apcd air pollution control district
SANTA BARBARA COUNTY

Agenda Item: I-2
Agenda Date: December 15, 2022
Agenda Placement: Regular
Estimated Time: 20 minutes
Continued Item: No

Board Agenda Item

TO: Air Pollution Control District Board

FROM: Aeron Arlin Genet, Air Pollution Control Officer

CONTACT: Jim Fredrickson, Supervisor, Planning Division, (805) 979-8328

SUBJECT: Adoption of the 2022 Ozone Plan

RECOMMENDATION:

Consider recommendations as follows:

1. Hold a public hearing to receive public testimony on the 2022 Ozone Plan and Addendum to the Final Environmental Impact Report for the 2010 Clean Air Plan; and

2. Adopt the Resolution included as Attachment A. This Resolution includes the following action items:

    a. Find that, prior to approval of the 2022 Ozone Plan, Board members have reviewed and considered the Addendum to the Final Environmental Impact Report for the 2010 Clean Air Plan with the Final Environmental Impact Report for the 2010 Clean Air Plan (Attachments 1 and 2);

    b. Adopt the California Environmental Quality Act Findings (Attachment 3), including that subsequent environmental review is not required because none of the conditions in CEQA Guidelines section 15162 have occurred;

    c. Adopt the 2022 Ozone Plan (Attachment 4); and,

    d. Authorize the Air Pollution Control Officer to transmit the 2022 Ozone Plan to the California Air Resources Board and do all other acts necessary and proper to obtain approval of the 2022 Ozone Plan.

BACKGROUND:

Ozone is a gaseous pollutant consisting of three oxygen atoms (O_3). Ozone is not directly emitted into the atmosphere, but instead, it is produced by photochemical reactions between oxides of nitrogen (NOx) and reactive organic compounds (ROCs) in the presence of heat and sunlight. 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 California Clean Air Act of 1988 established air quality planning requirements for regions that do not meet the state ambient air quality standards. At that time, the Santa Barbara County Air Pollution Control District (District) was classified as a severe nonattainment area for the state ozone standard. Hence, the District prepared the initial 1991 Air Quality Attainment Plan, which included a comprehensive evaluation of the sources of emissions, projections of emissions into the future, and a suite of measures that were designed to reduce NOx and ROC emissions from a variety of stationary and mobile sources, both onshore and offshore of Santa Barbara County. As required by state law, air districts that are designated as nonattainment need to update their plan on a triennial basis. The 2022 Ozone Plan (2022 Plan) is the tenth update to the original plan.

DISCUSSION:

As with prior plans, the 2022 Plan takes a comprehensive look at Santa Barbara County's progress towards attaining and maintaining the state ozone standards. The 2022 Plan revision identifies the recent monitored pollutant levels and air quality indicators, incorporates new emission inventory data and projections, and reviews the potential regulatory and voluntary control measures to achieve additional emission reductions. This document reflects the ongoing commitment of your Board, District staff, the Santa Barbara County Association of Governments (SBCAG), the Community Advisory Council, the California Air Resources Board, local businesses, and the community-at-large to reduce air pollution and provide for clean air in Santa Barbara County. A summary of each chapter in the plan is shown below.

<u>Chapter 1 – Introduction</u>

This chapter summarizes the purpose of the 2022 Plan, the attainment designations, and the current California planning requirements that apply to Santa Barbara County. Chapter 1 also provides highlights of the different plan elements.

<u>Chapter 2 – Local Air Quality</u>

Chapter 2 answers the question, *"How is our air?"* in the context of the state ozone standards. It highlights the successful downward trend of exceedances of the state 8-hour ozone standard despite a 20 percent population growth in Santa Barbara County. Chapter 2 also describes how the State determines whether a region has attained the ozone standard. As of this writing, the District continues to be designated as *nonattainment*, but we are in the process of being officially designated as *nonattainment-transitional* by CARB based on the most recent monitoring data.

Chapter 3 – Emission Inventory

This chapter presents the current baseline emission inventory, the historical inventory, and forecasted future NOx and ROC emission inventories. Each emission inventory accounts for the types and amounts of pollutants emitted from a wide variety of sources, including fuel combustion at industrial facilities, solvent and surface coating usage, consumer product usage, and on-road motor vehicles and other mobile sources.

The historical inventory shows that there have been emission decreases within Santa Barbara County over the last few decades. These decreases are primarily driven by the District's stationary source control program and the California clean engine standards for motor vehicles (both on- and off-road). However, there is a projected increase in the near-term NOx emissions, primarily due to increased marine shipping activities off the coast of California. This chapter includes a discussion of air quality impacts from marine shipping and how the emissions are expected to change over time due to federal and international regulations.

Chapter 4 – Stationary Source Emission Control Measures

Over the decades of implementing measures included in previous Plans, the District has adopted over 30 measures to regulate the various stationary source categories in Santa Barbara County. For this 2022 Plan, District staff took a fresh look at the control measures and evaluated if any additional control measures were necessary for the next three years. Staff compared the District's rules to those of other California air districts, reviewed new information and guidance documents, and considered the magnitude of the emission reductions as well as cost-effectiveness of the measures. In reviewing the literature, no new feasible control measures were identified. Staff's assessment is that no additional stationary source control measures are necessary at this time in order to attain and maintain the ozone standards.

Chapter 5 – On-Road Transportation Control Measures

As laid out in a Memorandum of Understanding (MOU) between the District and SBCAG, SBCAG is responsible for the transportation element of the 2022 Plan. SBCAG evaluates transportation control measures (TCMs), which are programs or activities that states and localities can implement to encourage the public to rely less on the automobile or to use the automobile more efficiently. Chapter 5 includes a discussion of the previously adopted TCMs and highlights newer projects that were implemented during the last three years. In preparing Chapter 5, SBCAG staff considered whether additional TCMs should be proposed for adoption as part of the plan update. No new TCMs were proposed; however, numerous agencies throughout Santa Barbara County will continue to implement the adopted TCMs as they introduce transportation-related projects and programs in their respective communities.

Chapter 6 – Voluntary Grant and Incentive Strategies

For 35 years, 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. Chapter 6 outlines the District's voluntary grant and incentive programs which provide funding opportunities to reduce additional ROC, NOx, and particulate matter (PM) emissions within Santa Barbara County. These incentive programs achieve cost-effective emission reductions related to a variety of equipment types including

transportation sources, 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 precursors and achieving community health benefits. The District places a high priority to secure as much grant and incentive funds available for local efforts and plans to continue these programs well into the future.

Chapter 7 – Attainment Strategy

This chapter discusses the District's core programs, which are expected to result in additional emission reductions to help attain the ozone standards. This includes the stationary source program, emission inventory, land-use and CEQA review, incentive strategies, and public awareness and education programs. Once the District attains the state ozone standards, it must work towards maintaining the standards into the future. All of the core elements described in this chapter are necessary to ensure that "backsliding" does not occur, while assuring cleaner air for the residents and visitors of Santa Barbara County.

PUBLIC REVIEW:

The Community Advisory Council (CAC) was established by your Board to review District rules and plans. District staff met with the CAC on three occasions to review different elements of the 2022 Ozone Plan, discuss them, and receive feedback. In April 2022, District staff presented an overview of the state planning mandates and the plan structure. In June 2022, District staff presented the drafts of Chapters 1 through 3. In October 2022, a final draft of the 2022 Ozone Plan was reviewed by the CAC. For all three of these meetings, the CAC received a presentation from staff and had an opportunity to discuss the materials and provide feedback. At the end of the third meeting, CAC members discussed the final draft and unanimously made a recommendation to forward to the District Board to consider 2022 Plan adoption.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA):

Pursuant to California Environmental Quality Act Guidelines section 15164, the District prepared an Addendum to the Final Environmental Impact Report (EIR) for the 2010 Clean Air Plan (State Clearing House No. 2010071014). The Addendum documents that no new impacts, above and beyond those that were analyzed in the 2010 Clean Air Plan EIR, are anticipated to occur with implementation of the 2022 Ozone Plan, and no new mitigation is required. The Addendum, as well as the Final EIR for the 2010 Clean Air Plan, are included as Attachments 1 and 2 to the Resolution.

ATTACHMENTS:

A. Board Resolution for the 2022 Ozone Plan, which includes the following:
    1) Final EIR for the 2010 Clean Air Plan.
    2) Addendum to the 2010 Clean Air Plan EIR.
    3) CEQA Findings.
    4) Proposed 2022 Ozone Plan.

ATTACHMENT A

Board Resolution for the 2022 Ozone Plan

December 15, 2022

Santa Barbara County Air Pollution Control District
Board of Directors

260 San Antonio Road, Suite A
Santa Barbara, California 93110

IN THE MATTER OF ADOPTING THE 2022 OZONE PLAN	APCD RESOLUTION NO. _____

RECITALS

WHEREAS, the Santa Barbara County Air Pollution Control District ("District") is currently designated as a nonattainment area for the state ozone standard; and

WHEREAS, in accordance with the requirements of Health and Safety Code section 40925, the District is required to revise its state ozone attainment plan at least once every three years; therefore, the District has prepared the 2022 Ozone Plan to attain and maintain the state ozone air quality standard in the District; and

WHEREAS, the 2022 Ozone Plan contains a strategy to attain and maintain the state ozone standard, and also encourages certain actions by other jurisdictions within Santa Barbara County and the State of California to help achieve that goal; and

WHEREAS, the 2022 Ozone Plan has identified that the District's attainment status for the state ozone standard may change from nonattainment to nonattainment-transitional, pursuant to California Health & Safety Code Section 40925.5(a) and California Code of Regulations Title 17, Section 70303.5(b); and

WHEREAS, pursuant to Health and Safety Code section 40717(b), the District entered into a Memorandum of Understanding with the Santa Barbara County Association of Governments on July 20, 1993 to jointly prepare plans for transportation control measures that meet the requirements of that state law; and

WHEREAS, to meet the requirements of Health and Safety Code section 40717(b), the Santa Barbara County Association of Governments has assessed the implementation of adopted transportation control measures, has considered whether additional transportation control measures were necessary, and has adopted the identified transportation control measures at noticed public hearings. For the 2022 Ozone Plan, no new transportation control measures are proposed because it has been determined that new measures are not necessary; and

WHEREAS, on October 13, 2022, the Community Advisory Council met and considered the draft 2022 Ozone Plan and recommended that this Board approve the plan; and

WHEREAS, pursuant to the California Environmental Quality Act, the District has prepared an Addendum to the Environmental Impact Report for the 2010 Clean Air Plan (State Clearing House No. 2010071014) to address any potential adverse environmental impacts associated with implementation of the 2022 Ozone Plan, as shown in Attachments 1 and 2.

NOW, THEREFORE, IT IS HEREBY RESOLVED, as follows:

1. The California Environmental Quality Act Findings, as set forth in Attachment 3, are hereby adopted as findings of this Board pursuant to the California Environmental Quality Act and the California Environmental Quality Act Guidelines, including that subsequent environmental review is not required because none of the conditions in CEQA Guidelines section 15162 have occurred.
2. The Board hereby finds that the transportation control measures developed and approved by the Santa Barbara County Association of Governments continue to meet the emission reduction objectives necessary for the District to adopt the 2022 Ozone Plan.
3. The Board hereby adopts the 2022 Ozone Plan, as provided to this Board in Attachment 4, and finds that this Plan shall be the plan for purposes of compliance with the plan update requirements of the California Clean Air Act of 1988.
4. The Board authorizes the Control Officer to transmit the 2022 Ozone Plan to the California Air Resources Board and to do all other acts necessary and proper to obtain approval of the 2022 Ozone Plan by the California Air Resources Board.

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PASSED, APPROVED AND ADOPTED by the Air Pollution Control District Board of the Santa Barbara County, State of California, this ___ day of _____, _____, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

SANTA BARBARA COUNTY
AIR POLLUTION CONTROL DISTRICT

By _____
Chair

Date _____

ATTEST:

AERON ARLIN GENET
Clerk of the Board

By _____
Deputy

APPROVED AS TO FORM:

RACHEL VAN MULLEM
Santa Barbara County Counsel

By _____
Jennifer Richardson (Dec 2, 2022 10:29 PST)
District Counsel

APPROVED AS TO FORM:

GREG MILLIGAN, ARM
Risk Manager

By Samantha Francis
Samantha Francis (Dec 2, 2022 10:47 PST)
Risk Manager

APPROVED AS TO FORM:

BETSY M. SCHAFFER, CPA
Auditor-Controller

By _____
Deputy

ATTACHMENT 1

Final EIR for the 2010 Clean Air Plan

December 15, 2022

Santa Barbara County Air Pollution Control District
Board of Directors

260 San Antonio Road, Suite A
Santa Barbara, California 93110

JANUARY 2011

FINAL ENVIRONMENTAL IMPACT REPORT

FOR THE

2010

CLEAN AIR PLAN

SANTA BARBARA COUNTY'S PLAN TO ATTAIN THE STATE OZONE STANDARD

STATE CLEARINGHOUSE NO. 2010071014

SANTA BARBARA COUNTY
AIR POLLUTION CONTROL DISTRICT
260 N. SAN ANTONIO ROAD, SUITE A
SANTA BARBARA, CALIFORNIA 93110
WWW.SBCAPCD.ORG
(805) 961-8800

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Executive Summary

This Environmental Impact Report (EIR) has been prepared to address the potential adverse environmental impacts of the 2010 Clean Air Plan, referred to hereafter as the 2010 Plan, in accordance with the California Environmental Quality Act (CEQA).

The 2010 Plan, prepared by the Santa Barbara County Air Pollution Control District (APCD), is a three-year update required by the State of California to show how the APCD plans to meet the state 8-hour ozone standard. In addition to planning for attainment of the state ozone standard, the 2010 Plan contains two chapters that are provided for informational purposes, and are not regulatory in nature: a climate protection chapter with an inventory of carbon dioxide (CO_2) emissions in the County, and a transportation and land use planning chapter.

The APCD Board is a lead agency under the California Environmental Quality Act (CEQA) for the 2010 Plan, and will use the 2010 Plan EIR in its decision-making process when it considers whether to adopt the control measures included in the 2010 Plan as APCD rules. The control measures in the 2010 Plan will be potentially implemented over a number of years and affect a broad spectrum of industries. Implementation of the control measures included in the 2010 Plan, through adoption of source-specific regulations for the control of ozone precursor pollutants, is designed to bring the region into attainment of the state 8-hour ozone standard.

This EIR contains a description of the proposed project, a summary of the existing environmental setting for the project, and an assessment of the potential environmental impacts related to the project. No significant (Class 1) environmental impacts were identified for the 2010 Plan; therefore, no mitigation measures are included in the EIR.

The EIR contains eight Sections and four Appendices; the Sections are summarized below:

Section 1.0, **Introduction**

This section includes background information for the project, the project objectives, intended use of the EIR, document organization, effects found not to be significant, and a glossary of terms and acronyms used in the EIR. The APCD develops Clean Air Plans to provide an overview of air quality and sources of air pollution and to identify the pollution control measures needed to meet clean air standards. The 2010 Plan builds on previous Clean Air Plans developed by APCD for Santa Barbara County. Impacts that were found not to be significant and did not warrant discussion in the EIR include: Aesthetics, Geology/Soils, Population/Housing, Agricultural and Forestry Resources, Cultural Resources, Mineral Resources, and Recreation.

Section 2.0, Project Description

This section identifies the project proponent, location, a summary of the content of the 2010 Plan, and a description of the control measures that are proposed for implementation during the Plan period. The control measures that apply to stationary sources of air pollution and will be implemented by APCD are identified in Chapter 4 of the 2010 Plan. Chapter 4 of the 2010 Plan also includes a discussion of control measures that will be implemented by other agencies such as the California Air Resources Board and the International Maritime Organization. The control measures that will be implemented by APCD are

grouped into two general categories, in order to facilitate the analysis of environmental impacts in the applicable issue areas.

Group 1 Control Measures are described as "Solvent Cleaning ROC Limits and Other Reductions in Material ROC Content." Revisions to APCD rules are proposed that will result in a lowering of reactive organic compound, or ROC, limits for solvent cleaning activities in various industries. To meet the California Clean Air Act requirement to adopt "every feasible control measure", there may also be revisions to:

1) The ROC content limits for other process materials (e.g., coatings, adhesives, sealants, inks, resins, wash primers, fountain solutions),
2) The maximum allowable ROC content limit for solvent cleaning activities, and
3) The equipment and operation requirements.

Group 2 Control Measures are described as "Combustion Equipment NO_X Limits." These control measures involve a reduction in the allowable nitrogen oxides, or NO_X, emissions limits from external combustion equipment (such as water heaters, boilers, steam generators and process heaters) as listed in APCD Rules 352, 360, 361, and 342.

The 2010 Plan identifies transportation control measures (TCMs) in Chapter 5. As discussed in Chapter 5 of the 2010 Plan, Santa Barbara County Association of Governments (SBCAG) is responsible for developing the transportation elements of air quality plans for Santa Barbara County. The SBCAG Board is scheduled to adopt the 2010 Plan TCMs in November, 2010. Impacts related to the adoption of the TCMs are not assessed in this EIR, since the TCMs will be adopted by another agency. The 2010 Plan contains two chapters that are provided for informational purposes, and are not regulatory in nature: a climate protection chapter, with an inventory of carbon dioxide (CO_2) emissions in the county, and a transportation and land use planning chapter.

Section 3.0, **Environmental Setting**

Section 3 identifies the existing, or baseline, setting for the project, in terms of both the physical environment and the regulatory environment. The environmental setting establishes the conditions to which the proposed project actions are compared, in order to facilitate an accurate assessment of the impacts that will result from project implementation. The environmental setting is described for the following impact areas: Air Quality, Biological Resources, Hazards/Risk of Upset, Hazardous Materials, Hydrology and Water Quality, Land Use/Planning, Noise, Public Services, Transportation/Circulation, and Utilities/Energy.

Section 4.0, Project Impacts and Mitigation Measures

For all of the applicable issue areas discussed in Section 3.0, this section includes the CEQA significance thresholds that are applied to the project and identifies whether any of the proposed control measures would result in significant impacts. APCD's *Environmental Review Guidelines* establish classification categories for impacts:

- ***Class I Impacts*** - Significant unavoidable adverse impacts for which the decision maker must adopt a Statement of Overriding Consideration.

- ***Class II Impacts*** - Significant adverse environmental impacts that can be feasibly mitigated or avoided for which the decision maker must adopt findings and mitigation measures.
- ***Class III Impacts*** - Adverse impacts found not to be significant for which the decision maker does not have to adopt findings under CEQA.
- ***Class IV Impacts*** - Beneficial impacts of the project.

Significance thresholds are presented for each of the issue areas that are examined in Section 4; these thresholds are based on APCD's *Environmental Review Guidelines*, CEQA Guidelines including Appendix G, and Santa Barbara County's *Environmental Thresholds Manual* and Initial Study Checklist. Impacts in all issue areas were determined to be either Class IV (beneficial, for Air Quality), or Class III (less than significant, for all other impact areas). No significant impacts were identified; therefore, no mitigation measures are proposed.

Section 5.0, **Cumulative Impacts and Global Climate Change**

This section includes a discussion of cumulative impacts that may result from implementation of the project, in combination with other past, present or future projects. The 2010 Plan is anticipated to result in improvements to air quality in Santa Barbara County, and no significant cumulative impacts are anticipated to occur as a result of implementing the 2010 Plan and its related control measures. Section 5.1 includes a discussion of the existing setting, both in terms of the physical setting and the regulatory setting, for global climate change and greenhouse gas impacts. Climate change impacts are presented in terms of: (1) the impacts of the project on global climate change, and (2) the impacts of global climate change on the proposed project. No significant impacts to global climate change and greenhouse gas emissions are anticipated to occur.

Section 5.2 includes a brief discussion of other potential cumulative impacts related to implementation of the 2010 Plan. The 2010 Plan was prepared in coordination with other regional planning agencies and does not involve any new development activities or impacts that would affect other programs in the Plan's jurisdictional area. No other significant cumulative impacts are anticipated to occur.

Section 6.0, Alternatives

This section includes a discussion of project alternatives that were considered, including a "No Project" alternative, as well as a qualitative discussion of the environmental impacts associated with project alternatives. The following alternatives are evaluated in Section 6.0:

- No Project Alternative
- More Stringent Control Measure Alternative
- Less Stringent Control Measure Alternative
- Environmentally Superior Alternative
- Alternatives Rejected As Infeasible

A "No Project" alternative would not result in adverse environmental impacts as compared to the existing environmental setting. However, the "No Project" alternative would not meet the basic objective of the 2010 Plan.

A "More Stringent Control Measures" alternative would involve the implementation of some or all of the further study measures that are identified in Chapter 4 of the 2010 Plan. A "More Stringent Control Measures" alternative would, in theory, enhance progress toward attainment of the California ambient air quality standard for ozone. However, implementation of the further study measures may involve possible environmental, technical, and economic impacts that, at this point in time, are less well known for a variety of reasons. In addition, these measures may not be as well suited for application in Santa Barbara County as they are for other areas. The discussion includes a listing of potential environmental impacts associated with a "More Stringent Control Measures" alternative. A detailed assessment of these impacts is too speculative to include in this EIR.

The "Less Stringent Control Measures" alternative is defined as implementation of some, but not all, of the control measures that are proposed for implementation. Additionally, this alternative might involve a less stringent control option for any of the proposed control measures. Because this alternative does not avoid any significant environmental impacts and postpones attainment of the ozone standard, it does not fully meet the project objectives and is not considered a feasible alternative.

The proposed project is considered to be the most efficient means of attaining the basic objectives of the California Clean Air Act, while limiting adverse effects to a reasonable level. Therefore, the proposed project (The 2010 Plan) is considered to be the "Environmentally Superior" alternative. The alternatives that are considered by the District to be infeasible at this time are retained in the 2010 Plan as further study measures.

Section 7.0, Other CEQA Topics

This section includes a discussion of significant irreversible changes, growth-inducing impacts, and economic and social effects associated with implementation of the 2010 Plan control measures.

No significant irreversible changes are anticipated to result from implementation of the 2010 Plan. Improving air quality through implementation of control measures to reduce NO_X and ROC emissions is not expected to have growth-inducing impacts. In the context of the 2010 Plan and implementation of the proposed ROC and NO_X control measures, some level of economic impact may be realized by the industries that are regulated under the rules associated with the proposed control measures. However, pursuant to CEQA, "*…economic or social effects of a project shall not be treated as significant effects on the environment*."(CEQA Guidelines Section 15131 (a)). Thus, this EIR did not consider them in the significance determinations.

Section 8.0, References

Section 8.0 provides a listing of the organizations and persons consulted, the documents that were used to prepare the EIR and supplement discussion of environmental impacts, and the specific reference materials that are cited in the EIR text.

Areas of Controversy and Issues to Be Resolved

Section 15123 of the CEQA Guidelines requires that the EIR Executive Summary include a discussion of "*Areas of controversy known to the Lead Agency including issues raised by agencies and the public…"* The summary should also identify, *"Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant impacts.*" APCD has been planning for clean air in Santa

Barbara County for decades, and the 2010 Plan is a continuation of these ongoing efforts. The clean air planning process involves input from APCD professional staff and the APCD Board, the regulated community, the general public, and other local and state agencies. Several controversial issues have been raised in the 2010 clean air planning process as noted below:

- Whether the 2010 Plan should include recommendations related to land use decisions;
- The extent to which the 2010 Plan should address transportation-related control measures;
- The level of emissions controls set forth in proposed control measures.

These issues were discussed and considered as the 2010 Plan was developed. The 2010 Plan is a result of careful consideration of these issues, along with APCD's clean air planning goals and state regulatory requirements. The clean air planning process inherently involves a consideration of project alternatives by way of examining various control measures, determining their feasibility and effectiveness, and evaluating various industry concerns. No significant environmental impacts were identified; therefore, the APCD Board's decision to adopt the 2010 Plan will not include choices of whether and how to mitigate significant impacts.

1.0 Introduction

1.1 Background

The Santa Barbara County Air Pollution Control District (APCD) develops Clean Air Plans to provide an analysis of air quality and sources of air pollution and to identify the pollution-control measures needed to meet clean-air standards. The schedule for plan development is outlined by state and federal requirements, and is influenced by our air quality. Clean Air Plans direct the development of our rules and regulations and other programs.

The United States Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) specify the type of Clean Air Plan needed and set guidelines for the plan contents. Working closely with the APCD's Community Advisory Council and the Santa Barbara County Association of Governments, APCD develops draft Clean Air Plans in accordance with USEPA and CARB timelines. After a public review process, APCD staff prepares a final Clean Air Plan. The Plan is presented to the APCD Board for adoption, and after adoption it is transmitted to the USEPA and/or the CARB for final approval.

The 2010 Clean Air Plan (referred to hereafter as the 2010 Plan) is a three-year update required by the state of California to show how the APCD plans to meet the state 8-hour ozone standard. In addition to planning for attainment of the state ozone standard, the draft 2010 Plan contains two chapters that are provided for informational purposes, and are not regulatory in nature: a climate protection chapter, with an inventory of carbon dioxide (CO_2) emissions in the County, and a transportation and land use planning chapter.

Following is a brief summary of the Clean Air Plans the APCD has developed:

- The **2001 Clean Air Plan** was prepared as required by the Federal Clean Air Act, was adopted by the APCD Board, and was approved by both the USEPA and the CARB. This Plan is in effect for federal standards; it shows how the County will maintain attainment with the federal 1-hour ozone standard through 2015 (note that the federal 1-hour ozone standard was revoked in 2005). It also includes a three-year plan revision required by the state to show how the County will work toward meeting the state 1-hour ozone standard.
- The **2004 Clean Air Plan** was prepared as a three-year update as required by California Clean Air Act. This Plan was adopted by the APCD Board in December of 2004, and has been submitted to CARB. This Plan shows how the County will make progress towards meeting the state 1-hour ozone standard (the 2001 Plan remains in effect for federal requirements).
- The **2007 Clean Air Plan** was adopted by the APCD Board on August 16, 2007. The federal requirements pertain to provisions of the Federal Clean Air Act that apply to our current designation as an attainment area for the federal 8-hour ozone standard. Areas that are designated as attainment for the federal 8-hour ozone standard and attainment for the previous federal 1-hour ozone standard with an approved maintenance plan must submit an 8-hour ozone standard maintenance plan. The 2007 Clean Air Plan addresses the California Clean Air Act requirement for a three-year update to plan for attainment of the state 1-hour ozone standard. Previous plans developed to comply with the state ozone standard include the1991

Air Quality Attainment Plan, the 1994 Clean Air Plan, the 1998 Clean Air Plan, and the 2001 Clean Air Plan.

A Clean Air Plan generally includes an overview of air quality planning efforts, information on county-specific air quality issues, an inventory of the air pollutant emissions in the County, existing and proposed emission control measures, existing and proposed transportation control measures, emissions forecasts, public comments, and other topics as appropriate.

1.2 PROJECT OBJECTIVES

The purpose of the 2010 Plan is to chart a course of action that will implement state plan requirements, with the goal to achieve clean, healthful air for the residents and environment of Santa Barbara County. Clean air is fundamental to public health; enhances the environment and contributes to the attractiveness of the area to residents, businesses, and visitors. Air quality has improved in the County as past air quality plan strategies have been implemented.

Santa Barbara County's air quality has historically violated both the state and federal ozone standards. Ozone concentrations above these standards adversely affect public health, diminish the production and quality of many agricultural crops, reduce visibility, and damage native and ornamental vegetation. Since 1999, however, local air quality data show that every monitoring location in Santa Barbara County complies with the federal 1-hour ambient air quality standard for ozone (note that the federal 1-hour ozone standard was revoked in 2005). And on August 8, 2003, Santa Barbara County officially became an attainment area for the federal 1-hour ozone standard.

In 2004, USEPA replaced the federal 1-hour ozone standard with an 8-hour ozone standard. In the 2004 Plan, the 8-hour standard was 0.08 parts per million measured over eight hours and is more protective of public health and more stringent than the federal 1-hour standard. Santa Barbara County has been designated as attainment for the federal 8-hour ozone standard, and the 2007 Clean Air Plan provided for maintenance of this federal standard.

In March 2008, USEPA revised the 8-hour federal ozone standard from 0.08 ppm to 0.075 ppm. However, on September 16, 2009, EPA announced it would reconsider the 2008 standard of 0.075 ppm to ensure that this standard is clearly grounded in science and protects public health with an adequate margin of safety. In January 2010, USEPA announced that the revised standard would be between 0.060 and 0.070 ppm. A final decision is anticipated in Fall 2010.

Our County’s air quality has improved enough to be considered in attainment of the federal 8-hour ozone standard and the state 1-hour ozone standard. As we have yet to attain the state 8-hour ozone standard, the 2010 Plan demonstrates how we plan to attain that standard and satisfies all state triennial planning requirements.

Therefore, the implementation of the control measures included in the 2010 Plan, through adoption of source-specific regulations for the control of ozone precursor pollutants, is designed to bring the region into attainment of state ozone air quality standards.

Included in this 2010 Plan is a new Climate Protection chapter that discusses greenhouse gas emissions and climate change issues in a planning context. This chapter is informational and not

regulatory in nature, presents an overview of global climate change issues, and provides a baseline 2007 carbon dioxide (CO_2) inventory for the County. Also new in this 2010 Plan is another informational chapter that discusses the impact transportation and land use planning have on air quality, and strategies to mitigate those impacts.

1.3 INTENDED USE OF THE ENVIRONMENTAL IMPACT REPORT

The 2010 Plan and its associated Environmental Impact Report (EIR) were developed to support and guide the APCD's efforts to control air pollutant emissions and reduce ambient air pollutant concentrations in Santa Barbara County. The APCD Board is a lead agency under the California Environmental Quality Act (CEQA) for the 2010 Plan, and will use the 2010 Plan EIR in its decision-making process when it considers whether to adopt the control measures included in the 2010 Plan as APCD rules.

The California Air Resources Board (CARB) is the primary state agency responsible for air quality in the State of California. CARB is tasked with review and approval of the 2010 Plan; therefore, CARB is a CEQA responsible agency.

Other jurisdictions within Santa Barbara County, including the County of Santa Barbara, the eight cities within the County, the University of California at Santa Barbara, and Vandenberg Air Force Base, will need to consider the 2010 Plan as they issue land use entitlements and plan for development within their jurisdictional boundaries. For projects undertaken by other lead agencies, an analysis of whether those projects are consistent with the 2010 Plan is required by the California Environmental Quality Act (CEQA Guidelines Section 15064, 15125, and Appendix G; SBCAPCD Environmental Review Guidelines).

1.4 TOPICS AND ORGANIZATION OF DRAFT EIR

An Initial Study was not prepared for the 2010 Plan. The control measures in the 2010 Plan will be potentially implemented over a number of years and affect a broad spectrum of industries. Therefore, APCD staff decided that in the interest of full disclosure under CEQA, an EIR should be prepared for the 2010 Plan. Implementation of the 2010 Plan is anticipated to benefit regional air quality, and significant environmental impacts are not anticipated to occur as a result of plan implementation. As the control measures in the 2010 Plan are implemented, this EIR will provide a broad analysis of impacts in the CEQA context. When specific APCD rule revisions are considered by the APCD Board, those projects may rely on this EIR to support an assessment of project impacts, using the concept of tiering. Additional, focused review of project-specific impacts may be required for individual projects, depending on the nature of the proposed action.

There are a number of issue areas that warrant discussion and analysis in the 2010 Plan EIR. The analysis for the following issue areas has been included in this document:

- **Air Quality**
- **Biological Resources**
- **Hazards/Risk of Upset**
- **Hazardous Materials**
- **Water Resources**

- **Land Use/Planning**
- **Noise & Nuisance**
- **Public Service**
- **Transportation/Circulation**
- **Utilities/Energy**
- **Global Climate Change/Greenhouse Gas Emissions**

The EIR was prepared in accordance with Articles 9 (Sections 15120 to 15132) and 10 (Sections 15140 to 15155) of the CEQA Guidelines, which address the content and level of analysis required for EIRs. The EIR is organized as follows:

Executive Summary – Includes a summary of the project, alternatives considered, and the anticipated environmental impacts and mitigation measures associated with the project.

Section 1.0 – Introduction: Includes background information for the project, the project objectives, intended use of the EIR, document organization, effects found not to be significant, and a glossary of terms and acronyms used in the EIR.

Section 2.0 – Project Description: Identifies the project proponent, location, a summary of the content of the 2010 Plan, and a detailed description of the control measures that are proposed for implementation during the plan period.

Section 3.0 – Environmental Setting: Identifies the existing, or baseline, setting for the project, in terms of both the physical environment and the regulatory environment.

Section 4.0 – Project Impacts and Mitigation Measures: For all applicable issue areas, this section includes the CEQA significance thresholds that are applied to the project, and identifies whether or not any of the proposed control measures would result in significant impacts. No significant impacts were identified; therefore, no mitigation measures are proposed.

Section 5.0 –Cumulative Impacts and Global Climate Change: This section includes a discussion of cumulative impacts that may result from implementation of the project, in combination with other past, present or future projects. Also included is a discussion of the physical and regulatory setting for global climate change/greenhouse gas impacts, as well as an analysis of whether:

a) Implementation of the proposed control measures in the 2010 Plan will significantly impact global climate change, and
b) Global climate change will impact the implementation of the control measures in the 2010 Plan.

Section 6.0 – Alternatives: Includes a discussion of project alternatives that were considered, including a "No Project" alternative, as well as a qualitative discussion of the environmental impacts associated with project alternatives.

Section 7.0 – Other CEQA Topics: Includes a discussion of significant irreversible changes, growth-inducing impacts, and economic and social effects associated with implementation of the 2010 Plan control measures.

Section 8.0 – References: Provides all relevant documents that were used to prepare the EIR and supplement discussion of environmental impacts.

1.5 EFFECTS FOUND NOT TO BE SIGNIFICANT

A number of resource areas did not have any relevance to implementation of the 2010 Plan and its associated control measures, and did not warrant discussion in the EIR. Those issue areas, and the reasons for not including additional discussion in the EIR, are as follows (CEQA Guidelines Section 15128):

- **Aesthetics**: The control measures in the 2010 Plan will be applied to existing industrial operations and are not anticipated to impact the aesthetic characteristics of those operations. If a new industrial operation is proposed, the CEQA analysis for that operation will be conducted as part of the land use approval process of the applicable decision-making agency, and will require examination of impacts to aesthetics as part of that process.

- **Geology/Soils**: The control measures in the 2010 Plan will be applied to existing industrial operations and are not anticipated to impact the geologic or soils characteristics of those operations. If a new industrial operation is proposed, the CEQA analysis for that operation will be conducted as part of the land use approval process of the applicable decision-making agency, and will require examination of impacts to geology and soils as part of that process.

- **Population/Housing**: The control measures in the 2010 Plan apply to industrial operations and, to a very small extent, some larger residential operations that use large water heating devices (boilers). The measures are not anticipated to have any impact on the population or housing in Santa Barbara County as a whole, or in any of the individual jurisdictions within Santa Barbara County.

- **Agricultural and Forestry Resources:** The control measures in the 2010 Plan apply to industrial operations, and may apply to a very limited amount of agricultural operations if they involve the use of large water heating devices (boilers) or cleaning solvents. The measures are not anticipated to have any impact on agricultural and forestry resources.

- **Cultural Resources:** The control measures in the 2010 Plan will be applied to existing industrial operations and are not anticipated to impact the cultural resources associated with those operations. If a new industrial operation is proposed, the CEQA analysis for that operation will be conducted as part of the land use approval process of the applicable decision-making agency, and will require examination of impacts to cultural resources as part of that process.

- **Mineral Resources:** The control measures in the 2010 Plan will be applied to existing industrial operations and are not anticipated to impact the mineral resources of those operations. If a new industrial operation is proposed, the CEQA analysis for that operation will be conducted as part of the land use approval process of the applicable decision-making agency and will require examination of impacts to mineral resources as part of that process.

- **Recreation:** The control measures in the 2010 Plan will be applied to existing industrial operations and are not anticipated to impact the recreation characteristics of those operations. If a new industrial operation is proposed, the CEQA analysis for that operation will be conducted as part of the land use approval process of the applicable decision-making agency and will require examination of impacts to recreation as part of that process.

1.6 GLOSSARY OF TERMS AND ACRONYMS

Air Pollution Control District (APCD) – A local/regional agency with jurisdiction over stationary sources of air pollution. The Santa Barbara County APCD jurisdictional area is the same as the geographical boundaries of Santa Barbara County.

Air Resources Board (ARB or CARB) – The California Air Resources Board, the agency that regulates mobile and consumer product sources of air pollution in the State of California. CARB is also tasked with implementing climate change legislation in the state.

Airborne Toxics Control Measure (ATCM) – A regulation developed by CARB to limit emissions of toxic air contaminants such as diesel particulate, perchloroethylene, etc.

Authority to Construct (ATC) Permit – A permit issued by the APCD prior to commencement of project construction.

CAAQS – California Ambient Air Quality Standard(s).

CEQA Guidelines – Title 14 California Code of Regulations, Chapter 3, Guidelines for Implementation of the California Environmental Quality Act, Sections 15000 et. seq.

CEQA Statute – California Environmental Quality Act, California Public Resources Code, Division 13, Environmental Quality, Sections 21000 et. seq.

Clean Air Plan (CAP) – Santa Barbara County APCD's plans to meet and/or maintain state and federal air quality standards, as applicable.

Environmental Impact Report (EIR) – A document prepared pursuant to CEQA for projects with significant impacts.

Greenhouse Gases (GHGs) – Pollutants that are known to increase the greenhouse effect in the earth's atmosphere, thereby adding to global climate change impacts. A number of pollutants have been identified as GHGs, including carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). The State of California defines GHGs in the Health & Safety Code, §38505(g).

Health Risk Assessment (HRA) – An assessment of the acute (immediate) and chronic (cumulative) effects that a project will have on human health.

Initial Study (IS) – The initial evaluation of a project, prepared pursuant to CEQA, to determine whether significant environmental impacts exist. Depending on the outcome of the IS, the lead agency may proceed with a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report.

Lead Agency – The agency that has discretionary authority over a permit action or decision that is subject to CEQA.

NAAQS – National Ambient Air Quality Standard(s).

Negative Declaration (ND) or Mitigated Negative Declaration (MND) – A declaration, prepared in compliance with CEQA, that states that a project will not have a significant impact on the

environment (ND) or that a project will not have significant impacts if documented mitigation measures are adopted and enforced (MND).

Notice of Preparation (NOP) of an EIR – An official public notice, issued by the CEQA lead agency, that an EIR will be prepared pursuant to CEQA.

Oxides of Nitrogen (NO_X) – An air pollutant (includes nitrogen oxide, or NO, and nitrogen dioxide, or NO_2). NO_X is typically a product of combustion. Emissions of NO_X cause human health impacts and contribute to the formation of ozone.

Ozone (O_3) – A pollutant of regional concern, formed by in the lower atmosphere by a combination of ozone precursors (ROC, NO_X) in the presence of heat and sunlight.

Particulate Matter ($PM_{2.5}$, PM_{10}, diesel PM) – Fine particulate matter (PM) that remains suspended in the atmosphere and can be inhaled into human lungs. PM_{10} measures 10 micrometers or less in diameter; $PM_{2.5}$ measures 2.5 micrometers or less in diameter. Diesel PM is particulate matter that is emitted from diesel-fueled combustion devices.

Permit to Operate (PTO) - A permit issued by the APCD prior to operation of a project.

Reactive Organic Compounds (ROC) – Pollutants that react in the atmosphere to form ozone. Refer to APCD Rule 102 for a regulatory definition of this term.

Stationary Source – Generally, an industrial operation that emits air pollutants regulated by the APCD.

Toxic Air Contaminant (TAC) – An air pollutant that is considered to have toxic attributes, be them acute (immediate), chronic (cumulative), or both. Refer to California Health & Safety Code Section 39655 for a regulatory definition of this term.

2.0 Project Description

2.1 Project Proponent

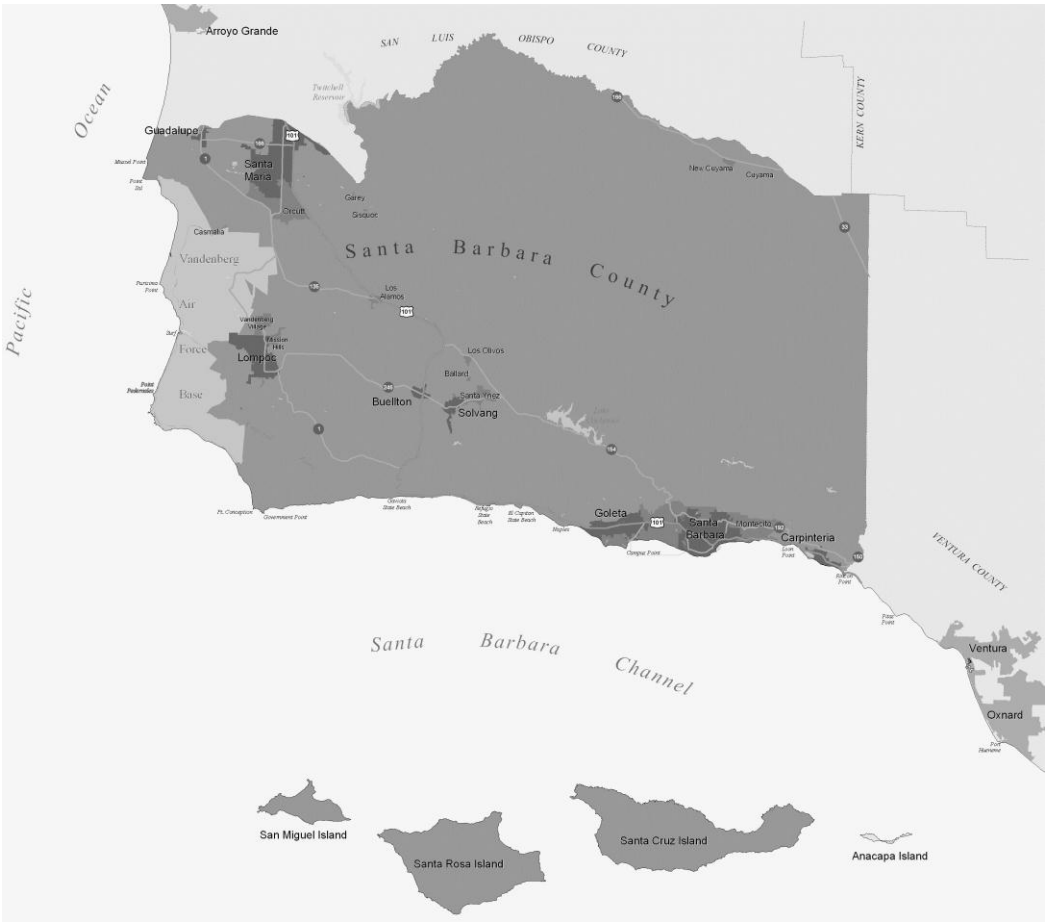
The project proponent is:

Santa Barbara County Air Pollution Control District
260 North San Antonio Road, Suite A
Santa Barbara, CA 93110

2.2 Project Location

The 2010 Plan will apply to the entire geographical region defined as Santa Barbara County, to the state tidelands, and to the outer continental shelf (OCS). State tidelands facilities are located in coastal waters within three miles of the coastline. OCS facilities are in waters within 25 miles of the seaward boundaries of the state and located off the coast of Santa Barbara County, which is the corresponding onshore area.

