

2007

CLEAN AIR PLAN

*SANTA BARBARA COUNTY'S PLAN TO
MAINTAIN THE FEDERAL 8-HOUR OZONE STANDARD
AND ATTAIN THE STATE 1-HOUR OZONE STANDARD*

- MAINTENANCE PLAN – FEDERAL 8-HOUR OZONE STANDARD
- THREE YEAR UPDATE TO THE 2004 CLEAN AIR PLAN – STATE 1-HOUR OZONE STANDARD

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INTRODUCTION

Air quality in Santa Barbara County continues to improve and 2005 was one of the cleanest years on record. In fact, our air quality has improved to the point that the United States Environmental Protection Agency (USEPA) has declared us as attainment for the federal 8-hour ozone standard. Meeting this milestone is clear evidence that Santa Barbara County residents are breathing cleaner air. However, we do not yet comply with the state 1-hour ozone standard which is more protective of public health.

Continuing our progress toward clean air is a challenge that demands participation by the entire community. A Clean Air Plan represents the blueprint for air quality improvement in Santa Barbara County; the goals are to explain the complex interactions between emissions and air quality, and to design the best possible emission control strategy in a cost-effective manner. This 2007 Plan represents a partnership among the Air Pollution Control District (APCD), the Santa Barbara County Association of Governments (SBCAG), the California Air Resources Board (ARB), the USEPA, local businesses, and the community at large to reduce pollution from all sources: cars, trucks, industry, consumer products, and many more.

We have made remarkable progress in cleaning our air; the number of unhealthful air quality days in Santa Barbara County has been reduced by more than 95 percent from 1988 to 2005 despite substantial increases in population and vehicle miles traveled. The community should be proud of these accomplishments in reducing air pollution. This 2007 Plan reflects a commitment to continue this progress and bring clean air to all of the residents of Santa Barbara County.

WHY IS THIS 2007 PLAN BEING PREPARED?

This 2007 Plan is being prepared to address both federal and state requirements. 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 maintenance plan under section 110(a)(1).

The California Clean Air Act mandates under Health and Safety Code sections 40924 and 40925 require that every three years areas update their clean air plans to attain the state 1-hour ozone standard. More specifically, this 2007 Plan provides a three-year update to the APCD's 2004 Clean Air Plan. Previous plans developed to comply with the state ozone standard include the 1991 Air Quality Attainment Plan, the 1994 Clean Air Plan, the 1998 Clean Air Plan, and the 2001 Clean Air Plan.

WHAT'S NEW IN THIS 2007 PLAN?

Each clean air plan represents a snapshot in time, based on the most current information available. This 2007 Plan is similar to the 2004 Clean Air Plan but includes significant new information. Some key new elements are:

- Updated local air quality information (through 2006)
- An updated baseline emission inventory (year 2002)
- An updated baseline emission estimate of marine shipping emissions (year 2002)
- Updated future year emission estimates through 2020

HOW WAS THIS 2007 PLAN PREPARED?

APCD prepared this 2007 Plan in partnership with SBCAG, ARB, and USEPA. SBCAG provided future growth projections, developed the transportation control measures, and estimated the on-road mobile source emissions. ARB provided information on statewide mobile sources and consumer product control measures. USEPA provided information on the status of the control efforts for federally regulated sources.

To help provide important local policy and technical input on APCD clean air plans and rules, the APCD Board of Directors established the Community Advisory Council. Starting in March of 2006, the CAC considered various components of this 2007 Plan at their monthly meetings. The input provided by the Community Advisory Council was, on many occasions, directly incorporated into this 2007 Plan. APCD staff also conducted public workshops to obtain direct public input on the 2007 Plan.

WHAT ARE THE HEALTH EFFECTS OF OZONE?

