
EXECUTIVE SUMMARY

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INTRODUCTION

Pursuant to the California Environmental Quality Act (CEQA), this Environmental Impact Report (EIR) has been prepared to address the potential environmental impacts associated with the South Coast Air Quality Management District's 2003 Air Quality Management Plan (AQMP). As discussed below, the AQMP is the planning document that sets forth policies and measures to achieve federal and state air quality standards in the region.

California Environmental Quality Act

CEQA Public Resources Code Section 21000 et seq., requires that the potential environmental impacts of proposed projects be evaluated and that feasible methods to reduce or avoid identified significant adverse environmental impact from these projects be identified.

To fulfill the purpose and intent of CEQA, the South Coast Air Quality Management District (SCAQMD) has prepared this EIR to address the potential environmental impacts associated with the 2003 revision to the AQMP. Prior to making a decision on the 2003 AQMP, the lead agency decision makers must review and certify the EIR as providing adequate information on the potential adverse environmental impacts of the AQMP.

Notice of Preparation/Initial Study

A Notice of Preparation (NOP) and Initial Study for the draft 2003 AQMP EIR (included as Appendix A of this EIR) were distributed to responsible agencies and interested parties for a 30-day review and comment period ending September 27, 2002. The Initial Study identified potential adverse impacts in the following environmental topics: air quality; energy; hazards and hazardous materials; hydrology and water quality; and solid/hazardous waste. The EIR also includes detailed responses to all 16 comments received on the Initial Study (Appendix B).

Since the 2003 AQMP will modify and drop certain control measures contained in the 1997/1999 State Implementation Plan (SIP), not all of the comments received on the Initial Study are applicable to the proposed project. Consequently, this EIR does not comprehensively evaluate all of the environmental topics recommended in the comment letters. Detailed responses to all 16 comments received on the Initial Study are included in Appendix B of this EIR.

EIR Format

The overall format of the EIR is as follows:

Executive Summary

Chapter 1: Introduction
Chapter 2: Project Description
Chapter 3: Environmental Setting
Chapter 4: Environmental Impacts and Mitigation Measures
Chapter 5: Alternatives
Chapter 6: Other CEQA Topics
Chapter 7: References
Chapter 8: Acronyms

SUMMARY: CHAPTER 2 - PROJECT DESCRIPTION

Implementation of the AQMP's strategies requires a cooperative partnership of governmental agencies at the federal, state, regional and local level. At the federal level, the U.S. Environmental Protection Agency (U.S. EPA) is charged with regulation of on-road motor vehicle standards; trains, airplanes, and ships; certain non-road engines; and off-shore oil development. The California Air Resources Board (CARB) also oversees on-road emission standards, fuel specifications, some off-road sources 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 the development of the AQMP. Furthermore, at the local level, the Southern California Association of Governments (SCAG) has a dual role of leader and coordinator. In their leadership role, they, in cooperation with local jurisdictions and sub-regional associations, develop strategies for these jurisdictions to implement. As a coordinator, they facilitate the implementation of these strategies (i.e., transportation control measures).

Chapter 2 describes existing air quality regulations and details the proposed approach for the 2003 revision to the AQMP.

Current Control Strategy

The AQMP strategy being implemented (i.e., 1997 AQMP) includes measures which target stationary, mobile, and indirect sources. These measures are based on feasible methods of attaining ambient air quality standards. Such approaches also form the basis of many of the remaining 1997/1999 SIP revision control measures, the new control measures, and the contingency measures proposed in the 2003 AQMP.

The SCAQMD has prepared a comprehensive plan update and incorporated the following improvements:

- 1) Revising emissions inventory projections using 1997 as the base year, the CARB on-road motor vehicle emissions model EMFAC2002, an off-road model, and SCAG 2001 Regional Transportation Plan (RTP) forecast assumptions;
- 2) Updating remaining control measures from the 1997/1999 SIP and incorporating new control measures based on current technology assessments;

- 3) Relying on 1997 ozone episodes and the latest modeling techniques for attainment demonstration relative to ozone and particulate matter ten microns in diameter or less (PM10); and
- 4) Providing an initial assessment of progress toward the federal 8-hour ozone and particulate matter 2.5 microns in diameter or less (PM2.5) standards.

2003 AQMP Control Strategy

The control strategy in the proposed 2003 AQMP Amendment is set forth according to agency jurisdiction. Similar to the 1999 SIP 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.

