APPENDIX A

Notice of Preparation/Initial Study

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • http://www.aqmd.gov

SUBJECT: **NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT**

PROJECT TITLE: **2007 AIR QUALITY MANAGEMENT PLAN (AQMP)**

In accordance with the California Environmental Quality Act (CEQA), the South Coast Air Quality Management District (SCAQMD) will be the Lead Agency for the project identified above. This Notice of Preparation (NOP) serves two purposes: 1) to solicit information on the scope of the environmental analysis for the proposed project; and 2) to notify the public that the SCAQMD will prepare a Draft Program Environmental Impact Report (PEIR) to further assess potential adverse environmental impacts that may result from implementing the proposed project.

This letter, NOP and the attached Initial Study are not SCAQMD applications or forms requiring a response from you. Their purpose is simply to provide information to you on the above project. If the proposed project has no bearing on you or your organization, no action on your part is necessary.

Comments focusing on your area of expertise, your agency's area of jurisdiction, or issues relative to the environmental analysis should be addressed to Mr. Michael Krause (c/o CEQA) at the address shown above, or sent by FAX to (909) 396-3324 or by e-mail to ceqa_admin@aqmd.gov. Comments must be received no later than 5:00 PM on December 13, 2006. Please include the name and phone number of the contact person for your agency. Questions relative to the proposed 2007 AQMP should be directed to Mr. Joseph Cassmassi at (909) 396-3155.

A public workshop/CEQA scoping meeting will be held for the proposed project on November 16, 2006, at 2:00 p.m. in the auditorium at SCAQMD headquarters, located at the address identified above.

The Public Hearing for the 2007 AQMP is currently scheduled for April 6, 2007 at 9:00 a.m. at the SCAQMD Headquarters. Please note, the Public Hearing date is subject to change.

Date: November 14, 2006 **Signature:** Steve Smith

Steve Smith, Ph.D.
Program Supervisor
Planning, Rules, and Area Sources

Reference: California Code of Regulations, Title 14, Sections 15082(a), 15103, and 15375

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765-4182

NOTICE OF PREPARATION OF A DRAFT PROGRAM ENVIRONMENTAL MPACT REPORT

Project Title:

Draft Program Environmental Impact Report: 2007 Air Quality Management Plan (AQMP)

Project Location:

South Coast Air Quality Management District (SCAQMD) area of jurisdiction consisting of the four-county South Coast Air Basin (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin and the Mojave Desert Air Basin

Description of Nature, Purpose, and Beneficiaries of Project:

The proposed 2007 AQMP would update the 2003 AQMP. The 2007 AQMP identifies control measures to be implemented by state, federal and local agencies to demonstrate that the region will attain the federal 8-hour ozone standard and the federal standard for particulate matter less than 2.5 microns in diameter (PM2.5) by the applicable target dates. The AQMP also includes the most current air quality setting, updated emissions inventories of stationary and mobile sources, updated growth projections, new modeling techniques, rate of progress demonstration for NOx and VOC emissions, and an implementation schedule for adoption of the proposed control measures.

Lead Agency:	**Division:**
South Coast Air Quality Management District	Planning, Rule Development and Area Sources

Initial Study and all supporting documentation are available at:	**or by calling:**	**Initial Study is also available by accessing the SCAQMD's website at:**
SCAQMD Headquarters 21865 Copley Drive Diamond Bar, CA 91765	(909) 396-2039	http://www.aqmd.gov/ceqa/aqmd.html

The Public Notice of Preparation is provided through the following:

☑ Los Angeles Times (November 14, 2006) ☑ AQMD Website ☑ AQMD Mailing List & Interested Parties

Initial Study Review Period:

November 14 , 2006 – December 13, 2006

Scheduled Public Workshop/CEQA Scoping Meeting Date:	November 16, 2006, 2:00 p.m.; SCAQMD Headquarters
Scheduled Public Hearing Date:	April 6, 2007, 9:00 a.m.; SCAQMD Headquarters *(Date subject to change)*

CEQA Contact Person:	**Phone Number:**	**Fax Number:**	**Email:**
Mr. Michael Krause	(909) 396-2706	(909) 396-3324	mkrause@aqmd.gov

Direct Questions on the 2007 AQMP to:	**Phone Number:**	**Fax Number:**	**Email:**
Mr. Joseph Cassmassi	(909) 396-3155	(909) 396-3324	jcassmassi@aqmd.gov

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Initial Study for the Draft Program Environmental Impact Report for: 2007 Air Quality Management Plan (AQMP)

November 14, 2006

SCAQMD No.: TBD

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P R O J E C T D E S C R I P T I O N

1.1 INTRODUCTION

The South Coast Air Basin (Basin), which includes all of Orange County and the nondesert portions of Los Angeles, San Bernardino and Riverside counties, has one of the worst air quality problems in the nation. Though there have been significant improvements in air quality in the Basin over the last two decades, some ambient air quality standards are still exceeded relatively frequently and by a wide margin. As a result, substantial emission reductions are necessary for the Basin to attain and maintain all standards by the dates mandated by federal law.

The South Coast Air Quality Management District (SCAQMD) was created by the California legislature in 1977[1] as the public agency responsible for developing and enforcing air pollution control regulations in the Basin. The Lewis Air Quality Act (now known as the Lewis-Presley Air Quality Management Act) requires the SCAQMD to prepare and adopt an Air Quality Management Plan (AQMP) consistent with federal planning requirements. In 1977, amendments to the federal Clean Air Act (CAA) included requirements for submitting State Implementation Plans (SIPs) for nonattainment areas that fail to meet all federal ambient air quality standards (Health & Safety Code §40462). The federal CAA was amended in 1990 to specify attainment dates and SIP requirements for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2) and particulate matter less than 10 microns (PM10). The California Clean Air Act (CCAA), adopted in 1988, requires the SCAQMD to endeavor to achieve and maintain state ambient air quality standards for ozone, CO, sulfur dioxide (SO_2), and NO_2 by the earliest practicable date (Health & Safety Code §40910), and it established requirements to update the plan periodically.

The first AQMP was prepared and approved by the SCAQMD in 1979 and has been updated and revised a number of times. The CCAA requires a three-year plan review and update to the AQMP. The following bullet items summarize the main components of those updates and revisions:

- In 1982, the AQMP was revised to reflect better data and modeling tools.
- In 1987, a federal court ordered the U.S. Environmental Protection Agency (U.S. EPA) to disapprove the 1982 AQMP because it did not demonstrate attainment of all national ambient air quality standards (NAAQS) by 1987 as required by the CAA. This, in part, led to the preparation of the 1989 AQMP.
- The 1989 AQMP was adopted on March 17, 1989 and was specifically designed to attain all NAAQS. This plan called for three "tiers" of measures as needed to

[1] The Lewis-Presley Air Quality Management Act, 1976 Cal. State. ch. 324 (codified at H & S Code, Sections 40400 - 40540).

attain all standards and relied on significant future technology advancement to attain these standards.

- In 1991, the SCAQMD prepared and adopted the 1991 AQMP to comply with the CCAA.
- In 1992, the 1991 AQMP was amended to add a control measure containing market incentive programs.
- In 1994, the SCAQMD prepared and adopted the 1994 AQMP to comply with the CCAA three-year update requirement and to meet the federal CAA requirement for an ozone SIP. The AQMP, as adopted in 1994, included the following:
  - all geographical areas under the jurisdiction of the SCAQMD (referred to here as the district), as opposed to the Basin (please see Figure 1-1.);
  - the basic control strategies remained the same although the three-tiered structure of control measures was replaced. Measures previously referred to as Tier I, II or III were replaced with short-/intermediate-term or long-term control measures;
  - updated and refined control measures carried over from 1991;
  - the federal post-1996 rate of progress demonstration;
  - Best Available Control Measure (BACM) PM10 Plan;
  - the ozone attainment demonstration plan;
  - amendments to the federal Reactive Organic Compound (ROC) Rate-of-Progress plan (also referred to as the volatile organic compound (VOC) Rate-of-Progress Plan);
  - Attainment Demonstration Plans for the federal PM10, nitrogen dioxide, and carbon monoxide air quality standards;
  - expanded use of market incentives;
  - new public outreach and education programs; and
  - manufacturer-certified products and equipment.
- The 1997 AQMP was designed to comply with the three-year update requirements specified in the CCAA as well as to include an attainment demonstration for PM10 as required by the federal CAA. Relative to ozone, the 1997 AQMP

contained the following changes to the control strategies compared to the 1994 AQMP:

- less reliance on transportation control measures (TCMs);
- less reliance on long-term control measures that rely on future technologies as allowed under §182(e)(5) of the CAA; and
- removal of other infeasible control measures and indirect source measures.

- In 1999, the ozone plan portion of the 1997 AQMP was amended to address partial disapproval of the 1997 AQMP by the U.S. EPA and a settlement of litigation by environmental groups challenging the 1997 AQMP to provide the following:
  - greater emission reductions in the near-term than would occur under the 1997 AQMP;
  - early adoption of the measures that would otherwise be contained in the next three-year update of the AQMP; and
  - additional flexibility relative to substituting new measures for infeasible measures and recognition of the relevance of cost effectiveness in determining feasibility.
- In April 2000, U.S. EPA approved the 1999 ozone SIP to the 1997 plan. The 1999 Amendment in part addressed the State's requirements for a triennial plan update.
- The 2003 AQMP was adopted by the SCAQMD in August 2003. The 2003 AQMP has not yet been approved by the U.S. EPA as part of the SIP. The 2003 AQMP addressed the following control strategies:
  - attaining the federal PM10 ambient air quality standard and the federal 1-hour ozone standard;
  - 1997/1999 control measures not yet implemented;
  - discussion regarding credit/incentive programs and their role in achieving overall emission reduction targets;
  - revisions to the Post-1996 VOC Rate-of-Progress Plan and SIP for CO;
  - initial analysis of emission reductions necessary to attain the PM2.5 and eight-hour ozone standards;

- overview of state and federal planning requirements; and
- tracking of emission increases from a number of SCAQMD programs including New Source Review, Priority Reserve, etc.