Ozone can damage the respiratory system, causing inflammation, irritation, and symptoms such as coughing and wheezing, and worsening of asthma symptoms. High levels of ozone are especially harmful for children, people who exercise outdoors, older people, and people with asthma or other respiratory problems. Ozone can harm the

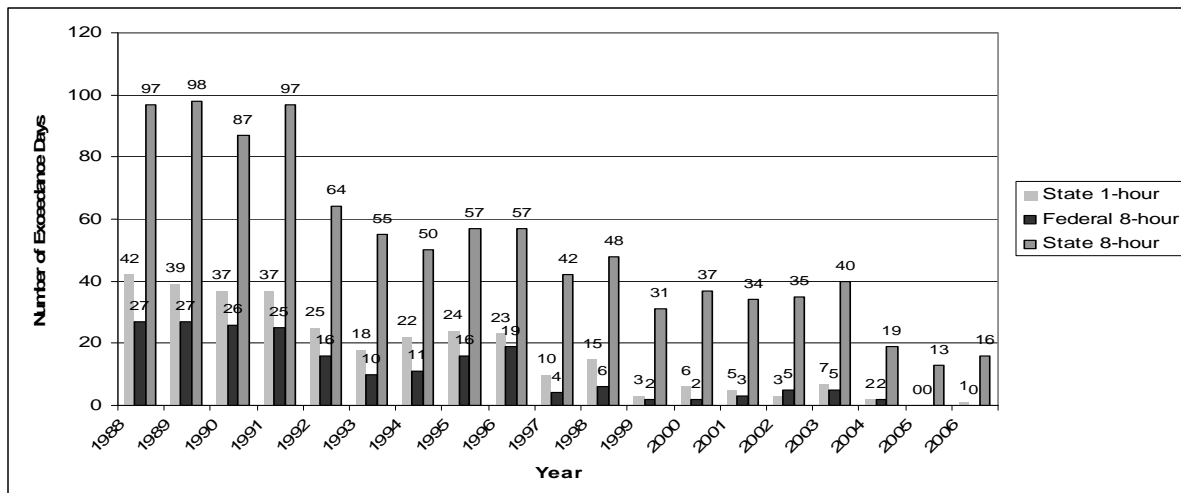
development of children's lungs, and recent studies suggest ozone plays a role in causing early childhood asthma. Ozone air pollution also hurts the economy by increasing hospital visits and medical expenses, and loss of work time due to illness, and by damaging crops, buildings, paint, and rubber.

IS AIR QUALITY IMPROVING?

Figure EX-1 shows that neither the state 1-hour ozone standard nor the federal 8-hour ozone standard was exceeded during ~~2005~~ 2006. A clear declining trend in the number of state ozone exceedances is evident from 1988 through 1999. Since 1999, however, with the relatively low number of State 1-hour and federal 8-hour ozone exceedances experienced in Santa Barbara County each year, the trend is less discernable, and likely more the result of natural year-to-year variability of weather patterns.

The long-term declining trend in both state 1-hour and federal 8-hour exceedance days has occurred concurrently with increases in both population and daily vehicle miles traveled in Santa Barbara County. This suggests that local, state and federal emission reduction programs have been effective in improving air quality in Santa Barbara County despite significant increases in population and vehicle miles traveled.

FIGURE EX-1
NUMBER OF DAYS EXCEEDING STATE AND FEDERAL OZONE STANDARDS
SANTA BARBARA COUNTY - 1988-2005 2006



HOW IS ATTAINMENT OF THE STATE OZONE STANDARD DETERMINED?

Attainment of the state ozone standard is determined using a statistical model developed by the ARB that excludes extreme concentration events, which are not expected to occur more frequently than once per year. This statistical concentration is commonly referred to as the Expected Peak Day Concentration (EPDC). An area is considered to be in attainment of the state 1-hour and state 8-hour ozone standards if all monitoring stations have ozone concentrations less than 0.09 ppm, and 0.070 ppm, respectively, after excluding those days with concentrations identified as extreme events.

WHAT KEY FEDERAL REQUIREMENTS DOES THIS 2007 PLAN ADDRESS?

Santa Barbara County is required to prepare a maintenance plan under Section 110(a)(1) of the Federal Clean Air Act. The specific required components are an attainment inventory, a maintenance demonstration, ambient air quality monitoring, a contingency plan and verification of continued attainment of the federal 8-hour ozone standard.