Figure 2–1
Map of Project Area: Santa Barbara County.



2.3 SANTA BARBARA COUNTY 2010 CLEAN AIR PLAN AND CONTROL MEASURES

2.3.1 Chapter Descriptions and Summaries

The 2010 Plan includes the following chapters:

Chapter 1 – Introduction
Chapter 2 – Local Air Quality
Chapter 3 – Emission Inventory
Chapter 4 – Emission Control Measures
Chapter 5 – Transportation Control Measures
Chapter 6 – Emission Forecasting
Chapter 7 – State Clean Air Act Requirements
Chapter 8 – State Mandated Triennial Progress Report and Triennial Plan Revision
Chapter 9 – Greenhouse Gases and Climate Change
Chapter 10 – Transportation, Land Use and Air Quality
Chapter 11 – Public Participation

Chapters 1, 2, 3, 5, 6, 7, 8, 9, 10, and 11 include background information related to Santa Barbara's historic and current air quality and meteorology, air pollutant emissions inventories and forecasted emissions, and potential policies or strategies to reduce air pollution from a variety of sources. The information contained in these chapters does not involve discretionary decisions that will be made by the APCD's Board of Directors.

The 2010 Plan identifies transportation control measures (TCMs) in Chapter 5. As discussed in Chapter 5 of the 2010 Plan, Santa Barbara County Association of Governments (SBCAG) is responsible for developing the transportation elements of air quality plans for Santa Barbara County. The TCMs are outlined in the 2010 Plan, and are implemented by a variety of local and regional agencies, depending on the nature of the specific TCM. There are no new TCMs proposed for adoption in the 2010 Plan. The TCMs identified in Chapter 5 include TCMs from APCD's 2007 Clean Air Plan as well as the addition of two "further study" TCMs and deletion of a "further study" TCM that has become a regulatory requirement.

The SBCAG Board adopted the 2010 Plan TCMs in November, 2010. SBCAG's *Vision 2030: 2008 Regional Transportation Plan* and the *2008 Santa Barbara County Regional Transportation Plan Final Environmental Impact Report SCH#: 2004081136* (2008 SBC RTP Final EIR) include discussion of TCMs in the context of Santa Barbara County's regional and local transportation plans and projects, and both of these documents are incorporated by reference into this EIR (SBCAG , 2008; SBCAG, 2009). Section 4.1 of the 2008 SBC RTP Final EIR includes a discussion of the TCM projects that are included in the 2007 Clean Air Plan, and identifies the TCMs that were implemented as RTP projects. Table 4.1-17 of the 2008 SBC RTP Final EIR identifies the RTP goals and policies that implement TCMs. Table 4.3-8 lists the TCM projects and programs approved by the SBCAG Board, as part of the 101-In-Motion process, for incorporation into the RTP. Table 4.3-9 and the text that follows identify the 2007 Clean Air Plan TCMs and identifies specific projects from the RTP that support those TCMs. Environmental impacts related to implementation of the TCMs were found to

be less than significant (Class III) in the 2008 RTP EIR. In summary, the potential environmental impacts related to the adoption of the TCMs were addressed adequately in the 2008 SBC RTP Final EIR, and are therefore not addressed further in this EIR.

Chapter 9, *Greenhouse Gases and Climate Change*, provides a discussion of greenhouse gas emissions and climate protection; however, this chapter is informational and not regulatory in nature, and its inclusion is not mandated by state planning requirements. Chapter 10, *Transportation, Land Use and Air Quality*, discusses the connection between land use development, transportation and air quality and introduces a few ideas and concepts to minimize the air pollution impacts of growth. The chapter is purely informational; its intent is not to establish land use policies.

The control measures that are included in Chapter 4, *Emission Control Measures*, include measures that the APCD's Board of Directors has discretionary authority to adopt as APCD Rules (or rule revisions) and apply to stationary sources of air pollutants. Chapter 4 also includes control measures that are under the authority or jurisdiction of other agencies. This EIR focuses on the environmental impacts that would occur with implementation of the control measures listed in Chapter 4.

This EIR does not identify the potential environmental impacts that will result from discretionary decisions made by land use agencies on individual projects. The CEQA analysis for an individual land use project is addressed at the time that the land use decision is made, and this is done by the agency or jurisdiction that is making the land use decision (for example, State Lands Commission, Cities within Santa Barbara County, or Santa Barbara County Planning & Development Department).

Chapter 4 of the 2010 Plan should be consulted for a detailed description of control measures that have been considered in previous Clean Air Plans or Air Quality Attainment Plans. The summary of Chapter 4 that follows focuses on the control measures that the APCD's governing board may consider for implementation during the 2010 Plan period.

Chapter 4 includes emission control measures adopted and proposed by the Santa Barbara County Air Pollution Control District (APCD), the California Air Resources Board (CARB), and the International Maritime Organization to reduce ROC or NO_X emissions and identifies additional stationary source control measures for further study. This chapter also addresses the state triennial plan assessment and update requirements specified in Health and Safety Code Sections 40924 and 40925. The control measures presented Chapter 4 are founded on the following plans:

- 1989 Air Quality Attainment Plan
- 1991 Air Quality Attainment Plan
- 1993 Rate-Of-Progress Plan
- 1994 Clean Air Plan
- 1998 Clean Air Plan
- 2001 Clean Air Plan
- 2004 Clean Air Plan
- 2007 Clean Air Plan

Through a public process, the APCD Board of Directors adopts control measures as local rules. Once the APCD Board adopts a rule, the APCD is responsible to ensure that the affected parties comply with the rule. Some rules impose emission limits and other requirements on business and industrial sources of air pollution. Other rules require manufacturers and retailers to comply with requirements that limit emissions. Control measures are evaluated and classified as adopted, proposed, or in consideration for further study, based on an analysis of the measures' applicability to Santa Barbara County, potential emission reductions, and the implementation of similar measures in other areas of California. The following describes the control measure classes:

Adopted control measures are those that the APCD has formally adopted as APCD rules for inclusion in the State Implementation Plan (SIP). These are also adopted for the purpose of attaining the state ozone standards. For a detailed listing of the control measures adopted before 2007 and the control measures adopted or modified within the reporting period (2007 to 2009), see Chapter 4 of the 2010 Plan. These measures essentially represent the ***project "baseline"*** for the CEQA analysis included in this EIR.

Proposed control measures are those that the APCD plans to adopt for the purposes of 1) maintaining the state 1-hour ozone standard, and 2) attaining the state 8-hour ozone standard. These measures are scheduled as either near-term (2010 to 2012) or mid-term (2013 to 2015). Table 2-1 shows the proposed control measures for this 2010 Plan. The proposed control measures for the 2010 Plan represent the discretionary actions that the APCD's governing board may take, and therefore represent the ***proposed project*** for the CEQA analysis included in this EIR.

Further study measures are emission reduction techniques that the APCD plans to investigate further before making a commitment to adopt them in the next triennial plan update and revision. For a detailed listing of these measures, see Chapter 4 of the 2010 Plan. The further study measures are ***not part of the proposed project*** that is considered in this EIR. CEQA Guidelines Section 15145 provides that environmental impacts that are speculative in nature need not be included in the EIR analysis; inclusion of further study measures is considered to be speculative at this time.

The control measure requirements (for example, parts-per-million or grams-per-liter ROC content limits) indicated in the 2010 Plan are subject to change when the APCD undertakes the actual rulemaking effort. The figures included herein are used to develop emission reduction estimates that CARB requires in the Plan and to give a general indication of today's limits necessary to comply with the "every feasible measure" mandate required by the California Clean Air Act. However, there could be technological advancements between the time of adoption of the 2010 Plan and the time the APCD undertakes the rulemaking effort; such advancements could lower the emission limits or other limits used in this plan. The rulemaking staff will consider such improvements in technology and lower emission limits or other limits found in other air district rules during the rule development process. The state statutory mandate to comply with the requirement to adopt every feasible control measure applies to both the Clean Air Plan and to rule adoptions.

2.3.2 Summary of Proposed Emission Control Measures

The proposed control measures, as well as their anticipated ROC and NO_X emission reductions, are summarized in Table 2-1. These control measures are scheduled as either near-term (2010 - 2012) or mid-term (2013-2015). *For a more detailed discussion, including quantification of and justification for the anticipated emission reductions, refer to Chapter 4 of the 2010 Plan.*

TABLE 2-1
PROPOSED EMISSION CONTROL MEASURES

Rule (Status)	CAP Control Measure ID	Description	Adoption Schedule	Year for the Emission Reduction Estimate	Emission Reductions (Tons per Day) from the Control Measure When Fully Implemented (Unless Otherwise Specified)	
					ROC	NO_X
342 (Revised)	N-XC-4 and N-XC-5	Revisions to Reduce the NOx Limits for Boilers, Steam Generators and Process Heaters Greater than or Equal to 5 MMBtu/hr	2010 – 2012	2020	––	0.0080
330 (Revised)	R-SC-2	Surface Preparation and Coating of Metal Parts and Products (Revisions to Include Solvent Cleaning Requirements)	2010 - 2012	2020	0.0212	––
337 (Revised)	R-SC-2	Surface Preparation and Coating of Aircraft or Aerospace Vehicle Parts and Products (Revisions to Include Solvent Cleaning Requirements)	2010 - 2012	2020	0.0006	––
351 (Revised)	R-SC-5	Surface Preparation and Coating of Wood Products (Revisions to Include Solvent Cleaning Requirements and to Incorporate any New or Modified State Suggested Control Measure Provisions)	2010 - 2012	2020	0.0019	––
349 (Revised)	R-SL-5	Polyester Resin Operations (Revisions to Include Solvent Cleaning Requirements)	2010 – 2012	2020	0.0058	––
353 (Revised)	R-SL-9	Adhesives and Sealants (Revisions to Include Solvent Cleaning Requirements)	2010 - 2012	2020	0.0050	––

TABLE 2-1
PROPOSED EMISSION CONTROL MEASURES

Rule (Status)	CAP Control Measure ID	Description	Adoption Schedule	Year for the Emission Reduction Estimate	Emission Reductions (Tons per Day) from the Control Measure When Fully Implemented (Unless Otherwise Specified)	
					ROC	NO_X
354 (Revised)	R-SL-7	Graphic Arts and Paper, Film Foil, and Fabric Coatings (Revisions to Rule 354 to Include Solvent Cleaning and Additional Requirements for Rotogravure, Flexographic, Lithographic, Letterpress, and Screen Printing)	2010 – 2012	2020	0.0579	––
352 (Revised)	N-XC-1	Residential Water Heaters; Residential and Commercial Space Heaters (Revisions to Reduce the NOx Limits on the Residential Water Heaters to 15 ppmv)	2013 – 2015	2020	––	0.0660
323 (Revised)	R-SC-1	Architectural Coatings (Revision to Regulate General Solvent Wipe Cleaning and the Cleaning of Application Equipment used in Architectural Coating Applications and to Incorporate any New or Modified State Suggested Control Measure Provisions)	2013 – 2015	2020	0.0887	––
361 (Revised)	N-XC-4	Small Boilers, Steam Generators, and Process Heaters (Greater than 2 MMBtu/hr to Less than 5 MMBtu/hr)	2013 – 2015	2020	––	0.0059
360 (Revised)	N-XC-2	Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers	2013 – 2015	2030	––	0.0088

TABLE 2-1
PROPOSED EMISSION CONTROL MEASURES

Rule (Status)	CAP Control Measure ID	Description	Adoption Schedule	Year for the Emission Reduction Estimate	Emission Reductions (Tons per Day) from the Control Measure When Fully Implemented (Unless Otherwise Specified)	
					ROC	NO_X
321 (Revised)	R-SL-2	Solvent Cleaning Machines and Solvent Cleaning (Revisions to Lower ROC-Content Limits)	2013 – 2015	2020	0.0273	––
325, 326, 343, & 344 (Revised)	R-PP-1, R-PT-1, and R-PT-2	Crude Oil Production and Separation and Storage of Reactive Organic Compound Liquids; Petroleum Tank Degassing; and Petroleum Sumps, Pits and Well Cellars (Add New Solvent Cleaning Provisions (25 grams per liter))	2013 – 2015	2020	0.0074	
Total for the local control measures					0.2161	0.0887

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The control measures listed in Table 2-1 can be organized into two general groups, based on the emissions control technologies or strategies that each of these groups uses. These two groups will be referred to throughout the EIR, and the environmental impacts of the control measures will be evaluated in terms of these two types of emission control strategies.

Group 1: Solvent Cleaning ROC Limits and Other Reductions in Material ROC Content.

Revisions to rules are proposed that will result in a lowering of ROC limits (to 25 or 50 grams per liter, depending on the specific industrial application) for solvent cleaning activities. The actual sequence of the proposed rule revisions may change within their respective near- or mid-term timeframes. To meet the requirement to adopt every feasible control measure, there may also be revisions to:

4) The ROC content limits for other process materials (e.g., coatings, adhesives, sealants, inks, resins, wash primers, fountain solution),
5) The maximum allowable ROC content limit for solvent cleaning activities that is lower than 50 grams per liter (e.g., a limit of 25 grams of ROC per liter), and
6) The equipment and operation requirements.

Rules proposed for revision that fall under Group 1 are listed below:

- Rule 330, *Surface Preparation and Surface Coating of Metal Parts and Products*.
- Rule 337, *Surface Preparation and Surface Coating of Aircraft or Aerospace Vehicle Parts and Products*.
- Rule 351, *Surface Preparation and Surface Coating of Wood Products*.
- Rule 349*, Polyester Resin Operations*.
- Rule 353, *Adhesives and Sealants*.
- Rule 354, *Graphic Arts and Paper, Film, Foil, and Fabric Coatings*.
- Rule 323, *Architectural Coatings.*
- Rule 321, *Solvent Cleaning Machines and Solvent Cleaning*.
- Rule 325, *Crude Oil Production and Separation.*
- Rule 326, *Storage of Reactive Organic Compound Liquids.*
- Rule 343, *Petroleum Storage Tank Degassing.*
- Rule 344, *Petroleum Sumps, Pits and Well Cellars.*

Group 2: Combustion Equipment NO_X Limits.

Table 2-1 includes the following control measures for combustion equipment (other than internal combustion engines), ranked from the smallest to the largest units summarized in the chart below:

Control Measure	Rule	Equipment Subject to the Control Measure	Heat Input Range of Applicability
N-XC-1	352	Residential water heaters	Less than 75,000 British thermal units (Btu) per hour (hr)
N-XC-2	360	Large water heaters and small boilers, steam generators, and process heaters	Greater than or equal to 75,000 Btu/hr to 2 million (MM) Btu/hr
N-XC-4	361	Small boilers, steam generators, and process heaters	Greater than 2 MMBtu/hr to less than 5 MMBtu/hr
N-XC-5	342	Boilers, steam generators, and process heaters	Greater than or equal to 5 MMBtu/hr

- **Rule 352*, Natural Gas-Fired Fan-Type Central Furnaces and Residential Water Heaters.***

For the revision to Rule 352, the APCD proposes that the natural gas-fired water heater NO_X limit be lowered to 15 parts per million by volume (ppmv) of NO_X at 3 percent oxygen (0.0175 pound of NO_X per MMBtu on a heat input basis). In addition, the Rule 352.E.1 provision on certification tests will be revised to accept only certifications performed per Rule 352 or South Coast AQMD (SC) Rules 1111 (furnaces) or 1121 (water heaters). Rule 352 will remain a *point-of-sale* type rule and the emission limits for central furnaces will remain unchanged.

- **Rule 360, *Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers.***

Currently Rule 360 has two NO_X limits:

1) 55 ppmv at 3 percent oxygen for units in the 0.075 MMBtu/hr to 0.4 MMBtu/hr range.

2) 30 ppmv at 3 percent oxygen for units in the greater than 0.4 MMBtu/hr range to 2.0 MMBtu/hr range.

This control measure would reduce the NO_X limits to 20 ppmv at 3 percent oxygen (0.024 lb/MMBtu of heat input) for both categories. Certain specific provisions, such as higher limits for instantaneous water heaters and pool heaters and for the use of natural gas that does not meet Public Utility Company (PUC) specifications or liquid fuel, will also be considered. Rule 360 will remain a *point-of-sale* type rule.

- **Rule 361, *Small Boilers, Steam Generators, and Process Heaters.***

The proposed revision to Rule 361, would involve a NO_X limit of 15 ppmv at 3 percent oxygen when burning gaseous fuel. Under the proposed revised Rule 361, some equipment categories will have higher limits, which is similar to provisions in other district rules. Thermal fluid heaters, for example, will have a NO_X limit of 30 ppm (same as the current Rule 361 limit).

- **Rule 342, *Control of Oxides of Nitrogen (NO_X) from Boilers, Steam Generators and Process Heaters.***

For revisions to Rule 342, the APCD plans to revise the rule to have a NO_X limit of 15 ppmv at 3 percent oxygen when burning gaseous fuel. Under the proposed revised Rule 342, some equipment categories will have higher limits, which is similar to provisions in other district rules. Some specific equipment categories will be subject to higher NO_X limits (e.g., boilers burning a mixture of PUC quality gas and vapor recovery system hydrocarbons, and thermal fluid heaters, will have a NO_X limit of 30 ppm).

3.0 Environmental Setting

The following section includes a description of the physical environmental conditions in the project area, which consists of the entire Santa Barbara County jurisdictional boundaries, as they existed at the time the NOP was published. These baseline physical conditions are the conditions by which the APCD, as the CEQA lead agency for the project, determines whether impacts are significant. As described in CEQA Guidelines Section 15125, the description of the environmental setting should be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives.

3.1 AIR QUALITY

3.1.1 Physical Setting

Climate and Meteorology

Santa Barbara County's air quality is influenced by both local topography and meteorological conditions. Surface and upper-level wind flow varies both seasonally and geographically in the County and inversion conditions common to the area can affect the vertical mixing and dispersion of pollutants. The prevailing wind flow patterns in the County are not necessarily those that cause high ozone values. In fact, high ozone values are often associated with atypical wind flow patterns.

Meteorological and topographical influences that are important to air quality in Santa Barbara County are as follows:

- Semi-permanent high pressure that lies off the Pacific Coast leads to limited rainfall (around 18 inches per year), with warm, dry summers and relatively damp winters. Maximum summer temperatures average about 70 degrees Fahrenheit near the coast and in the high 80s to 90s inland. During winter, average minimum temperatures range from the 40s along the coast to the 30s inland. Additionally, cool, humid, marine air causes frequent fog and low clouds along the coast, generally during the night and morning hours in the late spring and early summer. The fog and low clouds can persist for several days until broken up by a change in the weather pattern.

- In the northern portion of the County (north of the ridgeline of the Santa Ynez Mountains), the sea breeze (from sea to land) is typically northwesterly throughout the year while the prevailing sea breeze in the southern portion of the County is from the southwest. During summer, these winds are stronger and persist later into the night. At night, the sea breeze weakens and is replaced by light land breezes (from land to sea). The alternation of the land-sea breeze cycle can sometimes produce a "sloshing" effect, where pollutants are swept offshore at night and subsequently carried back onshore during the day. This effect is exacerbated during periods when wind speeds are low.

- The terrain around Point Conception, combined with the change in orientation of the coastline from north-south to east-west can cause counterclockwise circulation (eddies) to form east of the Point. These eddies fluctuate temporally and spatially, often leading to highly variable winds along the southern coastal strip. Point Conception also marks the change in the prevailing surface winds from northwesterly to southwesterly.

- Santa Ana winds are northeasterly winds that occur primarily during fall and winter, but occasionally in spring. These are warm, dry winds blown from the high inland desert that descend down the slopes of a mountain range. Wind speeds associated with Santa Ana's are generally 15-20 mph, though they can sometimes reach speeds in excess of 60 mph. During Santa Ana conditions, pollutants emitted in Santa Barbara County, Ventura County, and the South Coast Air Basin (the Los Angeles region) are moved out to sea. These pollutants can then be moved back onshore into Santa Barbara County in what is called a "post-Santa Ana condition." The effects of the post-Santa Ana condition can be experienced throughout the County. Not all post-Santa Ana conditions, however, lead to high pollutant concentrations in Santa Barbara County.

- Upper-level winds (measured at Vandenberg Air Force Base once each morning and afternoon) are generally from the north or northwest throughout the year, but occurrences of southerly and easterly winds do occur in winter, especially during the morning. Upper-level winds from the south and east are infrequent during the summer. When they do occur during summer, they are usually associated with periods of high ozone levels. Surface and upper-level winds can move pollutants that originate in other areas into the County.

- Surface temperature inversions (0-500 ft) are most frequent during the winter, and subsidence inversions (1000-2000 ft) are most frequent during the summer. Inversions are an increase in temperature with height and are directly related to the stability of the atmosphere. Inversions act as a cap to the pollutants that are emitted below or within them; ozone concentrations are often higher directly below the base of elevated inversions than they are at the earth's surface. For this reason, elevated monitoring sites will occasionally record higher ozone concentrations than sites at lower elevations. Generally, the lower the inversion base height and the greater the rate of temperature increase from the base to the top, the more pronounced effect the inversion will have on inhibiting vertical dispersion. The subsidence inversion is very common during summer along the California coast, and is one of the principal causes of air stagnation.

- Poor air quality is usually associated with "air stagnation" (high stability/restricted air movement). Therefore, it is reasonable to expect a higher frequency of pollution events in the southern portion of the County where light winds are frequently observed, as opposed to the northern part of the County where the prevailing winds are usually strong and persistent.

Air Quality Standards and Attainment Status

Both the Federal and State Clean Air Acts identify pollutants of specific importance, which are known as criteria pollutants. Ambient air quality standards are adopted by the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (USEPA) to protect public health, vegetation, materials and visibility, shown in Table 3.1-1. State standards for ozone and both respirable (less than 10 microns in diameter-PM_{10}) and fine (less than 2.5 microns in diameter– $PM_{2.5}$) particles are more stringent than federal standards.

TABLE 3.1-1
AMBIENT AIR QUALITY STANDARDS

		CALIFORNIA STANDARDS[1]		NATIONAL STANDARDS[2]		
Pollutant	**Averaging Time**	**Concentration[3]**	**Attain-ment Status**	**Primary[2, 4]**	**Secondary[2, 5]**	**Attain-ment Status**
Ozone	8 Hour	0.070 ppm (137 ug/m^3)	**N[8]**	0.075 ppm (147 µg/m^3)	Same as Primary	A
	1 Hour	0.09 ppm (180 ug/m^3)	**A**	0.12 ppm[9] (235 µg/m^3)	Same as Primary	A
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m^3)	A	9.0 ppm (10 mg/m^3)	Same as Primary	A
	1 Hour	20.0 ppm (23 mg/m^3)	A	35.0 ppm (40 mg/m^3)		A
Nitrogen Dioxide[10]	Annual Average	0.03 ppm (56 µg/m^3)	A	0.053 ppm (100 µg /m^3)	Same as Primary	A
	1 Hour	0.18 ppm (339 µg/m^3)	A	0.100 ppm (188 µg /m^3)	Same as Primary	U
Sulfur Dioxide	Annual Average	--	-	0.03 ppm (80 µg /m^3)		A
	24 Hour	0.04 ppm[6] (105 µg /m^3)	A	0.14 ppm (365 µg /m^3)	--	A
	3 Hour	--	-	--	0.5 ppm (1,300 µg /m^3)	A
	1 Hour	0.25 ppm (655 µg /m^3)	A	0.075 ppm (147 µg /m^3)	-	-
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg /m^3	**N**	--	--	
	24 Hour	50 µg /m^3	**N**	150 µg /m^3	Same as Primary	A
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg /m^3	U	15 µg /m^3	Same as Primary	A
	24 Hour	--	-	35 µg /m^3 [11]	Same as Primary	A
Sulfates	24 Hour	25 µg /m^3	A		--	-

		CALIFORNIA STANDARDS[1]		NATIONAL STANDARDS[2]		
Pollutant	**Averaging Time**	**Concentration[3]**	**Attain-ment Status**	**Primary[2, 4]**	**Secondary[2, 5]**	**Attain-ment Status**
Lead	Calendar Quarter	--		1.5 µg /m^3	Same as Primary	A
	30 Day Average	1.5 µg /m^3	A			
	Rolling 3-month Average	--	--	0.15 µg /m^3	--	U
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg /m^3)	A	--	--	--
Vinyl Chloride (Chloroethene)	24 Hour	0.010 ppm (26 µg /m^3)	A	--	--	--
Visibility Reducing Particles[7]	8 Hour (1000 to 1800 PST)	--	--	--	--	--
A = Attainment, N = Nonattainment, U= Unclassified						

TABLE 3.1-1 (FOOTNOTES)

1) California standards for ozone, carbon monoxide, sulfur dioxide (1 hour), nitrogen dioxide and particulate matter - PM_{10}, and visibility reducing particles are values that are not to be exceeded. The sulfur dioxide (24-hour), sulfates, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded.

2) National standards, other than ozone and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.

3) Concentration expressed first in units in which it was promulgated. Equivalent units given in parenthesis are based upon a reference temperature of $25^{o}C$ and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of $25^{o}C$ and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4) National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the Environmental Protection Agency (EPA).

5) National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the implementation plan is approved by the EPA.

6) At locations where the state standards for ozone and/or suspended particulate matter are violated. National standards apply elsewhere.

7) This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range when relative humidity is less than 70 percent.

8) This state 8-hour ozone standard went into effect in June, 2006.

9) This federal 1-hour ozone standard was revoked in 2005.

10) The state nitrogen dioxide (NO_2) ambient air quality standard was amended on February 22, 2007, to lower the 1-hour standard to 0.18 ppm and establish a new annual standard of 0.030 ppm. EPA set a new one-hour NO_2 standard of 0.100 ppm on January 25, 2010 and retained the existing annual average standard of 0.053 ppm.

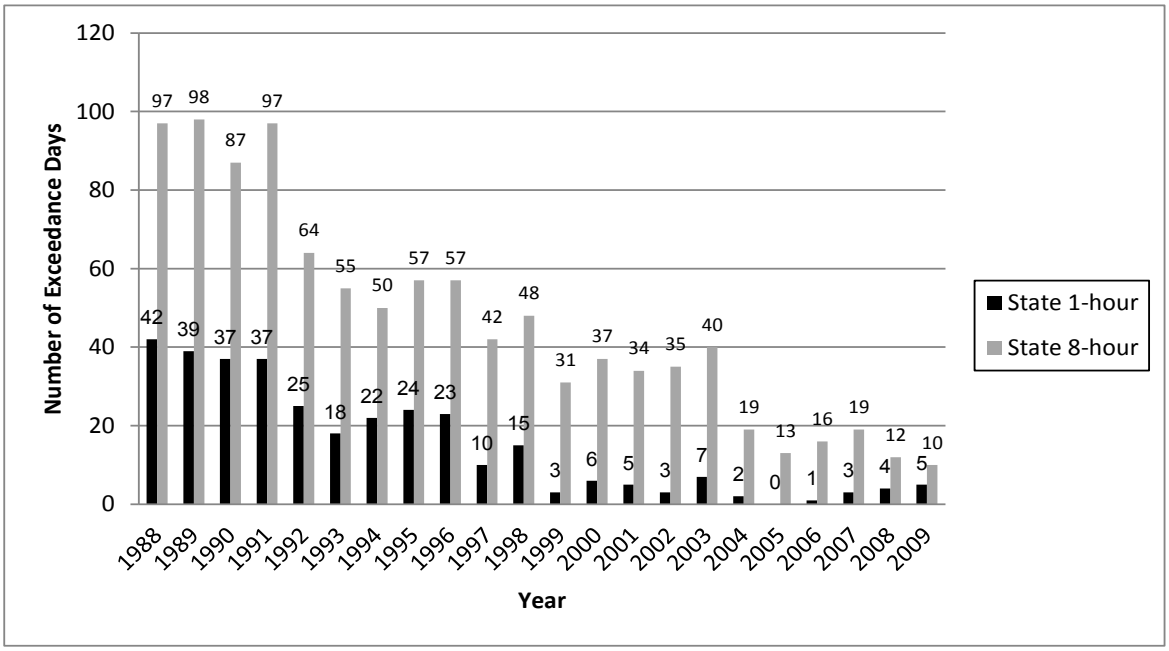
11) Effective December 18, 2006, the USEPA revoked the annual PM_{10} standard and lowered the 24-hour $PM_{2.5}$ standard, with the changes reflected in the table.

Monitoring of ambient air pollutant concentrations is conducted by CARB, APCD and industry. Monitors operated by CARB and APCD are part of the State and Local Air Monitoring System (SLAMS). The SLAMS stations are located to provide local and regional air quality information. Monitors operated by industry, at the direction of the APCD, are called Prevention of Significant Deterioration (PSD) stations. PSD stations are required by the APCD to ensure that new and modified sources under APCD permit do not interfere with the County's ability to attain or maintain air quality standards.

Santa Barbara County is currently in "attainment" or "unclassified" status for all federal (USEPA) ambient air quality standards. As indicated in Sections 1.0 and 2.0 of this EIR, the purpose of the 2010 Plan is to plan for attainment of the state 8-hour ambient air quality standard for ozone. Figure 3.1-1 presents the number of state ozone exceedances in Santa Barbara County during the period of 1988 to 2009. As shown in the figure, Santa Barbara County has experienced from as many as 42 days of exceedances of the state 1-hour ozone standard to no exceedance days in 2005. The number of state 8-hour ozone standard exceedance days ranges from 98 in 1989 to 10 in 2009.

As indicated in Table 3.1-1, Santa Barbara County is also classified as nonattainment for the state ambient air quality standard for particulate matter less than 10 microns in diameter (PM_{10}).

FIGURE 3.1-1
NUMBER OF DAYS EXCEEDING STATE 1-HOUR AND 8-HOUR OZONE STANDARDS
SANTA BARBARA COUNTY
1988 - 2009



3.1.2 Regulatory Setting

The Federal Clean Air Act, as amended in 1990, establishes federal air quality standards, federal permit requirements for major sources, and regulations for hazardous air pollutants. There are many federal laws that pertain to emissions standards for criteria air pollutants and hazardous air pollutants. Many of the federal programs and emissions standards are incorporated in APCD's Rules and Regulations and are implemented and enforced as part of the APCD's stationary source permitting and compliance programs.

CARB establishes ambient air quality standards as authorized by the California Health & Safety Code, Section 39606. The standards are established for protection of public health, safety and welfare, and consider protection for even the most sensitive individuals in our communities. The California standards are generally more health protective than the federal standards, and also include standards for some pollutants that are not addressed by federal standards.

Regulation of mobile sources of air pollution, including motor vehicles and heavy-duty diesel trucks, is done by CARB. CARB also regulates air pollutants from consumer products such as household cleaners and beauty products and establishes motor vehicle fuel specifications for gasoline and diesel fuel to minimize air quality impacts. In order to reduce emissions from toxic air contaminants,

CARB has implemented airborne toxic control measures (ATCMs) that apply to a variety of industries. As part of its Diesel Risk Reduction Plan, CARB has implemented a number of ATCMs that apply specifically to diesel engines and diesel vehicles to minimize the carcinogenic health risk that results from emissions of diesel particulate matter.

Locally, the APCD has regulatory authority over air pollutant emissions from stationary sources. APCD's Rules and Regulations have been adopted and revised over time to meet the specific air quality needs of Santa Barbara County with consideration of the types of industries that operate in the region.

3.2 BIOLOGICAL RESOURCES

3.2.1 Physical Setting

The ecology of Santa Barbara is complex and diverse. Many different habitat types occur within the region including the coastal and inland wetlands, riparian habitats, native chaparral communities, oak woodlands, and other sensitive habitats.

Santa Barbara County is transitional between the Coast Ranges Geologic Province to the north, with mountain ranges trending north-south, and the Transverse Ranges Geologic Province to the south, with mountain ranges oriented in an east-west direction. The transitional geography creates microclimates along steep slopes. The northern north-south trending slopes exhibit more extreme climate differences on their east- and west-facing slopes than are observed on the east-west trending southern mountains. The results of these well-defined microclimates are plant communities associated with slope exposure in addition to soil type, elevation, etc.

The Santa Barbara County region is home to approximately 1,400 plant species (Smith, 1976). Approximately 140 endemic species occur in the County, with several rare species as well. Many non-native species have become naturalized, especially in agricultural areas and disturbed soil.

3.2.1.1 Flora

Santa Barbara's plant communities include Coastal Strand, three forms of Coastal Scrub (Coastal Bluff Scrub, Coastal Dune Scrub, and Coastal Sage Scrub), Grassland, Chaparral (including Burton Mesa Chaparral), Sagebrush Scrub Oak Savannah and Woodland, three forms of Evergreen Forest (Mixed Evergreen, Closed-cone Pine Forest and Douglas Fir Forest), and diverse and intergrading wetland communities, including Coastal Saltmarsh, Freshwater Marsh and Riparian Woodland. These communities are described in detail in the Conservation Element of the County's General Plan.

3.2.1.2 Fauna

The variety of habitats in the region benefits many animal species. Birds are abundant in the County, including many migratory varieties (CNDDB, 2010). Many small mammals occur in a variety of habitats. Large mammals (i.e. mule deer, coyote, and gray fox) are less common. Numerous species of amphibians and reptiles occur in the region including the Pacific tree frog, fence lizard, common king snake, and western rattlesnake.

3.2.1.3 Sensitive Habitats

The coastal terraces, plains, and foothills support grassland, scrubland, and woodland habitats. A significant amount of land on the coastal plain between the ocean bluffs and Santa Ynez Mountains is covered by urban and agricultural uses. Chaparral is found on the steeper slopes above the coastal plain. Forest communities occur at higher elevations in the Santa Ynez Mountains, including mixed evergreen forests on the northern slopes.

The County's numerous creeks have carved deep canyons through the mountains and hills. These creeks produce lush riparian woodlands composed of large sycamores, willows, cottonwoods, alders, and live oaks (Chambers, 1986). Riparian woodlands can provide nesting habitat for rare birds such as Cooper's hawk, Least Bell's vireo, Swainson's thrush, and the yellow breasted chat (Lehman, 1982). Riparian habitats in the County have diminished over time.

Grasses, sedges, and dwarf brush species are dominant in the Santa Barbara County estuaries and fresh water wetlands. Estuarine wetlands (salt marshes) occur at the mouths of many of the coastal streams.

While most of the accessible lower elevation habitats have been modified by agricultural or urban developments, mountain slopes provide large expanses of native habitat that have been protected from human disturbance. This is due to the rugged terrain and often dense vegetation found within the Santa Ynez Mountains, most of which is located in the Los Padres National Forest. Unincorporated county land and the Local Coastal Plan provide a specific overlay zone district for Environmentally Sensitive Habitats (ESHs) and establish a set of policies to ensure protection from development.

The following is a listing of plant communities in Santa Barbara County (SBC Comprehensive Plan, 2010; SBC Comprehensive Plan, 2009a). Detailed descriptions of the communities can be found in these documents. An asterisk (*) Indicates a rare or endangered community, as identified in the Conservation Element (2010).

- Coastal Bluff*
- Coastal Strand*
- Coastal Salt Marsh*
- Freshwater Marsh*
- Coastal Sage (Soft Chaparral)
- Native Grassland*
- Canyon Oak - Big Cone Spruce*
- Coulter Pine Forest*
- Southern Oak Woodland*
- Closed Cene Pine Forest (Bishop Pine)*
- Douglas Fir Forest*
- Interior Cypress Forest*
- Chaparral (Hard Chaparral)
- Montane Coniferous Forest*
- Mixed Evergreen Forest*

3.2.1.4 Sensitive Species

There are several classifications of sensitive species developed by various federal, state, and local agencies. Classifications are based on the mapped biological information primarily available from the California Natural Diversity Database, Santa Barbara County rare plant and wetlands maps available at the County Planning Department. Table 3.2-1 lists endangered or threatened species that have been identified in the County (CNDDB, 2010).

TABLE 3.2-1
THREATENED OR ENDANGERED SPECIES IN SANTA BARBARA COUNTY

Common Name	Federal Status	California Status
California condor	Endangered	Endangered
light-footed clapper rail	Endangered	Endangered
California least tern	Endangered	Endangered
southwestern willow flycatcher	Endangered	Endangered
least Bell's vireo	Endangered	Endangered
unarmored threespine stickleback	Endangered	Endangered
giant kangaroo rat	Endangered	Endangered
blunt-nosed leopard lizard	Endangered	Endangered
Gaviota tarplant	Endangered	Endangered
beach layia	Endangered	Endangered
island barberry	Endangered	Endangered
California jewel-flower	Endangered	Endangered
Santa Barbara Island dudleya	Endangered	Endangered
Santa Cruz Island bush-mallow	Endangered	Endangered
salt marsh bird's-beak	Endangered	Endangered
San Joaquin kit fox	Endangered	Threatened
Santa Cruz Island fox	Endangered	Threatened
San Miguel Island fox	Endangered	Threatened
Santa Rosa Island fox	Endangered	Threatened
La Graciosa thistle	Endangered	Threatened
Gambel's water cress	Endangered	Threatened
California tiger salamander	Threatened	Threatened
Guadalupe fur-seal	Threatened	Threatened
arroyo toad	Endangered	None
southern steelhead - southern California DPS	Endangered	None
tidewater goby	Endangered	None
black abalone	Endangered	None
Contra Costa goldfields	Endangered	None
Santa Cruz Island malacothrix	Endangered	None
island malacothrix	Endangered	None

San Joaquin woollythreads	Endangered	None
Hoffmann's rock-cress	Endangered	None
Santa Cruz Island rock cress	Endangered	None
Santa Cruz Island fringepod	Endangered	None
Santa Rosa Island manzanita	Endangered	None
northern Channel Islands phacelia	Endangered	None
Hoffmann's slender-flowered gilia	Endangered	None
soft-leaved paintbrush	Endangered	None
Lompoc yerba santa	Endangered	Rare
box bedstraw	Endangered	Rare
California red-legged frog	Threatened	None
western snowy plover	Threatened	None
island night lizard	Threatened	None
vernal pool fairy shrimp	Threatened	None
Kern primrose sphinx moth	Threatened	None
island rush-rose	Threatened	None
Santa Cruz Island dudleya	Threatened	Rare
Xantus' murrelet	Candidate	Threatened
bald eagle	Delisted	Endangered
Belding's savannah sparrow	None	Endangered
Santa Cruz Island bird's-foot trefoil	None	Endangered
seaside bird's-beak	None	Endangered
bank swallow	None	Threatened
Nelson's antelope squirrel	None	Threatened
surf thistle	None	Threatened
beach spectaclepod	None	Threatened

3.2.2 Regulatory Setting

Biological resources such as endangered species, wetlands, and riparian areas are governed by state and federal agencies. The U.S. Army Corps of Engineers has jurisdiction over waterways and wetlands. The U.S. Fish and Wildlife Service is responsible for implementing the Federal Endangered Species Act. The Regional Water Quality Control Board regulates the discharge of wastewater into the environment. The California Coastal Commission regulates development in the Coastal Zone. The California Department of Fish and Game has oversight over development near wetlands and creeks.

3.3 HAZARDS/RISK OF UPSET

3.3.1 Physical Setting

The potential for hazards exists in the production, storage, transport, and use of hazardous material. Hazardous materials may be found at industrial production and processing facilities. Some facilities produce hazardous materials as their end product; other facilities use hazardous materials in the

production process. Consumer products such as solvents, paint, and gasoline are examples of hazardous materials. Consumer products that can be considered hazardous materials are stored at production facilities and bulk warehouses for distribution. Hazardous materials may be transported by rail, pipeline, and highway. Potential hazards in the processing and handling of hazardous materials depend on the properties of the material and the nature of their processing. One possible hazard is an accidental release of volatile chemicals from a production or processing facility or a storage or transport container. Under certain atmospheric conditions, a toxic gas cloud may migrate and expose individuals at a distance. Rupture of a storage or transport container containing flammable materials can result in a flash fire or explosion. At processing facilities, accidental build-up of pressure or accidental contact of hazardous materials with an ignition source may also result in fire or explosion. Accidental explosions or fires from hazardous substances may result in burns to exposed individuals in the vicinity.

3.3.2 Regulatory Setting

The U.S. Department of Transportation, Office of Pipeline and Hazardous Materials Safety Administration (PHMSA) is the federal entity that compiles statistics on incidents involving the accidental release of hazardous materials. The California Hazardous Materials Incident Reporting System (CHMIRS) is the state-level database that compiles incidents involving hazardous materials and is maintained by the Governor's Office of Emergency Services. In 2009, in Santa Barbara County, 267 spills of hazardous materials were reported to the Office of Emergency Services.