1.2 AGENCY AUTHORITY

CEQA, Public Resources Code §21000 et seq., requires that the environmental impacts of proposed projects be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and implemented. To fulfill the purpose and intent of CEQA, the SCAQMD is the lead agency for this project and has prepared the Notice of Preparation/Initial Study for the proposed 2007 AQMP Program Environmental Impact Report (PEIR). A PEIR is the appropriate document when a series of actions that can be characterized as one large project are related in the connection with the issuance or rules, regulations, plans, or other criteria to govern the conduct of a continuing program (CEQA Guidelines Section 15168(a)(3)).

The Lead Agency is the "public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment" (Public Resources Code Section 21067). It was determined that the SCAQMD has the primary responsibility for supervising or approving the entire project as a whole and is the most appropriate public agency to act as lead agency (CEQA Guidelines Section 15051(b)).

1.3 PROJECT LOCATION

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county South Coast Air Basin (Basin) (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB), referred to hereafter as the district. The Basin, which is a subregion of the SCAQMD's jurisdiction, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. It includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. The federal nonattainment area (known as the Coachella Valley Planning Area) is a subregion of the Riverside County and the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (Figure 1-1).

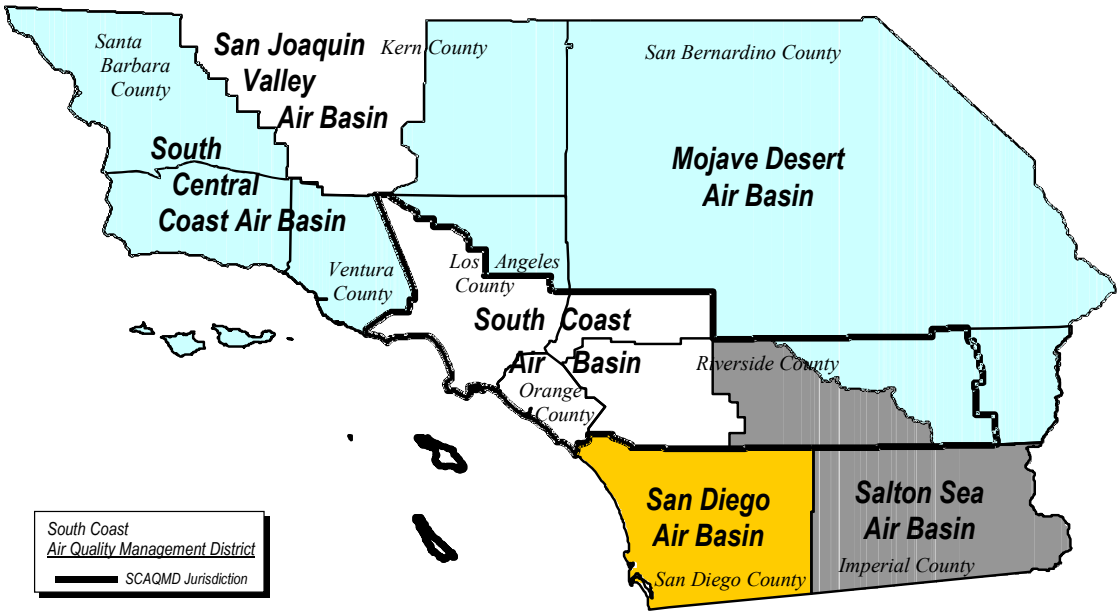

FIGURE 1-1

Southern California Air Basins

1.4 BACKGROUND

The 2007 AQMP sets forth emission reduction programs which require the cooperation of all levels of government: local, regional, state, and federal, as well as public engagement. Each level is represented in the AQMP by the appropriate agency or jurisdiction that has the authority over specific emissions sources. Accordingly, each agency or jurisdiction commits to specific planning and implementation responsibilities.

At the federal level, the U.S. EPA is charged with establishing emission standards of 49-state on-road motor vehicle standards; train, airplane, and ship pollutant exhaust and fuel standards; and regulation of non-road engines less than 175 horsepower. The California Air Resources Board (CARB), representing the state level, also oversees development of 2007 AQMP control measures for on-road vehicle emission standards in California, fuel specifications, some off-road source requirements and consumer product standards. At the regional level, the SCAQMD is responsible for stationary sources and some mobile sources. In addition, the SCAQMD has lead responsibility for developing stationary source control measures and coordinating the development and adoption of the 2007 AQMP. Lastly, at the local level, the cities and counties and their various departments

(e.g., harbors and airports) have a dual role related to transportation and land use. Their efforts are coordinated through the regional metropolitan planning organization for the South Coast Air Basin, the Southern California Association of Governments (SCAG), which is responsible for preparing the transportation control measure component of the 2007 AQMP. Interagency commitment and cooperation are the keys to success of the 2007 AQMP.

1.5 OVERALL ATTAINMENT STRATEGY

The overall control strategy for the Draft 2007 AQMP is designed to meet applicable federal and state requirements, including attainment of all ambient air quality standards. The focus of the AQMP is to demonstrate attainment of the federal PM2.5 ambient air quality standard by 2015 and the federal 8-hour ozone standard by 2021 while making expeditious progress toward attainment of state standards. The proposed strategy, however, does not attain the previous federal 1-hour ozone standard by 2010 as previously required prior to the recent change in federal regulations.

The Basin is classified as Severe 17 for the 8-hour ozone standard with an attainment date of June 2021, while the portion of the Salton Sea Air Basin under the SCAQMD's jurisdiction (Coachella Valley Planning Area) is classified as serious, with an attainment date of June 2013. Unlike the 8-hour ozone standard, area designations for the PM2.5 standard did not have a classification system (e.g., serious, severe) and were designated as attainment, non-attainment, or unclassifiable. For the Basin and the portions of the Salton Sea Air Basin under the SCAQMD's jurisdiction, the regions were designated non-attainment and unclassifiable, respectively.

A "bump-up" request will likely be made by the SCAQMD to the U.S. EPA to be designated as an "extreme" non-attainment area with a possible extended attainment date of 2024 for ozone. The Draft 2007 AQMP relies upon the most recent planning assumptions and the best available information such as CARB's latest EMFAC working draft for the on-road mobile source emissions inventory, CARB's off-road model for the off-road mobile source emission inventory, latest point source and improved area source inventories as well as the use of new episodes and air quality modeling analysis, and SCAG's forecast assumptions based on its modified 2004 Regional Transportation Plan.

The proposed control measures in the Draft 2007 AQMP are based on implementation of all feasible control measures through the application of available technologies and management practices as well as development and implementation of advanced technologies and control methods. These measures rely on proposed actions to be taken by several agencies that currently have the statutory authority to implement such measures. Similar to the 2003 AQMP approach, the SIP commitment is to bring each control measure for regulatory consideration in a specified time frame. Each agency is also committed to achieve a total emission reduction target with the ability to substitute for control measures deemed infeasible, so long as equivalent reductions are met by other means. These measures are also designed to satisfy the federal Clean Air Act

requirement of reasonably available control technologies [Section 172(c)], and the California Clean Air Act requirement of Best Available Retrofit Control Technologies (BARCT) [Health and Safety Code Section 40919, Subsection C].

To ultimately achieve the PM2.5 and 8-hour ozone ambient air quality standards and demonstrate attainment, significant additional short- and mid-term as well as long-term emissions reductions will be necessary from sources including those primarily under the jurisdiction of CARB (e.g., on-road motor vehicles, off-road equipment, and consumer products) and U.S. EPA (e.g., aircraft, ships, trains, and pre-empted off-road equipment). Without an adequate and fair-share level of reductions from all sources, the emissions reduction burden would unfairly be shifted to sources that have already been doing their part for clean air. Moreover, the SCAQMD will continue to use its available regulatory authority to further control mobile source emissions where federal or State action does not meet regional needs.

1.6 PURPOSE OF THE 2007 AQMP

The 2007 AQMP will provide an updated air pollution control strategy to attain federal ambient air quality standards. In addition, the 2007 AQMP will include an analysis of the estimated emission reductions needed to achieve new federal eight-hour and fine particulate ambient air quality standards. The benefits of improved air quality are numerous and far-reaching. From a public health standpoint, air pollution has been linked to long-term health problems affecting the lungs, heart, blood, brain and immune and nervous systems. Additional benefits include improved visibility, reduced destruction of materials and buildings, reduced damage to agricultural crops and habitat for wildlife and, more efficient land use patterns and transportation systems. The following sections summarize the overall components of the 2007 AQMP and the specific control measures that comprise the 2007 AQMP.

1.7 PROJECT DESCRIPTION

The following bullet points summarize the major components of the 2007 AQMP:

- The most current air quality setting (i.e., 2005 data);
- Updated emission inventories using 2002 as the base year, which also incorporate measures adopted since adopting the 2003 AQMP;
- Updated emission inventories of stationary and mobile on-road and off-road sources;
- 2003 AQMP control measures not yet implemented (eight of the control measures originally contained in the 2003 AQMP have been updated or revised for inclusion into the Draft 2007 AQMP);

- 24 new measures are incorporated into the Draft 2007 AQMP based on replacing the SCAQMD's long-term control measures from the 2003 AQMP with more defined or new control measures;
- SCAQMD's recommended control measures aimed at reducing emissions from sources that are primarily under State and federal jurisdiction, including on-road and off-road mobile sources, and consumer products;
- SCAG's regional transportation strategy and control measures;
- Analysis of emission reductions necessary to achieve the federal eight-hour ozone and PM2.5 air quality standards;
- Overview of state and federal planning requirements;
- NOx and VOC rate of progress demonstrations;
- Implementation schedule for adoption of the proposed control measures; and
- Background information on ultrafine particulates and the state of current knowledge on the subject.