WHAT KEY STATE REQUIREMENTS DOES THIS 2007 PLAN ADDRESS?

The key requirements of the California Clean Air Act addressed in this 2007 Plan are the Triennial Progress Report (H&SC Section 40924(b)) and the Triennial Plan Revision (H&SC Section 40925(a)). Additionally, this 2007 Plan must provide an annual five percent emission reduction of ozone precursors, or, if this cannot be done, include every feasible measure as part of the emission control strategy. Finally, state law requires this 2007 Plan to provide for attainment of the state ambient air quality standards at the earliest practicable date (H&SC Section 40910).

HOW HAS THE EMISSION INVENTORY CHANGED?

An updated emission inventory was developed for 2002 for both onshore and Outer Continental Shelf (OCS) sources for this 2007 Plan. This inventory serves as our base year emission inventory, and is used to forecast emissions for 2005, 2010, 2015, and 2020. The 2002 emission inventory was developed in accordance with ARB and USEPA policies and procedures. The emissions inventory follows the organizational structure developed by ARB, and assigns all air pollution sources into one of four categories: stationary sources, area-wide sources, mobile sources, and natural sources. The biggest change to the emission inventory since the 2004 Plan is to marine shipping emissions which are significantly higher than previously estimated.

WHERE DOES OUR HUMAN-GENERATED AIR POLLUTION COME FROM?

Figure EX-2 shows Santa Barbara County's onshore emission inventory for 2002 to 2020. This figure presents the estimated emissions of reactive organic compounds and oxides of nitrogen (precursors that combine to form ozone), generated locally by human activities. This does not include emissions on the Outer Continental Shelf, or those from natural sources (seeps and vegetation). The largest contributor to our locally generated air pollution is on-road mobile sources (cars and trucks). Other mobile sources (planes, trains, boats, off-road equipment, farm equipment), the evaporation of solvents, combustion of fossil fuels, surface cleaning and coating, prescribed burning, and petroleum production and marketing combine to make up the remainder. Figure EX-3 shows the emission inventory for the Outer Continental Shelf, where the majority of reactive organic compounds and oxides of nitrogen emissions come from mobile sources (predominantly international marine shipping activities).