SUMMARY: CHAPTER 3 - ENVIRONMENTAL SETTING

Air Quality

Over the last one and a half decades, there has been significant improvement in air quality in the SCAQMD's jurisdiction. Nevertheless, some air quality standards are still exceeded frequently and by a wide margin. Of the National Ambient Air Quality Standards (NAAQS) established for six criteria pollutants (ozone, lead, sulfur dioxide, nitrogen dioxide, carbon monoxide, and (PM10)), the South Coast Air Basin's jurisdiction is in attainment with the state and national standards with the exception of ozone and PM10. California standards are more stringent than the federal standards, and in the case of PM10 and sulfur dioxide (SO₂), far more stringent. The SCAQMD monitors levels of various criteria pollutants at 32 monitoring stations. Air quality in the Basin continues to improve, with recent years registering the lowest levels since measurements began five decades ago.

Unlike primary criteria pollutants that are emitted directly from an emission source, ozone is a secondary pollutant. It is formed in the atmosphere through a photochemical reaction of VOC, oxides of nitrogen (NO_x), oxygen, and other hydrocarbon materials with sunlight. Locations within the AQMD's jurisdiction exceed the federal ozone standard far more frequently than any other areas in the United States. Ozone levels in the AQMD jurisdiction exceeded the federal standard by the widest margin compared to other criteria pollutants. The Basin exceeded the federal health one-hour ozone standard on 36 Basin-days in 2001, with maximum levels approximately 58 percent higher than the federal ambient air quality standard, where, Basin-days represent the number of days a standard was exceeded anywhere in the Basin. In 2002, the South Coast Air Basin exceeded the federal health one-hour standard for ozone on 49 Basin-days, with maximum levels approximately 36 percent higher than the federal ambient air quality standard.

PM10 includes a complex mixture of man-made and natural substances including sulfates, nitrates, metals, elemental carbon, sea salt, soil, organics and other materials. The federal PM10 24-hour standard was exceeded in a few areas in 2001. The federal maximum 24-hour concentration standard for PM10 was exceeded in the Basin by approximately 25 percent.

Energy

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the U.S. Department of Transportation (U.S. DOT), U.S. Department of Energy (U.S. DOE), and U.S. EPA are three agencies with substantial influence over energy policies and programs. On the state level, the California Public Utilities Commission (CPUC) and California Energy Commission (CEC) are two agencies with authority over different aspects of energy.

The California Energy Commission collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and regulates the power plant siting process.

Recent energy use figures show that in 2001, 49.4 percent of California's petroleum came from in-state, with 21.3 percent coming from Alaska, and 29.3 percent being supplied by foreign sources. In 1999, 82 percent of the state's electricity was self generated, and 18 percent came from out-of-state. As for natural gas in 1999, 46 percent came from the Southwest, 28 percent from Canada, 16 percent from in state, and 10 percent from the Rockies.

One of the key areas of concern in the energy sector is reducing the amount of petroleum based fuels in the District. Consumption of these fuels is a major factor in the amount of criteria pollutants in southern California. Alternative fuels play an important role in the strategy to reach attainment in the region.

California's three major investor-owned utilities collected money from their ratepayers over a four-year period (1998 to 2002) to help support renewable electricity-generation technologies and develop a renewable market. Renewable energy resources include: biomass, hydro, geothermal, solar and wind. In the future they could also include the use of ocean thermal, wave, and tidal action technologies. Utility renewable resource applications include bulk electricity generation, on-site electricity generation, distributed electricity generation, non-grid-connected generation, and demand-reduction (energy efficiency) technologies

Hazards and Hazardous Materials

The potential for hazards is a factor in the production, use, storage, and transportation of hazardous materials. The term “hazardous material” is defined in different ways for different regulatory programs. For the purposes of this EIR, the term “hazardous materials” refers to both hazardous materials and hazardous wastes. Hazardous materials may be found at industrial production and processing facilities. Examples of hazardous materials used on a consumable basis include petroleum, solvents, and coatings. Hazardous materials are stored at facilities producing such materials and at facilities where hazardous materials are part of the production processes. Specifically, storage refers to the bulk handling of hazardous materials before and after they are transported to the general geographical area of use. Currently, hazardous materials are transported throughout the District in great quantities via all modes of transportation including rail, highway, water, air and pipeline.

Hazard concerns are related to the risks of explosions or the release of hazardous substances or exposure to air toxics. State law requires detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of to prevent or mitigate injury to health or the environment in the event that such materials are accidentally released. Federal laws, such as the Emergency Planning and Community-Right-To-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act or SARA) impose similar requirements. These requirements are enforced by the California Office of Emergency Services. In 2001, there were a total of 2,470 releases of hazardous materials reported in the Los Angeles, Orange, Riverside and San Bernardino counties, or an average of about 206 incidents per month.

Hydrology and Water Quality

The Federal Safe Drinking Water Act, enacted in 1974 and implemented by the U.S. EPA, imposes water quality and infrastructure standards for potable water delivery systems nation-wide. The California Safe Drinking Water Act was enacted in 1976. Potable water supply is managed through local agencies and water districts, the State Department of Water Resources (DWR), the Department of Health Services (DHS), the State Water Resources Control Board (SWRCB), the U.S. EPA, and the U.S. Bureau of Reclamation. The DWR manages the State Water Project (SWP), and compiles planning information on supply and demand within the state.