1.8 DRAFT 2007 AQMP CONTROL MEASURES

The Draft 2007 AQMP control measures consist of three components: 1) the SCAQMD's Stationary and Mobile Source Control Measures; 2) State and Federal Control Measures recommended by District staff; and 3) Regional Transportation Strategy and Control Measures provided by SCAG. Overall, the Draft 2007 AQMP includes 29 stationary and 29 mobile source measures. These measures primarily rely on the traditional command-and-control approach, facilitated by market incentive programs, as well as advanced technologies expected to be implemented by 2015 (for PM2.5) and 2021/2024 (for 8-hour ozone). A summary of these measures is provided in the following subsections. Copies of the Draft 2007 AQMP and associated appendices can be obtained by contacting the SCAQMD's Public Information Center at 909-396-2039. The documents can also be viewed online at the following website address: www.aqmd.gov/aqmp/07aqmp/07aqmp.html.

1.8.1 SCAQMD'S STATIONARY AND MOBILE SOURCE SHORT – AND MID-TERM CONTROL MEASURES

The stationary source control measures presented in the Draft 2007 AQMP would further reduce emissions from both point sources (permitted facilities) and area sources (generally small and non-permitted). The proposed control strategy for stationary sources under the SCAQMD's jurisdiction include implementing the remaining revised

and partially implemented measures from the 2003 AQMP and new measures that are deemed feasible to provide additional reduction opportunities. In addition, to foster further technology advancement, long-term measures are also included aimed at achieving additional reductions from stationary sources based on implementation and accelerated penetration of advanced technologies. Furthermore, in light of significant reductions needed for PM2.5 and ozone attainment demonstrations, the SCAQMD will expand its regulatory programs to mobile sources where the SCAQMD has existing legal authority, and is evaluating the possibility of additional limited authority for cost-effective local controls. The control measures to be implemented by the SCAQMD are summarized in Table 1-1.

The SCAQMD's control strategy for stationary and mobile sources also incorporates the following concepts: 1) facility modernization; 2) energy efficiency and conservation; 3) good management practices; 4) market incentives/compliance flexibility; 5) area source programs; 6) emission growth management; and 7) mobile source programs.

The Draft 2007 AQMP includes 28 short-term and mid-term stationary and 4 mobile source control measures proposed for SCAQMD implementation. In order to demonstrate attainment by 2015 for PM2.5 and 2021/2024 for ozone, emission reductions needed for attainment must be in place by 2014 and 2020/2023 respectively.

Stationary source control measures rely on a variety of control technologies and management practices. Control technologies vary according to the source type and pollutant being controlled and generally include a process or physical modification such as product reformulation, installation of air pollution control equipment, performance standards, etc. In addition, management practices include administrative changes such as improved leak detection techniques, inspection and maintenance programs, etc.

The following subsections briefly summarize the SCAQMD's stationary and mobile source control measures. For additional information, Appendix IV-A of the Draft 2007 AQMP provides detailed descriptions for the SCAQMD's stationary and mobile source control measures. Overall, eight control measures originally contained in the 2003 AQMP have been updated or revised for inclusion into the Draft 2007 AQMP. In addition, twenty four new measures are incorporated in the Draft 2007 AQMP based on replacement of the SCAQMD's long-term reduction measures from the 2003 AQMP with more defined control measures of development of new control measures. The potential environmental impacts of the proposed control measures are included in Appendix A.

TABLE 1-1

SCAQMD's Proposed Control Measures

Coatings and Solvents	
Number	**Title**
CTS-01	Industrial Lubricants
CTS-02	Clean Coating Certification Program
CTS-03	Consumer Product Labeling and Emission Reductions from Use of Consumer Products at Institutional and Commercial Facilities (VOC)
Petroleum Operations and Fugitive VOC Emissions	
Number	**Title**
FUG-01	Improved Leak Detection and Repair
FUG-02	Emission Reductions from Gasoline Transfer and Dispensing Facilities
FUG-03	Cutback Asphalt
FUG-04	Emission Reductions from Pipeline and Storage Tank Degassing
Combustion Sources	
Number	**Title**
CMB-01	NOx Reductions from Non-RECLAIM Ovens, Dryers and Furnaces
CMB-02	Reductions of Emissions in RECLAIM (BARCT) [SOx]
CMB-03	Further NOx Reductions from Space Heaters
CMB-04	Natural Gas Fuel Specifications (NOx)
Fugitive Dust Sources	
Number	**Title**
BCM-01	PM Control Devices (Baghouses/Wet Scrubbers/Electrostatic Precipitators, Other Devices)
BCM-02	PM Emission Hot Spots – Localized Control Program
BCM-03	Emission Reductions from Wood Burning Fireplaces and Woodstoves
BCM-04	Additional PM Emission Reductions from Rule 444 – Open Burning [PM]
BCM-05	Emission Reductions from Under-Fired Charbroilers
Multiple Component Sources	
Number	**Title**
MCS-01	Facility Modernization
MCS-02	Urban Heat Island (All Pollutants)
MCS-03	Energy Efficiency and Conservation
MCS-04	Emissions Reduction from Greenwaste Composting
MCS-05	Emission Reductions from Non-Dairy Livestock Waste
MCS-06	Improved Startup, Shutdown, and Turnaround Procedures
MCS-07	Application of all Feasible Measures (All Pollutants)
Compliance Flexibility Programs	
Number	**Title**
FLX-01	Economic Incentive Programs (All Pollutants)
FLX-02	Petroleum Refinery Pilot Program

TABLE 1-1 (cont.)

Emission Growth Management	
Number	**Title**
EGM-01	Emission Reductions from New or Redevelopment Projects (NOx, VOC, and PM2.5)
EGM-02	Emission Budget and Mitigation for General Conformity Projects (All Pollutants)
EGM-03	Emissions Mitigation at Federally Permitted Sites (All Pollutants)
SCAQMD's Mobile Source Control Measures	
Number	**Title**
MOB-01	Mitigation Fee Program for Federal Sources (All Pollutants)
MOB-02	Expanded Exchange Program (All Pollutants)
MOB-03	Backstop Measure for Indirect Sources of Emissions from Ports and Port-Related Facilities (All Pollutants)
MOB-04	Emissions Reduction from Carl Moyer Program (NOx, PM2.5)

Coatings and Solvents

CTS-01 - INDUSTRIAL LUBRICANTS: This control measure would reduce VOC emissions from industrial lubricants, a category under solvent operations, over a defined implementation period. Lubricants are used by various companies in the district including, but not limited to, machine shops, auto rebuilders, and auto parts manufacturers. Preliminary information indicates that lubricants may emit a significant amount of VOCs, as many lubricant compounds consist of at least 50 percent VOC solvents. It is important to note that there are low-emitting alternatives to petroleum-based lubricants available, including synthetics, semi-synthetics, and vegetable oils. The reduction requirements may apply not only to the end user, but may also be imposed at the point of sale.

CTS-02 - CLEAN COATING CERTIFICATION PROGRAM: VOC content in various industrial coatings has been regulated for many years. Many compliant products are significantly lower than the current rule limits. This measure is designed to encourage and to recognize supercompliant products. This proposed control measure would implement an ultra-low VOC content certification program for coatings similar to the certification program for the ultra-low VOC solvents under Rule 1171 or Rule 1122. The SCAQMD's certification can be an effective marketing tool that would encourage manufacturers to voluntarily lower the VOC content limits of their coatings below the current regulatory requirements. This control measure would incorporate a Clean Air Coating Certification through amendments to existing rules under Regulation II – Permits, and Regulation XI – Source-Specific Standards, as well as be considered in any future regulatory development. The SCAQMD will explore the feasibility of a voluntary program, as well as mandatory participation through source-specific rules. This method of control will include public education, outreach, and various marketing elements to help provide incentives to manufacturers and create consumer awareness and demand.

CTS-03 – CONSUMER PRODUCT LABELING AND EMISSION REDUCTIONS FROM USE OF CONSUMER PRODUCTS AT INSTITUTIONAL AND COMMERCIAL FACILITIES (VOC): Consumer products are defined under the California Health and Safety Code as chemically formulated products used by institutional and household consumers. This control measure would reduce VOCs from consumer products used at commercial and institutional facilities by developing new rules to establish VOC labeling programs and by adopting usage limitations or prohibition of use for consumer products other than ultra low- or zero-VOC products at high volume commercial and institutional facilities.

Petroleum Operations and Fugitive VOC Emissions

FUG-01 – IMPROVED LEAK DETECTION AND REPAIR: Proposed Control Measure FUG-01 affects a variety of VOC emissions sources including, but not limited to, oil and gas production facilities, petroleum refining and chemical products processing, storage and transfer facilities, marine terminals, and other sources, where VOC emissions occur from fugitive leaks in piping components, wastewater system components, and process and storage equipment leaks. Operators at most of these facilities are required under SCAQMD and federal rules to maintain a leak detection and repair (LDAR) program that involves individual screening of all of their piping components and periodic inspection programs of equipment to control and minimize VOC emissions. This measure would take advantage of the latest technology, called optical gas imaging (Smart LDAR), using an infrared camera that readily detects and displays an image of a VOC leak in a manner that is less time consuming and labor intensive than existing detection systems. The control measure would be implemented in two phases: Phase I would consist of a pilot program, followed by Phase II, during which full implementation would be expected. There are no emission reductions quantified for this control measure.

FUG-02 – EMISSION REDUCTIONS FROM GASOLINE TRANSFER AND DISPENSING FACILITIES: This proposed control measure applies to all gasoline dispensing facilities (GDF) in the district. The proposed measure would reduce VOC and toxic emissions from GDF operations by improving the implementation of the CARB enhanced vapor recovery (EVR) regulation. One proposed method of control includes improving the functions of the in-station diagnostic (ISD) to provide early alerts of vapor recovery degradation and allow preventative repairs. Another method of control would redefine the function of the reset button of the ISD to allow dispensing of gasoline only after all the defective components of the vapor recovery system are repaired. A third method of control includes installing a "shutdown" mechanism in the fuel line to stop fueling if the fueling flow rate drops below the system certification standards, which may cause vapor recovery failure. The complete implementation of the EVR will achieve a 98 percent control efficiency of GDF emissions.