3.4 HAZARDOUS MATERIALS

3.4.1 Physical Setting

The County's largest generator of hazardous wastes is the oil and gas industry, which generates about 68% (by weight) of the County's hazardous wastes. Other large generating industries include auto dealers and service stations (7%), utilities (5%) and the military (3%) (1991 AQAP EIR). There are no Class I hazardous waste landfills in the County and most hazardous waste is hauled either by truck to the Chemical Waste Management Landfill in Kettleman City, California or by rail to Salt Lake City, Utah. Small business and household hazardous wastes are collected at the Hazardous Waste Collection Facility at the University of California's Santa Barbara campus and shipped out of the County periodically. The facility opened in 1992 and has since been operating to decrease the illegal disposal of small amounts of hazardous wastes.

3.4.2 Regulatory Setting

Numerous federal, state, and local regulations regarding use, storage, transportation, handling, processing and disposal of hazardous materials and waste have been adopted since the passage of the federal Resource Conservation and Recovery Act (RCRA) of 1976. The goal of RCRA is to assure adequate tracking of hazardous materials from generation to proper disposal. California Fire Codes (CFC) Articles 79, 80 et seq., which augment RCRA, are the primary regulatory guidelines used to govern the storage and use of hazardous materials. The CFC also serves as the principal enforcement document from which corresponding violations are written. Pursuant to SB 1082 (1993), the State of California has adopted regulations to consolidate six hazardous materials management programs

under a single, local agency, known as the Certified Unified Program Agency (CUPA). The CUPA provides regulatory oversight for the following program elements:

- Aboveground Storage Tanks Hazardous Materials Release Response Plans and Inventories
- California Accident Prevention Program
- California Uniform Fire Code: Hazardous Materials Management Plans and Hazardous Materials Inventories
- Hazardous Waste Programs: Generator programs and Onsite Hazardous Waste Treatment Activities
- Underground Tank Program
- Above Ground Petroleum Storage Act Requirements For Spill Prevention, Control, and Countermeasure Plans

The Santa Barbara County Fire Department Hazardous Materials Unit has been designated as the administering agency for CUPA within the County of Santa Barbara. Accordingly, the County Fire Department compiles and maintains the Hazardous Materials Business Plan database, which is a list of businesses that meet the threshold criteria for use, storage, or disposal of hazardous materials, compressed gases and/or hazardous waste. In addition to conducting annual facility inspections, the Hazardous Materials Program is involved with hazardous materials emergency response, investigation of the illegal disposal of hazardous waste, public complaints, and storm water illicit discharge inspections.

Transportation of hazardous materials on highways falls under federal legislation; however, authority is delegated to various state and local agencies that are focused on specific aspects of hazardous materials and transportation. The Hazardous Waste Control Act establishes the California Department of Health Services (DHS) as the lead agency in charge of the implementation of the RCRA program. However, when the California Environmental Protection Agency (California EPA) was created in 1991, the Toxic Substances Control Program under DHS became the new Department of Toxic Substances Control (DTSC), making the DTSC the RCRA lead agency. The Department of Toxic Substances Control (DTSC) under the California EPA regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC requires that hazardous waste shipped off-site be documented by a filed manifest identifying the type and quantity of wastes in the shipment and the origination and destination points. The DTSC develops regulations based on the RCRA and the California Health and Safety Code. The California Health and Safety Code is the collection of state laws that govern, among other things, the handling of hazardous waste. Division 20, Chapter 6.5, of the Code deals with Hazardous Waste Control and Article 6 of this chapter deals with transportation of hazardous waste.

State and local agencies such as the California Highway Patrol (CHP), State of California Department of Transportation (Caltrans), and the Santa Barbara County Fire Department are responsible for the enforcement of state and federal regulations and responding to hazardous materials transporting emergencies. The CHP establishes state and federal hazardous material truck routes and has lead responsibility over hazardous material spills on State highways. If coordination of additional agencies is required at the scene of a transportation accident, the County Fire Department is responsible for their coordination. Local law enforcement agencies and the CHP are continually assessing strategies to prevent and reduce the impact of accidents involving hazardous material transport.

3.5 HYDROLOGY AND WATER QUALITY

3.5.1 Physical Setting

The discussion of existing hydrology and water quality resources is divided into discussions of surface water, groundwater, and water quality.

3.5.1.1 Surface Water

Santa Barbara County's surface water system includes two major river systems, a few perennial streams, and many seasonal and intermittent streams.

The Cuyama River forms most of the northern boundary of the County and feeds into the Santa Maria River. The Twitchell Reservoir is located on the Cuyama River. The Sisquoc River, which also terminates at the Santa Maria River, spans across the central portion of the County from east to west, originating in the Sierra Madre Mountains. The Santa Maria River terminates at the Pacific Ocean approximately five miles north of Point Sal.

The Santa Ynez Watershed is bounded by the San Rafael Mountains to the north and the Santa Ynez Mountains to the south. The Santa Ynez River runs west from the northern side of the Santa Ynez Mountains and flows into the Pacific Ocean approximately seven miles northwest of Lompoc. Major impoundments of South Coast community water on the Santa Ynez River include Cachuma Lake and Reservoir, Gibraltar Reservoir, and Jameson Lake and Reservoir.

Many small watersheds between the Santa Maria and Santa Ynez rivers drain agricultural lands and empty into the Pacific, generally running east to west. South of the Santa Ynez Mountains, along the South Coast, numerous streams run north to south emptying into the Santa Barbara Channel. Most of these minor streams are dry for most of the year, flowing only briefly after major rain events. Alluvial deposits along streams may absorb water during the rainy season, releasing it over time into the summer. These minor streams are not generally sources of drinking water beyond natural aquifer recharge. The winter months experience the highest concentration of rainfall, with the summer and fall months being generally dry. Perennial streams draw from groundwater during approximately half the year. Heavy rains result in rapid, voluminous runoff through dry streambeds.

3.5.1.2 Groundwater

The majority of potable water for residential and agricultural use countywide comes from groundwater. Thirteen major groundwater regions have been delineated (SBC Public Works Dept., 2009), which include the Carpinteria, Montecito, Santa Barbara, Goleta, Buellton Uplands, Santa Ynez River Uplands, Lompoc, Santa Maria, and Cuyama groundwater basins. A water basin is said to be in overdraft when the average annual demand for water in a groundwater basin exceeds the maximum amount of water that withdrawn without inducing a drop in water level. Groundwater basins currently in a state of overdraft include: the Santa Ynez Uplands, Lompoc, San Antonio, Santa Maria, and Cuyama groundwater basins.

Rock aquifers also occur in the County's many stream canyons. A typical consolidated rock aquifer underlies a canyon watershed collecting percolated rain water. Aquifers may also flow along intermittent streams where water collects in the porous subsurface rock

3.5.1.3 Water Quality

The County's groundwater basins vary in water quality. As the water volumes in the groundwater basins gradually decline, contributing factors degrading water quality become increasingly concentrated. These factors include public and private sewage treatment systems, agricultural runoff, and seawater intrusion to aquifers.

3.5.2 Regulatory Setting

Many state and federal plans, policies, and regulations govern water resources. The Federal Clean Water Act is the law that establishes standards and goals for toxic contaminants and other pollution from surface water. The Regional Water Quality Control Board (RWQCB) is the local authority that implements state and federal regulations. The Central Coast Regional Water Quality Control Board (RWQCB) is responsible for monitoring impacted water bodies, and evaluating storm water discharge and groundwater recharge from new development. The RWQCB manages the Storm Water Management Program and the National Pollutant Discharge Elimination System Permit Program. The County's Flood Control Agency maintains flood control facilities in the County.

3.6 LAND USE/PLANNING

3.6.1 Physical Setting

Santa Barbara County encompasses approximately 1,383,000 acres. The Los Padres National Forest covers approximately 44 percent of central and eastern portions of the County (608,520 acres), and is the largest single land use in Santa Barbara County. Land uses occurring in the National Forest include recreation, protected watershed for reservoirs, limited grazing, and mining. Of the remaining area outside of the National Forest, over 70 percent is in private agricultural cultivation or grazing uses and 10 percent is included in Vandenberg Air Force Base (VAFB) along the western coast of the County. There are a total of 20 county day-use parks. In addition, the County contains five state park facilities located along the coast. The Santa Ynez Mountains naturally divide the County into two main regions, referred to as South County and North County.

The Southern portion of Santa Barbara County is comprised of a 60-mile-long, 3- to 8-mile-wide coastal strip south of the crest of the Santa Ynez Mountains between Point Conception on the west and Ventura County on the east. This region contains the County's most densely populated and developed area, which extends from Goleta to the Ventura County line. This area includes the cities of Santa Barbara, Goleta, and Carpinteria and unincorporated communities of Isla Vista, Montecito, and Summerland. The University of California at Santa Barbara occupies a large coastal area adjacent to the City of Goleta.

To the west of the county-designated urban boundary lies the Gaviota Coast, a sparsely developed coastal area that stretches west from Coal Oil Point in the Goleta area to Point Conception, and north to Point Sal. The principal land uses along the southern portion of the Gaviota Coast consist of

recreation, transportation (U.S. Highway 101), agriculture (grazing and orchards), and the southernmost extent of the Los Padres National Forest. Residential development is not the dominant land use, and consists primarily of sparse single-family residences on large agricultural properties.

Although most of the Gaviota Coast maintains a rural land use designation, there are also industrial onshore oil and gas processing facilities and related offshore oil and gas production, as well as a municipal landfill, all of which increase the industrial character of the region. Outdoor recreation is a prominent use along the southern portion of the Gaviota Coast due to the relatively rural natural environment and access to undeveloped beaches. Three state parks are located along the southern portion of the Gaviota Coast: Gaviota Beach State Park, Refugio State Beach, and EI Capitan Beach. There is also a private campground at EI Capitan Canyon.

The North County includes the coastal land extending from Gaviota westward around Point Conception and northward through Vandenberg Air Force Base to the San Luis Obispo County boundary at the Santa Maria River mouth. It is largely maintained in a rural state. This 64-mile stretch of coastline includes broad coastal terraces and bluffs, rolling oak woodlands, and rugged headlands with very little development. Hollister Ranch, lying to the west of Gaviota State Beach Park, includes 14,400 acres, and is subdivided into 135 ranch estates of 100 acres each. There are several oil-related onshore sites near Point Conception. Vandenberg Air Force Base occupies a large coastal area near the City of Lompoc.

Much of the northern county area is rural, with many properties in agricultural preserves. The Williamson Act enables the County to enter into contracts with agricultural property owners that limit the development of property to agricultural uses in exchange for lower property taxes. Agricultural uses are varied and include cut flowers, vegetables, fruits, livestock, and seed crops. The top five revenue-generating agricultural products in the County in 2009 were strawberries, broccoli, wine grapes, cauliflower, and lettuce (County of Santa Barbara, 2010).

Most of the County's active onshore oil and gas production is located in North County. Of the 16 active fields, 13 are located in North County, covering approximately 123 square miles. Oil fields occur in both rural and urban areas; onshore oil production has generally been on the decline since the 1970s. In 1988, there were 1,469 producing wells and 1,789 shut-in wells in the County, with a total annual production of 10,737,308 barrels of oil and 10.94 billion cubic feet of gas (California Department of Conservation, 1988). In 2008, there were 862 producing wells and 1,259 shut-in wells, with a total production of 3,009,057 barrels of oil and 2.58 billion cubic feet of gas (California Department of Conservation, 2009).

Urban development in the North County (both residential and commercial) has occurred in the cities of Solvang, Lompoc, Guadalupe, and Santa Maria as well as the unincorporated areas of Santa Ynez, Los Olivos, Vandenberg Village, Mission Hills, Orcutt, and Casmalia. Agriculturally zoned lands in and adjacent to the Santa Maria area are gradually being converted to residential and commercial uses.

3.6.2 Regulatory Setting

Land use and development patterns within the County are guided by plans developed for specific jurisdictions. Land use policies and programs in the unincorporated areas are defined in the Santa

Barbara County Comprehensive General Plan, which includes additional plans that are developed for specific communities, areas, or redevelopment areas. Each city within the County has its own General Plan, which may include numerous elements (such as housing elements or conservation elements) that are developed specifically for that city.

The Santa Barbara County Association of Governments (SBCAG), the functional Metropolitan Planning Organization for Santa Barbara County, is responsible for regional transportation planning. The SBCAG 2008 Regional Transportation Plan, or RTP, includes assumptions about transportation patterns and infrastructure projects for the entire County. SBCAG and APCD work closely to coordinate the RTP and clean air planning efforts, to ensure that the two plans do not interfere with either agency's goals.

Several of the County's jurisdictions have land use policies that specifically address air quality issues, as follows:

- Santa Barbara County has an Air Quality Supplement to the Land Use Element in the Comprehensive Plan. The Supplement establishes policies encouraging compact and mixed use development and discouraging vehicle dependent uses such as drive-throughs.
- The Circulation Element in the City of Santa Barbara's General Plan outlines goals to achieve more transportation alternatives. The Circulation Element outlines numerous policies to encourage transit ridership; it also highlights bicycling and walking as important alternative transportation methods. The City of Santa Barbara's Land Use Element discusses several aspects of land use including: residential density, jobs/housing balance, and urban/rural boundaries. These three land use topics directly affect Vehicle Miles Travelled (VMT) and thereby impact air quality. . The policies established in the Land Use Element set boundaries for urban development, and establish criteria for development or subdivision of different land use types.
- The City of Goleta's General Plan Conservation Element includes several policies related to air quality. These policies are consistent with APCD's mission and relate to the siting of sensitive populations in relation to sources of air pollutants, control of air pollutant emissions from construction and operation of new development projects, and minimizing air pollution from transportation sources.
- The City of Lompoc's General Plan Resource Management Element includes air quality enhancement policies relating to participation in regional air quality planning efforts, and collaboration with the APCD to minimize air quality impacts of new development.

3.7 NOISE

3.7.1 Physical Setting

Santa Barbara County contains several large-scale noise sources, primarily associated with transportation facilities including highways, railroads, and airports. Santa Barbara County contains four airports in the cities of Lompoc, Santa Ynez, Santa Maria, and Santa Barbara. An airfield at Vandenberg Air Force Base is used exclusively by military aircraft. Noise contours of flight paths in the vicinity of the County's airport facilities were mapped in 1972. By the authority of the California Administrative Code, the County may not permit noise exposures exceeding 65 decibels (dB) Community Noise Equivalent Level (CNEL).

Trains are another large-scale transportation noise generator. The two railroad companies operating in Santa Barbara County are the Southern Pacific Railroad and the Santa Maria Valley Railroad. The Santa Maria Valley Railroad serves the Santa Maria area, providing freight transport from the Santa Maria Public Airport to the City of Guadalupe where it connects to the Southern Pacific Railroad. The Southern Pacific generally follows the coastline through the County to the greater region. The Southern Pacific also branches to provide service to the City of Lompoc and Vandenberg Air Force Base. On the Southern Pacific line at 100 feet from the tracks, noise levels approach 100 decibels "A-weighted", a commonly used loudness measure referred to as "dB(A)".

The U.S. Highway 101 is the main transport corridor for motor vehicles, and average noise levels at a distance of 50 feet from the highway range approximately from 78 dB(A) to 70 dB(A) depending on traffic speed, volume, time of day and other factors (SBC Comprehensive Plan , 2009b).

3.7.2 Regulatory Setting

Federal noise guidelines are developed by the U.S. Environmental Protection Agency (USEPA), the U.S. Department of Transportation (DOT), the Federal Aviation Administration (FAA), and the Federal Highway Administration (FHWA). The USEPA established noise criteria and measurement methods for interstate rail carriers under the authority of the Noise Control Act of 1972. The DOT has established noise measurement methods, instrument and monitoring standards, and allowable noise levels for motor vehicles. The FAA has authority over flight paths for all aircraft and FAA regulations establish noise level criteria for civilian fixed-wing aircraft. The FHWA has jurisdiction over national highways and has established standards for traffic noise levels for federally funded transportation projects.

At the state level, noise policy is developed by the California Department of Transportation (CalTrans). The California Administrative Code contains noise insulation standards for indoor noise level for multi-family residences, condominiums, and hotels. CalTrans must also provide local jurisdictions with a noise contour map along state highways. The California Motor Vehicle Code includes noise limits for new vehicles based on the vehicle type, with the majority limited to 80 dB(A) or less.

Local policy regulating noise is based on the local context of noise sources. Santa Barbara County's Comprehensive Plan contains a Noise Element as required by California Government Code. The Noise Element contains several methods for reducing noise at the source and receptor. Cities may have policies regulating noise levels within their respective jurisdictional boundaries.

3.8 PUBLIC SERVICES

3.8.1 Physical Setting

The Santa Barbara County Fire Department provides fire protection services to the majority of the County with the exceptions of Montecito and Carpinteria/Summerland which have their own fire districts. The County Fire Department maintains 16 fire stations in communities across the County from New Cuyama in the northeast to Gaviota and Lompoc.

Law enforcement and public safety services for unincorporated portions of the County are provided by the County Sheriff's Department. A number of jurisdictions within the County have their own police and fire departments, including Santa Maria, Santa Barbara, Goleta, Lompoc, Solvang, University of California at Santa Barbara and Vandenberg Air Force Base. Santa Barbara County Sheriff's Department also maintains two correctional facilities in the County. The main county jail is located in the unincorporated southern county region and has an average daily population of approximately 640 inmates. The main jail is supplemented by a 256-bed medium security facility and a remote booking/temporary holding facility located in the Santa Maria region.

Santa Barbara County contains 22 school districts, with an enrollment of approximately 65,900 students. The County also contains two community college districts, one located in Santa Maria and another in Santa Barbara. The University of California at Santa Barbara is located near the City of Goleta. The Santa Barbara Public Library System is a department of the City of Santa Barbara and operates public library facilities in partnership with the County of Santa Barbara in seven locations: Santa Barbara, Solvang, Goleta, Carpinteria, Montecito, Santa Ynez and Los Olivos. The cities of Lompoc and Santa Maria operate their own libraries.

3.8.2 Regulatory Setting

Under Title 19, Public Safety, of California Code of Regulations (CCR), the California State Fire Marshal is responsible for developing regulations and standards to protect life and property against fire and explosion. Santa Barbara County and County Fire Department have also developed standards pertaining to roadways and fire protection. The Santa Barbara County Fire Department (SBCFD) evaluates fire protection with several measures including a firefighter to population ratio and a five-minute response time. The SBCFD has 16 fire stations throughout the County.

Due to the varying community needs for law enforcement and public safety services, there is no state or federal minimum standard regarding police service levels. The ratio of officers to residents varies based on local demographics, economic cycles, and department resources.

3.9 TRANSPORTATION/CIRCULATION

Santa Barbara County's transportation infrastructure consists of paved roads, five major highway corridors (U.S. 101 and State Routes 1, 154, 166, and 246), six transit operators, one private intercity bus operator, five public airports, three railroad operators, and one harbor facility. These transport providers enable the movement of people and goods throughout the County.

3.9.1 Physical Setting

The County has approximately 2,013 miles of paved roads and includes two major highway corridors and 300 miles of bike routes. Most of the bicycle routes are painted on surface streets. Highway 101 is the primary interregional travel route, serving as the main traffic corridor through the region and connecting the incorporated communities and rural areas. Average daily traffic on Highway 101 through Santa Barbara is approximately 140,000 vehicles. Average daily traffic on Highway 101 through Santa Maria is approximately 45,000 vehicles (SBCAG, 2007). Although some congestion is attributable to the long-term widening of Highway 101, single-occupant commuting has increased by approximately 5 percent since 1980. In addition, long-distance commuting has increased

dramatically in the last twenty years, with approximately 20,000 workers commuting daily to Santa Barbara County from neighboring counties in 2000.

3.9.2 Regulatory Setting

Transportation planning and infrastructure are addressed at every level of government. The federal government delegates the responsibilities of maintaining the state highway system to the California Department of Transportation (CalTrans), which maintains Highway 101. The Santa Barbara Association of Governments (SBCAG) is designated as the Metropolitan Planning Organization and Regional Transportation Planning Agency. SBCAG prepares the Regional Transportation Plan and is responsible for all regional planning activities.

The individual jurisdictions within Santa Barbara County also have transportation plans that apply to their specific geographic areas, and may include supplementary documents such as pedestrian or bikeway plans. These supplementary documents can form the basis for enhancements to city infrastructure to promote alternative transportation methods.

3.10 UTILITIES/ENERGY

3.10.1 Physical Setting

Electricity

California produces 78 percent of the power generated to meet electricity demand within the State; the remaining demand is supplemented by energy generated in neighboring states (CEC, 2007). Reliant Energy operates a peaking station in the Goleta area; however, there are no regular demand power plants located in Santa Barbara County and all power is conveyed into the region via power transmission lines. The primary supplier of electric power in the northern region of the County is Pacific Gas and Electric (PG&E); the southern region is supplied by Southern California Edison (SCE). The split between the two providers is roughly equal; approximately 50 percent of the energy consumed for residential use is provided by each utility. The City of Lompoc acquires its electrical power through a separate purchase agreement with an independent energy provider and provides this power to customers within the city limits. In 2008, Santa Barbara County consumed a total of 3,274,279 kilowatt-hours (kWh) of electricity; 25 percent of the total was consumed by residential uses, and the majority was used by the business and industrial sectors (ECDMS, 2008a). There are a few renewable energy projects still in planning stages. These include a commercial solar installation in the Cuyama area and a large-scale wind power installation in the Lompoc area.

Natural Gas

Natural gas is the primary fuel that is used for space heating, water heating, industrial process heating, and cooking purposes in Santa Barbara County. A much lesser amount of natural gas is used to fuel vehicles. Other fuels that are used less frequently include liquid propane and wood fuel. Natural gas is supplied to residential, commercial and industrial sectors by Sempra Energy (Southern California Gas Company). In 2008, Santa Barbara County consumed a total of 129,150,034 therms of natural gas, with usage split 50/50 between the residential sector and the commercial/industrial sector (ECDMS, 2008b).

Water Supply and Wastewater Disposal

Water supply and wastewater disposal services are provided by a number of private and public entities. Water supply sources (e.g., surface and groundwater) are discussed in Section 3.6. The water and wastewater treatment methods vary depending on the characteristics of the local water resources, the needs of the local communities, and the capabilities of the local facilities. Some wastewater treatment plants (such as the Laguna Sanitation District and the City of Santa Barbara El Estero Wastewater Treatment Plant) have processes that facilitate the use of reclaimed water for large-scale landscaping needs.

Solid Waste

Tajiguas Landfill, located on the Gaviota Coast, is an active County owned and operated facility that receives non-recyclable solid waste from around the County. It is a Class III landfill, meaning that it can accept most non-hazardous wastes. The landfill is approximately 357 acres in total size, with 118 acres of disposal area. Tajiguas is not open to the public; self-hauled waste can be taken to one of four transfer stations located throughout the County for disposal. Tajiguas is currently permitted to accept up to 1,500 tons of waste per day. The landfill is estimated to reach its capacity in the year 2022 (CalRecycle, 2010). The Public Works Department Resource Recovery & Waste Management Division is responsible for planning and implementing waste collection and recycling programs throughout the County. The Division contracts with private waste haulers to provide waste collection services.

Other active non-County owned and operated landfills within the geographical boundaries of Santa Barbara County include: Santa Maria Regional Landfill, City of Lompoc Sanitary Landfill, and Vandenberg Air Force Base Landfill.

3.10.2 Regulatory Setting

Electricity

Title 10 of the Code of Federal Regulations established the U.S. Department of Energy, and other federal agencies with energy programs addressing conservation, energy efficiency, alternative-fueled vehicles, power plant regulations, and regulation of nuclear power. The Federal Energy Regulatory Commission is an independent agency that regulates the interstate transmission of electricity, natural gas, and oil.

In California, the California Energy Commission (CEC) is the state's primary energy policy and planning agency. The CEC's responsibilities include: forecasting energy needs and tracking historical usage, licensing of power plants, supporting energy research and advancing energy science, developing and implementing programs to promote energy efficiency and renewable and alternative energy sources, and responding to energy emergencies. The California Public Utilities Commission has regulatory oversight of power generation facilities and infrastructure projects.

Several state codes and regulations address energy usage. Title 24 of the California Code of Regulations, also known as the California Building Standards Code, is an important regulation that

requires energy efficient building practices for all new buildings and for extensive renovations of existing buildings.

Water Supply and Wastewater Disposal

Under the Federal Clean Water Act (CWA), states are delegated certain responsibilities in the regulation of surface water quality. In California, the California State Water Resources Control Board (SWRCB) is the agency with the authority to allocate water and protect water quality in order to comprehensively protect California's waters. Since climate, topography, geology, and hydrology vary from one region to another in California, nine Regional Water Quality Control Boards (RWQCBs) are also in place to develop and enforce water quality objectives and implementation plans as appropriate, taking into account regional circumstances. Santa Barbara County falls under the jurisdiction of the Central Coast (Region 3) RWQCB. California's Porter-Cologne Water Quality Control Act of 1969, now Division Seven Section 13100 et seq. ("Water Quality") of the State Water Code, establishes the responsibilities and authorities of the nine RWQCBs and the SWRCB.

Wastewater discharges to surface and groundwater are regulated by the RWQCBs. The U.S. Environmental Protection Agency has designated authority for wastewater permitting via National Pollution Discharge Elimination System (NPDES) permits to regional boards. RWQCBs also develop Total Maximum Daily Loads (TMDLs) for waterbodies that do not meet water quality standards. The Central Coast RWQCB has a "Basin Plan" that serves as its master water quality control planning document. The Basin Plan includes designated beneficial uses for state waters, water quality objectives, and programs of implementation.

The Water Resources Division of the Santa Barbara County Public Works has several districts and programs that are involved in water supply and wastewater activities including: the Flood Control and Water Conservation District, the County Water Agency, and Project Clean Water. Delivery of water to various areas in the County is supplied by several water providers including local water districts, cities, and Community Service Districts (CSD) (e.g. Goleta Water District, City of Santa Barbara, and Mission Hills CSD).

Solid Waste

The California Integrated Waste Management Act requires cities to have developed a source reduction element to provide strategies for diverting at least 50 percent of all solid waste from County landfills by the year 2000. Long-range waste management and recycling plans are prepared by the Santa Barbara County Public Works Department Resource Recovery & Waste Management Division in accordance with state mandates. The California Integrated Waste Management Plan of 1989 requires counties and cities to produce a number of documents outlining current and future waste management and recycling programs. These documents describe the programs and policies that jurisdictions will employ to meet waste management and recycling goals. The Countywide Integrated Waste Summary Plan aggregates all elements of the county wide solid waste management planning process. The Source Reduction and Recycling Element outlines policies designed to divert solid waste from landfills and reduce the waste stream. The county-wide Siting Element addresses expansions of existing waste management facilities and potential sites for future facilities. The Multi-Jurisdictional Non-Disposal Element describes new non-disposal facilities and expansions of existing facilities. The county-wide Household Hazardous Waste Element establishes a plan for the management of household hazardous waste within the County.

4.0 Project Impacts and Mitigation Measures

As discussed in Section 2.0, *Project Description,* the environmental impact analysis focuses on the control measures that are under the authority of the APCD Board and that are proposed to be implemented as discussed in Chapter 4 of the 2010 Plan. Table 2-1 provides a tabular summary of the control measures. Section 2.3 includes a description of the control measures and groups them into two categories that will be referenced throughout the impacts section of the EIR as follows:

Group 1: Solvent Cleaning ROC Limits and Other Reductions in Material ROC Content. Revisions to rules are proposed that will result in a lowering of ROC limits (to 25 or 50 grams per liter, depending on the specific industrial application) for solvent cleaning activities. The actual sequence of the proposed rule revisions may change within their respective near- or mid-term timeframes. To meet the requirement to adopt every feasible control measure, there may also be revisions to:

1. The ROC content limits for other process materials (e.g., coatings, adhesives, sealants, inks, resins, wash primers, fountain solution),
2. The maximum allowable ROC content limit for solvent cleaning activities that is lower than 50 grams per liter (e.g., a limit of 25 grams of ROC per liter), and
3. The equipment and operation requirements.

Group 2: Combustion Equipment NO_X Limits. These control measures involve a reduction in the allowable NO_X emissions limits listed in APCD Rules 352, 360, 361, and 342.

Classification of Impacts

The project environmental impacts and residual impacts are classified as follows:

a) ***Class I Impacts*** - Significant unavoidable adverse impacts for which the decision maker must adopt a Statement of Overriding Consideration.

b) ***Class II Impacts*** - Significant adverse environmental impacts that can be feasibly mitigated or avoided for which the decision maker must adopt findings and mitigation measures.

c) ***Class III Impacts*** - Adverse impacts found not to be significant for which the decision maker does not have to adopt findings under CEQA.

d) ***Class IV Impacts*** - Beneficial impacts of the project.

The significance thresholds that are applied to each issue area were developed based on the following:

- *Environmental Review Guidelines* for the Santa Barbara County Air Pollution Control District (SBCAPCD, revised November 2000)
- *California CEQA Statute and CEQA Guidelines*, including CEQA Guidelines Appendix G (March 2010)
- Santa Barbara County's *Environmental Thresholds & Guidelines Manual* (Santa Barbara County Planning & Development, revised September 2008) and Initial Study Checklist

APCD's adopted CEQA significance thresholds were used for the for air quality impact analysis. For all other issue areas, Santa Barbara County's document was generally used. The CEQA Guidelines, including Appendix G, were used as a supplemental reference, to ensure that all impact areas were addressed.

4.1 AIR QUALITY

4.1.1 Significance Criteria

A proposed project will not have a significant air quality effect on the environment if operation of the project will:

- Emit (from all project sources, mobile and stationary) less than the daily trigger for offsets set in the APCD New Source Review Rule for any non-attainment pollutant (i.e., 55 pounds per day for ROC or NO_X; 80 pounds per day for PM_{10}); and
- Emit less than 25 pounds per day of NO_X or ROC from motor vehicle trips only; and
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); and
- Not exceed the APCD health risk public notification thresholds adopted by the APCD Board (10 excess cancer cases in a million for cancer risk and a Hazard Index of more than one (1.0) for non-cancer risk); and
- Be consistent with the adopted federal and state Air Quality Plans.

4.1.2 Impact Discussion

Group 1 Control Measures: Reformulation of cleaning solvents and other ROC-containing materials such as coatings, adhesives, sealants, inks, resins, wash primers, and fountain solutions is expected to reduce ROC emissions throughout Santa Barbara County. By reducing ROC emissions, which are known to contribute to the formation of ozone, it is anticipated that air quality in Santa Barbara County will improve.

Substitution of solvents and other materials that contain higher levels of ROC compounds with water-based compounds or exempt compounds such as acetone would not result in generation of new ROC emissions. Studies have been conducted by air districts and CARB to assess whether the use of low-ROC reformulated products would result in an increase in the use of toxic or hazardous materials. Compliant materials are expected to contain less hazardous or toxic materials as compared to solvent-based compounds, resulting in less potential for toxic air contaminant emissions and less potential for human health risk.

As the control measures are implemented through revisions to APCD source-specific rules, the potential for increased health risk from toxic air contaminants will be evaluated for the specific industries affected. If deemed necessary, additional environmental review will be done to assess and mitigate impacts. Refer to Section 4.4.2 for additional discussion of hazardous or toxic materials.

Group 2 Control Measures: The control measures to reduce NO_X limits from external combustion equipment, such as water heaters, boilers, steam generators and process heaters, are expected to reduce NO_X emissions throughout Santa Barbara County. By reducing NO_X emissions, which are known to contribute to the formation of ozone, it is anticipated that air quality in Santa Barbara County will improve.

Control measures to reduce levels of NO_X from combustion equipment may cause a slight increase in other air pollutants such as ROCs. In these cases the beneficial effect of limiting NO_X must surpass the adverse impacts of increases in other air pollutants. When the trade-off is between NO_X and ROC, both of which are ozone precursors, the impact is not generally considered adverse because there is an overall reduction in emissions of ozone precursor pollutants.

Conclusion and Classification of Impacts

Section 4.10 of this EIR includes a discussion of transportation impacts related to implementation of the Group 1 and Group 2 control measures. Implementation of the control measures is not anticipated to result in additional vehicle trips or vehicle miles travelled (VMT) or additional traffic congestion or circulation problems. Therefore, the project will not result in additional air pollutant emissions from mobile sources (motor vehicles).

The 2010 Plan was developed in order to comply with state air quality planning requirements. It is consistent with state and federal air quality plans.

Implementation of the control measures is not anticipated to result in additional health risk; therefore APCD health risk notification thresholds will not be exceeded.

Impacts related to climate change and greenhouse gas emissions are discussed in Chapter 5 of this EIR.

Impacts to Air Quality resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class IV, beneficial impacts***.

4.2 BIOLOGICAL RESOURCES

4.2.1 Significance Criteria

Impacts may be potentially significant if the project will result in:

- A substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- A conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- A conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan
- A loss or disturbance to a unique, rare or threatened plant community

- A reduction in the numbers or restriction in the range of any unique, rare or threatened species of plants
- A reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)
- An impact on non-native vegetation whether naturalized or horticultural if of habitat value
- The loss of healthy native specimen trees
- Introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat
- A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals
- A reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)
- A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)
- Introduction of barriers to movement of any resident or migratory fish or wildlife species
- Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife

4.2.2 Impact Discussion

Group 1 Control Measures: Reformulation of cleaning solvents and other ROC-containing materials such as coatings, adhesives, sealants, inks, resins, wash primers, and fountain solutions is expected to increase the amount of water-based products in that are used in these industrial sectors. In general, there is a tendency to treat water-based products with less care than is given to solvent-based products, and in some cases this may result in improper disposal of waste. Water-based products that are improperly disposed of may enter the environment, via direct exposure or via municipal wastewater that is eventually released to the environment, and harm biological resources. However, the types of industrial sources that will be required to comply with these new formulations are generally sources that are currently regulated, and are aware of waste and wastewater disposal requirements. These facilities generally have a knowledge of proper disposal practices for potentially harmful chemicals. Some industrial facilities obtain waste disposal services from companies that specialize in the treatment and disposal of liquid and solid waste. Because the proposed control measures are not expected to apply to any new, non-regulated industries, improper waste and wastewater disposal is not expected to occur.

Group 2 Control Measures: The control measures to reduce NO_X limits from external combustion equipment, such as water heaters, boilers, steam generators and process heaters, are expected to reduce NO_X emissions throughout Santa Barbara County. By reducing NO_X emissions, which are known to contribute to the formation of ozone, it is anticipated that air quality in Santa Barbara County will improve.

Conclusion and Classification of Impacts

Implementation of the Group 1 and 2 control measures will generally affect geographical areas that are already developed with commercial or industrial land uses, and would not directly result in degradation or loss of native vegetation including trees, grassland, wetlands or other habitat. The project would not result in adverse impacts to wetlands, to rare or special status plant or animal species or disruption of migratory wildlife corridors. Biological organisms and habitat would benefit

from implementation of the control measures, through reductions of air pollutants from existing levels and prevention of exposure to air pollutants. The 2010 Plan is consistent with local policies, ordinances, and plans to protect and preserve biological resources.

Environmental impacts that are related to specific land use development projects should be evaluated and mitigated as part of the land use decision-making process for individual jurisdictions, such as cities and Santa Barbara County. Project-specific impacts to endangered, rare, or other special plants and animals can be avoided on a project-specific basis by requiring biological resource inventories and requiring adequate protective measures.

Impacts to Biological Resources resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class III, less than significant***.

4.3 HAZARDS/RISK OF UPSET

4.3.1 Significance Criteria

Impacts may be potentially significant if the project will:

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands
- Result in a risk of an explosion or the release of hazardous substances (e.g., oil, gas, biocides, bacteria, pesticides, chemicals or radiation) in the event of an accident or upset conditions
- Result in possible interference with an emergency response plan or an emergency evacuation plan
- Result in the creation of a potential public health hazard
- Result in exposure to hazards from oil or gas pipelines or oil well facilities

4.3.2 Impact Discussion

Group 1 Control Measures: Reformulation of cleaning solvents and other ROC-containing materials such as coatings, adhesives, sealants, inks, resins, wash primers, and fountain solutions is expected to increase the amount of water-based products in that are used in these industrial sectors. Reformulation of these solvents and materials to reduce the ROC content may result in substitution with compounds that are not regulated by APCD. Some increase in the use of acetone in reformulated coatings is expected. Increases in acetone usage may increase the amount of bulk acetone transported in Santa Barbara, increasing the risk of accidental release of acetone. However, trucks and rail cars are equipped to safely handle these materials and will not be affected by the proposed rule amendments. The severity of an accident involving transported acetone would not change from current levels as a result of the rule amendments.

Generally, the industries that will be required to comply with the Group 1 control measures already involve the use of materials with a varying level of hazardous properties. Some of the materials and technologies being used in these industries have already switched to less hazardous options. Increasing the use of water-based coatings and solvents and lower ROC materials is anticipated to result in a lower overall risk of hazards at industrial facilities. The types of materials and processes that will be regulated with these control measures do not generally involve the potential for harmful releases to the environment (e.g., explosion or large amounts of hazardous materials released), and the use of materials with a lower ROC content is not expected to change the potential for upset conditions or accidental releases at industrial facilities.

Group 2 Control Measures: The control measures to reduce NO_X limits from external combustion equipment, such as water heaters, boilers, steam generators and process heaters, are expected to reduce NO_X emissions throughout Santa Barbara County. These NO_X emissions reductions will be achieved through the use of improved combustion control technologies. These control technologies have been implemented on a variety of equipment types and sizes in other air districts in California. Any currently operating external combustion device already involves the use of natural gas or other fuels that are potentially toxic and flammable; implementation of the control measures will not change the type of fuel used or significantly alter the operational parameters of the combustion equipment. Improved combustion technologies are not expected to cause additional risk of upset or additional exposure to hazardous materials at industrial facilities.

Conclusion and Classification of Impacts

When compared with the existing conditions at residential, commercial and industrial facilities that use the equipment and materials that would be regulated by the Group 1 and 2 control measures, adverse impacts are not anticipated to occur with respect to hazards and upset conditions. Implementation of the control measures will not interfere with emergency response or evacuation procedures, and human exposure to hazardous materials is anticipated to be reduced through the use of more water-based compounds.

Impacts to Hazards/Risk of Upset resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class III, less than significant***.

4.4 HAZARDOUS MATERIALS

4.4.1 Significance Criteria

Impacts may be potentially significant if the project will:

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment
- In the known history of this property, have there been any past uses, storage or discharge of hazardous materials (e.g., fuel or oil stored in underground tanks, pesticides, solvents or other chemicals)?

- Result in the use, storage or distribution of hazardous or toxic materials
- Result in the contamination of a public water supply

4.4.2 Impact discussion

Group 1 Control Measures: Reformulation of cleaning solvents and other ROC-containing materials such as coatings, adhesives, sealants, inks, resins, wash primers, and fountain solutions is expected to increase the amount of water-based products in that are used in these industrial sectors. However, the possibility exists that replacement solvents in reformulated products may be more hazardous, or toxic, than current formulations. Hazardous or toxic substances are chemicals that have adverse effects on human health and/or the environment. Although there are some regulatory differences between toxic and hazardous substances, these two words are assumed to follow this same general definition.

The various chemicals that are used in coatings and solvent formulations have a variety of properties that may result in their classification as toxic or hazardous. Studies have been conducted by air districts and CARB to assess whether the use of low-ROC reformulated products would result in an increase in the use of toxic or hazardous materials. South Coast Air Quality Management District (SCAQMD) compared the toxicity of commonly used solvents to those expected to be used in reformulated low-ROC products. Many of the replacement solvents have less severe toxicity levels than traditional solvents. The replacement solvents that may be used in reformulated products are mostly common chemicals used in a variety of industrial and consumer applications. Current coating formulations contain materials that, in general, are as toxic, or more toxic, than possible low-ROC formulations. Thus, any possible increase in the use of toxics in low-ROC reformulated products will generally be balanced by a concurrent decrease in the use of toxic materials in conventional products formulations (SCAQMD, 2001). As a result, an increase in the amount of hazardous or toxic materials, relative to existing conditions, is not expected. In addition, many commercial solvent applications occur primarily in industrial settings where safety equipment and procedures are already in place to prevent exposure of these materials to people or to the environment.

As the control measures are implemented through revisions to APCD source-specific rules, the potential for increased use of flammable, toxic, or hazardous materials will be evaluated for the specific industries affected. If deemed necessary, additional environmental review will be done to assess and mitigate impacts.

Group 2 Control Measures: The control measures to reduce NO_X limits from external combustion equipment, such as water heaters, boilers, steam generators and process heaters, are expected to reduce NO_X emissions throughout Santa Barbara County. These NO_X emissions reductions will be achieved through the use of improved combustion control technologies. These control technologies have been implemented on a variety of equipment types and sizes in other air districts in California. Any currently operating external combustion device already uses natural gas or other fuels that are potentially toxic and flammable; implementation of the control measures will not change the type of fuel used or significantly alter the operational parameters of the combustion equipment. Improved combustion technologies will not involve the use, storage, or distribution of toxic or hazardous materials or result in human exposure to toxic or hazardous materials.

Conclusion and Classification of Impacts

When compared with the existing conditions at residential, commercial and industrial facilities that utilize the equipment and materials that would be regulated by the Group 1 and 2 control measures, adverse impacts are not anticipated to occur with respect to hazards and upset conditions. Implementation of the control measures will not interfere with emergency response or evacuation procedures, and human exposure to hazardous materials is anticipated to be reduced through the use of more water-based compounds.

Impacts to Hazardous Materials resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class III, less than significant***.