The DWR divides the state into ten hydrologic regions. Some regions contain a great deal of water, some regions are very dry and must have their water imported by aqueducts.

The South Coast Air Basin lies within the South Coast Hydrologic Region. The cities of Los Angeles, Long Beach, Santa Ana, San Bernardino, and Big Bear Lake are among the many urban areas in this section of the state. The Santa Clara, Los Angeles, San Gabriel, and Santa Ana Rivers are among the area’s hydrologic features. Most lakes in this area are actually reservoirs, made to hold imported water.

Imported sources of water (including the Colorado River Aqueduct (CRA), the State Water Project's California Aqueduct, and the LAA currently supply more than six million-acre-feet of water to the southern California region annually. Imported sources account for approximately 74 percent of the total water used in the region. Local water resources, which include groundwater and captured surface water runoff, are fully developed and are expected to remain relatively stable in the future on a region-wide basis. Several groundwater basins in the region are threatened by overdraft conditions, increasing levels of salinity, and contamination by agricultural land to urban development, thereby reducing the land surface available for groundwater recharge. Increasing demand for groundwater may also be limited by water quality, since levels of salinity in sources currently used for irrigation could be unacceptably high for domestic use without treatment.

The SWRCB, and the nine regional water quality control boards (RWQCB), are responsible for protecting surface and groundwater supplies in California. In particular, the SWRCB establishes water-related policies and approves water quality control plans, which are implemented and enforced by the RWQCBs. Five RWQCBs have jurisdiction over areas within the boundaries of the South Coast Air District. These agencies also regulate discharges to state waters through federal pre-treatment requirements enforced by the publicly owned treatment works (POTWs).

Water quality of regional surface water and groundwater resources is affected by point source and non-point source discharges occurring throughout individual watersheds. Regulated point sources, such as wastewater treatment effluent discharges, usually involve a single discharge into receiving waters. Non-point sources involve diffuse and non-specific runoff that enters receiving waters through storm drains or from unimproved natural landscaping. Within the regional Basin Plans, the RWQCBs establish water quality objectives for surface water and groundwater resources and designate beneficial uses for each identified waterbody.

Much of the urbanized areas of Los Angeles and Orange Counties are serviced by three large POTWs operating on the coast: the City of Los Angeles Bureau of Sanitation Hyperion Facility, the Joint Outfall System of the Los Angeles County Sanitation Districts (LACSD), and the Orange County Sanitation District (OCSD) treatment plant. Each of these facilities discharges an average of over 250 million gallons per day

Solid/Hazardous Waste

A total of 30 Class III active landfills and two transformation facilities (i.e., waste-to-energy facilities) are located within the district with a total capacity of 104,584 tons per day. Permit requirements, capacity and surrounding land use are three of the dominant factors limiting the operations and life of landfills in the South Coast Air District. Landfills are permitted by the local enforcement agencies with concurrence from the California Integrated Waste Management Board (CIWMB). Local agencies establish the

maximum amount of solid waste that can be received by a landfill each day, and the operational life of a landfill. Landfills are operated by both public and private entities (CIWMB, 2002a). Landfills in the district are also subject to requirements of the SCAQMD as they pertain to gas collection systems, dust and impacts.

There are no hazardous waste disposal sites within the jurisdiction of the SCAQMD. Hazardous waste generated at area facilities, which is not reused on-site, or recycled off-site, is disposed of at a licensed in-state hazardous waste disposal facility. Two such facilities are the Chemical Waste Management Inc. (CWMI) Kettleman Hills facility in King's County, and the Safety-Kleen facility in Buttonwillow (Kern County). Kettleman Hills has an estimated 6.5 million cubic yard capacity and expects to continue receiving wastes for approximately 18 years. Buttonwillow receives approximately 960 tons of hazardous waste per day and has a remaining capacity of approximately 10.3 million tons. The expectant life of the Buttonwillow Landfill is approximately 35 years. Hazardous waste also can be transported to permitted facilities outside of California.

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) is responsible for the permitting of hazardous waste transfer, disposal, and storage facilities. The DTSC conducts annual inspections of hazardous waste facilities. Other inspections can occur on an as-needed basis.

California Department of Transportation (Caltrans) sets standards for trucks in California. The regulations are enforced by the California Highway Patrol. Truck transporting hazardous wastes are required to maintain a hazardous waste manifest. The manifest is required to describe the contents of the material within the truck so that wastes can readily be identified in the event of a spill.