FUG-03 - CUTBACK ASPHALT: The purpose of this proposed control measure is to reduce emissions from asphalt paving applications by limiting the use of cutback asphalt and/or replacing it with emulsified asphalt. U.S. EPA Region 9 noted that SCAQMD Rule 1108, "Cutback Asphalt," does not contain reasonable available control technology (RACT) for asphalt paving (i.e. seasonal and usage limitations). U.S. EPA recommended staff consider this option in the 2007 AQMP. In the SCAQMD's RACT submittal to EPA[2], a commitment was made to evaluate the potential for limiting the use of cutback asphalt. This control measure is intended to fulfill this commitment.

FUG-04 – EMISSION REDUCTIONS FROM PIPELINE AND STORAGE TANK DEGASSING: The purpose of this proposed control measure is to reduce VOC emissions from pipeline and storage tank degassing and cleaning by requiring the vapor space exhaust to be vented to an air pollution control device that limits the exhaust concentration. The source category would be expanded to include previously unregulated aboveground storage tanks with capacities less than 19,815 gallons and pipeline degassing. The Reid vapor pressure limit for liquids subject to the rule would also be reduced. The same control devices used for tank degassing would be applicable to the expanded category sources. This control measure would affect refineries, chemical plants, gasoline stations, and an unknown number of new facilities in the paint, solvent, adhesive, and ink manufacturing industries.

Combustion Sources

CMB-01 – NOx REDUCTIONS FROM NON-RECLAIM OVENS, DRYERS AND FURNACES: This proposed control measure applies to ovens, dryers and furnaces, incinerators and other external combustion equipment at non-RECLAIM facilities. Some of these equipment have NOx emission limits based on beast available control technologies (BACT)/lowest achievable emission reduction (LAER) requirements at the time the equipment is permitted. In addition, equipment exempt from permit requirements are not currently subject to NOx controls. NOx emissions from these types of equipment can be reduced using low-NOx burners through retrofit or replacement. NOx emission reductions of 50 to 75 percent are achievable for the equipment that is not subject to current BACT limits.

CMB-02 – REDUCTIONS OF EMISSIONS IN RECLAIM (BARCT) [SOx]: This proposed control measure identifies a series of control approaches that can be implemented as part of the Best Available Retrofit Control Technology (BARCT) from the SOx RECLAIM program. The SCAQMD will seek further reductions in SOx allocations from the year 2011 through 2014.

[2] The Basin is classified as Severe 17 and the Coachella Valley located in Riverside County is classified as serious non-attainment area with respect to the 8-hour ozone National Ambient Air Quality Standards (NAAQS). The U.S. EPA Final Rule to Implement the 8-Hour Ozone NAAQS (70 FR 71612, November 29, 2005) requires that areas classified as moderate or higher for the 8-hour ozone NAAQS must develop and submit a demonstration that their current air pollution rules fulfill the 8-hour ozone Reasonably Available Control Technology.

CMB-03 – FURTHER NOx REDUCTIONS FROM SPACE HEATERS: This control measure applies to natural gas-fired residential (and commercial) space heaters used for comfort heating. SCAQMD Rule 1111 - NOx Emissions from Natural Gas-Fired Fan Type Central Furnaces regulates space heaters with input rates less than 175,000 British Thermal Unit per hour (Btu/hr). This measure would establish a more stringent emission limit for new space heaters that can be achieved through the use of low-NOx burners or other technologies. Control measure will be implemented through an amendment to Rule 1111.

CMB-04 – NATURAL GAS FUEL SPECIFICATIONS (NOx): The purpose of this new control measure is to prevent emission increases from the combustion of natural gas with uncharacteristically high heating value (HHV) in stationary applications. The HHV of such gas relative to natural gas with a lower heating value may result in increased combustion temperature and, possibly, higher NOx emissions. This control strategy considers setting an upper limit of the HHV of natural gas. Natural gas producers/suppliers could achieve the objective of this control strategy by either not supplying hot gas to the district, or by importing high methane liquefied natural gas (LNG); removing the more complex hydrocarbons; or adding inert gases like nitrogen. The SCAQMD will continue data collection to further determine the relationship between the HHV for natural gas fuel and NOx emissions from gas-fired equipment. Based on this information, the SCAQMD will make a final determination about the potential emission reductions that can be realized from this measure.

Fugitive Dust Sources

BCM-01 - PM CONTROL DEVICES (BAGHOUSES/WET SCRUBBERS/ELECTROSTATIC PRECIPITATORS, OTHER DEVICES): This proposed control measure would further reduce PM emissions from add-on control devices currently used to achieve PM reductions (e.g., BACT or command-and-control requirements). SCAQMD rules establish PM emissions limits and visible opacity standards that may be achieved with baghouse control equipment, electrostatic precipitators, wet scrubbers, or other PM control devices. This measure would establish requirements similar to Rule 1156 (cement operations) to establish and maintain operation and maintenance (O&M) procedures, install and operate Continuous Opacity Monitor System (COMS) or Bag Leak Detection System (BLDS) for top process emitters under new, and/or install U.S. EPA certified filtration devices.

BCM-02 – PM EMISSION HOT SPOTS – LOCALIZED CONTROL PROGRAM: This proposed new control measure would reduce PM emissions in areas where local influence is the main contributor to the overall exposure. Due to the range of economic development in the district, certain locations may be prone to substantially higher levels of PM emissions compared to the broader surrounding area. For example, the highest PM10 concentrations are measured at the district's Rubidoux monitoring station. Primary contributors to those concentrations are sources of crustal material (better known as entrained fugitive dust). In and around the area of the Rubidoux monitoring

station there are unstabilized vacant lots, unpaved road shoulders, and unpaved roads and residential parking areas. This proposed control measure would establish a localized program to supplement the regional approach to address PM hot spots through a cooperative effort with local agencies to reduce emissions from directly emitted PM from local sources.

BCM-03 – EMISSION REDUCTIONS FROM WOOD BURNING FIREPLACES AND WOODSTOVES: The 2003 AQMP included a control measure to reduce emissions, primarily PM, from wood burning fireplaces and wood burning stoves. Control options identified include voluntary or mandatory wood burning curtailment during periods of poor air quality; prohibiting the installation of indoor or outdoor uncontrolled fireplaces in new or existing developments; moisture content requirements for wood sold as seasoned; change-out of wood heating appliances during property transfers, and prohibition of burning non-wood items. PM emission reductions have been quantified for mandatory wood burning curtailments in other areas in California. In addition, the Bay Area and Sacramento Metropolitan AQMDs have estimated emission reductions for new residential development standards. SCAQMD staff is currently developing a rule to implement this control measure.

BCM-04 – ADDITIONAL PM EMISISON REDUCTIONS FROM RULE 444 – OPEN BURNING [PM]: This control measure seeks to reduce PM emissions through further reduction of open burning practices. Rule 444 was adopted to reduce visible emissions and minimize public nuisance from smoke emissions. The rule now includes limits on prescribed and agricultural burning. PM emission reductions may be achieved through the establishment of "no burn days" based on a PM2.5 threshold of the 24-hour standard of 35 $\mu g/m^3$. Additional PM emission reductions may also be achieved through the phasing-out of agricultural burning by 2015, similar to San Joaquin Valley APCD's reduction strategy. That is, the requirement of alternatives (i.e, chipping/grinding and/or composting). Other measures include the establishment of stricter criteria for training burns that are conducted for fire protection purposes.

BCM-05 – EMISSION REDUCTIONS FROM UNDER-FIRED CHARBROILERS: Restaurant operations continue to be significant contributors in the PM10 and PM2.5 emission inventory. The SCAQMD intends to continue its efforts in the research and development of control technologies that would cost-effectively reduce particulates from restaurant operations and would amend its rules should those technologies become available. This control measure would be implemented in two phases. Phase I would examine the feasibility of charbroiler controls with a study completion no later than 2010. If feasible and cost-effective controls are identified, adoption and full implementation would be targeted by 2020. In conjunction with this effort, staff will also evaluate potential PM10 credit generation opportunities for use by other sources. Possible implementation of the proposed control measure to occur prior to 2014.

Multiple Component Sources

MCS-01 - FACILITY MODERNIZATION: This proposed measure would achieve further emission reductions from permitted sources by means of facility modernization and use of supercompliant materials. Existing equipment would be retrofitted or replaced with BACT at the end of a pre-determined lifespan. The SCAQMD would work with the legislature to develop federal and/or state tax credits to encourage early replacement of equipment. Consideration will be given to prior investment in equipment retrofits. During rule development, staff will explore opportunities to provide temporary emission reduction credits for meeting BACT earlier than required by the control measure.

MCS-02 – URBAN HEAT ISLAND (ALL POLLUTANTS): This proposed measure would provide incentives that would encourage activities that would lower ambient air temperatures, in urban areas, such as using lighter colored roofing and paving materials. This measure is implemented in part through the U.S. EPA's Cool Communities Program. The U.S. EPA and the SCAQMD have been moving forward with promoting the use of lighter color roofing and paving materials. Several demonstration projects are currently being conducted nationally (one with the City of Los Angeles). In addition, tree planting programs are being promoted throughout the region. The SCAQMD has sponsored several studies to further quantify the benefits of these actions.

MCS-03 – ENERGY EFFICIENCY AND CONSERVATION: This proposed control measure would provide incentives for businesses in the district to use energy efficient equipment and increase the effectiveness of energy conservation programs. The SCAQMD is proposing to develop and implement specific energy efficiency and conservation programs above and beyond the state and federal mandated programs to achieve further emission reductions. The SCAQMD may also examine its market incentive or fee programs to identify opportunities for implementation of energy conservation and efficiency measures.