4.5 HYDROLOGY AND WATER QUALITY

4.5.1 Significance Criteria

Impacts may be potentially significant if the project will result in:

- Violation of any water quality standards or waste discharge requirements
- Changes in currents, or the course or direction of water movements, in either marine or fresh waters
- Changes in percolation rates, drainage patterns or the rate and amount of surface water runoff
- Change in the amount of surface water in any water body
- Discharge, directly or through a storm drain system, into surface waters (including but not limited to wetlands, riparian areas, ponds, springs, creeks, streams, rivers, lakes, estuaries, tidal areas, bays, ocean, etc) or alteration of surface water quality, including but not limited to temperature, dissolved oxygen, turbidity, or thermal water pollution
- Alterations to the course or flow of flood water or need for private or public flood control projects
- Exposure of people or property to water related hazards such as flooding (placement of project in 100 year flood plain), accelerated runoff or tsunamis, sea level rise, or seawater intrusion
- Alteration of the direction or rate of flow of groundwater
- Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge interference
- Overdraft or over-commitment of any groundwater basin? Or, a significant increase in the existing overdraft or over-commitment of any groundwater basin
- The substantial degradation of groundwater quality including saltwater intrusion
- Substantial reduction in the amount of water otherwise available for public water supplies
- Introduction of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) into groundwater or surface water

4.5.2 Impact Discussion

Group 1 Control Measures: Reformulation of cleaning solvents and other ROC-containing materials such as coatings, adhesives, sealants, inks, resins, wash primers, and fountain solutions is expected

to increase the amount of water-based products in that are used in these industrial sectors. In general, there is a tendency to treat water-based products with less care than is given to solvent-based products, and in some cases this may result in improper disposal of waste. Water-based products that are improperly disposed of may enter the environment, via direct exposure or via municipal wastewater that is eventually released to the environment. However, the types of industrial sources that will be required to comply with these new formulations are generally sources that are currently regulated, and are aware of waste and wastewater disposal requirements. These facilities generally have a knowledge of proper disposal practices for potentially harmful chemicals. Some industrial facilities obtain waste disposal services from companies that specialize in the treatment and disposal of liquid and solid waste. Because the proposed control measures are not expected to apply to any new, non-regulated industries, improper waste and wastewater disposal is not expected to occur.

Because implementation of the Group 1 control measures potentially involves an increase in the use of water-based coatings and solvents, there is the potential for an increase in water demand from the increase in manufacture, use, and cleanup of water-based coatings. However, many industries have already switched to water-based coatings and cleaning solvents as a result of regulations that have already been implemented. The incremental additional amount of increase that would be attributed to the Group 1 control measures would be relatively small, and will occur over a period of years as the applicable regulations are phased in.

Group 2 Control Measures: The control measures to reduce NO_X limits from external combustion equipment, such as water heaters, boilers, steam generators and process heaters, are expected to reduce NO_X emissions throughout Santa Barbara County. These NO_X emissions reductions will be achieved through the use of improved combustion control technologies that do not involve the use of water or the discharge of water. Existing external combustion equipment, such as institutional heating boilers, may involve the use of recirculated water systems that require water treatment and conditioning. The proposed control measures are not expected to change the water use or water conditioning requirements for existing or proposed external combustion devices such as boilers.

Conclusion and Classification of Impacts

The Group 1 and 2 control measures are not expected to substantially increase the demand for water at industrial facilities. Implementation of the control measures will not change current practices related to protecting surface and groundwater water quality, and will not result in additional discharges to surface water or groundwater resources, or impede or alter the flow of water resources. These control measures will not change the operational requirements for existing external combustion devices that use water.

Impacts to Hydrology and Water Quality resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class III, less than significant***.

4.6 LAND USE/PLANNING

4.6.1 Significance Criteria

Impacts may be potentially significant if the project will result in:

- Physical division of an established community
- Structures and/or land use incompatible with existing land use
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect
- The induction of substantial growth or concentration of population
- The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project
- Loss of existing affordable dwellings through demolition, conversion or removal
- Displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere
- Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere
- The loss of a substantial amount of open space
- An economic or social effect that would result in a physical change (i.e. closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)
- Conflict with adopted airport safety zones

4.6.2 Impact Discussion

Group 1 Control Measures: Reformulation of cleaning solvents and other ROC-containing materials such as coatings, adhesives, sealants, inks, resins, wash primers, and fountain solutions is expected to reduce ROC emissions throughout Santa Barbara County. By reducing ROC emissions, which are known to contribute to the formation of ozone, it is anticipated that air quality in Santa Barbara County will improve. Impacts to land use characteristics and land use planning efforts are not anticipated.

Group 2 Control Measures: The control measures to reduce NO_X limits from external combustion equipment, such as water heaters, boilers, steam generators and process heaters, are expected to reduce NO_X emissions throughout Santa Barbara County. By reducing NO_X emissions, which are known to contribute to the formation of ozone, it is anticipated that air quality in Santa Barbara County will improve.

Conclusion and Classification of Impacts

Implementation of the ROC and NO_X control measures would not have the potential to divide existing communities, displace populations or housing, or create a conflict between incompatible uses, because the control measures would be applied to existing facilities and stationary equipment. The controls would not generate new sources and are not expected to result in new development or indirect physical changes to the built environment.

Impacts to Land Use/Planning resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class III, less than significant***.

4.7 NOISE

4.7.1 Significance Criteria

Impacts may be potentially significant if the project will result in:

- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- Long-term exposure of people to noise levels exceeding County thresholds (e.g. locating noise sensitive uses next to an airport)
- Short-term exposure of people to noise levels exceeding County thresholds
- Project-generated substantial increase in the ambient noise levels for adjoining areas (either day or night)

4.7.2 Impact Discussion

Group 1 Control Measures: Reformulation of cleaning solvents and other ROC-containing materials such as coatings, adhesives, sealants, inks, resins, wash primers, and fountain solutions are expected to reduce ROC emissions throughout Santa Barbara County. The use of lower ROC-content solvents and materials is not expected to impact noise levels at any locations in Santa Barbara County.

Group 2 Control Measures: The control measures to reduce NO_X limits from external combustion equipment, such as water heaters, boilers, steam generators and process heaters, are expected to reduce NO_X emissions throughout Santa Barbara County. The proposed NO_X reduction measures for combustion equipment may require existing commercial or industrial owners/operators of affected facilities to install air pollution control equipment or modify their operations to reduce stationary source emissions. The specific types of control equipment or operational modifications depend on the specific residential, industrial or commercial application. However, none of the equipment or operational modifications is expected to cause an increase in noise levels associated with equipment operation.

Conclusion and Classification of Impacts

It is not expected that any modifications to install air pollution control equipment would substantially increase ambient (operational) noise levels in the area, either permanently or intermittently, or expose people to excessive noise levels above and beyond existing ambient levels. It is not expected that affected facilities would exceed noise standards established in local general plans, noise elements, or noise ordinances currently in effect. Affected facilities would be required to comply with local noise ordinances and elements, which may require construction of noise barriers or other noise control devices.

Affected facilities would still be expected to comply, and not interfere, with any applicable airport land use plans and disclose any excessive noise levels to affected residences and workers pursuant to existing rules, regulations and requirements, such as CEQA. It is assumed that operations in areas

near airports are subject to and in compliance with existing community noise ordinances and applicable OSHA or Cal/OSHA workplace noise reduction requirements. None of the proposed control measures in the 2010 CAP would locate residents or commercial buildings or other sensitive noise sources closer to airport operations.

Impacts to Noise resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class III, less than significant***.

4.8 PUBLIC SERVICE

4.8.1 Significance Criteria

Impacts may be potentially significant if the project will result in:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, other public facilities
- A need for new or altered police protection and/or health care services
- Student generation exceeding school capacity

4.8.2 Impact Discussion

Group 1 Control Measures: Reformulation of cleaning solvents and other ROC-containing materials such as coatings, adhesives, sealants, inks, resins, wash primers, and fountain solutions is expected to reduce ROC emissions throughout Santa Barbara County. The use of lower ROC-content solvents and materials is not expected to impact the level of service requirements for public facilities such as police, fire protection, parks, schools, or other public facilities. Although acetone, which is flammable, may be used as a replacement product for solvents, as discussed under Hazards (Section 4.3), it does not pose a greater fire hazard than the solvents that it would replace.

Group 2 Control Measures: The control measures to reduce NO_X limits from external combustion equipment, such as water heaters, boilers, steam generators and process heaters, are expected to reduce NO_X emissions throughout Santa Barbara County. These NO_X emissions reductions will be achieved through the use of improved combustion control technologies, which are not anticipated to generate additional need for public services such as police or fire protection.

Conclusion and Classification of Impacts

Impacts to Public Services resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class III, less than significant***.

4.9 TRANSPORTATION/CIRCULATION

4.9.1 Significance Criteria

Impacts may be potentially significant if the project will result in:

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit
- Generation of substantial additional vehicular movement (daily, peak-hour, etc.) in relation to existing traffic load and capacity of the street system
- A need for private or public road maintenance, or need for new road(s)
- Effects on existing parking facilities, or demand for new parking
- Substantial impact upon existing transit systems (e.g. bus service) or alteration of present patterns of circulation or movement of people and/or goods
- Alteration to waterborne, rail or air traffic
- Increase in traffic hazards to motor vehicles, bicyclists or pedestrians (including short-term construction and long-term operational)
- Inadequate sight distance, ingress/egress, general road capacity, emergency access
- Impacts to Congestion Management Plan system

4.9.2 Impact Discussion

Group 1 Control Measures: Reformulation of cleaning solvents and other ROC-containing materials such as coatings, adhesives, sealants, inks, resins, wash primers, and fountain solutions is expected to reduce ROC emissions throughout Santa Barbara County. The use of lower ROC-content solvents and materials at existing industrial facilities is not expected to impact the transportation characteristics at these affected facilities. The types of facilities that are regulated under these rules already have systems in place for the proper transport, storage, and disposal of these materials. The use of reformulated materials will not require additional vehicle trips, nor will it increase trip distances to or from facilities. The use of reformulated solvents is not expected to alter emergency response procedures or emergency access routes.

Group 2 Control Measures: The control measures to reduce NO_X limits from external combustion equipment, such as water heaters, boilers, steam generators and process heaters, are expected to reduce NO_X emissions throughout Santa Barbara County. These NO_X emissions reductions will be achieved through the use of improved combustion control technologies, which are not anticipated to generate additional vehicle trips, increase trip distances, or impede emergency access routes. The control measures under consideration are measures that affect existing residential, institutional, commercial and industrial facilities. Modifications to stationary sources would almost always occur within the confines of existing facilities. Most of the equipment would typically be located inside the buildings of the affected facilities.

Conclusion and Classification of Impacts

The Group 1 and 2 control measures do not increase traffic or result in the exceedance of a level of service standard. The control measures do not alter street design. The control measures do not impede emergency access or impact parking. The control measures do not conflict with transportation alternatives. The control measures do not require constructing any structures that

could impede air traffic patterns in any way. Thus, neither air traffic, nor air traffic patterns, are expected to be directly or indirectly affected by adopting the proposed control measures.

Impacts to Transportation/Circulation resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class III, less than significant***.

4.10 UTILITIES/ENERGY

4.10.1 Significance Criteria

Impacts may be potentially significant if the project will result in:

- Substantial increase in energy demand, especially during peak periods, upon existing sources of energy
- Requiring the development or extension of new energy sources
- Significant amounts of solid waste or breach any national, state, or local standards or thresholds relating to solid waste disposal and generation (including recycling facilities and existing landfill capacity)
- A need for new or altered sewer system facilities (sewer lines, lift-stations, etc.)
- The construction of new storm water drainage or water quality control facilities or expansion of existing facilities, the construction of which could cause significant environmental effects

4.10.2 Impact Discussion

Group 1 Control Measures: Reformulation of cleaning solvents and other ROC-containing materials such as coatings, adhesives, sealants, inks, resins, wash primers, and fountain solutions is expected to reduce ROC emissions throughout Santa Barbara County. The use of lower ROC-content solvents and materials at existing industrial facilities is not expected to increase the demand for electricity at these affected facilities or require development or extension of new energy sources. As discussed in Section 4.5.2, the types of industrial sources that will be required to comply with these new formulations are generally sources that are currently regulated, and are aware of waste and wastewater disposal requirements. The use of reformulated materials will not require additional sewer or storm drain facilities or an increase water demand.

Group 2 Control Measures: The control measures to reduce NO_X limits from external combustion equipment, such as water heaters, boilers, steam generators and process heaters, are expected to reduce NO_X emissions throughout Santa Barbara County. These NO_X emissions reductions will be achieved through the use of improved combustion control technologies, which are not anticipated to increase the demand for electricity or natural gas at these affected facilities or require development or extension of new energy sources. As discussed in Section 4.5.2, these NO_X emissions reductions will be achieved through the use of improved combustion control technologies that do not involve the use of water or the discharge of water. Existing external combustion equipment, such as institutional heating boilers, may involve the use of recirculated water systems that require water treatment and conditioning. The proposed control measures are not expected to change the water use or water conditioning requirements for existing or for proposed external combustion devices such as boilers.

More stringent NO_X controls may reduce the operating efficiency of combustion equipment. A reduction in operating efficiency may result in a slight increase in fuel usage. However, the control technologies that are available to achieve the NO_X limits in the proposed control measures are not expected to cause substantial losses in combustion efficiency. Some energy savings could be realized if control measures cause operators to replace older equipment with newer, more efficient equipment.

Conclusion and Classification of Impacts

The control measures under consideration are not expected to have a significant environmental impact on adopted energy conservation plans, or violate existing energy standards. Reformulation of solvent products would not increase demand for electricity or other utilities as the production process for reformulated solvents would not differ significantly from the process that is currently used.

Impacts to Utilities/Energy resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class III, less than significant***.

5.0 Cumulative Impacts

CEQA Guidelines Section 15130 states that, "*An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in Section 15065(a)(3). Where a lead agency is examining a project with an incremental effect that is not 'cumulatively considerable,' a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable*."

The 2010 Plan is anticipated to result in improvements to air quality in Santa Barbara County, and no significant cumulative impacts are anticipated to occur as a result of implementing the 2010 Plan and its related control measures. Section 5.1 includes a discussion of global climate change and greenhouse gas impacts, and concludes that no significant impacts to global climate change and greenhouse gas emissions are anticipated to occur. Section 5.2 includes a brief discussion of other potential cumulative impacts related to implementation of the 2010 Plan and concludes that no other significant cumulative impacts are anticipated to occur as a result of implementation of these measures.

5.1 GLOBAL CLIMATE CHANGE

The issue of how to address global climate change and greenhouse gas impacts in the context of CEQA is one that is evolving. Recent revisions to the CEQA Guidelines provide a framework for including global climate change in the CEQA process and provide an approach to assessing impacts from emissions of greenhouse gases. Although the 2010 Plan is designed to reduce emissions of criteria pollutants and result in an overall improvement in Santa Barbara County's air quality, the implications for global climate change impacts must be addressed in the EIR. Section 5.1.1 provides a discussion of the existing setting for global climate change in Santa Barbara County, both in the physical and regulatory context. Section 5.1.2 includes a discussion of the potential for global climate change impacts with implementation of the 2010 Plan and its related control measures. No significant global climate change impacts are anticipated to occur.

5.1.1 Existing Setting

The 2010 Plan includes Chapter 9, *Greenhouse Gases and Climate Change*, which provides a detailed discussion of the concept of global climate change and an emissions inventory for carbon dioxide (CO_2) emissions within Santa Barbara County and the Outer Continental Shelf. As discussed in Section 2.3 of this EIR, Chapter 9 of the 2010 Plan is provided for informational purposes and does not include any regulatory requirements for greenhouse gas reductions. Therefore, no environmental impacts are anticipated to occur as a result of the inclusion of Chapter 9 of the 2010 Plan. However, the description of global climate change that is presented in this section draws on the material that is presented in Chapter 9.

5.1.1.1 Physical Setting

The greenhouse effect is a natural process by which some of the radiant heat from the Sun is captured in the lower atmosphere of the Earth, thus maintaining the temperature and making Earth habitable. The gases that help capture the heat are called greenhouse gases, or GHG's.

Since the Industrial Revolution human activities such as fossil fuel burning, deforestation and other agricultural and industrial practices, as well as activities associated with our growing population (e.g. waste disposal), have been increasing the levels of greenhouse gases in the Earth's atmosphere. The higher levels of these gases are in turn affecting the Earth's climate. The world's temperature has increased up to 1°F (0.5°C) over the past century and some of the colder, more remote regions have warmed much more. This phenomenon is referred to as global warming. Global climate change is perhaps a more accurate term, as higher levels of greenhouse gas emissions in the atmosphere not only raise overall temperatures, but also affect other climate-sensitive aspects of the environment, including precipitation, crop growth, pest populations, sea levels, and the fresh water supply.

Scientists estimate that emissions of greenhouse gases will need to be reduced by 80 percent by 2050 to avoid a 2°C (3.6°F) increase in global temperatures, which would escalate the risk of dangerous impacts. The most common greenhouse gases are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.

5.1.1.2 Regulatory Setting

Following is a summary of major state, federal, and local legislation, actions and activities that have been undertaken to address the issue of global climate change.

State of California Climate Change Legislation and Activities

Assembly Bill 32

In 2006, Governor Schwartzenegger signed into law Assembly Bill 32 (AB 32), which created the first-ever statewide cap on greenhouse gas (GHG) emissions. AB 32 required the California Air Resources Board (CARB) to establish a reporting program for GHG emissions, beginning with the largest sources of emissions, to determine a 1990 GHG emissions baseline and to set that as the statewide limit to be achieved by 2020. AB 32 also required that CARB publish a list of "Early-Action" GHG reduction measures by June 2007 and adopt regulations for those measures by January 2010. By January 2009, CARB had to prepare a detailed scoping plan outlining the direct reduction measures, market-based mechanisms, and incentives needed to meet the 2020 emissions cap. By January 1, 2011 CARB must adopt regulations to meet the 2020 emission cap, including provisions for using both market mechanisms ("Cap-and-Trade") and alternative compliance mechanisms. By January 1, 2012 CARB is required to enforce regulations to meet the 2020 emissions cap.

CARB adopted the AB 32 *Scoping Plan* in December 2008. The key elements include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewable energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;

- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long term commitment to AB 32 implementation.

CARB Mandatory Reporting Regulation

To track California's progress in implementing AB 32, CARB adopted a mandatory reporting regulation to obtain facility-level data from the largest sources of greenhouse gas emissions in California. The regulation requires annual reporting of GHG emissions from the largest facilities in the State, accounting for 94 percent of greenhouse gas emissions from industrial and commercial stationary sources in California. There are approximately 800 separate sources that fall under the reporting rules, including electricity generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and industrial sources.

Senate Bill 375

In 2008, California enacted the Sustainable Communities and Climate Protection Act of 2008 (SB 375). This law aims to reduce greenhouse gas emissions by 5 million metric tons by reducing miles traveled by passenger vehicles and light duty trucks. In September 2010, GHG emission reduction targets were set by CARB for each Metropolitan Planning Organization. Each Metropolitan Planning Organization such as the Santa Barbara County Association of Governments (SBCAG) must develop a Sustainable Communities Strategy that achieves those targeted GHG reductions. SB 375 also aligns planning for GHG reductions with regional housing and transportation by 2013. By integrating transportation, land use, and housing planning with a Sustainable Communities Strategy, SB 375 ties together three major planning activities currently conducted by SBCAG, including their Regional Growth Forecast, Regional Transportation Plan, and Regional Housing Needs Assessment Plan.

SB 97 and Amendments to the CEQA Guidelines

California State Senate Bill 97 (SB 97), enacted in 2007, required that the CEQA Guidelines be amended to include "*guidance for the mitigation of greenhouse gas (GHG) emissions or the effects of GHG emissions."* The California Office of Planning & Review (OPR) developed amendments to the CEQA Guidelines, which were adopted by the California Natural Resources Agency on December 30, 2009 and became effective March 18, 2010. These amendments establish a framework for including global climate change impacts in the CEQA process, and include revisions to the Environmental Checklist Form (Appendix G) as well as to the Energy Conservation appendix (Appendix F). A new section (§15064.4) has been added that provides an approach to assessing impacts from GHG's.

Federal Climate Change Actions

As of this publishing, the federal government has not passed any significant pieces of legislation to address the issue of global climate change at the federal level. However, a number of bills

have been introduced to the legislative bodies, and steps have been taken to begin federal tracking and regulation of greenhouse gas emissions from industrial (or stationary) and mobile sources of greenhouse gas emissions.

U.S. Environmental Protection Agency Tailoring Rule

On May 13, 2010, the U.S. Environmental Protection Agency (USEPA) issued a final rule that establishes the approach to addressing GHG emissions from stationary sources under the federal Clean Air Act (CAA) permitting programs. This final rule sets thresholds for GHG emissions that define when permits under the New Source Review, Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities. The final USEPA rule "tailors" the requirements of these federal CAA permitting programs to limit the number of facilities that will be required to obtain PSD and Title V permits based on GHG emissions. Only facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters— power plants, refineries, and cement production facilities.

The Tailoring Rule involves two steps, the first of which will begin on January 2, 2011. The applicable requirements of PSD, most notably, the best available control technology (BACT) requirement, will apply to projects that increase net GHG emissions by at least 75,000 tons per year (tpy) carbon dioxide equivalent (CO_2e), but only if the project also significantly increases emissions of at least one non-GHG pollutant. For the Title V program, only existing sources with, or new sources obtaining, Title V permits for non-GHG pollutants will be required to address GHGs during this first step. The second step, which begins July 1, 2011, will phase-in additional large sources of GHG emissions. New sources as well as existing sources not already subject to Title V that emit, or have the potential to emit, at least 100,000 tpy CO_2e will become subject to the PSD and Title V requirements. In addition, sources that emit or have the potential to emit at least 100,000 tpy CO_2e and that undertake a modification that increases net emissions of GHGs by at least 75,000 tpy CO_2e will also be subject to PSD requirements.

USEPA Mandatory Reporting Rule

On October 30, 2009, USEPA published the Mandatory Greenhouse Gas Reporting Rule (MRR). The rule requires reporting of GHG emissions from large sources and suppliers in the United States, beginning in 2010, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions, are required to submit annual reports to USEPA. The rule does not require control of GHGs, it only requires that sources emitting above certain thresholds monitor and report GHGs.

Nationwide Car and Truck CO_2 Standard

On May 20, 2009, the White House announced that the federal government, major U.S. automakers and California had reached an agreement to establish a single nationwide car and truck emission standard that would require a reduction of 30 percent in CO_2 and other

emissions from vehicles sold in the United States by 2016. Capping GHG emissions would effectively require better gas mileage.

County of Santa Barbara Climate Change Actions

On March 17, 2009, the Santa Barbara County Board of Supervisors unanimously passed a resolution adopting Santa Barbara County's climate change guiding principles and supporting county efforts to reduce GHG emissions (*Resolution No. 09-Greenhouse Gas Emissions*). These principles recognize the County's role in the state climate change arena as threefold: a producer of operational GHGs and both a regulator and an incentivizer in reducing community-wide GHG emissions. The General Services Department has been charged with developing a plan that would enable the County, as a "producer" of GHG emissions, to achieve the State's 15 percent reduction target for county operations. To address the "regulator" and "incentivizer" roles, the Office of Long Range Planning will develop a county-wide Climate Action Strategy.

5.1.2 Project Impacts

Section 5.1.2.1 includes a discussion of the potential impact that the 2010 Plan (and implementation of its related control measures) would have on global climate change, pursuant to CEQA Guidelines Section 15064.4.

The March 2010 CEQA Guidelines revisions included changes to Section 15126.2(a). This section states that, "The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected." Broadly, this revision is considered a directive to examine the effects that global climate change may have on the proposed project. Therefore, Section 5.1.2.2 includes a brief discussion of the impacts that global climate change may have on implementation of the 2010 Plan and its related control measures.

Significance Criteria

CEQA Guidelines Section 15064.4 provides a framework for quantifying a project's GHG emissions and for assessing whether those impacts are significant. This section states that,

> *"The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions of Section 15064…A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions…and/or (2) Rely on a qualitative analysis or performance based standards."*

The March 2010 CEQA Guidelines revisions do not include specific numeric or performance-based significance thresholds that should be applied to projects on a statewide basis.

In 2008, CARB issued a "*Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significant Thresholds for Greenhouse Gases under the California Environmental Quality Act (CEQA)*." This document was never finalized or adopted by CARB.

To date, the South Coast Air Quality Management District, the San Joaquin Valley Air Pollution Control District, and the Bay Area Air Quality Management District have all adopted guidance, in the

form of numeric thresholds or performance-based standards, to determine significance of global climate change impacts within their respective jurisdictional boundaries. No thresholds have been adopted by any agencies in Santa Barbara County; therefore, this EIR will use the guidance that is provided in the CEQA Guidelines to determine significance of impacts.

5.1.2.1 Impacts of the Proposed Project on Global Climate Change

The control measures that may be implemented during the 2010 Plan period include Group 1 and Group 2 Control Measures, as described in more detail in Sections 2.3 and 4.0 of this EIR.

Group 1 Control Measures Impacts: Group 1 control measures include measures to reduce emissions of reactive organic compounds (ROCs), a precursor to ozone pollution, by enhancing and revising existing prohibitory rules that APCD enforces for stationary sources. These enhanced regulatory requirements involve a reduction in the ROC emissions from solvents, coatings, adhesives, sealants, inks, resins, wash primers, and fountain solution at various industrial sources. These control measures are not anticipated to result in an increase in direct (stationary source or motor vehicles) or indirect (energy usage, water usage, or waste disposal) impacts, as documented in Section 4.0 of this EIR. Therefore, it is not anticipated that these control measures would result in an increase in GHG emissions as these control measures will not require additional motor vehicle trips associated with the existing stationary source operations, nor will they require additional energy usage. In summary, these measures are designed to reduce emissions of ozone precursors and will not result in emissions of greenhouse gases.

Group 2 Control Measures Impacts: Group 2 control measures include measures to reduce emissions of oxides of nitrogen (NO_X) by requiring improved combustion technology on process equipment that burns natural gas, over a variety of residential, commercial, and industrial stationary source operations. These control measures are expected to reduce NO_X emissions throughout Santa Barbara County. By reducing NO_X emissions, which are known to contribute to the formation of ozone, it is anticipated that air quality in Santa Barbara County will improve.

Control technologies are currently available to achieve the NO_X reductions that are proposed in these control measures, and similar NO_X limits for these types of external combustion equipment have been implemented by other air districts. There are known trade-offs in air pollutant emissions when more stringent NO_X controls are applied to external combustion equipment. A reduction in combustion temperature generally relates to lower NO_X emissions; however, ROC emissions tend to increase with lower combustion temperatures, due to incomplete combustion. In addition, more stringent NO_X controls may reduce the operating efficiency of combustion equipment. A reduction in operating efficiency may result in a slight increase in fuel usage. A substantial increase in fuel usage would result in additional greenhouse gas emissions, and has the potential to be a negative environmental impact. However, the control technologies that are available to achieve the NO_X limits in the proposed control measures are not expected to cause substantial losses in combustion efficiency. In summary, the proposed NO_X control measures are not anticipated to cause a significant increase in greenhouse gas emissions at affected facilities.

Conclusion and Classification of Impacts

None of the control technologies that are utilized in the Group 1 or Group 2, control measures are anticipated to generate emissions of greenhouse gases. Therefore, project-specific impacts of the

proposed project (the 2010 Plan) on global climate change are considered ***Class III, less than significant***.

5.1.2.2 Impacts of Global Climate Change on the Proposed Project

As stated previously, the March 2010 CEQA Guidelines revisions included changes that call for an examination of the impact that global climate change may have on the proposed project. Identifying specific impacts and levels of impacts that global climate change may have on the APCD's clean air goals, as expressed in the 2010 Plan, would be speculative in nature and is therefore not required by CEQA (CEQA Guidelines Section 15145). However, for informational purposes, a brief discussion of this topic is provided below, with no specific impacts identified or quantified for Santa Barbara County.

A number of studies have identified that global climate change may result in changes to the California climate, water supply, and landscape, and that these changes would have implications for air quality. Specifically, climate change may result in an increase in wildfires, which would compromise the air quality (increasing concentrations of ozone and particulate matter , as well as other pollutants) in those areas of the state experiencing wildfires. A change in water supply may cause drought conditions that, when combined with high winds, can increase particulate matter concentrations. Also, ozone levels are known to increase with temperature increases, resulting in potentially higher ozone concentrations as well as increased incidences of violations of state and federal ozone standards in some areas.

5.2 OTHER CUMULATIVE IMPACTS

Cumulative Impacts are defined in the CEQA Guidelines Section 15355 as, *"…two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*" This section goes on to state that, *"(a) The individual effects may be changes resulting from a single project or a number of separate projects, (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."*

The 2010 Plan was prepared in coordination with other regional planning agencies, such as the SBCAG, and does not involve any new development activities or impacts that would affect other programs in the Plan's jurisdictional area. The Plan was prepared in coordination and consultation with CARB, and is an integral part of the clean air planning process for the State of California.

Conclusion and Classification of Impacts

The control measures identified in the 2010 Plan are not expected to result in any other cumulative impacts. Therefore, this impact area is considered to be ***Class III, less than significant***.

6.0 Alternatives to the Proposed Project

CEQA Guidelines Section 15126.6 (a) requires that, "*An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible…There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason*."

CEQA Guidelines Section 15126.6 (e) (1) discusses the requirement to include a "No Project" alternative, to allow decisions makers to compare the impacts of approving the project to the impacts of not approving the project. Section 15126.6 (e) (2) identifies the need for discussion of the "Environmentally Superior" alternative. Section 15126.6 (c) requires that the EIR include a discussion of those project alternatives that were considered by the lead agency but were rejected as infeasible.

The following alternatives are evaluated in Section 6.0:

- No Project Alternative
- More Stringent Control Measure Alternative
- Less Stringent Control Measure Alternative
- Environmentally Superior Alternative
- Alternatives Rejected As Infeasible

6.1 No Project Alternative

In the case of the 2010 Plan, the "No Project" alternative is identified as the continued implementation of existing emission control strategies that have been adopted by the APCD Board and incorporated into APCD's Rules & Regulations. These existing air pollution control requirements would continue to be enforced by the APCD. In the "No Project" alternative, the 2010 Plan is not adopted, and the triennial planning requirements of the California Clean Air Act are not met.

The "No Project" alternative would not result in adverse environmental impacts as compared to the existing environmental setting. However, the "No Project" alternative would not meet the basic objective of the 2010 Plan, which is to identify and implement control measures that will improve air quality and eventually lead to attainment of the California ambient air quality standard for ozone (for additional information, see Section 1.2, Project Objective). The "No Project" alternative is not considered feasible because it results in failure to meet state clean air planning requirements.

6.2 More Stringent Control Measures Alternative

When deciding which control measures should be implemented during the 2010 Plan period, and which measures should be included as "Emission Control Measures for Further Study" (referred to hereafter as "further study measures"), APCD staff considered CARB-identified performance standards, California Air Pollution Control Officers Association (CAPCOA)-identified potential all feasible measures, commitments in the APCD's 2007 Clean Air Plan, and other air district rules.

The "More Stringent Control Measures" alternative would involve the implementation of some or all of the further study measures that are identified in Chapter 4 of the 2010 Plan. These further study measures include proposed new rules, or revisions to existing rules, governing emissions and operations of the following types of equipment/industries:

- Gas Turbines
- Natural Gas Fuel Specifications
- Pleasure Craft Fuel Transfer
- Wineries and Breweries
- Fugitive Emissions Inspection and Maintenance (primarily oil & gas facilities)
- Internal Combustion Engines (diesel-fired) at stationary sources
- Internal Combustion Engines (natural gas-fired) at stationary sources
- Petroleum Solvent Dry Cleaners
- Storage of Reactive Organic Compound Liquids (primarily at public and private fueling stations)

Other further study measures that are outside of APCD's discretionary authority, such as CARB control measures, and international agreements governing emissions from offshore shipping sources, are not considered as part of the "More Stringent Control Measures" alternative, because APCD has no authority to implement these measures.

The "More Stringent Control Measures" alternative would, in theory, enhance progress toward attainment of the California ambient air quality standard for ozone. However, implementation of the further study measures may involve possible environmental, technical, and economic impacts that, at this point in time, are less well known for a variety of reasons. In addition, these measures may not be as well suited for application in Santa Barbara County as they are for other areas. Possible environmental impacts that would result from implementation of the further study measures include, but are not limited to, the following:

- Control measures that result in decreasing efficiency (i.e., increased fuel usage) may result in additional impacts to greenhouse gas emissions and global climate change.
- Control measures that require a change in the type of solvent used in an industry (such as dry cleaning) may result in changes to toxic air contaminant emissions at specific locations.
- Changing fuel specifications may result in impacts at the fuel refinery. Although no refineries currently operate in Santa Barbara County, a refinery may have to modify its operational parameters to accommodate a reformulated fuel. A discussion of specific impacts related to refinery modifications is, at this point, too speculative to include in this EIR.

6.3 LESS STRINGENT CONTROL MEASURES ALTERNATIVE

For the purpose of the alternatives discussion, the "Less Stringent Control Measures" alternative is defined as implementation of some, but not all, of the control measures that are proposed for implementation and are included in the Project Description (Section 2.3 of the EIR; Chapter 4, Section 4.5, of the 2010 Plan). Additionally, this alternative might involve a less stringent control option for any of the proposed control measures. Because no significant environmental impacts were identified for the proposed control measures, this alternative would not result in additional

environmental impacts beyond those discussed in the EIR. However, the "Less Stringent Control Measures" alternative would not achieve the desired result of fully implementing all feasible measures as mandated by the California Clean Air Act (CCAA), and may result in extending the amount of time required to attain the California ambient air quality standard for ozone.

Because this alternative does not avoid any significant environmental impacts and postpones attainment of the ozone standard, it does not fully meet the project objectives and is not considered a feasible alternative.

6.4 IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6 (a), (b), and (e) (2) discuss the range of project alternatives that should be considered and discussed in an EIR. Specifically, Section 15126.6 (e) (2) requires that, "If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Following is a discussion of which of the project alternatives the APCD considers to be the "Environmentally Superior" alternative.

The proposed project is considered to be the most efficient means of attaining the basic objectives of the California Clean Air Act, while limiting adverse effects to a reasonable level. As discussed above, the "Less Stringent Control Measures" results in a delay of important pollutant emissions reductions that are considered feasible and that have been implemented successfully in other areas of the state. The "More Stringent Control Measures" alternative includes measures that warrant further study prior to implementation, for a variety of reasons, as discussed in Section 6.2.

The 2010 Plan represents a balance of control measures that are considered to be feasible in the near-term, with little or no related environmental impacts. As discussed in Section 4.0, *Project Impacts and Mitigation Measures*, no significant impacts were identified for the 2010 Plan that required mitigation. A more stringent set of control measures would achieve additional air quality benefits; but without a clear understanding of how these measures would be applied to local businesses in Santa Barbara County and the overall emissions reductions that would result from their implementation, it is difficult, if not speculative, to identify the environmental impacts associated with these measures.

Therefore, the proposed project (The 2010 Plan) is considered to be the "Environmentally Superior" alternative. If potential environmental impacts are identified as the 2010 Plan control measures are specifically adopted through new APCD rules or revisions to existing rules, APCD's CEQA review process for rule adoptions and revisions will ensure that these impacts will be identified and mitigated as appropriate. Thus, the "Environmentally Superior" alternative would include additional mitigation as necessary to avoid potentially significant impacts.

6.5 ALTERNATIVES REJECTED AS INFEASIBLE

CEQA Guidelines Section 15126.6 (c) states that, "*The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process…"*

The nature of the clean air planning process, as described in more detail in Section 1.0, *Introduction*, is that as updates are made to Clean Air Plans, emission control measures are developed, revised, and considered as to appropriateness for inclusion. Therefore, the consideration and re-consideration of project alternatives is already inherent in the process. The "Emission Control Measures for Further Study" identified in Chapter 4 (Section 4.5) of the 2010 Plan were not considered for implementation at this time, but are still retained in the plan for future consideration. In summary, the alternatives that are considered by the APCD to be infeasible at this time are retained in the 2010 Plan as further study measures.

7.0 Other CEQA Topics

Section 15126 of the CEQA Guidelines provides a listing of certain topics that should be discussed in an EIR, preferably in separate sections or paragraphs of the EIR. These topics include:

a) Significant environmental effects of the proposed project,
b) Significant environmental effects which cannot be avoided if the proposed project is implemented,
c) Significant irreversible environmental changes which would be involved in the proposed project should it be implemented,
d) Growth-inducing impact of the proposed project,
e) The mitigation measures proposed to minimize the significant effects, and
f) Alternatives to the proposed project.

As documented in Chapter 4, the EIR analysis for the 2010 Plan and its related control measures found that there would be no significant environmental impacts related to implementation of the control measures. As a result, no mitigation measures are required to reduce impacts to a level that is less than significant. Based on this analysis, additional discussion of environmental effects and mitigation as outlined in items (a), (b), and (e) above is not necessary. Items (c) and (d) are discussed in Sections 7.1 and 7.2 below. An analysis of the project alternatives is provided in Chapter 6 of this EIR.

7.1 Significant Irreversible Changes

Implementation of the 2010 Plan is anticipated to achieve air quality benefits for Santa Barbara County by reducing emissions of nitrogen oxides (NO_X) and reactive organic compounds (ROC), both of which are precursor pollutants to the formation of ozone. Implementation of clean air planning efforts, as described in Chapter 1 of this EIR, has yielded air quality improvements in Santa Barbara County, and these improvements are expected to continue as additional control measures are implemented by the APCD and by other involved agencies such as the U.S Environmental Protection Agency (USEPA), California Air Resources Board (CARB) and the Santa Barbara County Association of Governments (SBCAG). If air pollution regulations in the region are relaxed, or if additional air pollutant emissions occur that are not accounted for in the clean air planning process, it is possible that the clean air goals of these agencies will not be achieved.

No significant adverse environmental impacts were identified in the EIR; all impacts were classified as less than significant, or beneficial impacts. Therefore, no significant irreversible changes are anticipated to result from implementation of the 2010 Plan.

7.2 Growth-Inducing Impacts

The over-arching goal of clean air planning efforts, as supported by the 2010 Plan, is to improve air quality in Santa Barbara County to meet ambient air quality standards. Improving air quality through implementation of control measures to reduce NO_X and ROC emissions is not expected to have growth-inducing impacts. None of the control measures include incentives that would increase or expand growth of residential, commercial or industrial land uses in Santa Barbara County. Implementation of the control measures from the 2010 will not require additional public

infrastructure facilities, such as roads or wastewater disposal facilities, which would facilitate additional growth in Santa Barbara County.

7.3 ECONOMIC AND SOCIAL EFFECTS

Section 15131 of the CEQA Guidelines states that, *"Economic or social information may be included in an EIR or may be presented in whatever form the agency desires."* This section goes on to further outline how information related to economic and social effects should be considered in the context of CEQA. Specifically, economic or social effects of a project shall not be treated as significant effects on the environment. However, economic or social effects of a project may be used to determine the significance of physical changes caused by a project. This type of assessment is necessary when project that consists of a physical change brings about economic or social impacts that make that physical change even more significant – for example, a construction project that divides a community.

In the context of the 2010 Plan and implementation of the proposed ROC and NO_X control measures, some level of economic impact will be realized by the industries that are regulated under the rules associated with the proposed control measures. Chapter 2 of this EIR, as well as Chapter 4 of the 2010 Plan, provides a more in-depth discussion of the proposed control measures and the types of facilities affected by the control measures. No significant environmental impacts were identified, and economic and social considerations were not necessary to support a finding of significant impacts.

8.0 References

8.1 Organizations and Persons Consulted (Guidelines 15129)

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Scott Morgan. Acting Director, State Clearinghouse. July 6, 2010. "Re: 2010 Clean Air Plan for Santa Barbra County SCH#2010071014." Governor's Office of Planning and Research. State Clearinghouse and Planning Unit.

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Appendix A

Notice of Preparation and Comments Received in Response to NOP

A-1 Notice of Preparation of a Draft Environmental Impact Report for the 2010 Clean Air Plan for Santa Barbara County

A-2 Comments from State of California Governor's Office of Planning & Research, State Clearinghouse & Planning Unit

A-3 Comments from Native American Heritage Commission

A-4 Comments from County of Santa Barbara Executive Office

A-5 Comments from City of Goleta

A-1

Notice of Preparation of a Draft Environmental Impact Report for the 2010 Clean Air Plan for Santa Barbara County

Santa Barbara County
Air Pollution Control District

NOTICE OF PREPARATION

DATE: June 29, 2010

TO: Interested Agencies and Individuals and the Office of Planning and Research

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report for the **2010 Clean Air Plan for Santa Barbara County.**

The Santa Barbara County Air Pollution Control District (APCD), as Lead Agency under the California Environmental Quality Act, will prepare a Draft Environmental Impact Report (DEIR) for the 2010 Clean Air Plan (2010 Plan) for Santa Barbara County.

Project Location
The 2010 Plan will apply to Santa Barbara County, the state tidelands and the outer continental shelf (OCS). State tidelands facilities are located in coastal waters within three miles of the coastline. OCS facilities are in waters within 25 miles of the seaward boundaries of the state and located off the coast of Santa Barbara County, which is the corresponding onshore area.

Project Description
The purpose of the 2010 Plan is to chart a course of action that will ensure clean, healthful air for the residents and environment of Santa Barbara County. Our County's air quality has improved enough to be considered in attainment of the federal 8-hour ozone standard and the state 1-hour ozone standard. As we have yet to attain the state 8-hour ozone standard, the 2010 Plan demonstrates how we plan to attain that standard. This 2010 Plan will therefore satisfy all state triennial planning requirements pursuant to the California Clean Air Act of 1988.

Also included in this 2010 Plan is a new Climate Protection chapter that discusses greenhouse gas emissions and climate change issues in a planning context. This chapter, which is informational and not regulatory in nature, presents an overview of global climate change issues and provides a baseline 2007 carbon dioxide (CO_2) emissions inventory for the county. CO_2 emissions are estimated for industrial, commercial, transportation, residential, and agriculture activities in Santa Barbara County, as well as for electricity consumption within the county.

