A-1: STATEWIDE WILDFIRE DATA – ACREAGE OF BURNED WILDLAND ³⁶



³⁵ 2023 emissions represent a 10-year average (2014 to 2023) of wildfire emissions within Santa Barbara County.

³⁶ California Air Resources Board, "Wildfire Emissions & Burned Area Estimates 2000–2024"

FIGURE A-2: 2023 ROC AND NO_x EMISSIONS – ALL SOURCES (TONS PER DAY)