SUMMARY: CHAPTER 4 - ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Chapter 4 – Environmental Impacts and Mitigation Measures, provides a detailed review of the resources that were identified in the NOP and Initial Study where potentially significant adverse impacts were identified (see Appendix A). Each of the proposed control measures was evaluated to determine the resources that would potentially be impacted, if the control measure or strategy was adopted. A summary of each control measure and resources that would be potentially impacted by their implementation is provided in Table ES-1. The following subsections provide a brief discussion of the potential environmental impacts and mitigation measures for each environmental category analyzed. Table ES-2 provides a summary of the impacts identified under each resource category, identifies mitigation measures that were imposed (if applicable), and identifies the remaining impacts following mitigation.

Air Quality

Subchapter 4.1 identifies the potential secondary air quality impacts as a result of implementing stationary and mobile control measures in the 2003 AQMP. The analysis

of potential air quality impacts include impacts from increased electrical demands, secondary impacts from control of stationary sources, secondary emissions from consumer products, dust suppression, secondary impacts from miscellaneous sources, secondary impacts from mobile source and transportation control measures, construction activities, and impacts from non-criteria pollutants. Examples of secondary air quality impacts include emissions from control equipment (such as afterburners), potential additional emissions from electric power generating equipment because of projected increases in demand for electricity. Every control measure in the 2003 AQMP was evaluated for potential effects on air quality, grouped together into categories (e.g., coating and solvent reformulation, transportation measures, dust suppression, etc.), and then evaluated for their potential to create significant adverse air quality impacts. To determine whether air quality impacts for adopting and implementing the AQMP as a whole are significant, impacts are evaluated and compared to significance criteria.

The analysis of secondary air quality impacts indicated that potentially significant impacts could be expected for: (1) NO_x emissions associate with transportation of manure out of the district; (2) emissions from marine vessels and trains associated with importing oxygenates and other refinery feedstocks into the district; (3) PM₁₀ emissions associated with transportation control measures; (4) emissions from construction activities; and (5) toxic air contaminants associated with the use of exempt compounds.

The objective of the 2003 AQMP is to attain or maintain all state and federal ambient air quality standards. Based upon the modeling analyses described in Chapter 4.1 of this document, implementation of all control measures contained in the 2003 AQMP is anticipated to bring the District into compliance with state and federal standards for all pollutants, except state ozone and PM₁₀ standards, by the year 2010. Thus, potential cumulative air quality effects of the proposed control measures are not considered significant.

Energy

Subchapter 4.2 identifies the potential energy impacts as a result of implementing stationary and mobile control measures in the 2003 AQMP. The EIR evaluated the potential impacts of the AQMP on electricity, natural gas, petroleum fuels, and alternative fuels.

Increases in electricity are expected from additional control equipment and from increased electrification of mobile sources. Energy impact savings are expected from the light roofing programs associated with control measure MSC-01. The demands for electricity associated with increased electrification of mobile sources could be partially offset by charging equipment (e.g., forklifts) at night when the electricity demand is low, thus minimizing impacts on peak electricity demands. The 2003 AQMP includes strategies that promote energy conservation. These energy impacts, although unavoidable, are expected to be less than significant because power generating utilities are expected to have the capacity to supply the estimated electrical increase.

Control measures in the 2003 AQMP will result in an increase in natural gas associated with use as alternative fuels, with add-on controls, and indirectly for utility electric generators as the demand for electricity (e.g., for electric vehicles and the electrification of diesel engines) increases. The natural gas impacts from the implementation of the 2003 AQMP are expected to be less than significant. Sufficient natural gas resources are available without the need for new or substantially altered natural gas systems.

Implementation of the 2003 AQMP is expected to result in a larger decrease in the use of petroleum fuels than an increase in petroleum fuel use, resulting in less demand on the use of petroleum fuels. Therefore, implementation of the 2003 AQMP is not expected to result in a significant impact on petroleum fuel use.

The design and goal of the 2003 AQMP is to shift from conventional petroleum based fuels to less polluting alternative transportation fuels. Although an increase in alternative transportation fuels is expected, this increase is not expected to be significant since alternative fuels (e.g., natural gas and hydrogen) are available or the feedstock that produces the fuels are generally available.

Hazards

Subchapter 4.3 – Hazards, evaluated the hazard impacts from the following: reformulated coatings, solvents and consumer products, refineries modifications to produce reformulated fuels, use of alternative fuels, ammonia use in SCRs, fuel additives, and vapor recovery.

Potentially significant impacts were identified for refinery modifications to produce reformulated fuels, use of ammonia in SCRs, and vapor recovery. Mitigation measures were developed for each of these impact categories. The only impact area that is expected to remain significant, following mitigation, is refinery modifications.