The air pollution control measures evaluated for the 2010 Plan include measures that are substantially the same as control measures that were considered in previous Clean Air Plans (CAPs), including the 2007 CAP, 2004 CAP, 2001 CAP, 1998 CAP, 1994 CAP and the 1991 AQAP. The twelve control measures considered for implementation during the plan period rely on established air quality control methods such as vapor controls, reformulation of products, improved transfer efficiency for application of coatings, external combustion modification, post-combustion modification, and operation and maintenance methods. The control measures will be implemented through revisions to existing APCD Rules as listed below:

1. First revision to Rule 321, Solvent Cleaning Machines and Solvent Cleaning

Terence E. Dressler • Air Pollution Control Officer
260 North Antonio Road, Suite A • Santa Barbara, CA 93110 • www.sbcapcd.org • 805.961.8800 • 805.961.8801 (fax)

2. Revision to Rule 342, Control of Oxides of Nitrogen (NO_X) from Boilers, Steam Generators and Process Heaters (With Heat Inputs in the Range of 5 MMBtu/hr and Greater)
3. Revisions to Rules 330 and 337, Surface Preparation and Surface Coating of Metal Parts and Products; Surface Preparation and Surface Coating of Aircraft or Aerospace Vehicle Parts and Products
4. Revision to Rule 351, Surface Preparation and Surface Coating of Wood Products
5. Revision to Rule 349, Polyester Resin Operations
6. Revision to Rule 353, Adhesives and Sealants
7. Revision to Rule 354, Graphic Arts and Paper, Film, Foil, and Fabric Coatings
8. Revision to Rule 352, Natural-Gas Fired Residential Water Heaters
9. Revision to Rule 323, Architectural Coatings
10. Revision to Rule 361, Control of Oxides of Nitrogen (NO_X) from Boilers, Steam Generators, and Process Heaters (With Heat Input Ratings in the Range of > 2 MMBtu/hr to < 5 MMBtu/hr)
11. Revision to Rule 360, Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers, Steam Generators, and Process Heaters (With Heat Input Ratings in the Range of > 0.075 MMBtu/hr to 2 MMBtu/hr)
12. Second revision to Rule 321, Solvent Cleaning Machines and Solvent Cleaning

Environmental Issues to be addressed in the EIR:
The 2010 Plan EIR will focus on potentially significant impacts to the following issue areas:

- Air Quality
- Transportation/Circulation
- Water Resources
- Biological Resources
- Noise & Nuisance
- Land Use/Planning
- Public Service
- Utilities/Energy
- Hazardous Materials
- Geology
- Global Climate Change

Project Comments
The views of concerned agencies and any interested persons regarding the scope and content of the environmental document for the proposed project are hereby requested. Please send your written responses to this Notice of Preparation to: Molly Pearson, Community Programs Supervisor, 260 N. San Antonio Road Suite A, Santa Barbara, CA, 93110 or by email at mmp@sbcapcd.org. Due to time limits mandated by state law, your response must be sent at the earliest possible date but **not later than 30 days** after the receipt of this notice.

A-2

Comments from State of California Governor's Office of Planning & Research, State Clearinghouse & Planning Unit

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

Notice of Preparation

July 6, 2010

To: Reviewing Agencies

Re: 2010 Clean Air Plan for Santa Barbara County
SCH# 2010071014

Attached for your review and comment is the Notice of Preparation (NOP) for the 2010 Clean Air Plan for Santa Barbara County draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Molly Pearson
Santa Barbara County Air Pollution Control District
260 N. San Antonio Road, Suite A
Santa Barbara, CA 93110

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Acting Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2010071014
Project Title 2010 Clean Air Plan for Santa Barbara County
Lead Agency Santa Barbara County Air Pollution Control District

Type NOP Notice of Preparation

Description The purpose of the 2010 Clean Air Plan is to chart a course of action that will ensure clean, healthful air for the residents and environment of Santa Barbara County. As we have yet to attain the state 8 hour ozone standard, the 2010 Plan demonstrates how we plan to attain that standard, and includes 12 control measures considered for implementation during the plan period that rely on established air quality control methods such as vapor controls, reformation of products, improved transfer efficiency for application of coatings, external combustion modification, post-combustion modification, and operation and maintenance methods. The 2010 Plan includes a Climate Protection chapter that discusses greenhouse gas emissions and climate change and presents a baseline carbon dioxide emissions inventory for Santa Barbara County.

Lead Agency Contact

Name Molly Pearson
Agency Santa Barbara County Air Pollution Control District
Phone 805-961-8838 **Fax**
email
Address 260 N. San Antonio Road, Suite A
City Santa Barbara **State** CA **Zip** 93110

Project Location

County Santa Barbara
City
Region
Cross Streets Countywide
Lat / Long
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use

Project Issues Air Quality; Biological Resources; Geologic/Seismic; Landuse; Noise; Other Issues; Public Services; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 5; Native American Heritage Commission; Caltrans, District 5; Regional Water Quality Control Board, Region 3

Date Received 07/06/2010 **Start of Review** 07/06/2010 **End of Review** 08/04/2010

Note: Blanks in data fields result from insufficient information provided by lead agency.

esources Agency

Resources Agency
Nadell Gayou

Dept. of Boating & Waterways
Mike Sotelo

California Coastal Commission
Elizabeth A. Fuchs

Colorado River Board
Gerald R. Zimmerman

Dept. of Conservation
Rebecca Salazar

California Energy Commission
Eric Knight

Cal Fire
Allen Robertson

Central Valley Flood Protection Board
James Herota

Office of Historic Preservation
Wayne Donaldson

Dept of Parks & Recreation
Environmental Stewardship Section

California Department of Resources, Recycling & Recovery
Sue O'Leary

S.F. Bay Conservation & Dev't. Comm.
Steve McAdam

Dept. of Water Resources
Resources Agency
Nadell Gayou

Conservancy

A-5

n and Game

Depart. of Fish & Game
Scott Flint
Environmental Services Division

Fish & Game Region 1
Donald Koch

☐ Fish & Game Region 1E
Laurie Harnsberger

☐ Fish & Game Region 2
Jeff Drongesen

☐ Fish & Game Region 3
Charles Armor

☐ Fish & Game Region 4
Julie Vance

☐ Fish & Game Region 5
Don Chadwick
Habitat Conservation Program

☐ Fish & Game Region 6
Gabrina Gatchel
Habitat Conservation Program

☐ Fish & Game Region 6 I/M
Brad Henderson
Inyo/Mono, Habitat Conservation Program

☐ Dept. of Fish & Game M
George Isaac
Marine Region

Other Departments

☐ Food & Agriculture
Steve Shaffer
Dept. of Food and Agriculture

☐ Depart. of General Services
Public School Construction

☐ Dept. of General Services
Anna Garbeff
Environmental Services Section

☐ Dept. of Public Health
Bridgette Binning
Dept. of Health/Drinking Water

Independent Commissions,Boards

☐ Delta Protection Commission
Linda Flack

☐ Cal EMA (Emergency Management Agency)
Dennis Castrillo

☐ Governor's Office of Planning & Research
State Clearinghouse

County:

☒ Native American Heritage Comm.
Debbie Treadway

☐ Public Utilities Commission
Leo Wong

☐ Santa Monica Bay Restoration
Guangyu Wang

☐ State Lands Commission
Marina Brand

☐ Tahoe Regional Planning Agency (TRPA)
Cherry Jacques

Business, Trans & Housing

☐ Caltrans - Division of Aeronautics
Sandy Hesnard

☐ Caltrans - Planning
Terri Pencovic

☐ California Highway Patrol
Scott Loetscher
Office of Special Projects

☐ Housing & Community Development
CEQA Coordinator
Housing Policy Division

Dept. of Transportation

☐ Caltrans, District 1
Rex Jackman

☐ Caltrans, District 2
Marcelino Gonzalez

☐ Caltrans, District 3
Bruce de Terra

☐ Caltrans, District 4
Lisa Carboni

☒ Caltrans, District 5
David Murray

☐ Caltrans, District 6
Michael Navarro

☐ Caltrans, District 7
Elmer Alvarez

☐ Caltrans, District 8
Dan Kopulsky

☐ Caltrans, District 9
Gayle Rosander

☐ Caltrans, District 10
Tom Dumas

☐ Caltrans, District 11
Jacob Armstrong

☐ Caltrans, District 12
Chris Herre

Cal EPA

Air Resources Board

☐ Airport Projects
Jim Lerner

☐ Transportation Projects
Douglas Ito

☐ Industrial Projects
Mike Tollstrup

☐ State Water Resources Control Board
Regional Programs Unit
Division of Financial Assistance

☐ State Water Resources Control Board
Student Intern, 401 Water Quality Certification Unit
Division of Water Quality

☐ State Water Resouces Control Board
Steven Herrera
Division of Water Rights

☐ Dept. of Toxic Substances Control
CEQA Tracking Center

☐ Department of Pesticide Regulation
CEQA Coordinator

SCH#

Regional Water Quality Control Board (RWQCB)

☐ RWQCB 1
Cathleen Hudson
North Coast Region (1)

☐ RWQCB 2
Environmental Document Coordinator
San Francisco Bay Region (2)

☒ RWQCB 3
Central Coast Region (3)

☐ RWQCB 4
Teresa Rodgers
Los Angeles Region (4)

☐ RWQCB 5S
Central Valley Region (5)

☐ RWQCB 5F
Central Valley Region (5)
Fresno Branch Office

☐ RWQCB 5R
Central Valley Region (5)
Redding Branch Office

☐ RWQCB 6
Lahontan Region (6)

☐ RWQCB 6V
Lahontan Region (6)
Victorville Branch Office

☐ RWQCB 7
Colorado River Basin Region (7)

☐ RWQCB 8
Santa Ana Region (8)

☐ RWQCB 9
San Diego Region (9)

☐ Other _____

Last Updated on 03/24/10

A-3

Comments from Native American Heritage Commission

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-4082
(916) 657-5390 - Fax

July 13, 2010

Ms. Molly Pearson
Santa Barbara County Air Pollution Control District
260 N. San Antonio Road, Suite A
Santa Barbara, CA 93110

RE: SCH#2010071014 2010 Clean Air Plan for Santa Barbara County.

Dear Ms. Pearson:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Preparation (NOP) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

- ✓ Contact the appropriate regional archaeological Information Center for a record search. The record search will determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
  - If any known cultural resources have already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- ✓ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- ✓ Contact the Native American Heritage Commission for:
  - A Sacred Lands File Check. **USGS 7.5 minute quadrangle name, township, range and section required.**
  - A list of appropriate Native American contacts for consultation concerning the project site and to assist in the mitigation measures. **Native American Contacts List attached.**
- ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,
Katy Sanchez
Katy Sanchez
Program Analyst
(916) 653-4040

CC: State Clearinghouse

Native American Contact List
Santa Barbara County
July 13, 2010

Beverly Salazar Folkes
1931 Shadybrook Drive
Thousand Oaks, CA 91362
805 492-7255
(805) 558-1154 - cell
folkes9@msn.com
Chumash
Tataviam
Ferrnandeño

San Luis Obispo County Chumash Council
Chief Mark Steven Vigil
1030 Ritchie Road
Grover Beach CA 93433
cheifmvigil@fix.net
(805) 481-2461
(805) 474-4729 - Fax
Chumash

Santa Ynez Band of Mission Indians
Vincent Armenta, Chairperson
P.O. Box 517
Santa Ynez , CA 93460
varmenta@santaynezchumash.
(805) 688-7997
(805) 686-9578 Fax
Chumash

Santa Ynez Tribal Elders Council
Adelina Alva-Padilla, Chair Woman
P.O. Box 365
Santa Ynez , CA 93460
elders@santaynezchumash.org
(805) 688-8446
(805) 693-1768 FAX
Chumash

Julie Lynn Tumamait
365 North Poli Ave
Ojai , CA 93023
jtumamait@sbcglobal.net
(805) 646-6214
Chumash

Randy Guzman - Folkes
655 Los Angeles Avenue, Unit E
Moorpark , CA 93021
ndnRandy@yahoo.com
(805) 905-1675 - cell
Chumash
Fernandeño
Tataviam
Shoshone Paiute
Yaqui

Lei Lynn Odom
1339 24th Street
Oceano , CA 93445
(805) 489-5390
Chumash

Coastal Band of the Chumash Nation
Vennise Miller, Chairperson
P.O. Box 4464
Santa Barbara CA 93140
805-964-3447
Chumash

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH# 2010071014 20100 Clean Air Plan for Santa Barbara County.

Native American Contact List
Santa Barbara County
July 13, 2010

Mona Olivas Tucker
660 Camino Del Rey
Arroyo Grande CA 93420
(805) 489-1052 Home
(805) 748-2121 Cell
Chumash

Northern Chumash Tribal Council
Fred Collins, Spokesperson
67 South Street
San Luis Obispo CA 93401
(805) 801-0347 (Cell)
Chumash

Matthew Darian Goldman
495 Mentone
Grover Beach CA 93433
805-748-6913
Chumash

Frank Arredondo
PO Box 161
Santa Barbara Ca 93102
805-617-6884
ksen_sku_mu@yahoo.com
Chumash

Santa Ynez Band of Mission Indians
Sam Cohen, Tribal Administrator
P.O. Box 517
Santa Ynez , CA 93460
(805) 688-7997
(805) 686-9578 Fax
Chumash

Salinan-Chumash Nation
Xielolixii
3901 Q Street, Suite 31B
Bakersfield , CA 93301
xielolixii@yahoo.com

408-966-8807 - cell
Salinan
Chumash

This list is current only as of the date of this document.

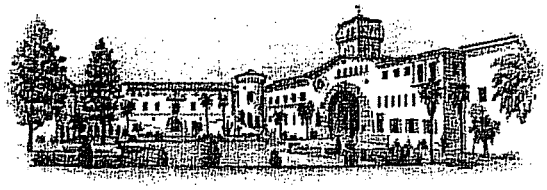
Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH# 2010071014 20100 Clean Air Plan for Santa Barbara County.

A-4

Comments from County of Santa Barbara Executive Office

County of Santa Barbara



Michael F. Brown
County Executive Officer

105 East Anapamu Street, Suite 406
Santa Barbara, California 93101
805/568-3400 • Fax 805/568-3414
www.countyofsb.org

Executive Office

July 26, 2010

Ms. Molly Pearson
Community Programs Supervisor
Santa Barbara County Air Pollution Control District
260 N. San Antonio Road, Suite A
Santa Barbara, CA 93110

Email: mmp@sbcapcd.org
Fax: (805) 961-8801

Re: Notice of Preparation for a Draft Environmental Impact Report-2010 Clean Air Plan for Santa Barbara County

Dear Ms. Pearson:

Thank you for the opportunity to comment on the Notice of Preparation for a Draft Environmental Impact Report on the 2010 Clean Air Plan for Santa Barbara County. At this time, the County submits comments from the Planning and Development Department for your consideration.

The County looks forward to continued dialogue on the 2010 Clean Air Plan project and future projects. If you should have further questions, please do not hesitate to contact my office directly, or Peter Imhof, Supervising Planner in the Planning & Development Department, Long Range Planning Division at (805) 568-3543.

Sincerely,

Michael F. Brown
County Executive Officer

cc: Glenn Russell, Director, Planning and Development Department
Vicki Parker, Deputy Director, Long Range Planning Division
Doug Anthony, Deputy Director, Energy Division
Peter Imhof, Supervising Planner, Long Range Planning Division

enclosures: Planning and Development Department letter dated July 22, 2010

County of Santa Barbara
Planning and Development

Glenn S. Russell, Ph.D., Director
Dianne Black, Director of Development Services
Derek Johnson, Director of Long Range Planning

July 22, 2010

Ms. Molly Pearson
Community Programs Supervisor
Santa Barbara County Air Pollution Control District
260 N. San Antonio Road, Suite A
Santa Barbara, CA 93110

Re: Notice of Preparation for a Draft Environmental Impact Report-2010 Clean Air Plan for Santa Barbara County

Dear Ms. Pearson:

Thank you for the opportunity to comment on the Notice of Preparation for a Draft Environmental Impact Report (DEIR) on the 2010 Clean Air Plan for Santa Barbara County. The Planning and Development Department offers the following comments for your consideration:

- The Air Pollution Control District has not made available the draft 2010 Clean Air Plan for review as part of this NOP and the NOP itself does not contain a detailed description of the scope of the environmental review. As such, the full scope of the 2010 Clean Air Plan DEIR is unknown and our office is unable to provide comprehensive comments on the NOP in the absence of this information. Based on the information contained in the NOP, it is our understanding that the 2010 Clean Air Plan will apply to Santa Barbara County, the State tidelands and submerged lands, and the outer continental shelf. We request that you consider the following four projects in the DEIR as they relate to a potential change in both new and existing emissions sources in the County:

  1. Venoco Ellwood Marine Terminal Lease Renewal (EMT); California State Lands Commission (CSLC) lead CEQA agency, EIR SCH #2004071075, project approved in June 2009. Approval extended the offshore lease of the EMT through February 23, 2013 with the stipulation that in December 2010 the Barge Jovalan must be replaced by a double-hulled barge or the oil must be transported by pipeline. Note that the onshore portion of the EMT lease expires in 2016.

  2. Venoco PRC 421 Re-commissioning Project; CSLC lead CEQA agency, EIR SCH #2005061013, final EIR under preparation as of the date of this letter. The proposed project involves the return of the currently idle PRC 421 to either short term pressure testing or longer term oil production.

123 E. Anapamu Street
Santa Barbara, CA 93101
Phone: (805) 568-2000
FAX: (805) 568-2030

624 W. Foster Road
Santa Maria, CA 93455
Phone: (805) 934-6250
FAX: (805) 934-6258

3. Venoco Full Field Development Project, CSLC CEQA lead agency, EIR SCH #2006061146, final administrative draft of the EIR under preparation as of the date of this letter. The proposed project involves the extension of the oil and gas lease boundaries of PRC 3120 and 3242, drilling up to 40 new wells from Platform Holly, safety improvements and upgrades at the existing Ellwood Onshore Facility (EOF), the elimination of all operations at the Ellwood Marine Terminal (EMT) and the installation of a new onshore pipeline system to re-route and replace the existing Line 96 pipeline.

4. Venoco Line 96 Modification Project, Santa Barbara County lead CEQA agency, EIR SCH #2009111034, administrative draft of the EIR under preparation as of the date of this letter. The proposed project is to re-route the existing Line 96 oil pipeline to the existing Plains Pipeline oil pipeline near Las Flores Canyon and eliminate all operations at the Ellwood Marine Terminal (EMT). Note that his project was also proposed as a component of the Venoco Full Field Project.

5. American Ethanol, Inc. Project, Santa Barbara County lead CEQA agency, application suspended and expected to be resubmitted within a few months. In their earlier submittal, the applicants proposed a corn-based ethanol production facility to be located 5 miles west of the City of Santa Maria. Using a distillation process, the facility would produce 110 million gallons of ethanol per year which would be shipped from the facility by truck and rail to market destinations.

The County will follow this project closely and looks forward to the opportunity to review the draft 2010 Clean Air Plan and associated DEIR. If you should have further questions, please do not hesitate to contact my office directly, or Peter Imhof, Supervising Planner in the Long Range Planning Division at (805) 568-3543.

Sincerely,

Glenn Russell, Ph.D.
Director of Planning and Development

cc: Michael F. Brown, County Executive Officer
Vicki Parker, Deputy Director, Long Range Planning Division
Doug Anthony, Deputy Director, Energy Division
Peter Imhof, Supervising Planner, Long Range Planning Division

A-5

Comments from City of Goleta

CITY OF GOLETA

July 27, 2010

Molly Pearson
Santa Barbara County Air Pollution Control District
Community Programs Supervisor
260 N. San Antonio Road Suite A
Santa Barbara, CA, 93110

VIA ELECTRONIC MAIL

RE: Notice of Preparation of a DEIR for the 2010 Clean Air Plan for Santa Barbara County

Dear Molly:

Thank you for the Notice of Preparation of a Draft Environmental Impact Report for the 2010 Clean Air Plan for Santa Barbara County. The Clean Air Plan has broad influence over development within the County including the City of Goleta, and we appreciate this opportunity to provide comment. As the Air Pollution Control District proceeds with preparing the Draft Environmental Impact Report (EIR), we request that you provide a detailed analysis of climate change impacts, related significance thresholds, and a range of mitigation despite the fact that the 2010 Clean Air Plan addresses climate change from an informational, not regulatory perspective.

The City looks forward to the opportunity to review and comment on the Draft EIR when it is released to the public. If you have any questions, please contact me at (805) 961-7557 or Laura Vlk at (805) 961-7546.

Sincerely,

Anne Wells

Anne Wells, Advance Planning Manager
Planning & Environmental Services Department

cc: Steve Chase, Director, Planning and Environmental Services

Appendix B

Revisions to the Draft Environmental Impact Report

Appendix B: Revisions to the Draft EIR

This appendix shows the text revisions made to the Draft EIR. Text deleted is shown as strikethrough (e.g. ~~strikethrough~~) and text added is shown as underline (e.g. underlined). Revisions are categorized by sections of the Draft EIR.

TABLE OF CONTENTS

The Table of Contents, Pages i through iv, has been revised. The headings denoting the "Chapters" have been changed to read as "Sections" and the numerals associated with each chapter/section have been changed from a single digit to with a digital followed by ".0". Changes were made in this fashion: ~~CHAPTER~~ SECTION 1.0.

The listing under "Appendices" on Page iv has been revised as follows:

> ~~SEE SEPARATE DOCUMENT ENTITLED "APPENDIX A" FOUND AT THE END OF THIS DOCUMENT~~.

The following listings have been added under "Appendices" on Page iv:

> APPENDIX A NOTICE OF PREPARATION AND COMMENTS RECEIVED IN RESPONSE TO NOP,
> APPENDIX B REVISIONS TO THE DRAFT ENVIRONMENTAL IMPACT REPORT,
> APPENDIX C COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT AND RESPONSES TO THE COMMENTS.
> APPENDIX D GOVERNOR'S OFFICE OF PLANNING AND RESEARCH STATE CLEARINGHOUSE AND PLANNING UNIT COMPLIANCE LETTER AND DATABASE REPORT.

EXECUTIVE SUMMARY

The text on page E-1 has been revised as follows:

> The EIR contains eight Sections and four ~~one~~ Appendices~~x~~; the Sections are ~~as~~ summarized below:

SECTION 2.0 PROJECT DESCRIPTION

The following listing has been added on Page 2-2:

> Chapter 11 – Public Participation

Page 2-2 has been revised as follows:

> Chapters 1, 2, 3, 5, 6, 7, 8, 9, ~~and~~ 10, and 11

Page 2-2 and Page 2-3 have been revised as follows:

> The SBCAG Board ~~is scheduled to~~ adopted the 2010 Plan TCMs in November, 2010. SBCAG's *Vision 2030: 2008 Regional Transportation Plan* and the *2008 Santa Barbara County Regional*

Transportation Plan *Final Environmental Impact Report SCH#: 2004081136* (2008 SBC RTP Final EIR) ~~EIR~~ include discussion of TCMs in the context of Santa Barbara County's regional and local transportation plans and projects, and both of these documents are incorporated by reference into this EIR (SBCAG ~~RTP~~, 2008; SBCAG ~~RTP EIR~~, 2009). Section 4.1 of the 2008 SBC RTP Final EIR includes a discussion of the TCM projects that are included in the 2007 Clean Air Plan, and identifies the TCMs that were implemented as RTP projects. Table 4.1-17 of the 2008 SBC RTP Final EIR identifies the RTP goals and policies that implement TCMs. Table 4.3-8 lists the TCM projects and programs approved by the SBCAG Board, as part of the 101-In-Motion process, for incorporation into the RTP. Table 4.3-9 and the text that follows identify the 2007 Clean Air Plan TCMs and identifies specific projects from the RTP that support those TCMs. Environmental impacts related to implementation of the TCMs were found to be less than significant (Class III) in the 2008 RTP EIR. In summary, the potential environmental impacts related to the adoption of the TCMs were addressed adequately in the 2008 SBC RTP Final EIR, and are therefore not addressed further in this EIR.

SECTION 3.0 ENVIRONMENTAL SETTING

Section 3.4.2 "Regulatory Setting" on Page 3-12, second full paragraph, has been revised to include the following text:

> The DTSC develops regulations based on the RCRA and the California Health and Safety Code. The California Health and Safety Code is the collection of state laws that govern, among other things, the handling of hazardous waste. Division 20, Chapter 6.5, of the Code deals with Hazardous Waste Control and Article 6 of this chapter deals with transportation of hazardous waste.

Section 3.10 "Solid Waste" on Page 3-20 has been revised as follows:

> Tajiguas Landfill, located on the Gaviota Coast, is ~~the only~~ an active ~~landfill in Santa Barbara County. Tajiguas is a~~ County owned and operated facility that receives non-recyclable solid waste from around the County.

Section 3.10 "Solid Waste" on Page 3-20 has been revised to include the following text:

> Other active non-County owned and operated landfills within the geographical boundaries of Santa Barbara County include: Santa Maria Regional Landfill, City of Lompoc Sanitary Landfill, and Vandenberg Air Force Base Landfill.

SECTION 4.0 PROJECT IMPACTS AND MITIGATION MEASURES

Section 4.2.2 "Impact Discussion" on Page 4-5 has been revised as follows:

> Impacts to ~~Air Quality~~ Biological Resources resulting from implementation of the Group 1 and Group 2 control measures are considered to be ***Class III, less than significant***.

A heading was added in Section 4.8.2. The added heading reads Conclusion and Classification of Impacts. This heading was added for consistency with the other sections within Section 4.0.

REFERENCES

The references in section 8.2 *Documents References* have been revised as follows:

~~Rincon Consultants, Inc.~~ Santa Barbara County Association of Governments (SBCAG). 2009. *Final Environmental Impact Report for the 2008 Santa Barbara County Regional Transportation Plan (RTP)*. State Clearinghouse No. 2004081136. Prepared by Rincon Consultants, Inc. Prepared for Santa Barbara County Association of Governments. October 2009.

~~Santa Barbara County Association of Governments~~ SBCAG. 2008. *Vision 2030: ~~SBCAG~~ 2008 Regional Transportation Plan*. Adopted September 18, 2008.

The following references have been added to section 8.3 *References Cited*:

Santa Barbara County Association of Governments (SBCAG). 2009. *Final Environmental Impact Report for the 2008 Santa Barbara County Regional Transportation Plan (RTP)*. State Clearinghouse No. 2004081136. Prepared by Rincon Consultants, Inc. Prepared for Santa Barbara County Association of Governments. October 2009.

SBCAG. 2008. *Vision 2030: 2008 Regional Transportation Plan*. Adopted September 18, 2008.

The following reference in section 8.3 *References Cited* has been revised as follows:

~~Santa Barbara County Association of Governments (~~SBCAG~~)~~. 2007*. 2007 Travel Trends Report for Santa Barbara County*. December 2007, 5-6.

Appendix C

Comments on the Draft Environmental Impact Report and Responses to the Comments

Appendix C: Comments on the Draft EIR and Responses to the Comments

This appendix presents all written and oral comments received on the Draft EIR. It is recommended that reviewers use the Index to Comments to locate comments from specific agencies, individuals, or organizations.

INDEX TO COMMENTS

Comments from Agencies on the Draft EIR

COMMENTS FROM AGENCIES ON THE DRAFT EIR					
Comment #	Date	Comment Type	Agency	Department	Commenter(s)
1-1	12/16/2010	Written - County Letter Package	County of Santa Barbara	Executive Office	Chandra L. Waller
2-1	12/3/2010	Written - County Letter Package	County of Santa Barbara	Fire Department	Richard Todd
3-1 to 3-4	12/9/2010	Written - County Letter Package	County of Santa Barbara	Planning and Development	Glenn Russell, Ph.D
4-1	12/16/2010	Oral	County of Santa Barbara	Second District Supervisor	Supervisor Janet Wolf

Comments from Organizations on the Draft Environmental Impact Report (EIR)

None received.

Comments from Individuals on the Draft Environmental Impact Report (EIR)

None received.

Comments and Responses on Draft EIR – Agencies

COUNTY OF SANTA BARBARA

Chandra L. Wallar
County Executive Officer

105 East Anapamu Street, Suite 406
Santa Barbara, California 93101
805/568-3400 • Fax 805/568-3414
cwallar@countyofsb.org
www.countyofsb.org

EXECUTIVE OFFICE

December 16, 2010

Ms. Molly Pearson
Community Programs Supervisor
Santa Barbara County Air Pollution Control District
260 N. San Antonio Road, Suite A
Santa Barbara, CA 93110

Email: mmp@sbcapcd.org
Fax: (805) 961-8801

Re: Draft Environmental Impact Report-2010 Clean Air Plan for Santa Barbara County

Dear Ms. Pearson:

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the 2010 Clean Air Plan for Santa Barbara County. At this time, the County submits comments from the Fire Department and the Planning and Development Department for your consideration.

1-1

The County looks forward to continued dialogue on the 2010 Clean Air Plan project and future projects. If you should have further questions, please do not hesitate to contact my office directly, or Jeff Hunt, Director of Long Range Planning Division, at (805) 568-2072.

Sincerely,

Chandra L. Wallar
County Executive Officer

cc: Glenn Russell, Director, Planning and Development Department
Doug Anthony, Deputy Director, Energy Division
Richard Todd, Division Chief/Fire Marshal, Fire Department

Enclosures: Planning and Development Department letter dated December 9, 2010
County Fire Department letter dated December 3, 2010

Terri Maus-Nisich
Assistant County Executive Officer
tmaus@countyofsb.org

Jason Stilwell
Assistant County Executive Officer
jstil@countyofsb.org

Sharon Friedrichsen
Assistant to the County Executive Officer
sfried@countyofsb.org

Fire Department
December 3, 2010

Fire Department

"Serving the community since 1926"

HEADQUARTERS

4410 Cathedral Oaks Road
Santa Barbara, CA 93110-1042
(805) 681-5500 FAX: (805) 681-5563

Michael W. Dryer
Fire Chief
County Fire Warden

Christian J. Hahn
Deputy Fire Chief

December 3, 2010

Ms. Susan Curtis
Senior Planner
County of Santa Barbara
Office of Long Range Planning
123 East Anapamu Street
Santa Barbara, CA 93101

Dear Ms. Curtis:

SUBJECT: Santa Barbara APCD 2010 Clean Air Plan - DEIR

The above project is located within the jurisdiction of the Santa Barbara County Fire Department. To comply with the established regulations, we submit the following.

1. Section 3.4 Hazardous Materials
   3.4.2 Regulatory Setting
   Include – California Health and Safety Code

2-1

Please notify the Fire Prevention Division of any changes to the project plan. Further intensification of use or change in the project plan may require additional review.

As always, if you have any questions or require further information, please call 805-681-5523 or 805-681-5500.

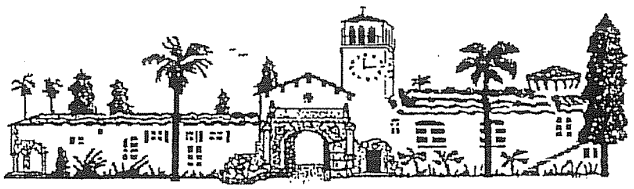
In the interest of life and fire safety,

RJ for

Richard Todd
Division Chief/Fire Marshal

RJ: mkb

Planning and Development Department
December 9, 2010



County of Santa Barbara
Planning and Development
Glenn S. Russell, Ph.D., Director
Dianne Black, Director of Development Services
Jeff Hunt, Director of Long Range Planning

December 9, 2010

Ms. Molly Pearson
Community Programs Supervisor
Santa Barbara County Air Pollution Control District
260 N. San Antonio Road, Suite A
Santa Barbara, CA 93110

Re: Draft Environmental Impact Report-2010 Clean Air Plan for Santa Barbara County

Dear Ms. Pearson:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the 2010 Clean Air Plan. The Planning and Development Department offers the following comments for your consideration:

1.5 Effects Found Not to be Significant (Agricultural and Forestry Resources)
This section does not analyze agricultural operators in the unincorporated county which utilize large boilers to supply heat to crops grown in greenhouses and to generate steam for sterilizing soils before planting. The DEIR should quantify the number of agricultural operations affected by the proposed control measures and disclose and mitigate for any impacts. 3-1

3.10 Environmental Setting/Utilities and Energy (Physical Setting) – Solid Waste
The DEIR states that Tajiguas Landfill is the only active landfill site in the County. However, other active landfill sites, not operated by the County Public Works Department, Resource Recovery and Waste Management Division, should also be named and described in the DEIR. Examples include the Santa Maria landfill, Lompoc landfill and Vandenberg Air Force Base landfill. [1] 3-2

6.0 Alternatives to the Proposed Project
The projection of outer continental shelf (OCS) emissions appears not to consider projected decommissioning of offshore oil and gas platforms. A recent study prepared for the California Ocean Science Trust reports that the [former] Minerals Management Service (MMS) estimates that all platforms will reach the end of their useful lives between 2015 and 2030.[2] This same study qualitatively discusses short-term emissions of decommissioning under two different 3-3

[1] Santa Barbara County Air Pollution Control District, Draft Environmental Impact Report for the 2010 Clean Air Plan, November 2010, at page 3-20.
[2] Bernstein, Brock et. al. Evaluating Alternatives for Decommissioning California's Offshore Oil and Gas Platforms: A Technical Analysis to Inform State Policy, 2010, at page 8.

123 E. Anapamu Street
Santa Barbara, CA 93101
Phone: (805) 568-2000
FAX: (805) 568-2030

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scenarios (full removal versus partial removal). The reduction of the emissions from stationary sources on the OCS merits consideration in the DEIR, as do the added short-term emissions associated with different decommissioning options.

Draft 2010 Clean Air Plan

The County recommends the following changes to the Draft 2010 Clean Air Plan. Section 9.2 Greenhouse Effect and Climate Change currently states

> Scientists estimate that emissions of greenhouse gases will need to be reduced by 80 percent by 2050 to avoid a 2°C (3.6°F) increase in global temperatures, which would produce a sharp rise in the risk of dangerous impacts.[3]

3-4

This document should clarify which emissions are subject to the 80% reduction (both naturally caused and human-caused, or only human-caused); and identify the base year referenced for the 80% reduction.

The County looks forward to continued dialogue on the 2010 Clean Air Plan. If you should have further questions, please do not hesitate to contact my office directly, or Jeff Hunt, Director of Long Range Planning Division, at (805) 568-2072.

Sincerely,

Glenn Russell, Ph.D.
Director of Planning and Development

[3] Santa Barbara County Air Pollution Control District, Draft 2010 Clean Air Plan, October 2010, at page 9-1.

At the December 16, 2010 District Board Hearing, Supervisor Janet Wolf made the following comment as documented in the recording of the hearing:

Supervisor Wolf: Remarked that the county had submitted a letter after reviewing the draft EIR and many of the comments dealt with Venoco-Ellwood Marine Terminal. Were those comments ultimately addressed in the final Plan?

Response to Comments:

1-1 The Santa Barbara Air Pollution Control District appreciates the comments submitted by the County of Santa Barbara on the Draft EIR.

2-1 Section 3.4.2 "Regulatory Setting" on Page 3-12, second full paragraph, has been revised to include the following text:

> *The DTSC develops regulations based on the RCRA and the California Health and Safety Code. The California Health and Safety Code is the collection of state laws that govern, among other things, the handling of hazardous waste. Division 20, Chapter 6.5, of the Code deals with Hazardous Waste Control and Article 6 of this chapter deals with transportation of hazardous waste.*

3-1 The Clean Air Plan suggested control measures that apply to medium and large boilers (rated heat input of 2-5 MMBtu/hr, and greater than 5 MMBtr/hr, respectively) apply only to boilers that are required to have APCD permits (reference: APCD Rule 361, Section B.1.b., and Rule 342, Section B.1.d.). Boilers that are used in agricultural operations are generally not required to have APCD permits unless, in the aggregate, they are very large emitters (e.g., greater than 50 tons of nitrogen oxides per year). Currently, District staff is not aware of any agricultural operations in Santa Barbara County that utilize boilers with this level of pollutant emissions. Therefore, the Clean Air Plan suggested control measures are not anticipated to have any impacts to agricultural operators.

3-2 Thank you for pointing out this oversight; the EIR text has been revised accordingly. Section 3.10 "Solid Waste" on Page 3-20 has been revised as follows:

> *Tajiguas Landfill, located on the Gaviota Coast, is ~~the only~~ an active ~~landfill in Santa Barbara County. Tajiguas is a~~ County owned and operated facility that receives non-recyclable solid waste from around the County.*

The following text has also been included:

> *Other active non-County owned and operated landfills within the geographical boundaries of Santa Barbara County include: Santa Maria Regional Landfill, City of Lompoc Sanitary Landfill, and Vandenberg Air Force Base Landfill.*

3-3 The commenter is concerned that the EIR did not consider an alternative that assumes the decommissioning of offshore oil platforms and a decline in emissions associated with oil and gas activities in the outer continental shelf (OCS).

The 2010 Clean Air Plan includes an inventory of onshore and offshore air pollutant emissions countywide, and is based on the best available emissions forecasting information. Decisions to decommission offshore oil platforms will be based on a number of factors, including economic and political considerations, as well as future discretionary decisions by other agencies such as the California State Lands Commission and the U.S. Minerals Management Service. The formulation of an EIR alternative that addresses decommissioning of offshore platforms would be based on a number of assumptions in these issue areas and would be speculative in nature. The alternatives that were included in the EIR analysis were based on decisions and considerations that are more directly controlled by the APCD Board.

When better information becomes available in the future regarding the potential decommissioning of oil platforms in the OCS, this information will be incorporated into the emissions inventory and emissions forecasts and will be considered in the Clean Air Plan process during future updates.

The commenter also states that short-term emissions associated with different decommissioning options should be considered in the Draft EIR. The Clean Air Plan is a program-level document, and the EIR does not analyze the impacts related to specific discretionary projects; such analysis of short-term emissions related to decommissioning of equipment in the OCS would be too speculative to consider in the context of the Clean Air Plan EIR.

3-4 This comment pertains to the Draft 2010 Clean Air Plan, and not to the analysis of environmental impacts in the Draft EIR. While this comment does not refer to the environmental impacts of the Clean Air Plan, a response to the comment is provided below:

Chapter 9 of the Clean Air Plan, titled *Greenhouse Gases and Climate Change*, is provided for informational purposes only, and is not regulatory in nature. The text of Chapter 9, Section 9.2, has been revised as indicated below:

> *Scientists estimate that human-caused emissions of greenhouse gases will need to be reduced ~~by~~ to 80 percent below 1990 levels by 2050 to avoid a 2°C (3.6°F) increase in global temperatures, which would produce a sharp rise in the risk of dangerous impacts.*

4-1 Supervisor Wolf's comments expressed concern over whether Santa Barbara County's comments were received and were addressed. Aside from the comments received on the Draft EIR (and addressed in this letter), the only other County comments received were from the Santa Barbara County Planning & Development Department (dated July 22, 2010). The July 22 comments were specifically in response to the Notice of Preparation of an Environmental Impact Report and are included in Appendix A of the Draft EIR. These comments relate to a number of specific oil and gas-related projects (Venoco projects in the Goleta area) as well as a proposed ethanol production facility in the unincorporated county near Santa Maria. The Draft EIR project description, on Page 2-3, states the following:

> *This EIR does not identify the potential environmental impacts that will result from discretionary decisions made by land use agencies on individual projects. The CEQA analysis for an individual land use project is addressed at the time that the land use decision is made, and this is done by the agency or jurisdiction that is making the land*

use decision (for example, State Lands Commission, Cities within Santa Barbara County, or Santa Barbara County Planning & Development Department).

This language was included in the EIR project description, and was bolded for emphasis, to specifically address the comments from Santa Barbara County, requesting that the Clean Air Plan EIR consider impacts from individual projects that are outside of the District's discretionary authority. As stated in response to comment 3-3 above, the 2010 Clean Air Plan includes an inventory of onshore and offshore air pollutant emissions countywide, and is based on the best available emissions forecasting information. When information becomes available in the future regarding new and modified facilities within the county, this information will be incorporated into the emissions inventory and emissions forecasts and will be considered in the Clean Air Plan process during future updates.

Appendix D

Governor's Office of Planning and Research
State Clearinghouse and Planning Unit
Compliance Letter and Database Report

Arnold Schwarzenegger
Governor

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Cathleen Cox
Acting Director

December 23, 2010

Molly Pearson
Santa Barbara County Air Pollution Control District
260 N. San Antonio Road, Suite A
Santa Barbara, CA 93110

Subject: 2010 Clean Air Plan for Santa Barbara County
SCH#: 2010071014

Dear Molly Pearson:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on December 22, 2010, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2010071014
Project Title 2010 Clean Air Plan for Santa Barbara County
Lead Agency Santa Barbara County Air Pollution Control District

Type EIR Draft EIR

Description The 2010 Clean Air Plan (Plan) is a three-year update required by the State of California to show how the District plans to meet the state 8-hour ozone standard. The Plan was developed to support and guide the District's effort to control air pollutant emissions and reduce ambient air pollutant concentration within Santa Barbara County. Through adoption of source-specific regulations for the control of ozone precursor pollutants, the Plan is designed to bring the region into attainment of the state 8-hour zone standard. In addition to planning for attainment of the state ozone standard, the Plan contains two chapters that are provided for informational purposes, and are not regulatory in nature: a climate protection chapter with an inventory of carbon dioxide (CO2) emissions in the County, and a transportation and land use planning chapter.

Lead Agency Contact

Name Molly Pearson
Agency Santa Barbara County Air Pollution Control District
Phone 805-961-8838 **Fax**
email
Address 260 N. San Antonio Road, Suite A
City Santa Barbara **State** CA **Zip** 93110

Project Location

County Santa Barbara
City
Region
Lat / Long
Cross Streets Countywide
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways
Airports
Railways
Waterways
Schools
Land Use

Project Issues Air Quality; Biological Resources; Noise; Public Services; Toxic/Hazardous; Traffic/Circulation; Water Supply; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Conservation; Department of Fish and Game, Region 5; Department of Parks and Recreation; Department of Water Resources; Caltrans, District 5; Air Resources Board, Transportation Projects; Air Resources Board, Major Industrial Projects; Regional Water Quality Control Board, Region 3; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 11/08/2010 **Start of Review** 11/08/2010 **End of Review** 12/22/2010

Note: Blanks in data fields result from insufficient information provided by lead agency.