FIGURE EX-2
SANTA BARBARA COUNTY ONSHORE ROC & NO_x EMISSIONS

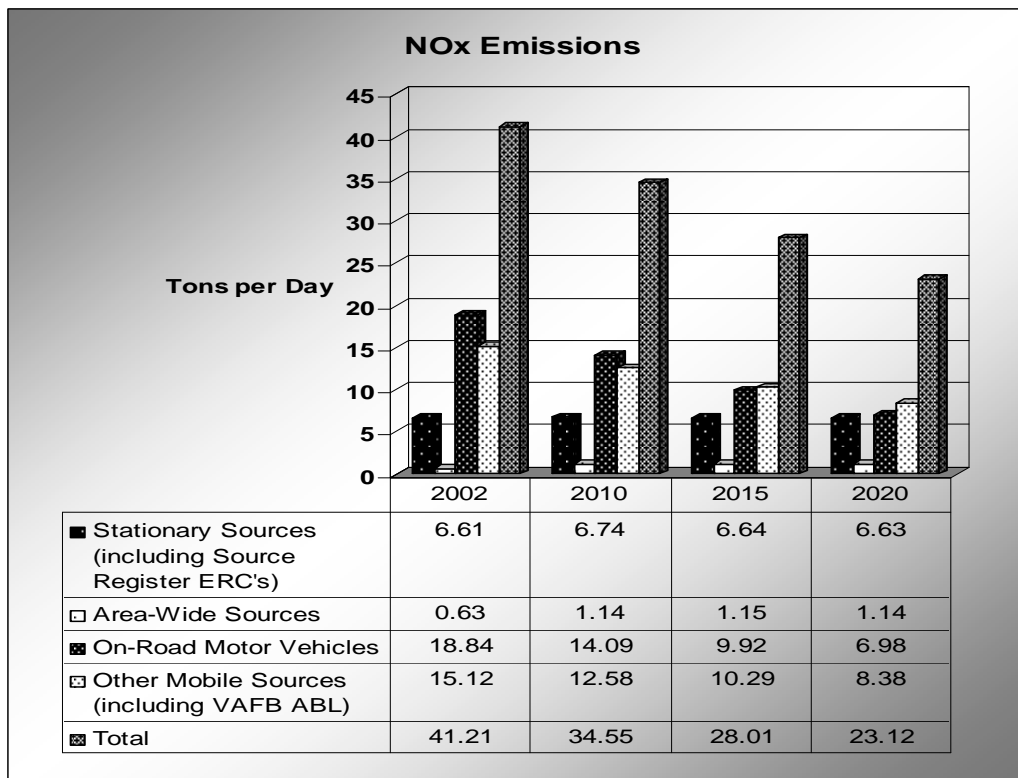