MCS-04 – EMISSIONS REDUCTION FROM GREENWASTE COMPOSTING: Greenwaste composting is an important component of the solid waste industry; it provides resource conservation through source reduction, recycling, and reuse. However, as with other industrial processes, greenwaste composting produces emissions that are largely uncontrolled. Greenwaste composting is a direct source of PM10, VOC, and ammonia (NH_3), a precursor of particulate matter. Greenwaste composting also releases carbon dioxide, water vapor, and methane, which are greenhouse gases. Although PM10 emissions from this source are unknown at this time, greenwaste composting results in approximately 4.4 tons per day VOC and one ton per day ammonia. This control measure calls for the development and implementation of Best Management Practices (BMPs) that would reduce PM10, VOC, and ammonia emissions. The SCAQMD will convene a working group to involve all stakeholders in developing BMPs and other solutions to reduce greenwaste emissions.

MCS-05 - EMISSION REDUCTIONS FROM NON-DAIRY LIVESTOCK WASTE: Although confined animal facilities have been relocating out of the district's jurisdictional boundaries for years, the district retains over nine million poultry (egg layers and broilers) and more than 15,000 hogs and pigs (swine). In accordance with SB 700 (Florez) – Agricultural Sources, SCAQMD adopted Rule 223 – Emission Reduction Permits for Large Confined Animal Facilities, which requires permits and other requirements for large confined animal facilities. Additional VOC and NH_3 emission reductions, above those required by Rule 223, could be achieved by requiring air pollution control devices (i.e., biofilters) where technically and economically feasible. For example, AQMD Rule 1133.2 – Emission Reductions from Co-Composting Operations includes a requirement for control devices at large-scale composting facilities with required efficiencies ranging from 70 to 80 percent from the baseline uncontrolled emissions. This proposed control measure would require the Class Two Mitigation Measures of Rule 223 to achieve a higher level of overall control efficiency for the larger facilities subject to Rule 223 and seek reductions from the smaller facilities not currently subject to the rule.

MCS-06 – IMPROVED STARTUP, SHUTDOWN, AND TURNAROUND PROCEDURES: This proposed control measure would reduce emissions during equipment startup, shutdown, and turnaround. Opportunities for emission reductions from these activities potentially would apply to refinery operations as well as other industries. Examples of possible areas for improvement include better engineering and equipment design, diverting or eliminating process streams that are vented to flares, and installation of redundant equipment to increase operational reliability.

MCS-07 - APPLICATION OF ALL FEASIBLE MEASURES (ALL POLLUTANTS): Existing rules and regulations for pollutants such as VOC, NOx, SOx and PM reflect current best available retrofit control technology (BARCT). However, BARCT is ever evolving as new BARCT becomes available that is feasible and cost-effective. Through this proposed control measure, the SCAQMD would commit to amending existing VOC, NOx, SOx and PM rules to reflect new BARCT standards as they become available in the future.

Compliance Flexibility Programs

FLX-01 – ECONOMIC INCENTIVE PROGRAMS (ALL POLLUTANTS): Proposed Control measure FLX-01 (Intercredit Trading Program) is designed to complement command-and-control measures. The primary objectives of this measure are to enhance regulatory compliance flexibility, lower compliance costs, and to incentivize early emission reductions and promote commercialization of advanced pollution control technologies through emission credit provisions. The SCAQMD will expand incentive-based credit generation rules and programs to provide technology advancement or early implementation of mobile, area, and stationary source emission reduction projects. Credit rules may be developed for use in RECLAIM, command-and-

control programs, or for use by projects subject to New Source Review (Regulation XIII).

FLX-02 - PETROLEUM REFINERY PILOT PROGRAM: This proposed control measure includes a pilot program to provide an alternative means of compliance for refinery operators by allowing them to achieve their emission reduction obligations by reducing emissions from on-site or off-site projects. Based on a recommendation provided in the 2003 AQMP, the SCAQMD initiated a collaborative multi-stakeholder process to consider whether to implement this approach as a pilot program for refineries in the Basin. This process has been ongoing since the initial July 2005 Working Group meeting. If such a program is adopted, then upon achieving at a minimum equivalent emission reductions to those reductions anticipated under command-and-control rules, the pilot program would subsume any short- and mid-term control measures and long-term reduction obligations proposed in the Draft 2007 AQMP for the refinery sector. Implementing this pilot program does not preclude future adjustments to the overall reduction targets established for this source category if warranted by attainment demonstrations or inventory changes in future SIP revisions.

Emission Growth Management

EGM-01 - EMISSION REDUCTIONS FROM NEW OR REDEVELOPMENT PROJECTS (NOX, VOC, AND PM2.5): The purpose of this proposed control measure is to mitigate the significant air quality impacts from new development and redevelopment projects to comply with the "all feasible measures" requirement in state law. The measure will evaluate three potential approaches to reduce VOC, PM2.5, and NOx emissions from new of redevelopment land use projects: the San Joaquin Valley Unified Air Pollution Control District's approach; a new development project threshold approach, and a CEQA approach. The SCAQMD will establish a working group involving local governments, and residential, commercial, and industrial developers to explore these approaches.

EGM-02 - EMISSION BUDGET AND MITIGATION FOR GENERAL CONFORMITY PROJECTS (ALL POLLUTANTS): A General Conformity determination is required by the federal Clean Air Act (CAA) for federal actions other than transportation actions. The requirements for General Conformity are contained in the federal Clean Air Act (CAA) and must, in general, support the goals of the State Implementation Plan (SIP). One method of determining conformity is for the SCAQMD to identify applicable emission budgets for the federal agencies to determine if the total of the direct and indirect emissions from the General Conformity project meets the emission budget in the SIP. The SCAQMD proposes to make this determination through a combination of setting aside emissions from each source category, offsetting emissions exceeding budgets, and mitigation fees.

EGM-03 - EMISSIONS MITIGATION AT FEDERALLY PERMITTED SITES (ALL POLLUTANTS): This control measure addresses mitigation measures for federally permitted projects impacting the district. This need for mitigations was the result of a

recently proposed liquefied natural gas facility to be located in federal waters offshore of Ventura County. While this project is located within Ventura County and must obtain an air permit from the U.S. EPA, the district is downwind and will be directly impacted by the proposed project and the quality of natural gas may significantly affect the district's progress towards achieving air quality goals in the district.

SCAQMD's Mobile Source Control Measures

MOB-01 – MITIGATION FEE PROGRAM FOR FEDERAL SOURCES (ALL POLLUTANTS): In order to achieve a fair share reduction commitment from federal sources, this new control measure proposes to implement a mitigation fee program which is to be adopted by U.S. EPA with the mitigation fee to be paid by federal sources through EPA rulemaking and/or U.S. EPA grants to the SCAQMD. Federal sources include emission source categories such as aircraft, ocean-going vessels, trains, and pre-empted off-road equipment that are under the jurisdiction of U.S. EPA. These sources continue to represent a significant source of emissions in the district in the absence of adequate federal regulations. Under this control measure, the SCAQMD will use the monies collected to implement strategies for both federal and non-federal sources to achieve equivalent reductions for SIP purposes. Projects funded by the Mitigation Fee Program for federal or other sources would be selected based on specific criteria, including but not limited to: quantifiable emission benefits, emission reduction potential, cost-effectiveness, and proximity to affected areas (e.g., environmental justice areas). These projects would have to be approved by the SCAQMD 's Governing Board.

MOB-02 – EXPANDED EXCHANGE PROGRAM (ALL POLLUTANTS): In order to increase the penetration of electric equipment or new low emission gasoline-powered equipment, this control measure would expand the existing lawn mower/leaf blower exchange programs. Expanding these programs will be accomplished by increasing the number of exchange events and available funding for these programs. In addition, other small off-road equipment as well as recreational outboard engines used in pleasure craft, may also be considered for exchange programs to accelerate the turnover of existing engines

MOB-03 - BACKSTOP MEASURE FOR INDIRECT SOURCES OF EMISSIONS FROM PORTS AND PORT-RELATED FACILITIES [ALL POLLUTANTS]: This proposed control measure will address emissions from all new and existing stationary and mobile sources at ports and port-related facilities, including non-attainment criteria pollutants and toxics emissions. The objective of this backstop measure is to ensure the adequacy of and effective implementation of port measures and strategies proposed or developed by the ports or CARB. Possible control approaches include: limiting increases in health risks caused by toxic air contaminants; reducing health risks caused by toxic emissions from ports and port projects; preventing emission increases of non-attainment pollutants for port projects; and emission reduction goals for ports to implement AQMP measures.

MOB-04 – EMISSIONS REDUCTION FROM THE CARL MOYER PROGRAM [NOx, PM2.5]: The proposed control measure would take credit for the emission reductions achieved through past and future projects funded through the Carl Moyer Program for SIP purposes in two phases. Examples of projects funded through this program include on-road heavy-duty vehicle modernization, installation of retrofit units, and engine repowers. Phase I of this control measure is based on the projects implemented from 1998 to 2006. Phase II of this measure is based on the reductions to be achieved from the implementation of new projects under the Carl Moyer Program. Emission reductions would be estimated based on the committed level of funding for this program and a conservative cost-effectiveness assumption of $14,300 per ton reduction specified in the Carl Moyer Program guidelines (although existing projects have substantially lower (better) cost-effectiveness estimates).

1.8.2 RECOMMENDED STATE AND FEDERAL CONTROL MEASURE

In addition to SCAQMD and SCAG's measures, the Draft 2007 AQMP includes additional short- and mid-term control measures aimed at reducing emissions from sources that are primarily under State and federal jurisdiction, including on-road and off-road mobile sources, and consumer products. These measures are required in order to achieve the remaining emission reductions necessary for PM2.5 attainment and making progress toward the 8-hour ozone attainment are summarized in Table 1-2.