ATTACHMENT 2

Addendum to the 2010 Clean Air Plan EIR

December 15, 2022

Santa Barbara County Air Pollution Control District
Board of Directors

260 San Antonio Road, Suite A
Santa Barbara, California 93110

MEMORANDUM

TO: Alex Economou, Planning Division Manager

FROM: Timothy Mitro, Air Quality Engineer

DATE: December 1, 2022

SUBJECT: Environmental Review for the 2022 Ozone Plan, including ***Addendum to the 2010 Clean Air Plan EIR***

1.0 BACKGROUND

The 2022 Ozone Plan (2022 Plan) is the tenth triennial update to the initial state Air Quality Attainment Plan adopted by the Santa Barbara County Air Pollution Control District (District) Board of Directors in 1991 (other updates were done in 1994, 1998, 2001, 2004, 2007, 2010, 2013, 2016, and 2019). Each of the Santa Barbara County plan updates have implemented an "all feasible measures" strategy to ensure continued progress towards attainment of the state ozone standards. Since 1992, Santa Barbara County has adopted or amended rules implementing more than 30 control measures aimed at reducing emissions at stationary sources. These measures have substantially reduced ozone precursor pollutants, which includes nitrogen oxides (NOx) and reactive organic compounds (ROCs). This strategy has successfully improved Santa Barbara County's air quality so that we now meet the state 1-hour ozone standard. While we have yet to attain the state 8-hour ozone standard, we are getting closer. In order to be designated attainment, air quality measurements must show that both the 1-hour and the 8-hour standards are not violated.

2.0 REASON FOR THIS *ADDENDUM TO THE 2010 CLEAN AIR PLAN EIR*

The District's 2010 Clean Air Plan (2010 Plan) included control measure options for numerous District rules. These control measures generally focused on two types of control strategies: (1) reducing the allowable ROC content of cleaning solvents and other products, and (2) lowering the NOx emission limits for combustion units. The District prepared a program Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) to analyze the potential environmental impacts of implementing the 2010 Plan (State Clearinghouse #2010071014), including implementation of all of the control measures proposed for adoption in the 2010 Plan. The project description in Chapter 2 of the 2010 Plan EIR includes a summary of the proposed control measures and how they might be implemented. The EIR analyzes the potential for environmental impacts in several different issue areas, including air quality, biological resources, hazardous materials & risk of upsets, water resources, land use, noise & nuisance, public services, transportation, utilities/energy, and global climate change & greenhouse gas emissions. As documented in the 2010 Clean Air Plan EIR, no significant environmental impacts were anticipated to occur as a result of implementation of the 2010 Plan.

The 2010 Clean Air Plan EIR was designed to act as a program EIR which, pursuant to CEQA Guidelines, may be prepared on a series of actions that can be characterized as one large project and are related "…in connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program." [CEQA Guidelines Section 15168(a)(3)]. The use of the program EIR with later activities must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared [CEQA Guidelines Section 15168(c)].

District staff compared the 2010 Ozone Plan and the 2022 Ozone Plan to assess whether the 2022 Ozone Plan would result in significant new environmental impacts. None of the conditions described in State CEQA Guidelines Section 15162 or Section 15163, calling for the preparation of a subsequent EIR or supplement to an EIR, will result from the 2022 Plan. Therefore, pursuant to Section 15164 of the State CEQA Guidelines, and the explanation set forth below, the District prepared this Addendum to the 2010 Clean Air Plan EIR.

3.0 DIFFERENCES BETWEEN THE 2010 CLEAN AIR PLAN AND THE 2022 OZONE PLAN

The 2022 Ozone Plan is different from the 2010 Plan in that it is a more streamlined update and it does not include some extra information that was provided in the 2010 Plan. Specifically, the 2010 Plan included a separate chapter on Greenhouse Gases and Climate Change, and also a chapter on Transportation Policy, Air Quality, and Land Use. However, neither of these chapters in the 2010 Plan involved the implementation of control measures that might result in environmental impacts under CEQA.

STATIONARY SOURCE CONTROL MEASURES CARRIED OVER FROM 2010 CLEAN AIR PLAN

The 2010 Clean Air Plan proposed to implement twelve different control measures to reduce NOx and ROC emissions. Those measures are summarized in Table 4-3 of the 2010 Plan and potential environmental impacts related to those control measures were analyzed in the 2010 Clean Air Plan EIR. Some of those measures have since been implemented through the District's rule development process, and the resulting rules have been adopted by the District Board.

For the 2022 Plan, no new stationary source control measures are proposed because all of the measures that were evaluated were not technologically feasible or cost-effective, or would result in a small amount of emission reductions. Also, Santa Barbara County is expected to be redesignated as nonattainment-transitional based on the 2021 and 2022 monitoring data. A nonattainment-transitional designation means that Santa Barbara County is, once again, close to attaining the ozone standard. Staff's assessment is that no additional stationary source control measures are necessary in order to attain and maintain the ozone standards. Some of the original measures from the 2010 Plan that focus on reducing the ROC content of coatings and solvents still remain as contingency measures. The effects of these contingency measures were analyzed in the 2010 Clean Air Plan EIR; therefore, as concluded in the 2010 Clean Air Plan EIR, the implementation of these control measures is not anticipated to result in adverse environmental impacts.

Measures that were included as "Further Study Measures" in the 2010 Plan were not analyzed in the 2010 Clean Air Plan EIR since they were not yet proposed for implementation. The same logic applies to the "Further Study Measures" identified in the 2022 Ozone Plan; they are not proposed for implementation because they are not necessary at this time. Thus, the environmental impacts are not included in the CEQA analysis. Further study measures will undergo CEQA analysis if proposed for implementation in the future.

TRANSPORTATION CONTROL MEASURES

The 2022 Ozone Plan identifies in Chapter 5 all of the Transportation Control Measures (TCMs) that were adopted in previous air quality attainment plans, including the TCMs from the 2010 Plan. There are no additional TCMs proposed for adoption in the 2022 Plan and all of the previously adopted TCMs will continue to be implemented by local agencies in Santa Barbara County. Since there are no proposed changes to the TCMs that were previously adopted, no adverse environmental impacts are anticipated.

4.0 CONCLUSION

Pursuant to Section 15164 of the State CEQA Guidelines, and the explanation set forth above, the District has prepared this Addendum to the 2010 Clean Air Plan EIR. Section 15164(a) states that, *"The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred."* As documented in this addendum, District staff has determined that implementation of the 2022 Ozone Plan will not result in significant new environmental impacts, as compared to the project that was analyzed in the 2010 Clean Air Plan EIR. No new mitigation measures are required.

ATTACHMENT 3

CEQA Findings

December 15, 2022

Santa Barbara County Air Pollution Control District
Board of Directors

260 San Antonio Road, Suite A
Santa Barbara, California 93110

ATTACHMENT 3

CEQA FINDINGS

The potential environmental impacts associated with implementation of the 2022 Ozone Plan were evaluated in the 2010 Clean Air Plan Environmental Impact Report, which was prepared by Air Pollution Control District (District) staff and was certified by the Board in January 2011. An Addendum to the 2010 Clean Air Plan Environmental Impact Report was prepared to document that implementation of the 2022 Ozone Plan would not result in environmental impacts that were not analyzed in the 2010 Clean Air Plan Environmental Impact Report. No significant environmental impacts are anticipated to result from the implementation of the 2022 Ozone Plan.

The Board finds that:

- Pursuant to the California Environmental Quality Act (CEQA) Guidelines section 15164, an Addendum to the 2010 Plan Final Environmental Impact Report (State Clearinghouse No. 2010071014) was prepared by District staff (Attachment 2).

- As documented in the Addendum to the 2010 Clean Air Plan Final Environmental Impact Report, none of the conditions described in CEQA Guidelines section 15162, calling for preparation of a subsequent Environmental Impact Report, have occurred. There are no substantial changes proposed in the project, no substantial changes with respect to the circumstances, and no new information of substantial importance that the project will result in new significant environmental effects. Therefore, subsequent environmental review is not required under CEQA Guidelines section 15162.

- The Board hereby finds that it has reviewed and considered the Addendum to the 2010 Clean Air Plan Final Environmental Impact Report along with the 2010 Clean Air Plan Final Environmental Impact Report (Attachment 1) prior to making a decision on the 2022 Ozone Plan.

ATTACHMENT 4

Proposed 2022 Ozone Plan

December 15, 2022

Santa Barbara County Air Pollution Control District
Board of Directors

260 San Antonio Road, Suite A
Santa Barbara, California 93110

2022 Ozone Plan

December 2022

Aeron Arlin Genet, Air Pollution Control Officer

(805) 979-8050 | 260 N. San Antonio Rd., Ste. A Santa Barbara, CA 93110 | ourair.org | @OurAirSBC

TABLE OF CONTENTS

CHAPTER 1 – INTRODUCTION

Background

Ozone is a gaseous pollutant consisting of three oxygen atoms (O_3). Ozone is not directly emitted into the atmosphere, but instead, it is produced by photochemical reactions between oxides of nitrogen (NOx) and reactive organic compounds (ROCs) in the presence of heat and sunlight. 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 2022 Ozone Plan (2022 Plan) is the tenth 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, and 2019. In the past, the District has prepared air quality attainment plans that have addressed both the state and federal ozone standards. This 2022 Plan addresses the state ozone standards only because the District is designated "attainment" for the federal 8-hour ozone standards, including the most recent standard of 0.070 parts per million (ppm) promulgated by the EPA in 2015. Table 1-1 provides a summary of the state and federal ambient air quality standards for ozone.

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
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

[1] Designated as attainment in 2002. Standard revoked in 2005.
[2] Standard revoked in 2015.

Each of the ozone plan updates have implemented an "every feasible measure" strategy to ensure continued progress toward attainment of the state ozone standards.[3] Since 1991, the District has adopted or amended more than 30 control measures aimed at reducing emissions from stationary sources of air pollution and to help Santa Barbara County reach attainment of the state ozone standards. These measures have substantially reduced NOx and ROC 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 we've witnessed a 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. After decades of hard work and improved air quality conditions, Santa Barbara County was designated as attainment for the state ozone standards in 2019. However, unpredictable weather patterns and air pollutant emission dispersion can lead to different pollutant concentration outcomes from one year to the next. The 2019 attainment designation was applicable for only a single year, and due to the recent exceedances, the County is currently designated as nonattainment. 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

In September 2022, CARB notified the District that Santa Barbara County will be redesignated as nonattainment-transitional. This change is anticipated to be approved by the CARB Board of Directors in January 2023 and finalized by the California Office of Administrative Law (OAL) later that year. When Santa Barbara County's designation changes to nonattainment-transitional, the main requirements of the 2022 Plan are not changed. However, prior to implementing new control measures, the District must review the plan and determine whether the stationary source control measures scheduled for adoption are needed to accomplish expeditious attainment of the state ozone standards. The District may delay a control measure if it determines that delaying the measure will not slow progress toward achieving or maintaining the state ozone standards. This

[3] Pursuant to California Health and Safety Code, Section 40914(b), the District employs an alternative emission reduction strategy that incorporates *every feasible measure* on an *expeditious adoption schedule.*

change in designation does not affect the control measures that are already in place and being implemented.

When a region is designated nonattainment or nonattainment-transitional, the California Clean Air Act requires the region to report their progress in meeting the state mandates and revise the Air Quality Attainment Plan to reflect changing conditions on a triennial basis. The triennial plan progress report and revision requirements (as codified in California Health and Safety Code, Section 40910 et seq.) must assess the overall effectiveness of the air quality program and the extent of air quality improvement in the last 3 years. The revision must also incorporate new data and emission inventory projections. Table 1-3 provides a more complete list of the triennial plan report and revision requirements and where they are addressed in the 2022 Plan.

TABLE 1-3: TRIENNIAL PLAN REPORT AND REVISION REQUIREMENTS

Requirement	CH&SC Section	Ozone Plan Section
Air Quality Trends and Population Exposure	§40913(a), §40924(b)(1)	Chapter 2, Appendix A
Population, Vehicular Activity, and Emission Trends	§40913(a)(4), §40925(a)	Chapters 2, 3, and 5
Emission Inventory	§40913(a)(5), §40918(a)(5)	Chapter 3, Appendix B
Stationary Source Control Measures	§40913(a)(6), §40918(a)(2), §40924(b)(2)	Chapter 4
Control Strategy Cost-Effectiveness	§40913(b), §40922	Chapter 4
Every Feasible Measure and Expeditious Adoption	§40914(b), §40925.5(b)	Chapter 4
Contingency Measures	§40915, §40925.5(c)	Chapter 4
Transportation Control Measures	§40913(a)(6), §40918(a)(3)	Chapter 5
Voluntary Grant & Incentive Strategies	§40913(a)(7)	Chapter 6
Attainment Strategy	§40913(a)	Chapter 7

Plan Highlights

The tenth triennial update to the Ozone Plan includes a few significant changes from prior plans. These include:

- Ocean-Going Vessel (OGV) Emission Inventory: In March 2022, CARB finalized a significant update to the OGV emission inventory and related methodology. The updated inventory provides a more accurate estimate of the vessel operating conditions (ship speeds and engine loads). Changes to vessel operating conditions have occurred at least in part due to the District's successful Vessel Speed Reduction (VSR) program. Overall, the newer data set results in a significant decrease in current and future marine shipping nitrogen oxides (NOx) emission estimates within Santa Barbara County waters. Although NOx emissions from marine shipping still account for a large percentage of our emission inventory, we continue to focus our efforts on achieving near-term reductions in this sector.

- Control Measures in the Plan: The California Health and Safety Code requires that the 2022 Plan include cost-effective strategies to both attain and maintain the ozone standards. Each ozone plan update includes an evaluation of feasible reduction measures for stationary sources and considers numerous factors such as technology advancements, efficiency measures, cost-effectiveness, and the successful implementation of measures at other California air districts. As discussed in Chapter 4, all of the control measures that were found to be feasible in prior ozone plan updates have been implemented, and any additional measures that could be proposed yield relatively smaller emission reductions with higher associated costs. The 2022 Plan still carries forward some of the contingency measures and "further study" measures from the 2019 Plan. We also discuss how the Assembly Bill 617 Rule Development Schedule interacts with the 2022 Plan.

- Statewide Regulations and Incentive Funds: CARB continues to pursue substantial reductions of ozone precursors in the mobile source sector. CARB's comprehensive mobile source strategy implements and expands research and pilot projects, incentive programs, and regulations related to on-road and off-road vehicles. Two of the new regulations that are described in this 2022 Plan surround the recent amendments at the statewide level to the Commercial Harbor Craft Regulation and the Small Off-Road Equipment (SORE) Regulation. Furthermore, recent legislation allocates a significant amount of state funding to local districts, allowing the districts to achieve reductions from mobile sources through incentive programs.

CHAPTER 2 – LOCAL AIR QUALITY

Breathing ground-level ozone can cause a number of health effects that are observed in broad segments of the population. Ozone can damage the respiratory system, cause inflammation, irritation, and symptoms such as coughs and wheezing. High levels of ozone are especially harmful for children, the elderly, and people with asthma or other respiratory problems. Ground-level ozone also impacts the economy by increasing hospital visits and medical expenses, loss of work time due to illness, and damage to agricultural crops.

Ozone is not emitted directly into the atmosphere. It is formed through a series of complex chemical reactions involving the precursor pollutants nitrogen oxides (NOx) and reactive organic compounds (ROC), heat, and sunlight. Ozone typically follows a diurnal cycle, where the levels tend to increase throughout the day and decrease during the nighttime hours. However, there are additional factors that influence ozone levels. For example, meteorological conditions, such as temperature, inversions, and stagnant air can lead to a buildup of pollutants, and topography can prevent the dispersion of the pollutants and trap 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.

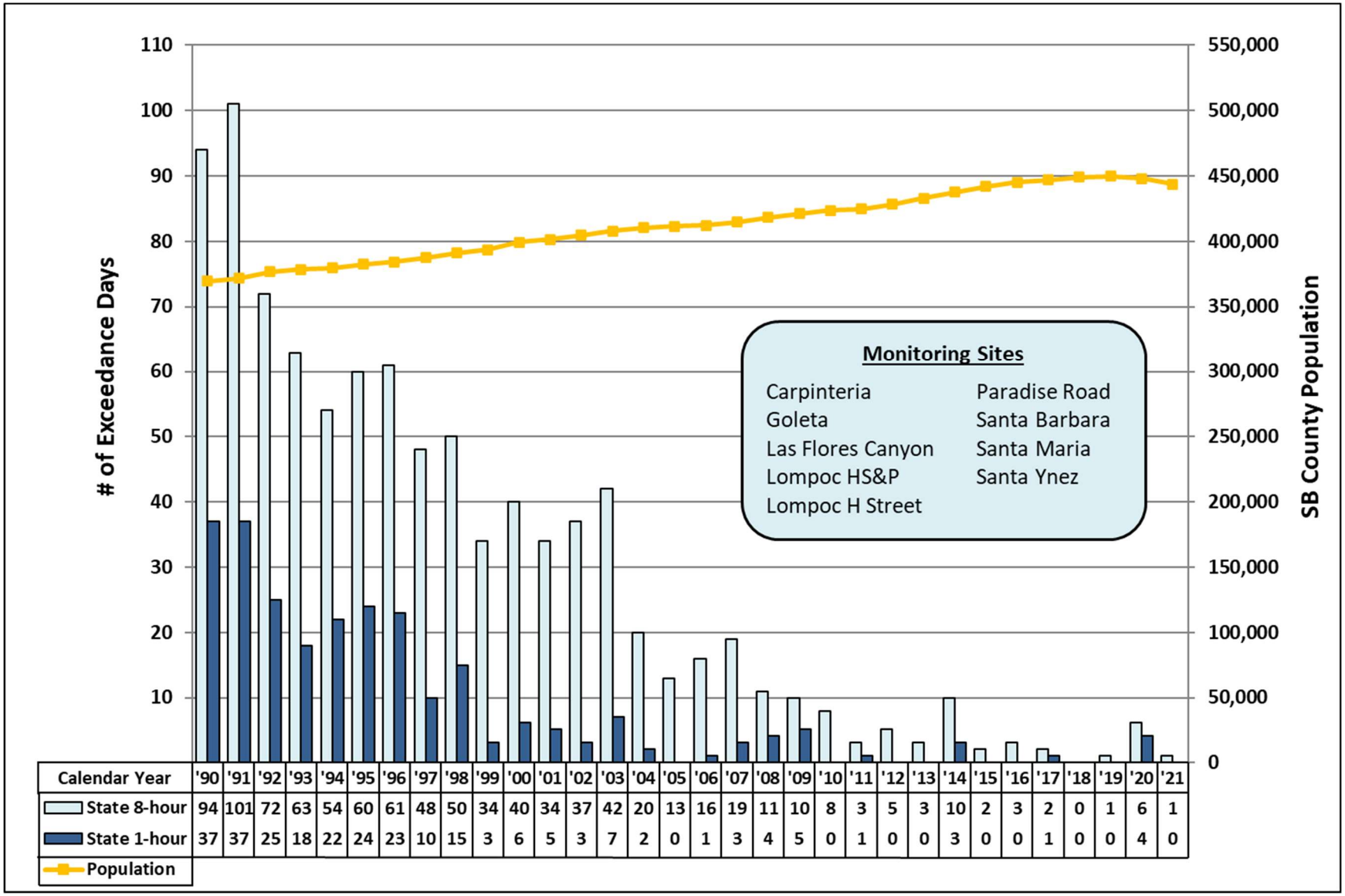
The California Clean Air Act requires the California Air Resources Board (CARB) to evaluate and identify air quality-related indicators for the District to use in assessing its progress toward attainment of the state ozone standard.[4] This chapter highlights those indicators and demonstrates the progress 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 technology improvements and better community planning, have led to tremendous improvements in Santa Barbara County's air quality. As a result of these efforts, people's 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 state 1-hour and 8-hour ozone exceedances. An *exceedance* is a measured concentration at a monitoring station that surpasses the ozone standard. As displayed in Figure 2-1, 1-hour ozone exceedances have decreased from a high of 37 days in 1990 to a low of zero days in five out of the last seven years. Since 1990, the number of 8-hour ozone exceedance days range from a high of 101 days in 1991 to a low of zero days in 2018. These improvements in air quality have occurred despite a 20 percent increase in countywide population growth. Although much progress has been made, Santa Barbara County experienced a handful of exceedances for the most recent 3-year period. A brief analysis of the most recent exceedances of the 8-hour ozone standard (i.e., 70 ppb) and factors that contributed to each exceedance are described below in Tables 2-1 and 2-2.

[4] California Health and Safety Code, Sections 39607(f) and (g).

FIGURE 2-1: 8-HOUR AND 1-HOUR OZONE EXCEEDANCE TRENDS VS POPULATION SANTA BARBARA COUNTY, 1990-2021 [5]



Calendar Year	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21
State 8-hour	94	101	72	63	54	60	61	48	50	34	40	34	37	42	20	13	16	19	11	10	8	3	5	3	10	2	3	2	0	1	6	1
State 1-hour	37	37	25	18	22	24	23	10	15	3	6	5	3	7	2	0	1	3	4	5	0	1	0	0	3	0	0	1	0	0	4	0
Population																																

[5] Population data from the State of California, Department of Finance, E-4 Population Estimates for 2021-2022, with 2020 Census Benchmark [May 2022].

TABLE 2-1: SANTA BARBARA COUNTY EXCEEDANCE DAYS, 2019-2021

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	NA

Values greater than the state 8-hour ozone standard of 70 ppb are highlighted in yellow.

TABLE 2-2: CONTRIBUTING FACTORS TO THE EXCEEDANCE DAYS, 2019-2021

Exceedance Days	Contributing Factors
10/6/2019	Strong south-eastern transport winds with hot weather
8/18/2020 - 8/21/2020	Northern California Wildfires with strong northern transport winds: LNU (Sonoma–Lake–Napa Unit) Lightning Complex SCU (Santa Clara Unit) Lightning Complex CZU (San Mateo–Santa Cruz Unit) Lightning Complex
10/2/2020 - 10/3/2020	Creek Fire in Fresno County
6/17/2021	Heat wave with stagnant conditions

Air Quality Indicators – Peak Concentrations

One of the 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. The EPDC is based on a statistical calculation using the daily maximum 1-hour and 8-hour ozone concentrations for a rolling period of three calendar years. For example, the 2020 EPDC for a monitoring site uses data from 2018, 2019, and 2020. 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 years 1990 through 2020 for the six selected 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 over time. For the 1-hour EPDCs, all monitoring stations are below the 1-hour ozone standard. For the 8-hour EPDCs, three monitoring stations remain above the 8-hour ozone standard. A listing of the EPDC values for these six monitoring sites can be found in Appendix A.

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

Violations 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. To evaluate whether an ozone *violation* occurred, the first step is to identify all ozone *exceedances* within the last three-year period. According to the CARB designation process, an exceedance that is higher than the site's EPDC is identified as being affected by an *extreme concentration event* (e.g., weather conditions conducive to high concentrations of ozone). Extreme concentration events are not violations of the state ozone standard and are excluded from the designation value process.

The *designation value* for a monitoring site is the highest representative reading at that monitoring site over the last three years. Since extreme events are not considered representative, the designation value for each site is the highest concentration observed that is less than or equal to the EPDC at that site. If the designation value is higher than a state standard, then it indicates that a violation has occurred within the last three years at that monitoring site. 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 CONCENTRATION
TOP 6 SANTA BARBARA COUNTY MONITORING SITES, 1990-2020

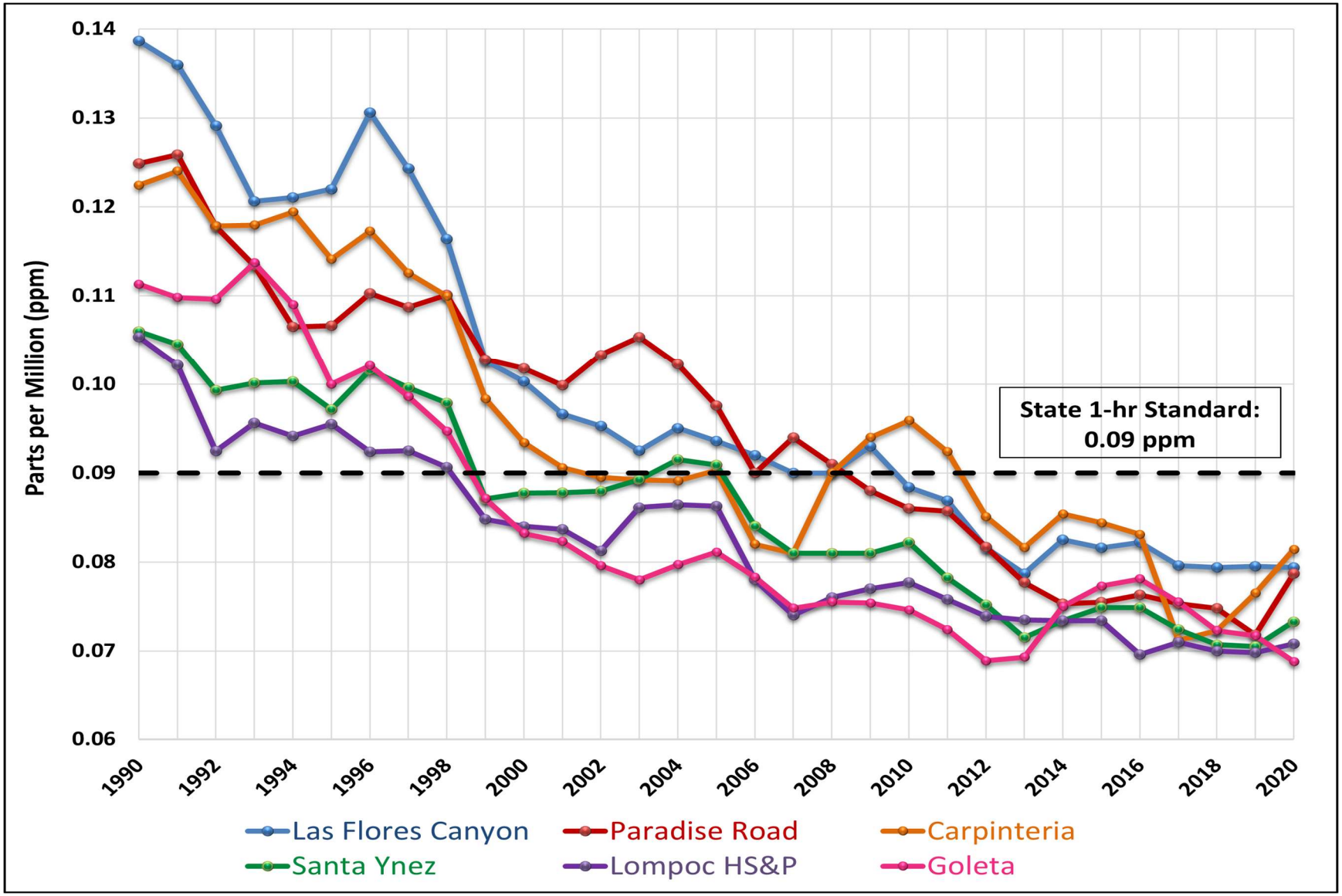


FIGURE 2-3: STATE 8-HOUR OZONE EXPECTED PEAK DAY CONCENTRATIONS
TOP 6 SANTA BARBARA COUNTY MONITORING SITES, 1990-2020

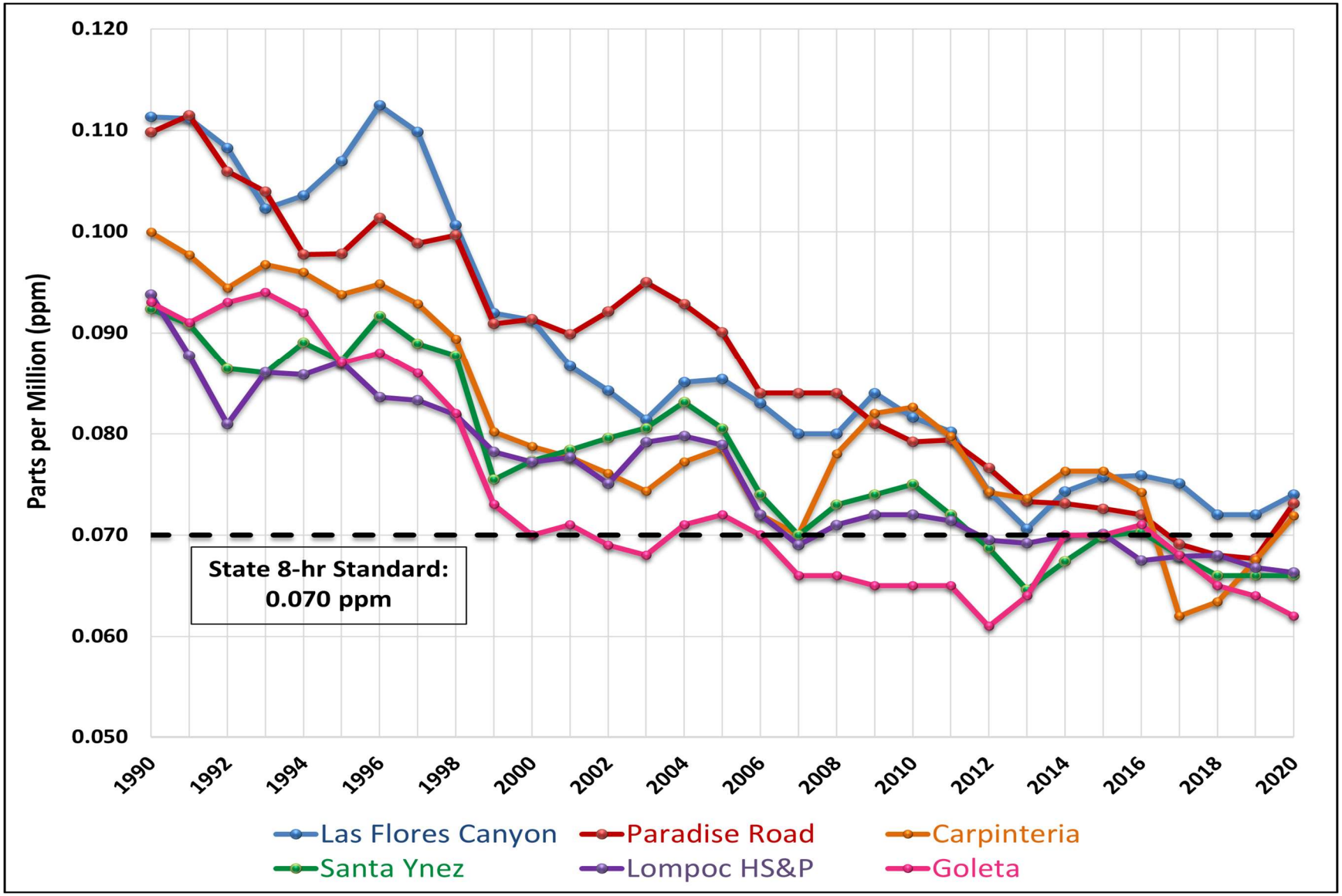


TABLE 2-3: SANTA BARBARA COUNTY 8-HOUR EPDCS AND DESIGNATION VALUES, 2018-2020

Monitor Location	State Criteria for 8-hour Ozone	Annual Values (ppm)		
		2018	2019	2020
Paradise Road	EPDC	0.068	0.068	0.073
	Designation Value	0.067	0.071	0.086
Las Flores Canyon	EPDC	0.072	0.072	0.074
	Designation Value	0.069	0.072	0.074
Carpinteria	EPDC	0.063	0.068	0.072
	Designation Value	0.063	0.067	0.086
Santa Barbara	EPDC	0.067	0.066	0.064
	Designation Value	0.067	0.066	0.062
Goleta	EPDC	0.065	0.064	0.062
	Designation Value	0.065	0.062	0.062
Santa Ynez	EPDC	0.066	0.066	0.066
	Designation Value	0.065	0.061	0.066
Lompoc HS&P	EPDC	0.068	0.067	0.066
	Designation Value	0.067	0.067	0.067
Lompoc H St.	EPDC	0.056	0.054	0.038
	Designation Value	0.056	0.053	0.038
Santa Maria	EPDC	0.054	0.049	0.051
	Designation Value	0.063	0.049	0.050

Invalid EPDC due to insufficient data are highlighted in gray.
Designation values greater than the state ozone standard are highlighted in yellow.

As indicated in the table above, the monitoring sites at Paradise Road, Carpinteria, and Lompoc HS&P currently have invalid EPDCs. These three sites, all of which were operated by a third-party consultant, experienced issues where some of the monitoring data did not meet the necessary quality assurance criteria. After removing the affected data, the sites no longer met the minimum requirement to have a valid EPDC. These quality assurance data issues have since been resolved by installing new equipment or adjusting the operating protocols to meet new EPA requirements. However, for the 2020 monitoring year, the invalid EPDCs cannot be used to exclude the extreme concentration events at these sites, and so the designation value exceeds the invalid EPDC. Even if the EPDCs were valid, the Paradise Road and Carpinteria monitoring stations still recorded exceedances that would be considered violations of the state 8-hour ozone standard and would result in a non-attainment status for the entire County.

The designation values show that three monitoring stations (Paradise Road, Las Flores Canyon, and Carpinteria) currently have designation values over the state 8-hour standard. As for the state 1-hour standard, Figure 2-2 shows that it has not been violated for the last decade since all monitoring sites have valid 1-hour EPDCs below the standard. However, to be considered

attainment for ozone, Santa Barbara County needs to meet both the 1-hour and 8-hour standard. This means that Santa Barbara County cannot record an ozone value that is above the standard but below the EPDC value during the last three-year period.

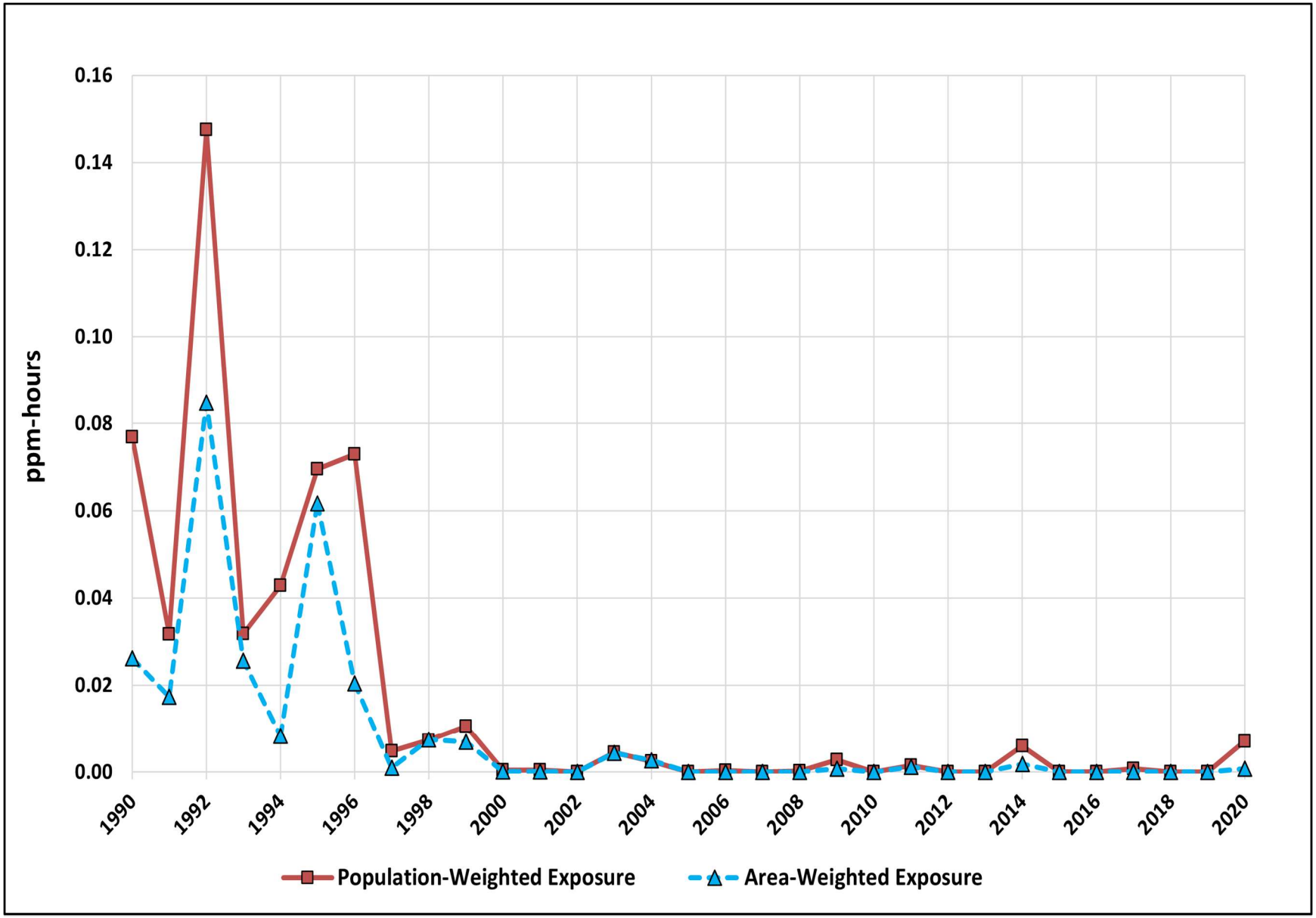
Air Quality Indicators – Population and Area Exposure

CARB has developed a methodology to assess exposure to air pollutants within Santa Barbara County. The "exposure indicators" are the population-weighted exposure (PWE) indicator and the area-weighted exposure (AWE) indicator. These metrics provide an indication of the potential for chronic adverse health impacts. Unlike the EPDC, which tracks progress at individual locations, the population-weighted and area-weighted exposure indicators consolidate hourly ozone measurements from all sites within the District into a single average exposure value.

The calculation methodology assumes that an "exposure" occurs when a 1-hour ozone measurement is higher than 0.09 ppm (the level of the state 1-hour ozone standard). The PWE and AWE consider both the magnitude and the duration of hourly ozone concentrations above the state standard. However, the PWE is higher if the exposure is recorded near population centers, while the AWE is higher if the exposure covers more land area, based on the monitoring station network. The resulting annual exposure indicator is the sum of all the hourly exposures during the year and presents the results as an average per exposed person (PWE indicator) or average per exposed unit of land area (AWE indicator).

The population- and area-weighted exposure data obtained from CARB is presented in Figure 2-4. This figure shows that both exposure indicators have decreased over time and that these air quality indicators have been very low during the last 20 years due to dramatic improvements in local air quality. The values are near zero since ozone levels in the County rarely exceed 0.09 ppm for a 1-hour period.

FIGURE 2-4: POPULATION- AND AREA-WEIGHTED EXPOSURE
SANTA BARBARA COUNTY, 1-HOUR OZONE, 1990-2020



CHAPTER 3 – EMISSION INVENTORY

This chapter presents the reactive organic compound (ROC) and nitrogen oxide (NOx) emission inventory used in the development of this 2022 Plan. The District's emission inventory accounts for pollutants emitted from all emission sources, including fuel combustion at industrial facilities, consumer product 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, motorcycles, trucks, and buses.
  - **Other Mobile Sources** – Ships, planes, trains, and off-road equipment.

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 inventories presented in this chapter are "planning emissions inventories," commonly referred to as "summer seasonal" inventories. A planning inventory accounts for seasonal variation because most ozone standard exceedances occur during the April to October "ozone season." A planning inventory does not include the emissions from natural sources such as biogenics, oil and gas seeps, and wildfires since they are not regulated nor controlled through the implementation of emission control measures. Additional information on natural sources can be found in Appendix B.

Baseline Inventory

For every inventory, a baseline year must be chosen. Since the purpose of the base year inventory is to represent relatively current emissions, there is a general preference to use as recent a year as practical. However, some years may not be representative of normal operations. For example, the 2020 inventory is expected to be atypical in many ways due to the effects of the COVID-19 pandemic. Activity levels for all source categories will be altered as a result of the reduced economic conditions and changes in behavior from widespread state and local "stay at home" orders. This 2022 Plan uses 2018 as the base year because the 2018 inventory is the most recent and complete inventory available for all of the source categories. Furthermore, CARB is using a 2018 base year for inclusion in their 2022 State Implementation

Plan (SIP) submittal to the EPA, so the 2018 inventory data has been thoroughly reviewed and refined for accuracy.

This Plan uses a 2018 Base Year since it is the most recent and complete inventory year for all of the source categories.

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, the 2018 base year stationary source emissions are calculated with annual data that facilities reported to the District. The area source emissions are estimated jointly by CARB and the District. On-road motor vehicle emissions are calculated by applying CARB's EMission FACtor (EMFAC) model output to the transportation activity data provided by the Santa Barbara County Association of Governments (SBCAG).[6] Finally, CARB provides emission estimates for other mobile sources such as ocean-going vessels, locomotives, aircraft, and agricultural equipment.