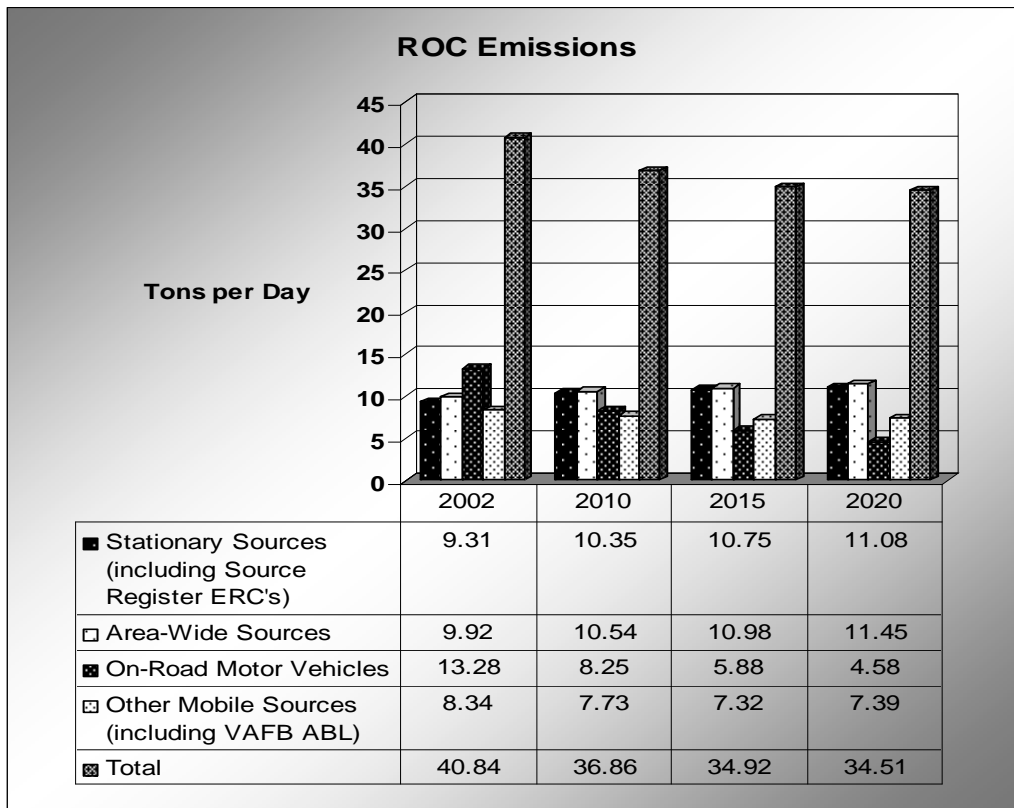
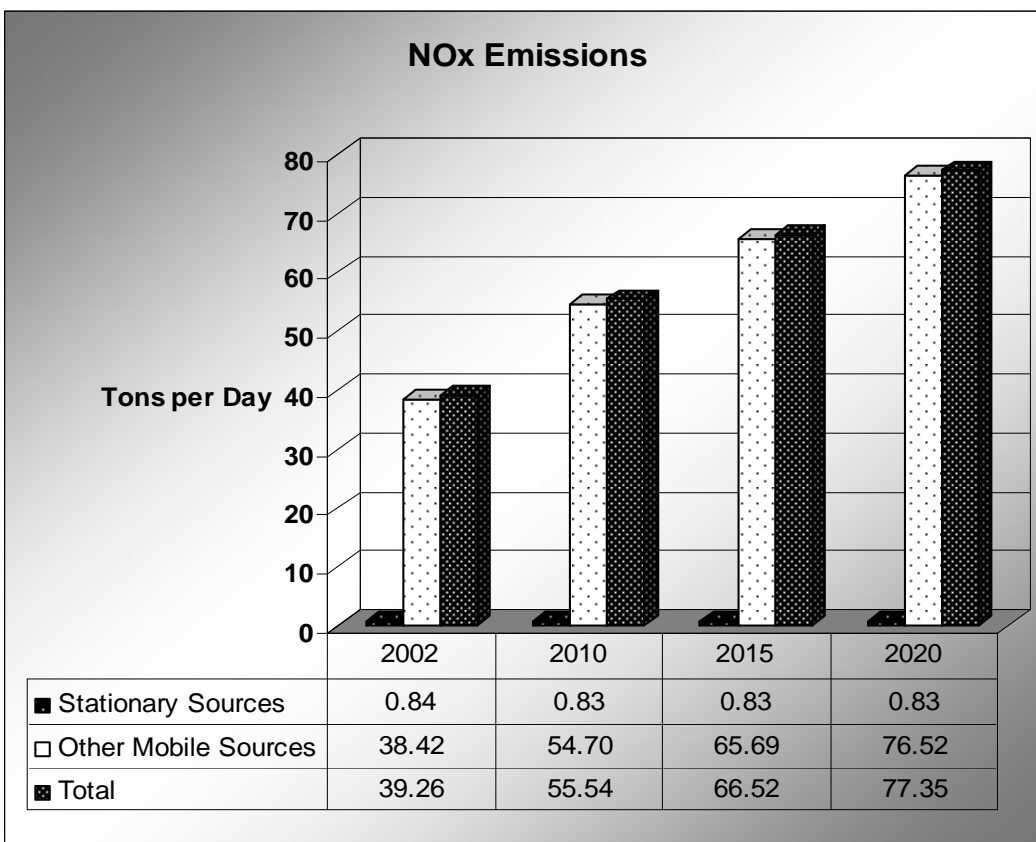
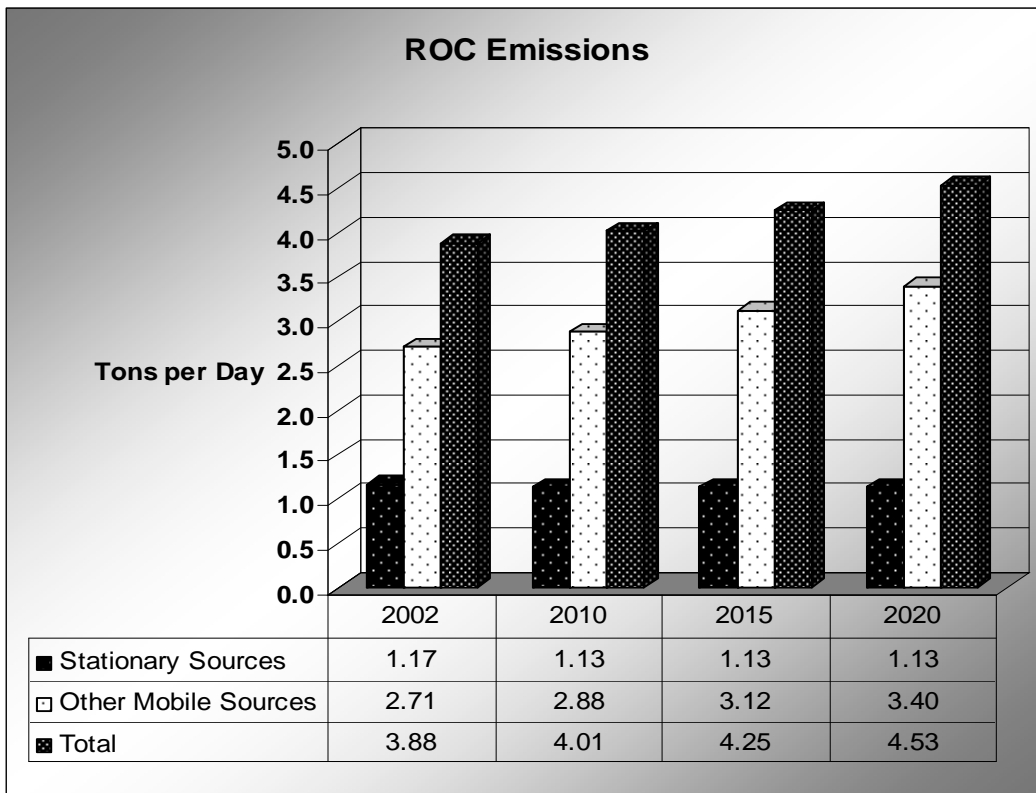