A large percentage of emission sources in the district are primarily under state (CARB) or federal (U.S. EPA) jurisdiction. These sources include on-road and off-road mobile sources and consumer products. CARB is currently in the process of developing control measures to reduce emissions from under its jurisdiction to assist the SCAQMD in attaining the AAQS's. CARB is expected to release its control strategies early in 2007. CARB, however, has provided the SCAQMD with a list of proposed concepts.

Based on CARB's proposed control concepts, for the Draft 2007 AQMP, SCAQMD staff is recommending for CARB's consideration more defined control measures for reducing emissions from sources under state and federal jurisdiction that local authorities, CARB, U.S. EPA, and the SCAQMD could implement to attain applicable air quality standards. The SCAQMD has prepared these recommended control measures because: 1) the reductions associated with CARB's proposed concepts are not expected to achieve the reductions necessary for the PM2.5 and ozone attainment, as initially proposed; 2) CARB's concepts lack the specificity on the proposed control measures which are needed for public review and federal approval; and 3) the PM2.5 attainment strategy cannot rely on undefined or long-term control measures because "black box" or Section 182(e)(5) measures of the federal Clean Air Act (CAA) are not allowed for PM2.5 attainment purposes. Thus,

the recommended measures are intended to better define short-term and mid-term control measures needed for reaching attainment by 2015 and to meet legal requirements.

TABLE 1-2

SCAQMD's Recommended Control Measures for Sources Under State and Federal Jurisdiction

On Road	
Number	**Title**
ONRD-01	Smog Check Improvements
ONRD-02	Expanded Bar Vehicle Retirement and Mandatory Pert Replacement
ONRD-03	California Phase 3 Reformulated Gasoline Modifications
ONRD-04	More Stringent Motorcycle Standards
ONRD-05	PM Testing for Light- and Medium-Duty Vehicles
ONRD-06	Accelerated Penetration of Partial Zero-Emission and Zero-Emission Vehicles
ONRD-07	Grater use of Diesel Fuel Alternatives and Diesel Fuel Reformulation
ONRD-08	Accelerated Retrofits of Heavy-Duty Vehicles
ONRD-09	In-Use Emission Reductions form On-Road Heavy-Duty Vehicles
ONRD-10	Further Emission Reductions from Out-of-State/International Registered Heavy-Duty Vehicles
ONRD-11	Enhanced Inspection and In-Use Emissions Tracking of Heavy-Duty Vehicles
ONRD-12	Further Emissions Reductions from Heavy-Duty Trucks Providing Freight Drayage Services
Off Road	
Number	**Title**
OFFRD-01	Construction/Industrial Equipment Fleet Modernization
OFFRD-02	Accelerated Turnover and Catalyst Based Standards for Pleasure Craft
OFFRD-03	More Stringent Exhaust Standards for Off-Road Recreational Vehicles
OFFRD-04	Evaporative Standards for Recreational Vehicles and Pleasure Craft
OFFRD-05	Further Emission Reductions from Locomotives
OFFRD-06	Clean Marine Fuel Requirements for Ocean-Going Marine Vessels
OFFRD-07	Further Emission Reductions from Ocean-Going Marine Vessels and Harbor Craft While at Berth
OFFRD-08	Further Emission Reductions from Cargo Handling Equipment
OFFRD-09	Vessel Speed Reduction
OFFRD-10	Further Emission Reductions from Ocean-Going Marine Vessels
OFFRD-11	Emission Reductions from Aircraft
OFFRD-12	Lower Exhaust and Evaporation Standards and Fleet Modernization for Lawn and Garden Equipment
OFFRD-13	Emission Reductions from Airport Ground Support Equipment
Consumer Products	
Number	**Title**
CONS-01	Further Emission Reductions from Consumer Products

Impacts from the SCAQMD's recommended control measures will be evaluated in the PEIR in lieu of analyzing CARB's concepts because CARB's concepts lack the detail to adequately identify potential adverse environmental impacts. It is expected that this approach will adequately capture impacts from CARB's control measures because it is not expected that CARB's control measures will be more stringent or cover sources beyond those currently considered by the SCAQMD recommended control measures. As a result, it is expected that impacts from CARB's control measures will be within the scope of the analysis presented in the Draft PEIR.

ONRD-01 – SMOG CHECK IMPROVEMENTS: This control measure proposes improvements and enhancements to the existing Smog Check II Program for light- and medium-duty vehicles in the district. Enhancements include: evaporative leak check tests; more stringent testing cutpoints; accelerated simulation monitoring (ASM) testing for all-wheel and four-wheel drive vehicles; enhanced on-board diagnostics; remote sensing for purposes of identifying high emitting vehicles and subsequent off-cycle repairs or vehicle retirement through incentives; two-speed idle emission testing in urbanized regions; inclusion of diesel-powered light- and medium-duty vehicles; and inclusion of motorcycles into California's Smog Check Program.

ONRD-02 – EXPANDED BUREAU OF AUTOMOTIVE REPAIR (BAR) VEHICLE RETIREMENT AND MANDATORY PART REPLACEMENT: This proposed control measure calls for promoting the permanent retirement of eligible vehicles through financial incentives currently offered through the California Smog Check Program. In addition, the proposal includes the implementation of a mandatory parts replacement program of critical emission control systems after a vehicle has reached a certain mileage cap. The proposal calls for increasing the current vehicle retirement program within BAR's Consumer Assistance Program from approximately 18,000 vehicles per year statewide to 50,000 vehicles, with approximately half targeted for the district. This proposed control measure would only affect those vehicles currently on-cycle (those vehicles within three months of their Smog Check test date).

ONRD-03 – CALIFORNIA PHASE 3 REFORMULATION GASOLINE MODIFICATIONS: This measure seeks to offset the impacts of greater use of ethanol in reformulated gasoline. The proposed reformulation would offset a portion of the ethanol impacts and provide additional oxides of nitrogen benefits. However, not all of the ethanol impacts will be mitigated through reformulation and other measures must be implemented to fully mitigate the impacts of low ethanol reformulated gasoline blends.

ONRD-04 – MORE STRINGENT MOTORCYCLE STANDARDS: This proposed control measure calls for the establishing a 50 percent reduction target applicable to the exhaust emission standards over all three classes of motorcycles beginning with the 2010 model year. Given that the tightest passenger car emission standards are approximately 40 times more stringent that the current applicable passenger vehicle emission standards, a significant reduction in current on-road motorcycle emission standards should be technologically and commercially feasible. Expected technologies

that could be deployed on motorcycle engines could include improved fuel delivery, engine modifications, catalytic converter enhancements, and engine calibrations techniques. Additionally, the proposed control measure would also be augmented with a 50 percent increase in stringency from the current evaporative standard.

ONRD-05 – PM TESTING FOR LIGHT- AND MEDIUM-DUTY VEHICLES: This proposed control measure calls for the inclusion of light- and medium-duty diesel vehicles into the current Smog Check program. The proposed program would incorporate a visible smoke test requirement into the existing Smog Check test requirements within the next year. Additionally, this proposed control measure would have the State of California adopt an in-use particulate matter criteria (PM cutpoint) for gasoline and diesel powered vehicles subject to the Smog Check test requirements by the year 2010 with applicable test methods for purposes of measurements.

ONRD-06 – ACCELERATED PENETRATION OF PARTIAL ZERO-EMISSION AND ZERO-EMISSION VEHICLES: This proposed control measure focuses on the accelerated penetration and implementation of advanced technologies that are capable of achieving partial zero-tailpipe emissions. CARB through its fleet averaging requirements under the current Low Emission Vehicle II program can ensure the availability of partial zero-emission vehicles (PZEVs) in the California market. In conjunction with an aggressive vehicle retirement program targeting older high-emitting vehicles identified via a remote sensing program, the proposed control measure would offer sufficient vouchers to replace such vehicles with vehicles achieving PZEV emission standards. This proposed measure would generally replace the oldest model year vehicles identified via remote sensing with one of the cleanest commercially available vehicles. This proposal would call for a 50 percent sales target of PZEV's beginning in calendar year (CY) 2010. In CY 2014, the fleet of PZEVs would grow to 1.2 million in the district.

ONRD-07 – GREATER USE OF DIESEL FUEL ALTERNATIVES AND DIESEL FUEL REFORMULATION: This measure calls for a two-phase approach to achieve additional emission benefits from engines powered by diesel fuel. The first phase would have CARB adopt by mid-2007 enhanced diesel fuel specifications. The proposal reflects the achievement of tighter in-use aromatic controls and improvements in sulfur control technology, which allows diesel fuel to be refined down to the detection limit of sulfur. Additionally, recent test data indicate that higher cetane levels are associated with lower emissions of VOC and NOx. The proposed reformulation will also reflect the application of the latest refining technology to reduce polycyclic aromatic hydrocarbons, which have been associated with higher levels of mutagenicity and toxic impacts relative to other diesel components, such as paraffinic compounds.

The second phase of the control measure calls for greater use of alternatives to diesel fuel including gas-to-liquid fuels, dimethyl ether, propane, or other emulsified diesel fuel that provide additional NOx or PM reductions. User or supplier incentives would be established to ensure that at least 50 percent of current volume of conventional diesel

fuel – approximately 1.5 billion gallons statewide annually – would be displaced with diesel alternatives.

ONRD-08 – ACCELERATED RETROFITS OF HEAVY-DUTY VEHICLES: This measure calls for accelerated retrofit programs for heavy-duty vehicles operating primarily in the district. This measure covers all vocations that use heavy-duty vehicles except for Class 8 over-the-road trucks that provide freight drayage services. This measure would target approximately 20,000 heavy-duty diesel vehicles, between 1988 through 2009 model-year for retrofitting by CY 2014. In addition, for calendar year 2020, an additional 20,000 heavy-duty diesel vehicles will be targeted for retrofitting. The retrofit requirement would include a 30 percent reduction in NOx emissions and either a 25 or 85 percent reduction in PM emissions, depending on the model year of the vehicle.