Hydrology and Water Quality

Subchapter 4.4 – Hydrology and Water Quality, identifies potential water resource impacts that may result from implementation of the 2003 AQMP. The impact analysis includes both water quality and water demand. The hydrology and water quality impacts associated with reformulated coatings, solvents and consumer products, dust suppression, alternative transportation fuels, electric vehicles, add-on pollution control equipment, and water demand were evaluated.

Potentially significant impacts were identified for reformulated solvents, coatings and consumer products, the potential illegal disposal of batteries, and water demand. Mitigation measures were developed for each of these impact categories. The mitigation measures were expected to reduce the potential hydrology/water quality impacts to less than significant.

Solid/Hazardous Waste

Subchapter 4.5 – Solid/hazardous waste, identifies the potential solid/hazardous waste impacts as a result of implementing stationary and mobile control measures in the 2003 AQMP. The analysis in the EIR included evaluation of solid waste impacts from spent batteries from electric vehicles, potential solid waste impacts due to air pollution control technologies, carbon adsorption, particulate filtration equipment, catalytic oxidation, and early retirement of equipment.

The potential impacts associated with the additional spent batteries and spent carbon were considered to be potentially significant and mitigation measures were developed. Overall, the potential impacts of the 2003 AQMP of solid/hazardous waste were considered less than significant because most of the waste streams that would be generated could be recycled.

See Table ES-2 for a more detailed analysis of the project impacts, mitigation measures, and remaining or residual impacts.

SUMMARY: CHAPTER 5 - ALTERNATIVES

The following alternatives were evaluated in the EIR:

No Project Alternative: The net effect of not adopting the 2003 AQMP would be a continuation of the existing 1997/1999 SIP. The No Project Alternative will take into account the most current air quality setting (1997) and will include updated and refined control measures. The No Project Alternative is an extension of the existing 1997/1999 SIP that includes control measures previously identified. The No Project Alternative is required under CEQA, but was rejected as infeasible.

Less NO_x Reduction Alternative: Compared with the proposed project, the long-term strategy in this alternative will not rely on NO_x emission reductions from federal sources such as planes, trains, ships, 49-state vehicles, and farm and construction equipment less than 175 horsepower. Under this alternative, the NO_x carrying capacity will increase by about 70 tons per day. Although the one-hour ozone standard will still be demonstrated with this alternative, attainment of the PM_{2.5} standard will be jeopardized because reductions of NO_x emissions (which are major contributors to PM_{2.5}) associated with federal sources will not be realized.

More VOC Reduction Alternative: This alternative is based on a lower VOC carrying capacity compared with the proposed project, representing an additional 60 tons per day of VOC reductions. This lower carrying capacity will provide an additional compliance margin and if in the event an alternative air quality model/chemistry package is used, it will also provide the necessary attainment demonstration. The SCAQMD's share of the additional VOC reductions will come from further penetration of zero- or near-zero coating and solvent technologies, process modifications for manufacturing type operations, and additional controls for petroleum marketing (e.g., enhanced vapor

recovery). The additional VOC emission reductions from sources under state and federal jurisdiction will be based on more aggressive penetration of retrofit controls on existing on-road and off-road mobile sources as well as further penetration of zero emission vehicles (ZEVs) in passenger cars and light-duty trucks and zero- or near-zero VOC consumer products.

More VOC and Less NOx Reductions: This alternative is a combination of Alternatives 2 and 3. It will not rely on NOx emission reductions from federal sources and is based on a lower VOC carrying capacity compared with the proposed project, representing an additional 60 tons per day of VOC reductions.

Least Toxics Alternative: This alternative will be based on the control strategies and source categories described in the long-term strategies as well as additional PM10 reduction strategies from on-road diesel trucks and buses and the electrification of marine hotelling operations and stationary agricultural pumps. The alternative will require an across-the-board penetration of 50 percent of all heavy-duty on-road vehicles (model years 1994 and newer) beginning in 2005. All retrofits will be completed by 2010. For hotelling operations and agricultural pumps using diesel engines, it is assumed that 75% of these units will use on-shore electric supply and electric motors by 2010.

The impacts of the alternatives are similar to the proposed project with the exception that the No Project Alternative would exceed the peak one-hour ozone standard in 2010.

SUMMARY: CHAPTER 6 – OTHER CEQA TOPICS

Relationship Between Short-term Uses and Long-Term Productivity

Implementing the 2003 AQMP is not expected to achieve short-term goals at the expense of long-term environmental productivity or goal achievement. The purpose of the 2003 revision of the AQMP is to set forth a comprehensive control program that will lead the Basin into compliance with all state and federal air quality standards. By attaining federal and state air quality standards, the AQMP is expected to enhance short and long-term environmental productivity in the region.