FIGURE EX-3
OUTER CONTINENTAL SHELF ROC & NO_x EMISSIONS



HAS THE OVERALL CONTROL STRATEGY CHANGED?

No, the overall strategy for control of both reactive organic compounds and oxides of nitrogen adopted in the 2004 Clean Air Plan continues in this 2007 Plan. This 2007 Plan proposes new or revised stationary emission control measures based on our most recent all feasible measures analysis.

DOES THE 2007 PLAN SHOW THAT WE WILL ATTAIN THE STATE 1-HOUR OZONE STANDARD AND MAINTAIN THE FEDERAL 8-HOUR OZONE STANDARD?

A preliminary review of our air quality monitoring data indicates that we have attained the state 1-hour ozone standard. We will be relying on the 2007 Plan's control strategies and measures to remain in attainment for this standard as well as to assist us in attaining the new and stricter state 8-hour ozone standard.

This 2007 Plan shows that onshore emissions of reactive organic compounds and oxides of nitrogen will continue to decrease through 2020, due primarily to on-road mobile source emission reduction measures. However, the large emission increases expected to occur in the OCS due to marine shipping activities are dramatic. While these offshore emissions may not have the same direct impact on our air as onshore emissions, their magnitude may impair our ability to comply with state ozone standards and maintain the federal 8-hour ozone standard.

DOES THIS 2007 PLAN ADDRESS THE NEW STATE 8-HOUR OZONE STANDARD?

We believe the strategy proposed in this 2007 Plan will expedite attainment of the new state 8-hour ozone standard based on historical air quality trends and onshore emission reductions.

HOW DOES THE ADOPTION OF THIS 2007 PLAN IMPACT APCD RULEMAKING?

The rules that are proposed in this 2007 Plan are directly included into the rulemaking priorities of the APCD. The measures that this Plan proposes on a near-, mid-, or long-term basis will be adopted by the APCD according to that schedule. The formal adoption of this 2007 Plan by the APCD Board of Directors establishes the commitments to adopt all proposed rules according to the schedule identified in the plan.

Our current schedule of rule activities is located on our web site:

<http://www.sbcapcd.org/rules/schedule.htm>

HOW DOES THE SOUTH COAST AQMD V. EPA COURT DECISION IMPACT THIS 2007 PLAN?

On December 22, 2006 the DC Circuit Court of Appeals struck down and sent back to EPA for reconsideration its 2004 Rule implementing the 8-hour federal ozone standard. EPA has not issued any new guidance as a result of this decision. We believe that the only impacts to the 2007 Plan may be conformity related. Our approach at this point is to continue working on the 2007 Plan under Section 110(a)(1) and to submit it as close as possible to ~~by~~ the June 2007 deadline.