ONRD-09 – IN-USE EMISSION REDUCTIONS FROM ON-ROAD HEAVY-DUTY VEHICLES: This measure would call for accelerated replacement of on-road heavy-duty vehicles with vehicles meeting the 2010 on-road heavy-duty exhaust emissions standards, beginning in 2010. The proposal calls for resources to be directed at replacing the older "captive" fleet used for short- to medium-distance hauling. About 12,000 heavy-heavy-duty diesel and medium-heavy-duty diesel vehicles would be targeted for replacement in the district over a 10-year period. It is envisioned that half the truck replacement would be diesel powered and the remaining half would be alternative fuel powered.

ONRD-10 – FURTHER EMISSION REDUCTIONS FROM OUT-OF-STATE/INTERNATIONAL REGISTERED HEAVY-DUTY VEHICLES: This measure calls for the development of a federal incentives program similar to the state's Carl Moyer Program for heavy-duty vehicles registered outside of California. The federal program would provide funding assistance to either retrofit or replace older over-the-road trucks with commercially available control technologies. There are a number of retrofit technologies that are commercially available that could be used to support this program.

ONRD-11 – ENHANCED INSPECTION AND IN-USE EMISSIONS TRACKING OF HEAVY-DUTY VEHICLES: This measure would require CARB to develop an expanded inspection and maintenance program for heavy-duty diesel vehicles. The control meaure would require expanding CARB's current smoke inspection program and would also include the following: 1) a visual under-the-hood inspection of the emission control devices, 2) an electronic check of the truck's on-board computer, and 3) use of remote sensing technology to assess in-use heavy-duty diesel trucks emissions. An added component to this measure is to incorporate a not-to-exceed limit for 1998 and older trucks to ensure in-use emissions are kept to a minimum.

ONRD-12 – FURTHER EMISSIONS REDUCTIONS FROM HEAVY-DUTY TRUCKS PROVIDING FREIGHT DRAYAGE SERVICES: This measure calls

for the retrofitting or replacing existing over-the-road trucks providing drayage services at marine ports, intermodal facilities, or warehouse distribution centers. This measure contains elements of ONRD-08 and ONRD-09. A similar program is proposed in the Draft Clean Air Action Plan. Since the state is currently developing a regulation on trucks operating at marine ports, the proposed control measure would complement statewide actions.

Off-Road Mobile Source Control Measures

OFFRD-01 – CONSTRUCTION/INDUSTRIAL EQUIPMENT FLEET MODERNIZATION: Over the last ten years and over the next seven years, new off-road diesel engines will have met or will need to meet more stringent emissions standards. These standards are designated by different Tiers with pre-Tier 0 engines being the oldest and most polluting through Tier 4 engines which will be the cleanest off-road engines with emission standards somewhat higher than those for similarly aged on-road engines. This measure will, through incentives and regulation, replace or retrofit the oldest off-road diesel engines with new engines that will meet the diesel engine on-road 2010 emission standards. Reductions from this measure were calculated by assuming that by 2014 all pre-Tier 2 off-road engines for construction, industrial, and transport refrigeration unit (TRU) engines are replaced with new on-road engines meeting the 2010 standard or retrofitted with equipment that meets the 2010 standard. In addition all Tier 2 and Tier 3 engines are retrofitted with verified diesel emission control (VDEC) equipment that reduces their diesel PM emissions by 85 percent. It is further assumed that by 2020 all pre-Tier 4 engines are replaced with on-road engines meeting the 2010 standard or better.

OFFRD-02 – ACCELERATED TURNOVER AND CATALYST BASED STANDARDS FOR PLEASURE CRAFT: This measure proposes to accelerate the turnover of outboard engines, personal watercraft, and inboard/sterndrive boats to ensure that by 2014 the outboard engines and personal watercraft fleet average meets Tier 3 standard levels (the most stringent levels in place today), and the inboard/sterndrive fleet average meets 2008 standard levels (the cleanest levels currently promulgated). By 2020, new emission standards will be developed and the outboard engines and personal watercraft fleet average will meet emission levels approximately three times more stringent than the 2014 levels, and the inboard/sterndrive fleet average will meet emission standard levels approximately 10 times more stringent than the 2014 levels.

OFFRD-03 – MORE STRINGENT EXHAUST STANDARDS FOR OFF-ROAD RECREATIONAL VEHICLES: New emission standards and accelerated fleet turnover are proposed to reduce emissions from this category. Off-road motorcycles and all terrain vehicles (ATV) must meet a standard that was promulgated in 1994. This measure would propose that new standards be adopted based on catalyst technology and incentives be developed to accelerate fleet turnover such that by 2014 the fleet average meets the new standards. By 2021, it is assumed that new emission standards approximately 10 times more stringent than those in place in 2014 are adopted and

incentives are in place to accelerate fleet turnover to ensure that the average fleet emission level meets or exceeds the new emission standard levels.

OFFRD-04 – EVAPORATIVE STANDARDS FOR RECREATIONAL VEHICLES AND PLEASURE CRAFT: Some vehicles or vessels in the off-road recreational vehicle and the pleasure craft categories need to meet or will soon be required to meet evaporative emission control standards. However, technology exists that could provide additional reductions. This measure proposes through retrofit, incentives, and regulation, to reduce evaporative emissions by 45 percent in 2014 and 90 percent in 2020. More stringent evaporative controls are proposed which will include methods for controlling permeation and venting emissions from off-road recreational vehicles such as motorcycles; ATVs; and pleasure craft including personal watercraft, outboard motors, and inboard/sterndrive boats.

OFFRD-05 – FURTHER EMISSION REDUCTIONS FROM LOCOMOTIVES: This measure calls for all locomotives operating in the district to meet Tier 3 equivalent emissions by 2014. In addition, the measure proposes that all locomotives moving in and out of the twin ports in the southern California region to be equipped with Tier 3-equivalent controls by 2011. Existing technologies can reduce NOx and PM emissions by over 90 percent.

OFFRD-06 – CLEAN MARINE FUEL REQUIREMENTS FOR OCEAN-GOING MARINE VESSELS: This measure would require all ocean-going vessels traveling within 40 nautical miles of Point Fermin to switch to 0.2 percent sulfur content marine distillate fuels by 2008.

OFFRD-07 – FURTHER EMISSION REDUCTIONS FROM OCEAN-GOING MARINE VESSELS AND HARBOR CRAFT WHILE AT BERTH: This control measure would require ocean-going vessels and harbor craft to use shore-side power or other equivalently clean alternative technology while at berth. It is envisioned that a specific number of berths can be equipped with shore-side power by 2014 and a majority of the berths will provide shore-side power by 2020.

OFFRD-08 – FURTHER EMISSION REDUCTIONS FROM CARGO HANDLING EQUIPMENT: This control measure would require additional emission reductions from cargo handling equipment beyond the state regulation. The control measure calls for accelerated turnover of existing equipment with engines that meet 2007 or 2010 on-road emissions standards or Tier 4 off-road emissions standards through strategies included in the Ports' Clean Air Action Plan or further amendments to the state regulation beginning in 2008.

OFFRD-09 – VESSEL SPEED REDUCTION: This measure would implement a 12 knot speed limit to ocean-going vessels traveling within 40 nautical miles of Point Fermin. A majority of ocean-going vessels are currently complying with a 12 knot speed limit within 24 nautical miles on a voluntary basis. Implementation of the proposed measure would further reduce NOx emissions.

OFFRD-10 – FURTHER EMISSION REDUCTIONS FROM OCEAN-GOING MARINE VESSELS: This measure seeks further emission reductions of NOx and PM from ocean-going vessels and harbor craft. Current technologies such as advanced slide valve designs can provide immediate emissions benefits on the order of 30 percent. Combining this technology with other control technologies such as water injection can lead to greater than 50 percent reduction in NOx emissions.

OFFRD-11 – EMISSION REDUCTIONS FROM AIRCRAFT: This measure calls for the federal government to establish more stringent emissions standards for aircraft engines. In addition, recent research in fuel reformulation could lead to cleaner aviation fuels that would result in additional emission reductions.

OFFRD-12 – LOWER EXHAUST AND EVAPORATION STANDARDS AND FLEET MODERNIZATION FOR LAWN AND GARDEN EQUIPMENT: With over six million pieces of lawn and garden equipment in the district, there exist many options to continue reducing emissions from this source category. Through an appropriate mix of more stringent exhaust and evaporative standards and incentives for accelerated fleet turnover as well as electrification, a 25 percent reduction in NOx and VOC emissions are proposed by 2014. Following similar strategies through to 2020, an additional 25 percent reduction is assumed for year 2020.

OFFRD-13 – EMISSION REDUCTIONS FROM AIRPORT GROUND SUPPORT EQUIPMENT: This measure would seek emission reductions from airport ground support equipment primarily through electrification. In addition, equipment that could not be electrified would be required to use cleaner fuels or be repowered.

Consumer Products

CONS-01 – FURTHER EMISSION REDUCTIONS FROM CONSUMER PRODUCTS: Consumer products include products such as detergents, polishes, cosmetics, hairsprays, and disinfectants that are used primarily by household and institutional consumers. Consumer products represent a significant source of VOC emissions in the district. Although existing regulations for consumer products have reduced projected emissions from this category, VOC emissions from this category are estimated to be about 108 tons per day, or 18 percent of the total VOC inventory in the district in 2014. Under Health and Safety Code 41712, CARB has the authority and responsibility to achieve the maximum technologically and commercially feasible VOC emission reductions from consumer products. However, CARB is prohibited from eliminating a product type (e.g., mode of dispensing). The proposed measure seeks to achieve about 30 percent VOC emission reduction by 2014 and 50 percent reduction by 2020. The 2020 reduction target is incorporated as part of the long-term Control Measure LTM-01 (Reactivity-Based Controls).