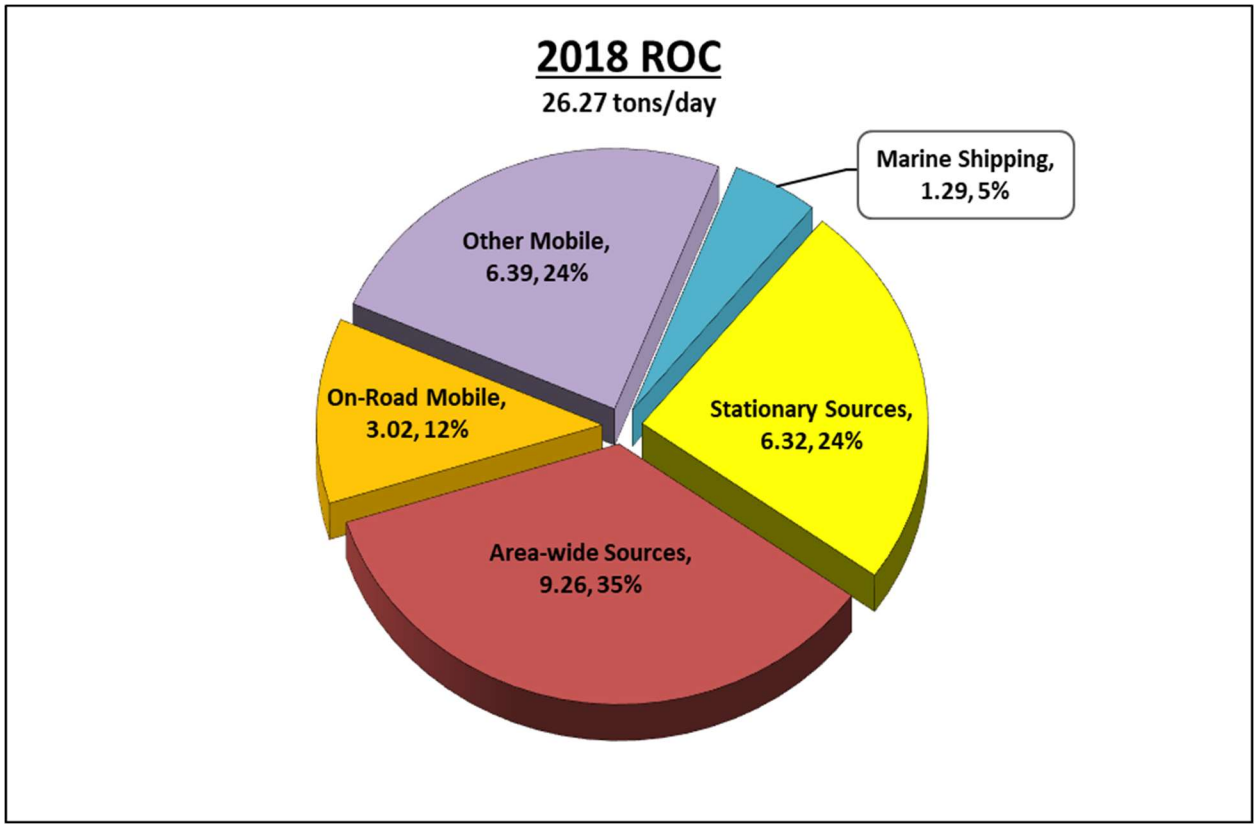
Figure 3-1 shows the emissions and relative contribution of ROC and NOx during 2018 for each source category. Due to the large amount of marine shipping emissions in the District's emission inventory, the District separated ocean-going vessels from the other mobile source categories so that the relative impact can be more easily identified. Some of the highlights of Figure 3-1 include the following:

- Stationary and area-wide sources account for about 59 percent of the baseline ROC inventory. The majority of these emissions are from coating and solvent operations, oil & gas operations, and pesticide usage.
- Other mobile sources account for 24 percent of the ROC emissions, with the remaining 19 percent coming from on-road vehicles and ocean-going vessels category.
- 66 percent of the NOx inventory is attributed to ocean-going vessels in the OCS (see "Impacts from Marine Shipping" at the end of this chapter for further discussion).
- An estimated 14 percent of the NOx emissions in the baseline inventory are from on-road motor vehicles, while area-wide sources, stationary sources, and the remaining other mobile sources contribute the remaining 20 percent to the baseline NOx emissions.

The combined amount of ozone precursors (ROC + NOx) is shown in Figure 3-2. The stationary source emissions are approximately 14 percent of the total inventory, which is a positive reflection of the District's stationary source control program. Based on staff estimates, the stationary source emission inventory would be four times greater if no emission control rules had been adopted and implemented by the District.

[6] More information regarding the on-road mobile source trends and measures can be found in Chapter 5.

FIGURE 3-1: BASELINE ROC AND NOX EMISSIONS (TONS PER DAY) AND DISTRIBUTION (%)



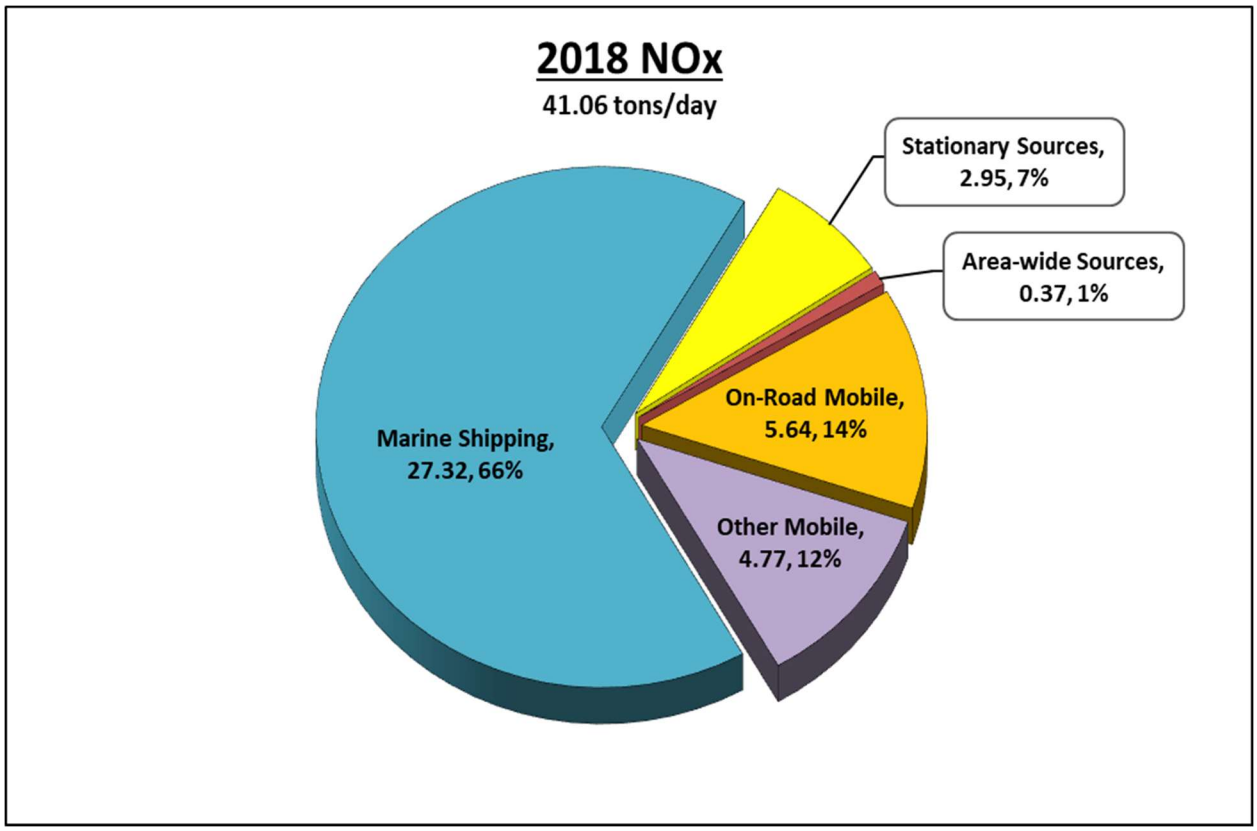
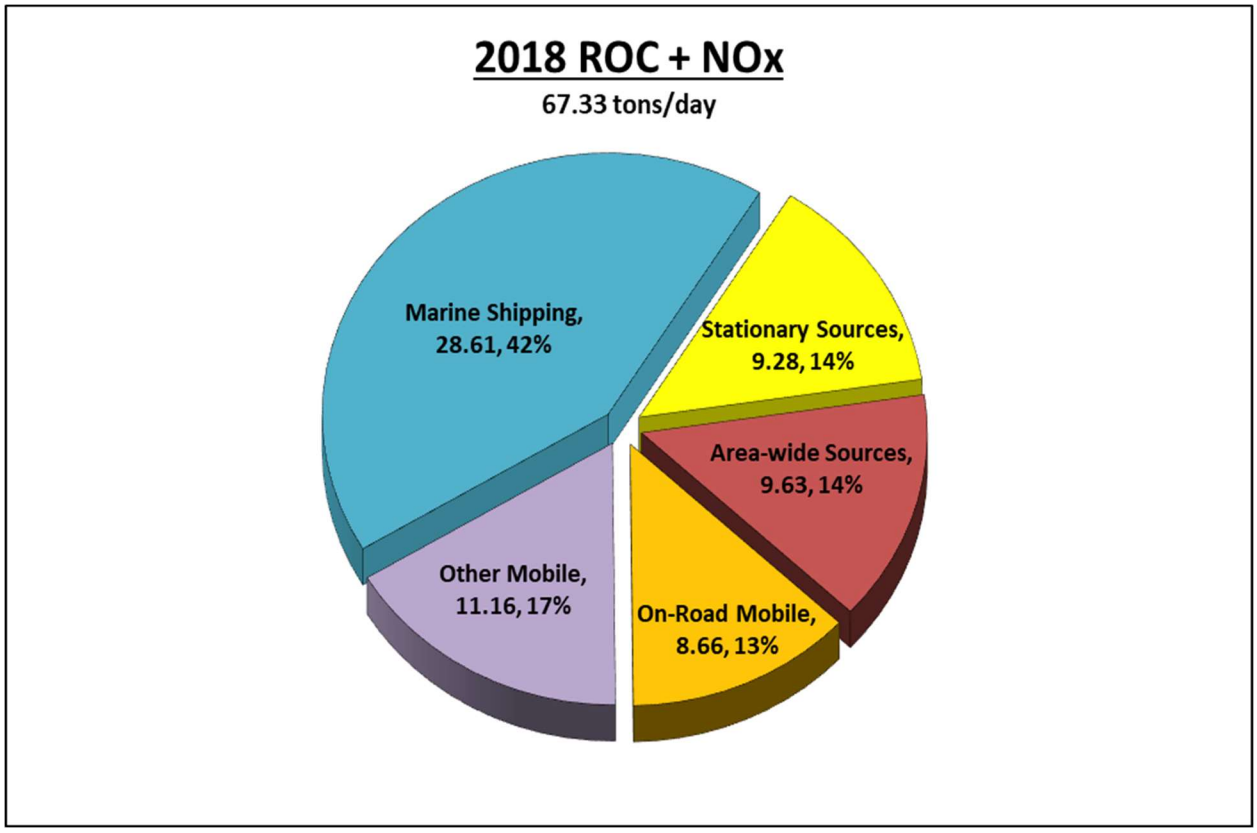


FIGURE 3-2: COMBINED BASELINE ROC AND NOX EMISSIONS (TONS PER DAY) AND DISTRIBUTION (%)



Growth Profiles

To understand how the emission inventory may change over time, the 2018 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 economic output, and the ratio of these activity indicators creates the growth rate (relative to the base year). CARB has developed dozens of growth profiles by collecting information from reputable sources such as the California Energy Commission and the Department of Finance. These growth profiles are then applied to the affected source categories to 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 are established to demonstrate what the projected emission inventory could look like in the years 2025, 2035, and 2045. Growth profile data is shown in Table 3-1.

TABLE 3-1: SANTA BARBARA COUNTY GROWTH PROFILES

Activity Indicator	Units	Value				Growth Rate from 2018			Data Source
		2018	2025	2035	2045	2025	2035	2045	
Population	Residents	452,953	470,188	501,060	524,389	4%	11%	16%	1
Housing	Households	148,071	154,657	164,811	172,485	4%	11%	16%	1
Vehicle Miles Travelled	Million Daily Miles	9.91	10.19	10.33	10.52	3%	4%	6%	2
Natural Gas Combustion: *Residential*	Million Therms	54.18	55.07	53.43	48.77	2%	-1%	-10%	3
Natural Gas Combustion: *Commercial*	Million Therms	22.66	24.74	26.66	29.40	9%	18%	30%	3
Natural Gas Combustion: *Industrial*	Million Therms	9.85	10.39	11.02	11.56	5%	12%	18%	3
Petroleum Production: *Onshore*	MMbbl Oil	3.31	3.31	3.31	3.31	0%	0%	0%	4
Petroleum Wells: *Onshore*	Active + Idle Wells	2,186	2,037	1,843	1,666	-7%	-16%	-24%	4
Petroleum Wells: *Offshore*	Active + Idle Wells	396	324	352	318	-18%	-11%	-20%	4
Ocean Going Vessels: *Auto Carriers*	Growth Rate	--	--	--	--	6%	17%	14%	5
Ocean Going Vessels: *Containerships*	Growth Rate	--	--	--	--	22%	74%	136%	5
Ocean Going Vessels: *Tankers*	Growth Rate	--	--	--	--	-2%	2%	2%	5

Data Source References:

1) Department of Finance, which is similar to the SBCAG Regional Growth Forecast 2050 [January 2019]
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 Bureau of Ocean Energy Management (BOEM)
5) Freight Analysis Framework model, compiled by the Bureau of Transportation Statistics and the Federal Highway Administration

Discussion on Oil & Gas Growth Profiles

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.[7] However since the 2013 Plan, the District has used a zero percent growth rate for oil & gas-related activities due to uncertainty in the sector for Santa Barbara County over the long term. For this 2022 Plan, staff reviewed the historical records from both the California Geologic Energy Management Division (CalGEM) and Bureau of Ocean Energy Management (BOEM) to establish new growth factors based on local data.

For onshore oil & gas activity, staff recommends using the countywide onshore oil production, as measured in million barrels of oil, as the activity factor that correlates best with the actual NOx emissions from the oil & gas sector. NOx emissions are created by combustion equipment, such as steam generators in cyclic steaming operations and internal combustion engines being used to drive the oil pumps. Although there may be a statewide decline in oil production, staff recommends maintaining a neutral, local growth rate in onshore oil production as there may be new combustion-related projects to enhance or maintain the output of existing, active wells. Best Available Control Technology (BACT) is typically required for any new major oil & gas projects, driving down the project emissions.

Onshore NOx tracks with onshore Oil Production.

Onshore ROC tracks with onshore Well Count.

For ROC emissions related to onshore oil & gas activity, staff recommends using the total active and idle oil & gas wells as the activity factor that correlates best with the actual ROC emissions from the oil & gas sector. Although there are generally more emissions from active wells than idle wells, idle wells are still a concern due to fugitive emissions from leaking components. Once a well is fully plugged and abandoned, the associated emissions can be removed from the District's emission inventory. Staff estimates that approximately 1% of idle wells will be removed from service each year. This trend is supported by the typical declining production capabilities of older oil wells and the recent idle well regulation changes adopted by CalGEM in 2019.[8] The idle well regulation changes discourage operators from leaving their wells in an idle state and creates incentives for operators to manage and eliminate their idle wells by entering into Idle Well Management Plans.

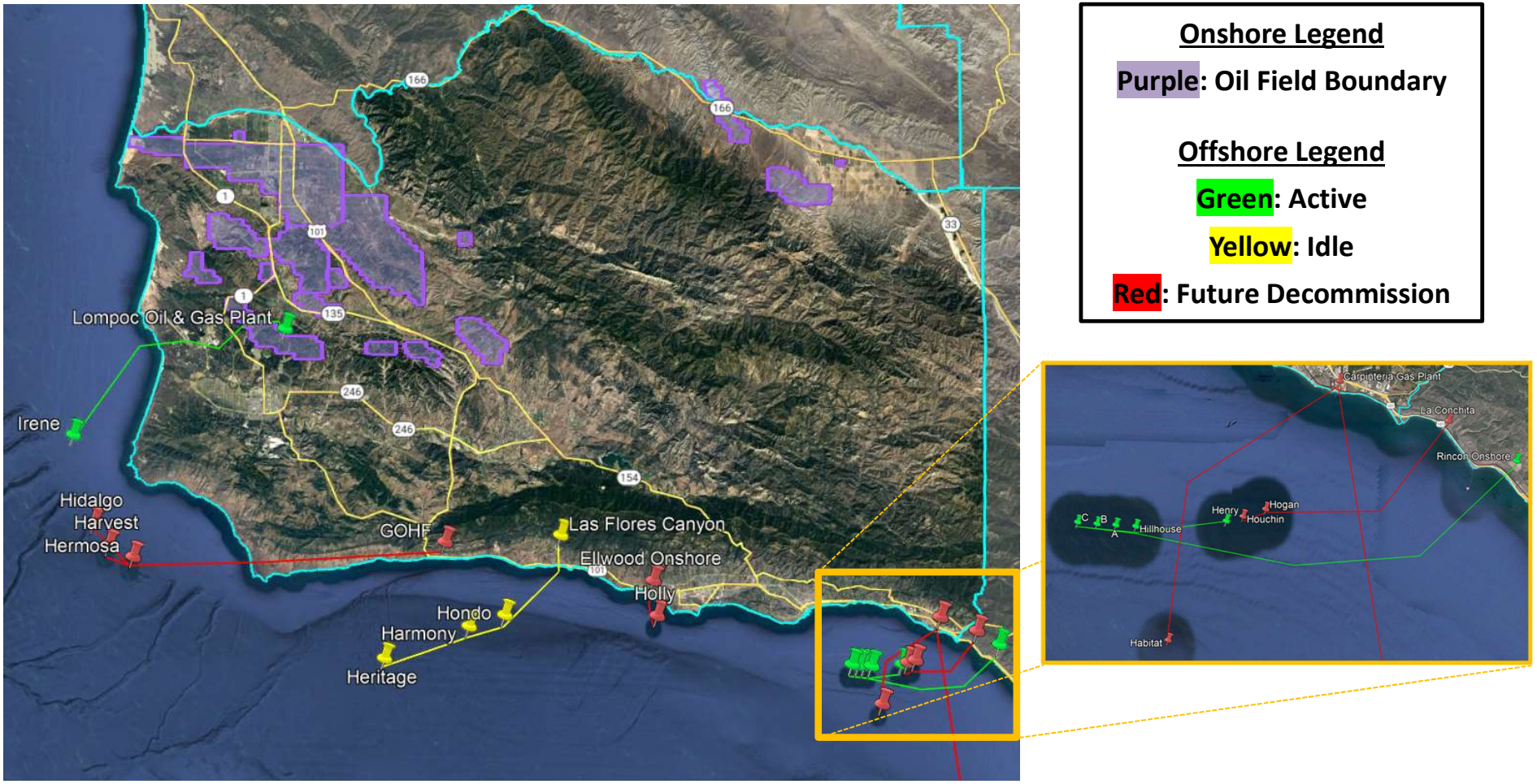
[7] Based on statewide annual production reports from 2000 – 2016 from CalGEM, previously known as the CA Department of Conservation, Division of Oil Gas, and Geothermal Resources (DOGGR).
[8] www.conservation.ca.gov/calgem/idle_well

Offshore NOx and ROC tracks with offshore Well Count.

For offshore oil & gas activity, staff recommends using the total active and idle oil & gas wells as the activity factor that correlates best with both the actual NOx and ROC emissions. 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 forcing two operators to begin the decommissioning of their offshore platforms. Once the platforms are fully decommissioned, the stationary source emissions will be reduced even further. However, the Plains All American Pipeline may be rebuilt or replaced, which would allow some of the offshore platforms to resume operations. The County of Santa Barbara has discretionary authority over onshore oil & gas projects in unincorporated areas and is therefore the lead agency under the California Environmental Quality Act (CEQA) for most oil & gas projects. If a new pipeline project or alternative product transportation method is approved, there may be an increase in offshore emissions from the Exxon Mobil Santa Ynez Unit compared to the Base Year of 2018, and the growth rate used in this Plan accounts for this change to occur sometime between 2025 and 2035.

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

FIGURE 3-3: ONSHORE OIL FIELDS AND OFFSHORE FACILITIES IN SANTA BARBARA COUNTY



Inventory Forecast

Inventory forecasts are created through CARB's California Emission Projection Analysis Model (CEPAM). CEPAM applies the county-specific 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 2022 Plan, the growth and control profiles are applied to the 2018 Base Year Inventory to forecast District-wide ozone precursor emissions for 2025, 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.

TABLE 3-2: ROC AND NOX EMISSION FORECAST SUMMARY (TONS PER DAY)

Source Category	ROC				% Change (2018 – 2045)
	2018	2025	2035	2045	
Stationary Sources	6.32	6.09	6.10	6.32	**0%**
Area-wide Sources	9.26	10.41	10.75	11.06	**20%**
On-Road Vehicles	3.02	1.99	1.24	0.92	**-70%**
Other Mobile [9]	6.39	4.97	3.22	2.64	**-59%**
Marine Shipping	1.29	1.51	2.02	2.80	**117%**
ERCs	-	0.40	0.40	0.40	**-**
Total	**26.27**	**25.37**	**23.72**	**24.14**	**-8%**

Source Category	NOx				% Change (2018 – 2045)
	2018	2025	2035	2045	
Stationary Sources	2.95	2.85	2.83	2.92	**-1%**
Area-wide Sources	0.37	0.35	0.32	0.31	**-17%**
On-Road Vehicles	5.64	2.82	1.69	1.36	**-76%**
Other Mobile [9]	4.77	3.47	2.68	2.33	**-51%**
Marine Shipping	27.32	30.09	39.53	21.80	**-20%**
ERCs	-	0.81	0.81	0.81	**--**
Total	**41.06**	**40.39**	**47.87**	**29.52**	**-28%**

The emission inventory forecasts have been adjusted upward based on the ERCs that were in the District Source Register as of October 2021. 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 projects, offset trading ratios may also be applied, further reducing the amount of potential emission increases related to the use of ERCs.

[9] Marine Shipping emissions have been broken-out of the "Other Mobile" category in this table.

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.
- There are expected increases in ROC emissions due to pesticides compared to the base year of 2018. The reason for the projected pesticide increase is that the CARB methodology forecasts Agricultural Pesticides on a 5-year average, and 2018 was a low pesticide usage year based on the data reported by the California Department of Pesticide Regulations (DPR).
- The impact of existing regulations for both on-road vehicles and other offroad 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.
- There are large emission fluctuations over the next 20 years due to the future growth and controls on the marine shipping sector, which are 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 1,400 different ocean-going vessels (OGVs) make around 6,500 total transits through the Santa Barbara Channel Region. Due to the massive engines on these ships, these transits are responsible for more than 65 percent of the NOx inventory, making marine shipping the single largest source of NOx emissions in the County.

The District has studied the local meteorological conditions that have led to high ozone readings and exceedances of the state and federal ozone standards. Exceedances typically occur between April and October ("ozone season"), and the conditions that are most conducive to exceedances include stagnant air, temperature inversions, and the presence of ozone precursor pollutants. 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. This methodology was recently revised in March 2022, and it has been updated to include recent Automated Information System (AIS) speed data from the vessels.[10] Speed data is critical to documenting the emission impacts of these ships since it helps quantify the amount of fuel

[10] AIS is a tracking system where the location, speed, and directional data of each ocean-going vessel is transmitted to help avoid collisions.

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 new methodology with the recent AIS data now 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 incentivize companies to slow down to 10 knots or less off the California coast. By slowing down, the vessels reduce fuel use and help protect endangered whales. Shipping companies receive recognition and financial awards based on their cooperation with 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 updated OGV methodology also incorporates estimates of future growth in marine shipping activities and the associated control profiles. NOx emissions from this sector are forecasted to increase by approximately 45 percent, peaking in the year 2035. This projected growth is primarily due to anticipated increases in container ship traffic to transport commodities, such as furniture, electronics, and other manufactured goods, to the Ports of Los Angeles and Long Beach.

OGVs are one of the few source categories that are expected to increase in emissions due to the anticipated growth in the container ship industry.

As for the control profiles, there are existing regulations under the International Maritime Organization (IMO) and United States Environmental Protection Agency (EPA) that require lower NOx standards for newly built vessel engines. New engines have to meet the Tier 3 standard, which emit approximately 80% less NOx as compared to the Tier 1 and Tier 2 engines that are being used on most ships today. However, OGVs are designed to remain in service for 25 years or more, and so it can take many years to realize the benefits of new technologies incorporated into new vessel designs. Tier 3 engines aren't anticipated to see widespread use until 2035, and in the meantime, 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	**2018**	**2025**	**2035**	**2045**	**2018**	**2025**	**2035**	**2045**
ELECTRIC UTILITIES	0.01	0.03	0.02	0.02	0.03	0.07	0.05	0.05
COGENERATION	-	-	-	-	-	-	-	-
OIL AND GAS PRODUCTION (COMBUSTION)	0.06	0.06	0.05	0.05	1.03	0.99	1.00	0.98
PETROLEUM REFINING (COMBUSTION)	-	-	-	-	0.01	0.01	0.01	0.01
MANUFACTURING AND INDUSTRIAL	0.02	0.02	0.02	0.02	0.54	0.53	0.54	0.62
FOOD AND AGRICULTURAL PROCESSING	0.02	0.02	0.01	0.01	0.34	0.28	0.25	0.26
SERVICE AND COMMERCIAL	0.06	0.07	0.07	0.07	0.77	0.77	0.77	0.78
OTHER (FUEL COMBUSTION)	-	-	-	-	0.10	0.09	0.09	0.09
SEWAGE TREATMENT	-	-	-	-	-	-	-	-
LANDFILLS	0.05	0.05	0.05	0.05	0.01	0.01	0.01	0.01
INCINERATORS	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
SOIL REMEDIATION	-	-	-	-	-	-	-	-
OTHER (WASTE DISPOSAL)	0.50	0.51	0.52	0.53	-	-	-	-
LAUNDERING	0.01	0.01	0.01	0.01	-	-	-	-
DEGREASING	0.53	0.58	0.63	0.79	-	-	-	-
COATINGS AND RELATED PROCESS SOLVENTS	0.37	0.42	0.45	0.55	-	-	-	-
PRINTING	0.49	0.46	0.47	0.52	-	-	-	-
ADHESIVES AND SEALANTS	0.40	0.45	0.48	0.52	-	-	-	-
OTHER (CLEANING AND SURFACE COATINGS)	0.09	0.10	0.11	0.14	-	-	-	-
OIL AND GAS PRODUCTION	2.85	2.55	2.44	2.20	0.06	0.06	0.06	0.06
PETROLEUM REFINING	0.05	0.05	0.05	0.05	-	-	-	-
PETROLEUM MARKETING	0.53	0.44	0.39	0.38	-	-	-	-
OTHER (PETROLEUM PRODUCTION)	-	-	-	-	-	-	-	-
CHEMICAL	0.01	0.01	0.01	0.01	-	-	-	-
FOOD AND AGRICULTURE	0.26	0.27	0.32	0.39	-	-	-	-
MINERAL PROCESSES	-	-	-	-	0.05	0.05	0.05	0.06
ELECTRONICS	-	-	-	-	-	-	-	-
OTHER (INDUSTRIAL PROCESSES)	-	-	-	-	-	-	-	-
STATIONARY SOURCE TOTAL	**6.32**	**6.09**	**6.10**	**6.32**	**2.95**	**2.85**	**2.83**	**2.92**

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

	ROC				NOx			
AREA SOURCES	**2018**	**2025**	**2035**	**2045**	**2018**	**2025**	**2035**	**2045**
CONSUMER PRODUCTS	2.88	3.03	3.37	3.70	-	-	-	-
ARCHITECTURAL COATINGS AND SOLVENTS	0.65	0.69	0.72	0.73	-	-	-	-
PESTICIDES/FERTILIZERS	4.74	5.55	5.61	5.63	-	-	-	-
ASPHALT PAVING / ROOFING	0.15	0.17	0.19	0.21	-	-	-	-
RESIDENTIAL FUEL COMBUSTION	0.20	0.20	0.20	0.20	0.37	0.29	0.26	0.25
FARMING OPERATIONS	0.59	0.45	0.34	0.28	-	-	-	-
CONSTRUCTION AND DEMOLITION	-	-	-	-	-	-	-	-
PAVED ROAD DUST	-	-	-	-	-	-	-	-
UNPAVED ROAD DUST	-	-	-	-	-	-	-	-
FUGITIVE WINDBLOWN DUST	-	-	-	-	-	-	-	-
FIRES	-	-	0.01	0.01	-	-	-	-
MANAGED BURNING AND DISPOSAL	-	0.28	0.28	0.28	-	0.06	0.06	0.06
COOKING	0.03	0.03	0.03	0.03	-	-	-	-
OTHER (MISCELLANEOUS PROCESSES)	-	-	-	-	-	-	-	-
AREA SOURCE TOTAL	**9.26**	**10.41**	**10.75**	**11.06**	**0.37**	**0.35**	**0.32**	**0.31**

ON-ROAD MOTOR VEHICLES	**2018**	**2025**	**2035**	**2045**	**2018**	**2025**	**2035**	**2045**
LIGHT-DUTY PASSENGER (LDA)	0.88	0.52	0.39	0.26	0.67	0.33	0.23	0.13
LIGHT-DUTY TRUCKS - 1 (LDT1)	0.13	0.06	0.04	0.01	0.08	0.03	0.02	0.01
LIGHT-DUTY TRUCKS - 2 (LDT2)	0.70	0.52	0.35	0.18	0.64	0.35	0.22	0.08
MEDIUM-DUTY TRUCKS (MDV)	0.53	0.36	0.26	0.15	0.60	0.27	0.16	0.06
LIGHT HEAVY-DUTY GAS TRUCKS - 1 (LHDV1)	0.22	0.13	0.08	0.02	0.24	0.13	0.08	0.02
LIGHT HEAVY-DUTY GAS TRUCKS - 2 (LHDV2)	0.02	0.01	0.01	-	0.03	0.01	0.01	-
MEDIUM HEAVY-DUTY GAS TRUCKS (MHDV)	0.03	0.01	0.01	0.01	0.06	0.02	0.02	0.01
HEAVY HEAVY-DUTY GAS TRUCKS (HHDV)	-	-	-	-	0.02	0.01	0.01	0.01
LIGHT HEAVY-DUTY DIESEL TRUCKS - 1 (LHDV1)	0.03	0.02	0.01	-	0.56	0.25	0.14	0.02
LIGHT HEAVY-DUTY DIESEL TRUCKS - 2 (LHDV2)	0.01	0.01	-	-	0.14	0.05	0.03	-
MEDIUM HEAVY-DUTY DIESEL TRUCKS (MHDV)	0.04	0.01	0.01	0.01	0.70	0.35	0.34	0.33
HEAVY HEAVY-DUTY DIESEL TRUCKS (HHDV)	0.04	0.02	0.02	0.02	1.23	0.65	0.58	0.51

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

	ROC				NOx			
ON-ROAD MOTOR VEHICLES (Continued)	**2018**	**2025**	**2035**	**2045**	**2018**	**2025**	**2035**	**2045**
MOTORCYCLES (MCY)	0.34	0.29	0.26	0.24	0.10	0.08	0.08	0.07
HEAVY-DUTY DIESEL URBAN BUSES (UB)	0.01	0.01	-	-	0.29	0.13	0.07	0.01
HEAVY-DUTY GAS URBAN BUSES (UB)	0.01	-	-	-	0.02	0.01	0.01	-
SCHOOL BUSES - GAS (SBG)	-	-	-	-	0.01	-	-	-
SCHOOL BUSES - DIESEL (SBD)	-	-	-	-	0.13	0.09	0.06	0.03
OTHER BUSES - GAS (OBG)	0.01	-	-	-	0.01	0.01	0.01	-
OTHER BUSES - MOTOR COACH - DIESEL (OBC)	-	-	-	-	0.03	0.01	0.01	0.01
ALL OTHER BUSES - DIESEL (OBD)	-	-	-	-	0.05	0.01	0.02	0.03
MOTOR HOMES (MH)	0.01	-	-	-	0.03	0.01	0.01	-
ON-ROAD MOTOR VEHICLE TOTAL	**3.02**	**1.99**	**1.45**	**0.92**	**5.64**	**2.82**	**2.09**	**1.36**

OTHER MOBILE SOURCES	**2018**	**2025**	**2035**	**2045**	**2018**	**2025**	**2035**	**2045**
AIRCRAFT	0.23	0.24	0.26	0.28	0.12	0.13	0.15	0.16
TRAINS	0.02	0.01	0.01	0.01	0.46	0.30	0.30	0.27
OCEAN GOING VESSELS	1.29	1.51	2.02	2.80	27.32	30.09	39.53	21.80
COMMERCIAL HARBOR CRAFT	0.03	0.03	0.03	0.02	0.43	0.44	0.43	0.37
RECREATIONAL BOATS	3.81	2.80	1.92	1.59	0.77	0.71	0.67	0.67
OFF-ROAD RECREATIONAL VEHICLES	0.25	0.20	0.12	0.07	0.01	0.01	0.01	0.01
OFF-ROAD EQUIPMENT	1.44	1.25	0.56	0.39	1.07	0.69	0.44	0.39
OFF-ROAD EQUIPMENT (PERP)	0.02	0.01	0.01	0.02	0.26	0.12	0.10	0.11
FARM EQUIPMENT	0.36	0.25	0.15	0.10	1.65	1.05	0.58	0.35
FUEL STORAGE AND HANDLING	0.22	0.17	0.15	0.16	-	-	-	-
OTHER MOBILE SOURCE TOTAL	**7.67**	**6.48**	**5.23**	**5.44**	**32.09**	**33.55**	**42.21**	**24.12**

TOTAL – ALL SOURCE CATEGORIES	**26.27**	**24.96**	**23.32**	**23.74**	**41.06**	**39.58**	**47.06**	**28.72**
EMISSION REDUCTION CREDITS	-	0.40	0.40	0.40	-	0.81	0.81	0.81
GRAND TOTAL FOR SANTA BARBARA COUNTY	**26.27**	**25.37**	**23.72**	**24.14**	**41.06**	**40.39**	**47.87**	**29.52**

* 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

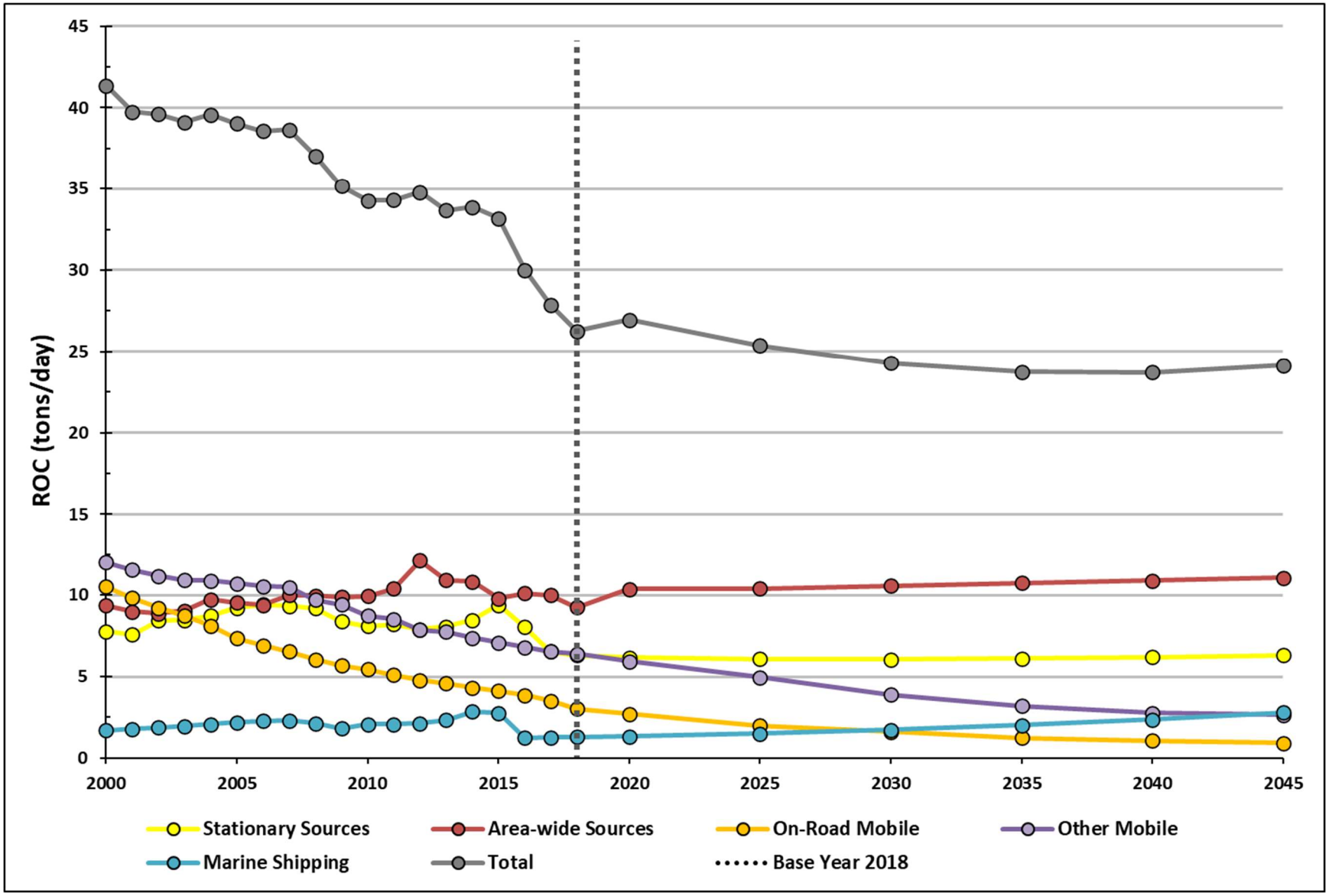
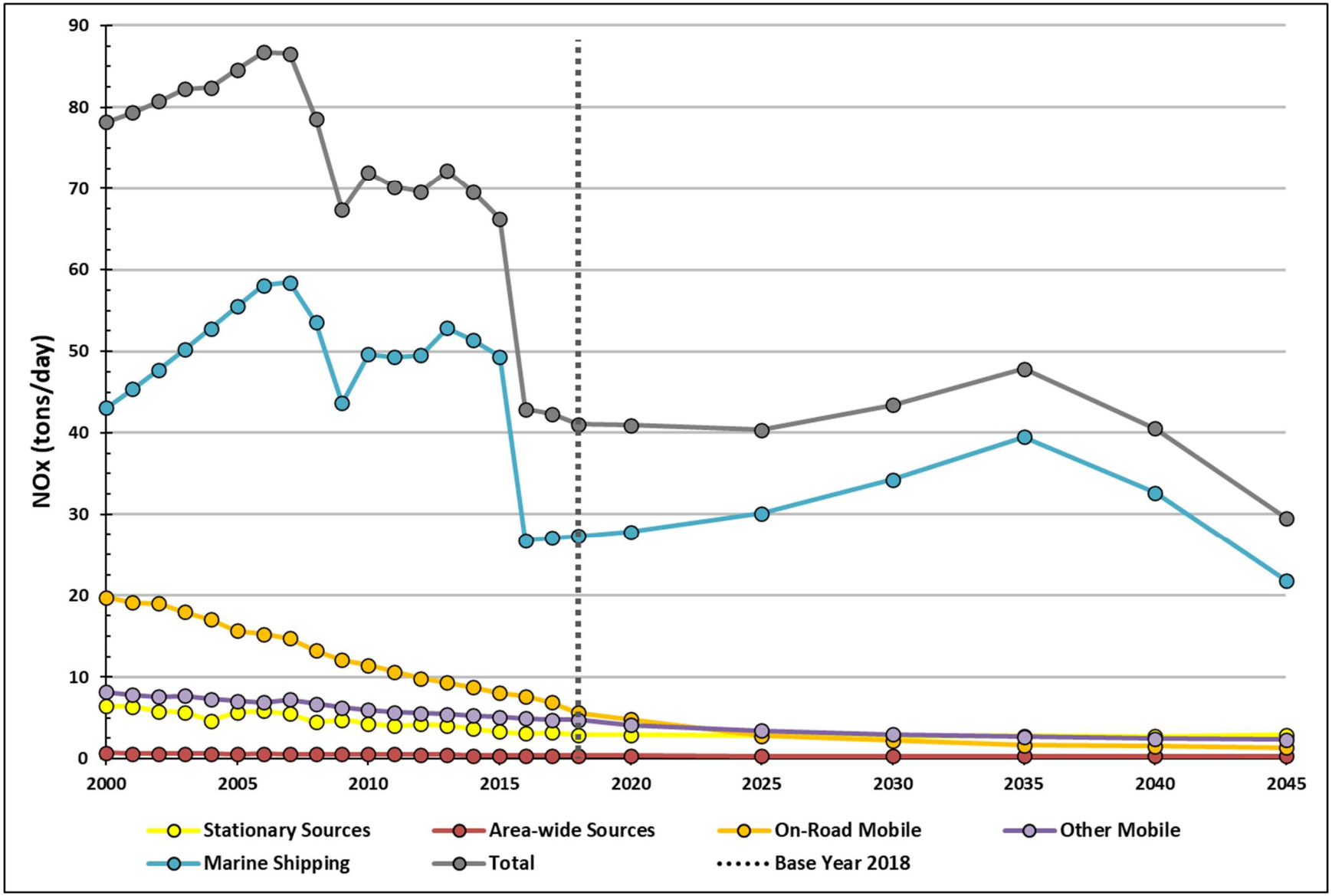


FIGURE 3-5: NOX EMISSION TRENDS BY SOURCE CATEGORY



CHAPTER 4 – STATIONARY SOURCE EMISSION CONTROL MEASURES

This chapter summarizes the emission control measures that reduce reactive organic compounds (ROC) and nitrogen oxides (NO_x) from stationary 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 public notices, workshops, 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 2022 Ozone Plan

Since the original 1991 Air Quality Attainment Plan for the state ozone standard, the District has adopted more than 30 control measures that reduced ROC and NOx emissions from stationary sources of air pollution. These control measures cover a wide-range of source categories, which includes oil & gas facilities, automotive coating operations, and internal combustion engines. The various control measures and their adoption dates can be found below in Table 4-1.