1.8.3 LONG-TERM CONTROL MEASURES

In order to demonstrate attainment of the 8-hour ozone standard, long-term emission reductions above and beyond those achieved from short-term and mid-term measures by the SCAQMD, CARB, SCAG, and U.S. EPA are required by the 2020/2023 timeframe. Long-term reductions are primarily based on long-term measures that anticipate the development of new control techniques or improvement of existing control technologies. The federal Clean Air Act (CAA) Section 182(e)(5) specifically authorizes the inclusion of such long-term measures for extreme ozone nonattainment areas – these measures are often referred to as the "black box." The size of the black box is based on the difference between the final attainment target (carrying capacity) for each pollutant and the emissions remaining after the implementation of short-term and mid-term control measures.

Achieving the reductions ascribed to the black box by the 2021/2024 attainment deadline will pose a tremendous challenge to the agencies, businesses, and residents of California. Based on the latest emission inventory and modeling analysis, the overall reduction targets for meeting the 8-hour ozone standard are 300 tons per day of VOC and 286 tons per day of NOx in 2021(or 2024). After implementation of the short-term and mid-term control measures, the size of the black box is estimated to be 135 tons per day of VOC and 40 tons per day of NOx reductions.

The following sections describe the long-term strategy proposed by the SCAQMD for stationary sources as well as for the state and federal sources.

SCAQMD's Portion of Long-Term Strategy – By 2020, emission sources under the SCAQMD's jurisdiction will account for 27 percent of VOC and 13 percent of NOx emissions in the district. Nevertheless, in view of the magnitude of the reductions required for attainment demonstration, the SCAQMD is prepared to do its fair share of long-term measures to achieve additional reductions from stationary sources. These measures primarily rely on the development of reactivity-based reformulations for coatings, advanced controls for fugitive VOC sources, and long-term reductions from the RECLAIM Program (e.g., efficiency improvements). Specifically, the SCAQMD is proposing the following stationary source long-term measures:

LTM-01	Reactivity-Based Controls (SCAQMD's portion)
LTM-02	Further Emission Reduction from NOx RECLAIM Facilities
LTM-03	Long-Term Measure for Fugitive Emissions

For the purpose of this Draft 2007 AQMP, the SCAQMD's long-term reduction target associated with Control Measures LTM-01 and LTM-03 is estimated at 32 tons per day of VOC in 2020. Control Measure LTM-01 is proposed to be

implemented by the SCAQMD for the architectural coatings and miscellaneous coatings and solvent categories and by CARB for consumer products. The long-term emission reductions from Control Measure LTM-02 are not quantified at this time. For the Final 2007 AQMP, the SCAQMD will refine its long-term reduction commitment to incorporate any revisions to the emissions inventory, air quality modeling analysis, and carrying capacity. A brief description of the SCAQMD's long-term measures is presented below.

LTM-01 – REACTIVITY-BASED CONTROLS (VOC): Under this control measure, additional VOC reductions will be sought from consumer products by reducing the overall reactivity of VOC used in these products. The proposed measure would require consumer products to be formulated with a minimum 50 percent by volume acetone reactivity-equivalent materials beginning in 2015 or achieve equivalent mass VOC emission reductions of approximately 56 tons per day by 2020.

LTM-02 – FURTHER EMISSION REDUCTION FROM NOx RECLAIM FACILITIES (NOx): The proposed measure is separated into two implementation phases. Under Phase I, beginning in 2008 the RECLAIM allocations will be reduced to offset potential emission increases due to the introduction of natural gas with a Wobbe Index greater than 1360 (See Control Measure CMB-04 for details). Phase II addresses the potential reduction of NOx emissions due to evolving BARCT in the next 10 to 15 years and any BACT installations due to RECLAIM NSR requirements.

LTM-03 – LONG-TERM MEASURE FOR FUGITIVE EMISSIONS (VOC): The emission sources targeted under this control measure include a variety of fugitive emissions from gasoline dispensing facilities, petroleum refineries, chemical plants, and green waste composting. This control measure will be implemented in two phases. In the first phase, emissions data and characteristics for each source category will be developed and refined. Depending on the result of the assessment, specific control strategies will be developed for implementation in the second phase.

LTM-04 – CONCURRENT REDUCTIONS FROM GLOBAL WARMING STRATEGIES (ALL POLLUTANTS): Achieving the AB32 greenhouse gas (GHG) reduction targets would require significant development and implementation of energy efficiency technologies and extensive shifting of energy production to renewable sources. In addition to reducing GHG emissions, such strategies would concurrently reduce emissions of criteria pollutants associated with fossil fuel combustion. This long-term measure would quantify the concurrent emission reductions associated with statewide GHG programs targeted at stationary and mobile sources in the district working with various state agencies. Emission reductions from these programs will be applied toward the long-term reduction targets for meeting the federal ozone standard by 2021 (or 2024). The SCAQMD will continue to collaborate with various state agencies in quantifying the concurrent combustion emission reductions. The control

measure assumes a 15 percent reduction of emissions from all combustion sources by 2020.

LTM-05 – FURTHER VOC REDUCTIONS FROM MOBILE SOURCES – Under this long-term control measure, CARB will achieve further VOC reductions from various on-road and off-road mobile source categories by 2020 beyond the reductions achieved through the short-term control measures based on the implementation of various control strategies (e.g., accelerated vehicle and equipment turnover, retrofits).

1.8.4 SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS REGIONAL TRANSPORTATION STRATEGY AND CONTROL MEASURES

Transportation plans within the district are statutorily required to conform to air quality plans in the region, as established by the 1990 Federal Clean Air Act and subsequently reinforced by the Intermodal Surface Transportation and Efficiency Act (ISTEA), Transportation Equity Act for the 21st-Century (TEA-21) and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The region must demonstrate that its transportation plans and programs conform to the mandate to meet the NAAQS in a timely manner

The long-term transportation planning requirements for emission reductions from on-road mobile sources within the district are met by SCAG's Regional Transportation Plan (RTP) which is developed every four years with a 20-year planning horizon. The short-term implementation requirements of the Transportation Conformity Rule are met by SCAG's biennial Regional Transportation Improvement Program (RTIP), the first two years of which are fiscally constrained and demonstrate timely implementation of a special category of transportation projects called Transportation Control Measures (TCMs).

The region is required to identify TCMs, as specified in the Federal Clean Air Act (Section 108 (f)(1)(A)) and also by U.S. EPA's Transportation Conformity Rule (40 CFR Part 93). In the event a region falls out of conformity, only those projects identified as TCMs may go forward. In general, TCMs are those projects that provide emission reductions from on-road mobile sources, based on changes in the patterns and modes by which the regional transportation system is used. The various strategies considered as part of the 2004 RTP and 2006 RTIP are defined, collectively, as a single TCM, with specific strategies grouped into the following three components:

- High Occupancy Vehicle (HOV) Strategy: This strategy attempts to reduce the proportion of commute trips made by single occupancy vehicles - the clearly preferred mode of travel within the southern California region, constituting over 75 percent of all home-to-work trips, according to the 2000 U.S. Census - by

increasing the share of HOV ridership within the region. HOV lanes are one example of such projects where particular segments of heavily used freeways are designated for exclusive use by HOV vehicles, particularly during rush-hour traffic. The purpose of such measures is to make car-pooling and ride-sharing practices more attractive to individuals who may otherwise prefer the convenience of a single occupancy vehicle commute trip.

- Transit and Systems Management: This strategy relies primarily on providing facilities and infrastructure that incentivize an increase in the proportion of regional trips that make use of transit as a transportation mode. This strategy also promotes the use of alternative modes of transportation (e.g., bicycle and pedestrian modes) and would incentivize increases in the average vehicle occupancy (AVO) or ridership (AVR) by facilitating van-pools, smart shuttles and other such strategies.

- Information-based Transportation: This strategy relies primarily on innovatively providing information in a manner that successfully influences the ways in which individuals use the regional transportation system. Typically, such strategies induce changes in trip behavior that beneficially influence travel to reduce congestion and air pollution impacts. One strategy attempts to increase the proportion of ride-sharing and car-pooling trips by providing information that makes it easier to match up people traveling to and from particular sets of origin and destination points. Another strategy attempts to shift the time-profile of demand - thus, transportation demand management (TDM) - by redistributing traffic flows from peak to off-peak hours. This strategy relies on providing single occupancy vehicle operators with realistic and near-real time estimates of congestion using internet-based information networks in an effort to influence their decision to defer traveling to a less congested time of day.

SCAG's Regional Council approved the transportation control measures and strategies included in the 2004 RTP and, subsequently, the investment commitments contained in the 2006 RTIP. These measures and recommendations have accordingly been moved forward for inclusion in the region's air quality plans and are included as part of the 2007 AQMP. The impacts of implementation of these TCMs were evaluated in a separate CEQA document, the Final 2004 Regional Transportation Plan Program Environmental Impact Report (SCH No. 2003061075) (SCAG, 2004). A list of the TCMs from the 2004 RTP can be found in Appendix B of this Initial Study. The Draft PEIR for the 2007 AQMP will rely on the environmental analyses in the SCAG 2004 Final PEIR for the RTP for the evaluation of the environmental impacts of implementing the TCMs. Environmental impacts from implementing the TCMs will be addressed in the Draft PEIR for the 2007 AQMP under cumulative impacts.

1.9 ALTERNATIVES

The Draft PEIR will discuss and compare alternatives to the proposed project as required by CEQA Guidelines §15126.6. Alternatives must include realistic measures for attaining the basic objectives of the proposed project and provide a means for evaluating the comparative merits of each alternative. In addition, the range of alternatives must be sufficient to permit a reasoned choice and it need not include every conceivable project alternative. The key issue is whether the selection and discussion of alternatives fosters informed decision making and public participation. A CEQA document need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

Alternatives will be developed based in part on the major components of the proposed plan. The rationale for selecting alternatives rests on CEQA's requirement to present "realistic" alternatives; that is alternatives that can actually be implemented. Alternatives to be considered for the 2007 AQMP include the No Project Alternative, an alternative to implement localized controls that would focus on areas that substantially exceeded the ambient air quality standards because of local emissions, and alternatives that would vary the amount of NOx, SOx, and VOCs controlled through implementing the long-term control measures.