TABLE 4-1: EMISSION CONTROL MEASURES ADOPTED PRIOR TO THE 2022 OZONE PLAN

ROC Control Measures			
Rule	**Control Measure Name**	**Adoption Date**	**Main Change**
339	Motor Vehicle and Mobile Equipment Coating	Nov-1991	New Rule
331	Fugitive Emissions Inspection and Maintenance	Dec-1991	Expand Monitoring
329	Cutback and Emulsified Asphalt Paving Materials	Feb-1992	Lower ROC limits
346	Loading of Organic Liquid Cargo Carriers	Oct-1992	New Rule
349	Polyester Resin Operations	Apr-1993	New Rule
351	Surface Coating of Wood Products	Aug-1993	New Rule
343	Petroleum Storage Tank Degassing	Dec-1993	New Rule
326	Storage of Reactive Organic Compound Liquids	Dec-1993	Expand Applicability
325	Crude Oil Production and Separation	Jan-1994	Expand Applicability
354	Graphic Arts	Jun-1994	New Rule
344	Petroleum Sumps, Pits and Well Cellars	Nov-1994	New Rule
341	Municipal Solid Waste Landfills	Sep-1997	New Rule
353	Adhesives and Sealants	Aug-1999	New Rule
323	Architectural Coatings	Nov-2001	Lower ROC limits
339	Motor Vehicle and Mobile Equipment Coating	Jun-2008	Lower ROC limits
321	Solvent Cleaning Operations	Sep-2010	Lower ROC limits
330	Surface Coating of Metal Parts and Products	Jun-2012	Lower ROC limits
337	Surface Coating of Aerospace Vehicles	Jun-2012	Lower ROC limits
349	Polyester Resin Operations	Jun-2012	Lower ROC limits
353	Adhesives and Sealants	Jun-2012	Lower ROC limits
323.1	Architectural Coatings	Jun-2014	Lower ROC limits
NOx Control Measures			
Rule	**Control Measure Name**	**Adoption Date**	**Main Change**
333	Reciprocating Internal Combustion Engines	Dec-1991	New Rule
342	Boilers, Steam Generators, Heaters (5+ MMBtu/hr)	Mar-1992	New Rule
359	Flares and Thermal Oxidizers	Jun-1994	New Rule
352	Natural Gas-Fired Furnaces and Small Water Heaters	Sep-1999	New Rule
360	Boilers and Water Heaters (0.075 - 2 MMBtu/hr)	Oct-2002	New Rule
361	Boilers, Steam Generators, Heaters (2 - 5 MMBtu/hr)	Jan-2008	New Rule
333	Reciprocating Internal Combustion Engines	Jun-2008	Expand Applicability
352	Natural Gas-Fired Furnaces and Small Water Heaters	Oct-2011	Lower NOx limits
360	Boilers and Water Heaters (0.075 - 2 MMBtu/hr)	Mar-2018	Lower NOx limits
342	Boilers, Steam Generators, Heaters (5+ MMBtu/hr)	Jun-2019	Lower NOx limits
361	Boilers, Steam Generators, Heaters (2 - 5 MMBtu/hr)	Jun-2019	Lower NOx limits

Proposed Control Measures

Under the California Clean Air Act, each air district that is nonattainment for the state ozone standard must demonstrate a five percent reduction in emissions per year or adopt every feasible measure available to that district.[12] Since previous Ozone Plans have shown that the District cannot achieve a five percent per year emission reduction, the District has historically taken the approach of evaluating and adopting every feasible measure. 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 air district, CARB, and EPA rules; and
- Considered the magnitude of the emissions reductions as well as the cost-effectiveness of the measures.

In reviewing the literature, no new feasible control measures were identified for adoption within the upcoming 3-year period covered by this Plan. The District has already adopted over 30 measures to regulate the various stationary source categories in the County. We've followed an expeditious schedule, and by doing so, there are very few source categories remaining that are feasible to regulate. Furthermore, the County is expected to be redesignated as nonattainment-transitional based on the 2021 and 2022 monitoring data. A nonattainment-transitional designation means that the County is, once again, close to attaining the ozone standard. Staff's assessment is that no additional stationary source control measures are necessary in order to attain and maintain the ozone standards.

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 the contingency measures need to be refined enough such that they could be adopted under the timeline required by California Health and Safety Code. Two of the solvent-related measures from the 2019 Plan have been retained as contingency measures since the impacts of the solvent measures are well understood. However, the graphics arts measure has been moved to Further Study because additional research and industry outreach would be needed prior to adopting such a rule, which is expected to take more than 180 days. The contingency measures for the 2022 Plan are shown in Table 4-2 below, and a brief description of each affected source category is included to provide context about the measure.

[12] California Health and Safety Code, Section 40914(b).

TABLE 4-2: CONTINGENCY MEASURES FOR THE 2022 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, and one of the more recent amendments to the rule occurred in 2010. The 2010 amendments focused on transitioning 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 ever 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.[13]

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 the 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 the 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 for the last decade.

[13] 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 investigate further before making a commitment to adopt them. The further study measures are shown below in Table 4-3, and a brief description of each affected source category is included to provide context about the measure.

TABLE 4-3: FURTHER STUDY MEASURES FOR THE 2022 PLAN

Rule	Description	Potential Emission Reductions
354	**Graphic Arts** Revisions to include solvent cleaning provisions at 25 – 100 g/L and additional requirements for Rotogravure, Flexographic, Lithographic, Letterpress, and Screen Printing operations. Consider permitting existing facilities to enforce the rule.	49 tpy ROC
—	**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

Graphic Arts

The District adopted Rule 354 in June 1994 to address ROC emissions from graphic art operations. ROC emissions from graphic arts occur due to the evaporation of solvents in inks, dampening solutions, and cleaning solutions. Beginning in the 2004 Clean Air Plan, the District identified a potential revision to Rule 354 to include additional low-ROC requirements for this source category. This updated graphic arts control measure was kept as a proposed measure until 2017, at which point, the District shifted it to contingency due to the nonattainment-transitional designation for ozone and the prioritized focus on NOx control measures. For this 2022 Plan, staff proposes to shift the graphic arts control measure to Further Study. As discussed in the Contingency Measure section above, additional research and industry outreach would be needed prior to amending the rule.

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 currently being evaluated on a statewide level due to the implications of Senate Bill (SB) 1383, enacted in 2016. SB 1383 mandates that CalRecycle develops a regulation that reduces the disposal of organic materials in landfills by 75 percent by 2025.[14] 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.[15]

For this Further Study measure, District staff is investigating whether a 20 ppm NOx certification level for new furnaces is warranted. Both the South Coast AQMD and the San Joaquin Valley APCD have already adopted the 20 ppm NOx standard in recent years, and the Bay Area AQMD is currently in the rule development process for a similar measure. Residential furnaces contribute approximately 95 tons per year of NOx to Santa Barbara County's 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 be passed to the consumer, resulting in an increase of approximately $108 - $240 per furnace. Staff's initial assessment shows that this measure has a cost-effectiveness range of $20,000 - $30,000 per ton of NOx reduced.

This ultra-low NOx furnace measure could be considered feasible to adopt in Santa Barbara County within the next 3-year period. However, Staff proposes to keep this measure as Further Study due to recent efforts by the California Air Resources Board as they explore the feasibility of a zero-emission standard for this equipment sector. Under their 2022 Statewide SIP strategy,

[14] Compared to a 2014 baseline year.
[15] NOx ppm values referenced to 3 percent stack gas oxygen.

CARB is proposing a new zero-emission standard for furnaces and water heaters sold in California. 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 natural gas units would be phased out. The Bay Area AQMD and South Coast AQMD are also exploring similar zero-emission measures that may be implemented on a quicker timeline compared to the statewide measure. District staff will continue to track new information on these proceedings and assess whether a zero-emission standard is feasible within Santa Barbara County.

Assembly Bill 617 – BARCT Assessments

Even though no new stationary source measures are being proposed for the 2022 Plan, the District is still required to evaluate and adopt feasible, cost-effective rules in accordance with the Assembly Bill 617 (AB 617) Best Available Retrofit Control Technology (BARCT) Rule Development Schedule that was adopted by the District Board in 2018.[16] Under the AB 617 mandate, three BARCT assessments are anticipated to be performed in 2023, and these assessments would only apply to the AB 617 industrial sources.[17] The District expects to achieve additional NOx reductions from implementing BARCT at these sources, and the reductions will help the District reach attainment. A listing of the remaining assessments on the BARCT Rule Development Schedule is shown below in Table 4-4.

TABLE 4-4: REMAINING ASSESSMENTS ON THE AB 617 BARCT RULE DEVELOPMENT SCHEDULE

Rule	Description	Scheduled Adoption	Potential Emission Reductions
333	**Reciprocating Internal Combustion Engines** Require applicable units to meet the BARCT NOx standards. Remove the rule exemption for units that have been derated to less than 50 horsepower.	2023	76 tpy NOx
358	**Stationary Gas Turbines** Require applicable units to meet the BARCT NOx standards.	2023	45 tpy NOx [18]
362	**Miscellaneous Combustion Sources** Require applicable units (e.g. dryers, dehydrators, ovens, furnaces, and kilns) to meet the BARCT NOx standards.	2023	1 tpy NOx

[16] The AB 617 Rule Development Schedule can be found here: www.ourair.org/community-air/
[17] "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.
[18] In Base Year 2018, emission reductions from this measure would be 0. However, the measure may result in a 45 tpy NOx reduction using the affected facility's operational baseline.

As part of the “all feasible measure” analysis for the Ozone Plan, District staff also evaluated the feasibility of applying the three BARCT assessments to all facilities within the County. It was determined that such rule proceedings would only achieve 1-2 tons of NOx emission reductions per year. Hence, expanding the BARCT assessments to all non-AB 617 facilities within the County was not considered feasible at this time based on the magnitude of the emission reductions.

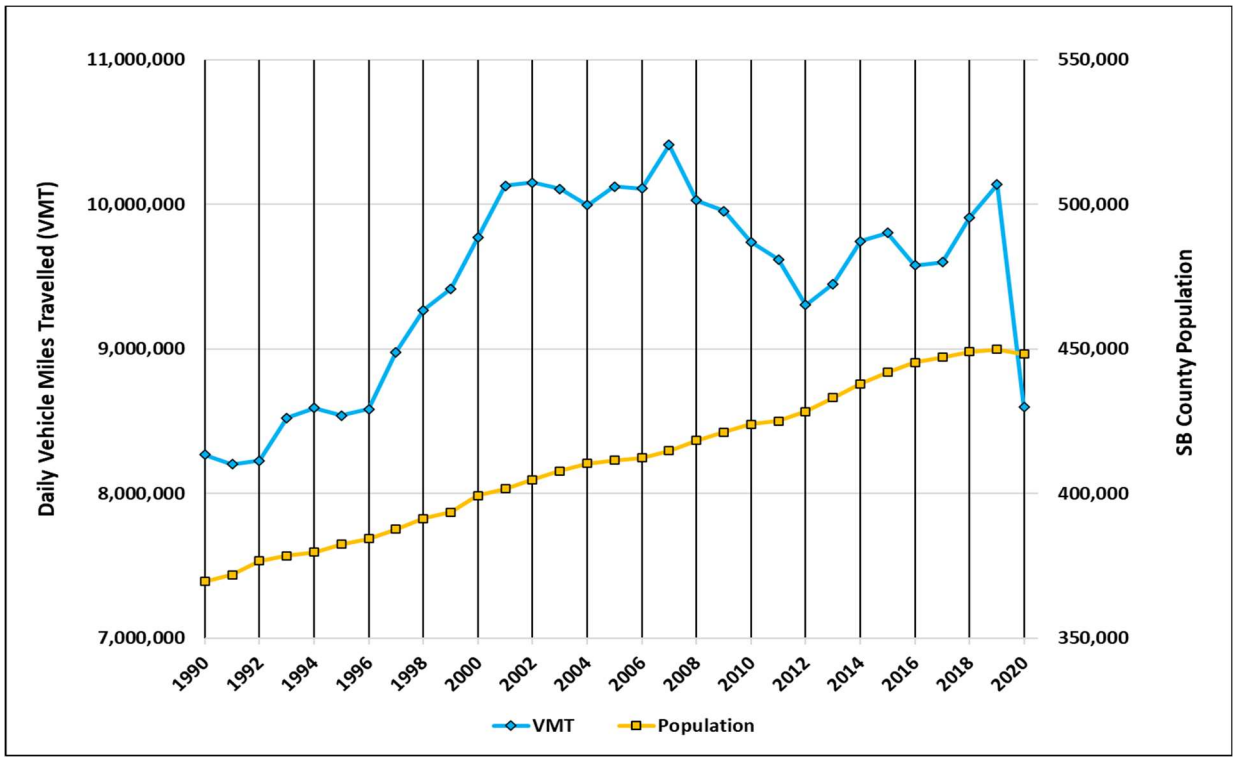
CHAPTER 5 – ON-ROAD TRANSPORTATION CONTROL MEASURES

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 effectively placed the responsibility for developing the transportation elements of the air quality plans with SBCAG. This MOU allows SBCAG to assist the District in a cooperative effort toward meeting the District's responsibilities for developing the transportation elements of its state and federal air quality plans. Under the MOU, SBCAG is responsible for the development and analysis of the 2022 Plan's on-road mobile source emission estimates and transportation control measures (TCMs). This chapter includes a discussion of vehicle activity trends and a summary of the transportation control measures.

Vehicle Activity Trends

On-road mobile source 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 vehicle miles travelled (VMT) within the District. The total amount of daily VMT between 1990 and 2020 is shown in Figure 5-1, and the data was compared against the population within the County.

FIGURE 5-1: POPULATION AND DAILY VMT TRENDS - SANTA BARBARA COUNTY, 1990-2020 [19]



[19] VMT data is the Caltrans Public Road data derived from the Highway Performance Monitoring System.

Although the relative amounts have varied over the period, the daily VMT growth for the entire period from 1990 to 2020 is less than the population growth (i.e., 21% growth in population, 4% growth in VMT). Table 5-1 shows a breakdown of the average annual growth rates for population and VMT over the last three decades (1990-2020). This table allows us to identify any changes in driving behavior over the various time periods, as State law requires areas designated as nonattainment for the state ozone standard to substantially reduce the rate of increase in passenger vehicle trips and VMT.[20]

TABLE 5-1: POPULATION AND VMT ANNUAL GROWTH RATES

Time Period	Population Average Annual Growth Rate	VMT Average Annual Growth Rate	Ratio (Population : VMT)
1990 - 2000	0.80%	1.82%	1 : 2.26
2000 - 2010	0.61%	- 0.03%	1 : (- 0.05)
2010 - 2019	0.68%	0.45%	1 : 0.67
2019 - 2020	- 0.35%	- 15.20%	(- 1) : (- 43.66)

As shown in the table, VMT growth significantly outpaced population growth during the 1990s. However, over the last two decades, the trend has reversed and VMT growth has been slowed down and held to near-zero levels. Many factors can influence the region's VMT, such as the unemployment rate, cost of housing, and the price of fuel.

COVID-19 Effects on Regional Travel

Countywide VMT decreased by approximately 15% in 2020 due to the effects of the COVID-19 pandemic.

The COVID-19 global pandemic and subsequent emergency shut-downs beginning in March 2020 had a tremendous influence on regional travel patterns throughout 2020 and 2021. Among many other effects, COVID-19 forced an analysis of how people work and their relationships with what has traditionally been defined as their workplaces. As shown in Figure 5-1, countywide VMT decreased significantly in 2020, by approximately 15%, to levels not seen for nearly 25 years. Transit ridership decreased by nearly 55% as riders were hesitant to board buses for public health concerns, and rail ridership also was similarly affected. The lasting effects of the COVID-19 global pandemic will require careful analysis and monitoring for many years going forward, as more businesses may encourage the continued use of telecommuting, thereby reducing countywide VMT.

[20] California Health and Safety Code, Section 40918(a)(3). VMT is considered a surrogate for vehicle trips for state performance standard monitoring.

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. (CA HSC §40717.g.)*

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

> *…listed in CAA section 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 first sentence of this definition, 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 motor vehicles to operate more efficiently; inducing people to change their travel behavior to less polluting modes; or ensuring emission control technology improvements in the motor vehicle fleet are fully and expeditiously realized. SBCAG and the District have used the guidance provided by the U.S. Department of Transportation under Section 108(f)(1)(a) of the federal Clean Air Act when determining the criteria pollutant emission reduction potential and the feasibility of TCMs. Examples of potential TCMs listed in the Clean Air Act 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.

While most on-road mobile source emission reductions are attributable to motor vehicle emission controls established by federal and state laws and the natural attrition of older, more polluting vehicles (i.e., fleet turnover), TCMs are an integral part of air quality plans and help meet multiple objectives (e.g., multimodal access, fuel efficiency, etc.). TCMs also address the

need for the traveling public to carefully consider:

1) The implications of continued reliance on the single-occupant vehicle as the major choice of commute trips;
2) The need to provide and promote alternatives to single-occupant vehicle travel; and,
3) Limiting those factors that promote single-occupant vehicle travel.

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.[21] 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 the Environment 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.[22] The goals and objectives outlined in the RTP-SCS are consistent with the implementation of TCMs as outlined in the federal and state Clean Air Acts. Additional information on how the RTP-SCS dovetails with the transportation control measures in this 2022 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. Table 5-2 also summarizes the implementation characteristics of the adopted TCMs, as they form the basis for the 2022 Plan on-road mobile source control strategy.

[21] Santa Barbara County Connected 2050 Regional Transportation Plan and Sustainable Community Strategy, Chapter 3, SBCAG, August 2021.
[22] 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 2019-2022 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 $1,000 to voluntarily retire 1997 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
		Central Coast Clean Cities Coalition	U.S. Department of Energy Clean Cities Coalition Network 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.[23]

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.[24] 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-

[23] California Government Code, Section 65080(b)(2)(K).
[24] 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 Drive 805 coalition (formerly Plug-in Central Coast) 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 Drive 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, 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,[25] 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 US 101 serves as an inter-regional connection between Southern and Northern California. Locating direct current (DC) fast chargers every 30 to 40 miles along the US 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 percent 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.[26] The plan was a joint effort among the Electric Drive 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

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

[26] 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 Drive 805 coalition partners completed several tasks identified in the Central Coast Go-Zero: Zero Emission Vehicle Readiness Implementation Plan.[27] 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 Program[28], 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 218 Level 2 charging stations and 31 DC fast chargers in Santa Barbara County. As of March 31, 2022, there are a total of 328 Level 2 charging stations and 64 DC fast chargers that are available for public use in Santa Barbara County.[29] 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.[30]

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 part of the U.S. Department of Energy's Clean Cities Program and the coalition's objectives include

[27] Central Coast Go Zero: Zero Emission Readiness Implementation Plan, San Luis Obispo County Air Pollution Control District, October 2019.
[28] www.ourair.org/ev-charging-program/
[29] California Energy Commission (2022). Electric Vehicle Chargers in California. Data last updated March 31, 2022. Retrieved July 14, 2022 from www.energy.ca.gov/zevstats
[30] https://sbmtd.gov/electricfuture/

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 (formerly known as the Alternative and Renewable Fuel and Vehicle Technology 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 $50 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 few years, there has been increased financial support from the California State Legislature to allocate funds for voluntary emission reduction programs. A brief description of seven 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, or landscape equipment.

The District is currently processing Year 24 of the Carl Moyer Program and to date has received approximately $14.9 million to implement Carl Moyer eligible grant projects.

2. Community Air Protection (AB 617) Program Funds

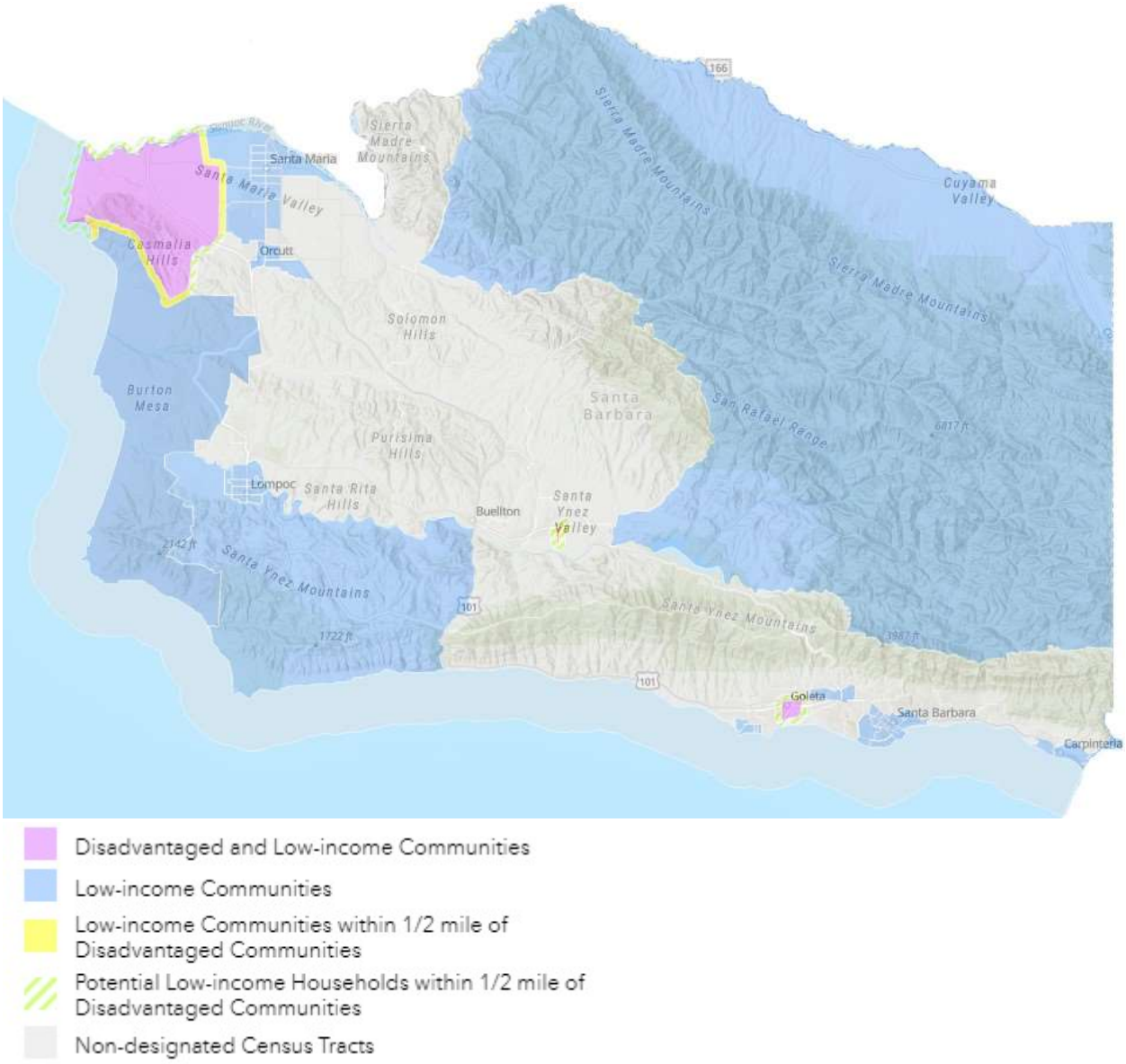
Assembly Bill 617 was signed into law in September 2017. In response to this legislation, CARB created the Community Air Protection Program. The program's focus is to reduce exposure in communities most impacted by air pollution. CARB staff has been working with local air districts, community groups, 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 and guidance provided by CARB and the California Environmental Protection Agency, such as CalEnviroScreen version 4.0 and other tools and maps, District staff reviewed data for disadvantaged communities in Santa Barbara County and identified numerous census tracts classified as low-income. The map of those communities within Santa Barbara County is shown below in Figure 6-1.[31]

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 currently processing Year 5 of the Community Air Protection program and to date has received approximately $4.3 million to implement eligible grant projects.

[31] The full map of all California communities (California Climate Investments Priority Populations 2022 CES 4.0) can be found at https://webmaps.arb.ca.gov/PriorityPopulations/

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



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

In 2017, Assembly Bill (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 is currently processing Year 4 of the FARMER program and to date has received approximately $2.9 million to implement FARMER eligible grant projects.

4. $2 DMV Surcharge Funds

In 2004, Assembly Bill 923 authorized air districts to collect a $2 surcharge on vehicle registrations. $2 DMV funds can be used for many types of projects that include, but 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 17 of the $2 DMV Surcharge program and has received approximately $12.3 million to implement $2 DMV eligible grant projects.

5. The Clean Air Fund

The Clean Air Fund was established by the District Board in 2019. Revenue from the District's Mutual Settlement program may be allocated to projects undertaken by the District and/or third parties that provide air quality and human health benefits to the Santa Barbara County community in innovative ways unlike traditional grant fund programs. Clean Air Fund projects are consistent with the District's mission, and potential projects may include the following voluntary incentive programs that reduce emissions:

- Electric landscape equipment replacement programs;
- Air quality research projects or studies;
- Purchase of air monitoring equipment or tools;
- Community outreach projects or programs;
- Regional electric vehicle charging infrastructure programs.

In order to implement the Clean Air Fund, District staff evaluate potential projects or programs and prepare specific proposals for Board approval. Each proposal will include 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. Air Quality Mitigation Fees

Local mitigation funds that are collected from permitted sources, or land use projects, that were required to mitigate their excess emissions.

7. CARB Woodsmoke Reduction Program Funds

Funds allocated through the state's Greenhouse Gas Reduction Fund for 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. The District currently operates the following six 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 the state of California and in the county. CARB continues to pass regulations to reduce emissions from this sector, including supporting a transition to a completely zero emission heavy-duty vehicle fleet in California by 2045 through the Advanced Clean Fleets and Advanced Clean Trucks regulations. 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 or near-zero emission counterpart. Vehicles must be heavy-duty (greater than 14,000 GVWR), diesel-fueled, compliant with all CARB regulations, and meet engine model year requirements to be eligible.

Since the program's start, the District has repowered or replaced 20 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 an electric urban transit bus for a local transit agency. Altogether, the program has reduced 153comp tons of pollutants (PM and NOx). The District expects this program to gain in popularity in the near future as heavy-duty electric truck technology continues to improve and more models become available on the market.

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 publicly available electric vehicle (EV) charging infrastructure. Since its inception in 2011, the District's EV charging infrastructure program has provided funding for 249 EV charging stations 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 four 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 ultimate 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 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 has the ability to fund hydrogen and compressed natural gas fueling stations. However, EV charging stations are the only infrastructure project category that the District has funded to date. There is no cost-effectiveness threshold for infrastructure projects.

3. School Bus Replacement Grant Program

Since 2001, the District has invested $3.9 million of grant funds into local school district transportation bus fleets. This has included the replacement of 39 older, high-polluting diesel-powered school buses with new low or zero-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, and the replacement of 17 CNG fueling hoses at a school district.

The deployment of electric school buses throughout California is an emerging technology as mainstream school bus manufacturers have entered the market. Air district staff will continue to work with bus vendors and school districts on the advancement, practicality, and cost-effectiveness of funding electric-powered school bus projects in our county.

4. Off-Road Equipment Replacement Grant Program

Since the inception of the Carl Moyer Memorial Air Quality Standards Attainment Program (Moyer) in 1998, the Air District has invested more than $10 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 portable and stationary, off-road compression-ignition (CI or diesel), and large spark-ignition (LSI) projects such as construction, agriculture, and industrial equipment. Priority for grant funds in this category is given to projects with zero-emission and near-zero emission technology as well as projects located within low-income or

disadvantaged communities, as defined by AB 1550 and SB 535. The map of low-income and disadvantaged communities shown in Figure 6-1 can be found here: https://webmaps.arb.ca.gov/PriorityPopulations/.

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 140 funded projects with emission reductions totaling more than 820 tons (ROG, NOX, and PM). Assisting in the replacement of old dirty equipment has not only helped improve air quality, but it has incentivized local businesses to upgrade their fleets with new cleaner technology. The District expects this program to remain popular for the foreseeable future as new cleaner technology becomes more feasible to our constituents.

5. Agricultural Engine Repower Grant Program

This program has been funding repower projects for Agriculture pumps 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 new electric pumps.

The District has helped fund over 85 projects with emission reductions totaling more than 530 tons (ROG, NOx, and PM). This is a unique project type for the District as we are able to 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 95 projects with emission reductions totaling more than 260 tons (ROG, NOx, and PM). There have been recent updates to the Commercial Harbor Craft Regulation which include upcoming compliance deadlines for all commercial marine vessels.

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. The marine community is aware of these upcoming deadlines and are 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.

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 fireplace 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 program 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. Under the program's current parameters, vehicle owners receive $1,000 to voluntarily retire their fully legal and operational 1997 or older, light or medium-duty car, truck, van, or SUV.

Participants with eligible vehicles work directly with licensed auto dismantlers who permanently destroy (i.e., crush) the old cars and trucks. The three dismantlers in Santa Barbara County that implement this program on the District's behalf are Steelhead Recyclers in Goleta, Central Valley Auto in Lompoc, and Bedlo in Lompoc. Black Road Auto and Tow in Santa Maria, who previously participated in the program, recently closed and the District is anticipating the new owners to join the program. 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 29 years, the District has used $8.6 million of 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 8,015 vehicles and reduced an estimated 960 tons of NOx, ROC, and PM emissions throughout the County. The cost-effectiveness varies by vehicle, but is typically less than $17,000 per ton.

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. CARB is currently working on amending the Small Offroad Engine (SORE) Regulation to transition this sector to zero emission with manufacturers required to sell primarily electric-only landscape equipment by 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 operated the LEEF Program for two years with $200,000 total of internal funding to help purchase 729 pieces of electric landscape equipment. Twenty pieces of gasoline equipment were also destroyed as part of a voluntary destruction incentive in LEEF Year 2.

At the end of FY 2021-22 the District was awarded $850,000 in funds from the Carl Moyer State Reserve Program to operate an incentive program for the purchase of commercial electric landscape equipment in accordance with the Carl Moyer Program Guidelines. This program will be similar to the LEEF Programs the District has run in the past, except notably, the destruction of a like-for-like piece of gasoline equipment is required for each piece of new electric equipment. The funds must be expended by the end of 2026.

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 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 device. The program is designed to maximize benefits to low-income households and communities by providing a higher incentive amount for these change-out projects. Since the inception of the program in 2017, the District has completed 133 change-outs, with 85 change-outs located in low-income households or communities. Overall, the program has operated with a cost-effectiveness of approximately $3,787 per ton of $PM_{2.5}$ reduced.

Proposed changes to the upcoming Woodsmoke Reduction Program include a focus on outreach to tribal communities and the ineligibility of natural gas-fueled heaters as replacements. Instead, the replacement heating device must be powered by electricity, such as a heat pump or electric fireplace insert. Wood and pellet-burning heating devices that meet the most rigorous emission standards will also be eligible replacement devices.

4. 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 this sector is still expected to grow. Achieving additional NOx reductions from shipping is key to ensuring continued progress towards attaining and maintaining the state ozone standards.

One strategy to significantly reduce NOx emissions and other criteria pollutants is to reduce vessel speeds, which increases the operational efficiency of the vessel by reducing fuel usage. Vessel Speed Reduction (VSR) can be implemented by most ship types, does not require any capital investments for control equipment, and reduces the noise impacts and risk of lethal ship strikes on endangered whales off the coast. The Santa Barbara Channel is a seasonal feeding ground and migration path for several whale species, including blues, fins, and humpbacks, which travel in and around the shipping lanes.

In recent years, the District and partners have implemented the Protecting Blue Whales and Blue Skies voluntary VSR incentive program for immediate air quality and whale protection benefits. The program began as a VSR Trial in 2014, and due to its success, the program continues to grow larger with every iteration. The current 2022 program began on May 1 and will last until December 15, as these dates typically coincide with ozone season and the seasonal presence of whales off the coast of California. The program requests that companies with container ships, auto carriers, 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. 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 currently 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 monetary incentives and recognition to those companies with a higher fleet participation rate. Recognition efforts can take various forms throughout the entire year. This includes promoting the achievements of the shipping companies through outreach campaigns, press coverage, social media, and web advertisements in prominent shipping, business, and logistics media outlets.

The Blue Whales and Blue Skies program is a collaborative effort involving the Santa Barbara, Ventura, and Bay Area air districts, as well as federal, state, and nonprofit organizations. The District will continue to work with the partners to assess the effectiveness of different incentive strategies and support the analysis of emission impacts associated with the VSR Program.

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 active 2022 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. Even though Santa Barbara County briefly attained the state ozone standards, 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. The combined efforts will help promote cleaner, healthy air for the residents and visitors of Santa Barbara County.

Stationary Sources

As discussed in Chapter 4 of this Plan and shown on Table 4-1, the District has already adopted more than 30 control measures to reduce ROC and NOx emissions. These control measures cover a wide range of source categories, which includes oil & gas facilities, automotive coating operations, and internal combustion engines. All of the District's existing rules and regulations will remain in effect at the current level of compliance approved by the Board.

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 and to minimize 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.

In the last several years, Assembly Bill 197 (adopted in September 2016) and Assembly Bill 617 (adopted in July 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 NOx and ROC emissions produced locally over the last few decades, the forecasted NOx inventory predicts near-term increases in offshore emissions due to the anticipated growth in the marine shipping sector. These growth 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 commercial, industrial, and residential 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-

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

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 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 and events aimed at using automobiles more efficiently or reducing their use, including Santa Barbara County's Sustainability Committee, the Central Coast Clean Cities Coalition, the Green Business Program of Santa Barbara County, Santa Barbara Car Free, and Open Streets events.

CARB Mobile Source Strategy

The 2020 Mobile Source Strategy (2020 MSS) was adopted by the Board of Directors for CARB in October 2021. The document 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. The 2020 MSS 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. Two of the recently adopted statewide regulations and one new control measure are discussed in more detail below.

Small off-road engines (SORE) are spark-ignition engines rated at less than 25 horsepower that are used to power a variety of equipment including lawn mowers, leaf blowers, chainsaws, and

air compressors. In December 2021, CARB adopted amendments to the SORE regulation to require newly purchased units to meet a zero-emission standard beginning in 2024. Existing gasoline-fired units may still be operated, but they will need to be replaced with electrical alternatives at the end of their useful life. The level of performance of electrical-corded and battery-powered equipment have greatly increased in recent years while the associated costs have been declining, making it technologically feasible to have a zero-emission standard for lawn and garden equipment. The amendments are expected to result in a 43 percent reduction of NOx and a 51 percent reduction of ROG from the source category while also improving the overall health of local communities.

Commercial Harbor Craft, which includes vessels such as ferries, barges, tugboats, and fishing vessels, are a vital part of California's economy. They are essential for moving cargo and providing services at various seaports, harbors, and marinas throughout California. However, coastal areas throughout the State continue to be impacted by their emissions. To help control the emissions from commercial harbor craft, CARB adopted amendments to the Commercial Harbor Craft Regulation in March 2022. The new amendments will require zero-emission options where feasible, and cleaner combustion Tier 3 and 4 engines on all other vessels by 2032. These amendments are expected to result in a 54 percent reduction in NOx and an 89 percent reduction of diesel particulate matter from the source category, which will help reduce the cancer risk to the 22 million residents who live near the California coast.

Although Ocean-Going Vessels (OGV), such as containerships and auto carriers, are primarily regulated by the U.S. EPA and IMO, CARB added a discussion on potential statewide OGV control measures to their 2020 Mobile Source Strategy. CARB is evaluating the concept of incentive or regulatory measures that achieve slower vessel speeds within Regulated California Waters (24 nautical miles from shore). Such a measure is not anticipated until year 2025 or beyond, but the program could be similar to or work in conjunction with the voluntary VSR incentive program that is currently implemented in the Southern California and San Francisco Bay regions. The District continues to advocate for such a program as it would provide the necessary support and funding needed to achieve additional NOx reductions.

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 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 – 1-HOUR AND 8-HOUR EXPECTED PEAK DAY CONCENTRATIONS

This appendix presents the numerical values of the 1-hour and 8-hour expected peak day concentrations for the six monitoring sites in the County that typically record the highest ozone concentrations. This data is used to create Figures 2-2 and 2-3.

TABLE A-1: STATE 1-HOUR OZONE EPDCS – TOP 6 MONITORING SITES

Year	Las Flores Canyon	Paradise Road	Carpinteria	Santa Ynez	Lompoc HS&P	Goleta	State 1-hr Standard
1990	0.139	0.125	0.122	0.106	0.105	0.111	**0.09**
1991	0.136	0.126	0.124	0.105	0.102	0.110	**0.09**
1992	0.129	0.118	0.118	0.099	0.092	0.110	**0.09**
1993	0.121	0.113	0.118	0.100	0.096	0.114	**0.09**
1994	0.121	0.107	0.119	0.100	0.094	0.109	**0.09**
1995	0.122	0.107	0.114	0.097	0.096	0.100	**0.09**
1996	0.131	0.110	0.117	0.102	0.092	0.102	**0.09**
1997	0.124	0.109	0.113	0.100	0.093	0.099	**0.09**
1998	0.116	0.110	0.110	0.098	0.091	0.095	**0.09**
1999	0.103	0.103	0.098	0.087	0.085	0.087	**0.09**
2000	0.100	0.102	0.093	0.088	0.084	0.083	**0.09**
2001	0.097	0.100	0.091	0.088	0.084	0.082	**0.09**
2002	0.095	0.103	0.090	0.088	0.081	0.080	**0.09**
2003	0.092	0.105	0.089	0.089	0.086	0.078	**0.09**
2004	0.095	0.102	0.089	0.092	0.086	0.080	**0.09**
2005	0.094	0.098	0.090	0.091	0.086	0.081	**0.09**
2006	0.092	0.090	0.082	0.084	0.078	0.078	**0.09**
2007	0.090	0.094	0.081	0.081	0.074	0.075	**0.09**
2008	0.090	0.091	0.090	0.081	0.076	0.076	**0.09**
2009	0.093	0.088	0.094	0.081	0.077	0.075	**0.09**
2010	0.088	0.086	0.096	0.082	0.078	0.075	**0.09**
2011	0.087	0.086	0.092	0.078	0.076	0.072	**0.09**
2012	0.082	0.082	0.085	0.075	0.074	0.069	**0.09**
2013	0.079	0.078	0.082	0.072	0.074	0.069	**0.09**
2014	0.083	0.075	0.085	0.073	0.073	0.075	**0.09**
2015	0.082	0.076	0.084	0.075	0.073	0.077	**0.09**
2016	0.082	0.076	0.083	0.075	0.070	0.078	**0.09**
2017	0.080	0.075	0.071	0.072	0.071	0.076	**0.09**
2018	0.079	0.075	0.072	0.071	0.070	0.072	**0.09**
2019	0.080	0.072	0.077	0.071	0.070	0.072	**0.09**
2020	0.079	0.079	0.081	0.073	0.071	0.069	**0.09**

Values greater than the state 1-hour ozone standard are highlighted in yellow.

TABLE A-2: STATE 8-HOUR OZONE EPDCS – TOP 6 MONITORING SITES

Year	Las Flores Canyon	Paradise Road	Carpinteria	Santa Ynez	Lompoc HS&P	Goleta	State 8-hr Standard
1990	0.111	0.110	0.100	0.092	0.094	0.093	**0.070**
1991	0.111	0.111	0.098	0.091	0.088	0.091	**0.070**
1992	0.108	0.106	0.094	0.086	0.081	0.093	**0.070**
1993	0.102	0.104	0.097	0.086	0.086	0.094	**0.070**
1994	0.104	0.098	0.096	0.089	0.086	0.092	**0.070**
1995	0.107	0.098	0.094	0.087	0.087	0.087	**0.070**
1996	0.112	0.101	0.095	0.092	0.084	0.088	**0.070**
1997	0.110	0.099	0.093	0.089	0.083	0.086	**0.070**
1998	0.101	0.100	0.089	0.088	0.082	0.082	**0.070**
1999	0.092	0.091	0.080	0.075	0.078	0.073	**0.070**
2000	0.091	0.091	0.079	0.077	0.077	0.070	**0.070**
2001	0.087	0.090	0.078	0.078	0.078	0.071	**0.070**
2002	0.084	0.092	0.076	0.080	0.075	0.069	**0.070**
2003	0.081	0.095	0.074	0.081	0.079	0.068	**0.070**
2004	0.085	0.093	0.077	0.083	0.080	0.071	**0.070**
2005	0.085	0.090	0.079	0.081	0.079	0.072	**0.070**
2006	0.083	0.084	0.072	0.074	0.072	0.070	**0.070**
2007	0.080	0.084	0.070	0.070	0.069	0.066	**0.070**
2008	0.080	0.084	0.078	0.073	0.071	0.066	**0.070**
2009	0.084	0.081	0.082	0.074	0.072	0.065	**0.070**
2010	0.082	0.079	0.083	0.075	0.072	0.065	**0.070**
2011	0.080	0.079	0.080	0.072	0.071	0.065	**0.070**
2012	0.074	0.077	0.074	0.069	0.070	0.061	**0.070**
2013	0.071	0.073	0.074	0.065	0.069	0.064	**0.070**
2014	0.074	0.073	0.076	0.067	0.070	0.070	**0.070**
2015	0.076	0.073	0.076	0.070	0.070	0.070	**0.070**
2016	0.076	0.072	0.074	0.070	0.068	0.071	**0.070**
2017	0.075	0.069	0.062	0.068	0.068	0.068	**0.070**
2018	0.072	0.068	0.063	0.066	0.068	0.065	**0.070**
2019	0.072	0.068	0.068	0.066	0.067	0.064	**0.070**
2020	0.074	0.073	0.072	0.066	0.066	0.062	**0.070**

Values greater than the state 8-hour ozone standard are highlighted in yellow.

APPENDIX B – 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 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 ROC that are emitted from plants and trees. NOx emissions are also emitted from the natural soils. The California Air Resources Board estimates biogenic ROC emissions using the MEGAN model (Model of Emissions of Gases and Aerosols from Nature) and biogenic NOx 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 the FOFEM model (First Order Fire Effects Model). This model uses Geographic Information Systems (GIS) data on the fire perimeters, vegetation composition, fuel density (tons/acre), and fuel moisture to estimate the emissions. Wildfires do not include prescribed burns, as prescribed burns are planned events to ignite the fire for resource or safety benefits and defined as an area source.

In order to provide additional perspective on the magnitude of emissions from natural sources, Table B-1 provides the local and statewide emission estimates for natural sources, and Figure B-1 provides the estimates on the statewide wildfire acreage burned over the last two decades.

TABLE B-1: 2018 NATURAL SOURCE ROC AND NOX (TONS PER DAY)

	ROC		NOx	
NATURAL SOURCES	**Santa Barbara County**	**Statewide**	**Santa Barbara County**	**Statewide**
BIOGENICS	54.80	3,432.80	0.36	25.41
SEEPS	26.36	30.80	0.00	0.00
WILDFIRES	0.09	1,244.50	0.06	122.10
NATURAL SOURCE TOTAL	**81.25**	**4,708.10**	**0.42**	**147.51**

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