Significant Irreversible Environmental Changes

Implementation of the 2003 AQMP is not anticipated to result in any significant irreversible adverse environmental changes. The AQMP would place only an incremental demand on nonrenewable and limited resources, such as energy and water supplies, relative to the accelerated rate of use of these resources due to population growth and increased consumer demand. The largely irretrievable conversion of undeveloped/agricultural land to urban uses is a function of the growing population and local land use authority, not the 2003 AQMP. The 2003 AQMP is expected to result in long-term benefits associated with a reduction in the use of petroleum-based fuels.

Growth-Inducing Impacts

Growth-inducing impacts can generally be characterized in three ways: (1) a project includes sufficient urban infrastructure to result in development pressure being placed on less developed adjacent; (2) a large project affects the surrounding community by producing a “multiplier effect,” which results in additional community growth; and (3) a new type of development is allowed in an area, which subsequently establishes a precedent for additional development of a similar character. None of the above scenarios characterize the project evaluated in the EIR.

TABLE ES-1

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
MEASURES TO BE IMPLEMENTED BY THE SCAQMD										
CMB-07	Emission Reductions from Petroleum Refinery Flares	SCAQMD	ALL	1,2	Improved operation and maintenance procedures					
CMB-09	Emission Reductions from Petroleum Refinery FCCUs	SCAQMD	PM10 NH ₃		Add on ctrl. equip.	X	X			X
CMB-10	Additional Reductions for NOx RECLAIM	SCAQMD	NOx		Add on ctrl. equip., process changes, purchase RTCs.	X	X	X	X	X
CTS-07	Further Emission Reductions from Architectural Coating and Cleanup Solvents	SCAQMD	VOC		Reformulated low-VOC coatings/solvents.	X		X	X	
CTS-10	Miscellaneous Industrial Coatings and Solvent Operations	SCAQMD	VOC		Reformulation/ Alternative Applications, Innovative implementation mechanism	X	X	X	X	
FUG-05	Emission Reductions from Fugitive Emission Sources	SCAQMD	VOC		Enhanced inspection & maintenance, leakless valves, add on ctrl. equip.	X	X			X
PRC-03	Emission Reductions from Restaurant Operations	SCAQMD	PM10		Add on ctrl. equip. Equipment modification	X	X		X	X
PRC-07	Industrial Process Operations	SCAQMD	VOC	1,2	Enhanced inspection & maintenance, process mods., add on ctrl. equip.					

TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
WST-01	Emission Reductions from Livestock Waste	SCAQMD	VOC NH3		Removal and disposal of manure.	X	X			X
WST-02	Emission Reductions from Composting	SCAQMD	VOC PM10 NH3		Best management practices. Add on ctrl. equip.	X	X			X
BCM-07	Further PM10 Reductions from Fugitive Dust Sources	SCAQMD	PM10		Improved test methods, soil stabilization, work practices, track-out ctrl.devices	X	X		X	
BCM-08	Further Emission Reductions from Aggregate and Cement Plant Manufacturing Operations	SCAQMD	PM10		Dust suppression, covering of conveyors, wheel washing system.	X	X		X	
MSC-01	Promotion of Lighter Color Roofing and Road Materials and Tree Planting Programs	SCAQMD	ALL		Lighter color roofing/paving material, tree plantings.		X		X	
MSC-03	Promotion of Catalyst-Surface Coating Technology Programs	SCAQMD	O3, CO	1,2	Catalytic conversion of O3 & CO					
MSC-04	Emission Reductions from Miscellaneous Ammonia Sources	SCAQMD	NH3		Add on ctrl. equip.	X	X			X
MSC-05	Truck Stop Electrification	SCAQMD	ALL		Provide electricity to eliminate use of diesel engines at truck stops	X	X			
MSC-06	Emission Reductions from Wood Burning Fireplaces and Wood Stoves	SCAQMD	PM10		Certified woodstoves or fireplace inserts, incentive programs, and public outreach		X			X

TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
MSC-07	Natural Gas Fuel Specifications	SCAQMD	NO _x		Fuel specifications (higher heating value content)		X			
MSC-08	Further Emission Reductions form Large VOC Sources	SCAQMD	VOC		Emission Reduction Plan; Controls based on specific source categories	X	X	X		X
FLX-01	Economic Incentive Programs	SCAQMD	ALL		Speculative					
FSS-04	Emission Charges of \$5,000 per Ton of VOC for Stationary Sources Emitting Over 10 Tons per Year	SCAQMD	VOC		Speculative					
FSS-05	Mitigation Fee Program for Federal Sources	SCAQMD	ALL		Speculative					
FSS-06	Further Emission Reductions From In-Use Off-Road Vehicles and Equipment	SCAQMD	ALL		Add on control equipment and use of alternative fuels.	X	X		X	X
FSS-07	Emission Fee Program for Port-Related Sources	SCAQMD	ALL		Speculative					
TCB-01	Transportation Conformity Budget Backstop Control Measures	SCAQMD SCAG ARB	PM10		Watering, chemical stabilization, paving revegetation, track out control, construction project signs, sweeping, VMT reduction strategies, motor vehicle emission controls	X	X		X	X

TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
LTM-ALL	Long-Term Control Measure	SCAQMD	VOC, NOx		Near-zero or zero VOC coating and solvent formulations, add-on controls, inspection & maintenance, process changes	X	X	X	X	X
MEASURES TO BE CONSIDERED BY OTHER AGENCIES										
LT/MED-DUTY-1	Replace or Upgrade Emission Control Systems on Existing Passenger Vehicles – Pilot Program.	ARB	VOC, NOx		Replace O2 sensors & catalyst					X
LT/MED-DUTY-2	Smog Check Improvements	ARB	VOC, NOx,CO	2,3	Improvements to emissions testing.					
ON-RD HVY-DUTY-1	Augment Truck and Bus Highway Inspections with Community-Based Inspections.	ARB	VOC	2,3	Increase heavy-duty vehicle inspections in communities with the most truck traffic.					
ON-RD HVY-DUTY-2	Capture and Control Vapors from Gasoline Cargo Tankers.	ARB	VOC	2,3	Improve vapor connection equipment. Require monthly inspections and maintenance.					
ON-RD HVY-DUTY-3	Pursue Approaches to Clean Up the Existing Truck/Bus Fleet	ARB	VOC, NOx		Reduce emissions from existing heavy-duty diesel vehicles through a mix of strategies.	X	X	X	X	X

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TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
OFF-RD CI-1	Pursue Approaches to Clean Up the Existing Heavy-Duty Off-Road Equipment Fleet (Compression Ignition Engines) – Retrofit Controls	ARB	VOC, NOx, PM10		Engine mods., Add on control tech., Alternative Clean fuels	X	X	X	X	X
OFF-RD CI-2	Registration and Inspection Program for Existing Heavy-Duty Off-Road Equipment to Detect Excess Emissions (Compression Ignition Engines)	ARB/EPA	VOC, NOx, PM10		Off-road registration/in-use compliance test program.					X
OFF-RD LSI-1	Set Lower Emission Standards for New Off-Road Gas Engines (Spark Ignited Engines 25 hp and Greater)	ARB	NOx		Use of improved catalysts.					X
OFF-RD LSI-2	Clean Up Existing Off-Road Gas Equipment Fleet Through Retrofit Controls and New Emission Standards (Spark Ignited Engines 25 hp and Greater)	ARB	VOC, NOx		Add on ctrl. tech., use of electricity	X	X			X
SMALL OFF-RD-1	Set Lower Emission Standards for New Handheld Small Engines and Equipment (Spark Ignited Engines Under 25 hp such as Weed Trimmers, Leaf Blowers, and Chainsaws)	ARB	VOC, NOx	1,2	Engine mods., Control Evaporation Emissions					
SMALL OFF-RD-2	Set Lower Emission Standards for New Non-Handheld Small Engines and Equipment (Spark Ignited Engines Under 25 hp such as Lawnmowers)	ARB	VOC, NOx		Engine mods., Control Evaporation Emissions					X

TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
MARINE-1	Pursue Approaches to Clean Up the Existing Harbor Craft Fleet – Cleaner Engines and Fuels	ARB	VOC, NOx		Retrofit ctrl. Tech., Add on control devices, Alternative Clean Fuels, Electrification	X	X	X	X	X
MARINE-2	Pursue Approaches to Reduce Land-Based Emissions at Ports – Alternative Fuels, Cleaner Engines, Retrofit Controls, Electrification, Education Programs, Operational Controls	ARB	VOC, NOx		Retrofit ctrl. Tech., Alternative Clean Fuels, electrification of diesel equip., operational changes	X	X	X	X	X
FUEL-1	Set Additives Standards for Diesel Fuel to Control Engine Deposits.	ARB	NOx, PM10		Deposit control additives			X		
FUEL-2	Set Lower-Sulfur Standards for Diesel Fuel Trucks/Buses, Off-Road Equipment, and Stationary Engines	ARB	SOx		Alternative Clean Diesel Fuels	X	X			
CONS-1	Set New Consumer Product Limits for 2006	ARB	VOC		Reformulation/ Alternative Applications	X		X	X	
CONS-2	Set New Consumer Product Limits for 2008-2010	ARB	VOC		Reformulation/ Alternative Applications	X		X	X	
FVR-1	Increase Recovery of Fuel Vapors from Aboveground Storage Tanks	ARB	VOC		Add on Control Tech.		X			X
FVR-2	Recover Fuel Vapors from Gasoline Dispensing at Marinas	ARB	VOC		Add on Control Tech.		X	X		X

TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
FVR-3	Reduce Fuel Permeation Through Gasoline Dispenser Hoses	ARB	VOC	2	Reduce fuel permeation through gasoline dispenser hoses					
PEST-1	Implement Existing Pesticide Strategy	ARB	VOC		Reformulation				X	
LONG-TERM	Long-Term Strategy									
	Light/Medium Duty Vehicles - Provide incentives for voluntary passenger vehicle retirement	ARB	VOC NOx CO		Retirement of older vehicles					X
	Smog Check - Explore program expansion to increase benefits, including: Statewide enhanced smog check; Opt-in to test-only program; Halting rolling 30-year exemption at pre-1974 vehicles	ARB	VOC NOx CO	2,3	Improvements to emissions testing (load-mode testing, test-only program, remove exemptions)					
	On-Road Heavy Duty Vehicles - Provide incentives for cleaner trucks and buses, including school buses, On-Board Diagnostics For New Truck/Bus Fleet And In-Use Testing For Existing Truck/Bus Fleet	ARB U.S.EPA	ALL		Reduce emissions through a mix of strategies	X	X	X	X	X
	Off-Road Class 1 Vehicles - Provide incentives for cleaner off-road equipment, Lower Emission Standards for New Off-Road Compression Ignition Engines	ARB U.S.EPA	VOC, NOx		Engine mods., Add on control tech., alternative clean fuels	X	X	X	X	X

TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
LONG-TERM (Continued)	Ports/Marine - Clean Up The Existing Ocean-Going Ship Fleet Through Approaches Such As Cleaner Fuels, Incentives For Cleaner Ships, Smoke (Opacity) Limits, more stringent emissions standards for new harbor craft and ocean-going ships	ARB U.S.EPA	ALL		Operational ctrls, cleaner fuels, cold ironing, retrofit ctrls	X	X	X	X	X
	Airports - Pursue approaches to reduce emissions from vehicles traveling to and from airports, Reduce Emissions from Jet Aircraft Through Approaches Such As More Stringent Engine Standards, Retrofit Controls, Cleaner Fuel, and Applying Standards to Non-Tactical Military Aircraft	ARB U.S.EPA	ALL		Alternative fuels, particulate filters, infrastructure for alternative fuel/ electric vehicles, entry fees, increased transport options	X	X		X	X
	Railroads/Locomotives. More Stringent Emission Standards for New and Remanufactured Locomotive Engines	ARB U.S.EPA	ALL		Accelerate intro. of new, lower emitting locomotive engines, add on controls, alternative fuels	X	X	X	X	X

TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
LONG-TERM (Continued)	Diesel Engines - Set toxics standard for existing stationary diesel fueled engines - over 50 hp; Set toxics standard for existing portable diesel engines; Set toxics standard for new and existing small stationary diesel engines - under 50 hp; Set toxics standard for diesel fueled refrigeration units on trucks	ARB	PM10, NOx		Retrofit technology, electrification, engine performance use of alternate fuels, particulate filters	X	X		X	X
	Fuels - Set sulfur/ash content limits for diesel engine lubrication oils; Advanced technology for diesel engines; Support infrastructure for zero-emission vehicles - electric, fuel cell hydrogen, Low-Sulfur Standards for Diesel Fuel for Trucks/Buses and Off-Road Equipment, and Stationary Engines, Incentives to Accelerate Clean Up of Existing Diesel Engines	ARB U.S.EPA	ALL		Sulfur/ash limits, construction of new infrastructure	X	X	X		X
	Consumer Products – Consider future consumer products regulations	ARB	VOC		Reformulation/ alternative applications	X		X		X
	Incentives - Establish clean air labeling program; Continue Statewide energy conservation program; Consider Statewide public education campaign for air quality	ARB	ALL	1,2	Educational programs					

TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
	Pesticides -Explore approaches to further reduce volatile emissions from pesticides based on regional need.	ARB	VOC		Explore approaches to further reduce volatile emissions from pesticides				X	
Transportation Control Measures										
TCM-A	High Occupancy Vehicle Measures	SCAG	ALL		New HOV lanes, bypass connectors, interchanges and high occupancy toll lanes. .	X	X			
TCM-B	Transit and System Management Measures	SCAG	ALL		Bus, rail and shuttle improvements, park and ride lots, inter-modal transfer facilities, bicycle and pedestrian facilities, railroad consolidation programs, road and traffic control improvements.	X				
TCM-C	Information-Based Transportation Strategies	SCAG	ALL	3	Programs that promote and popularize multi-modal commute strategies to maximize alternatives to single-occupancy vehicle commute trips					

TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
Contingency Measures										
CTY-01	Accelerated Implementation of Control Measures	SCAQMD	ALL	2	Earlier compliance dates					
CTY-04	Enhanced Oxygenated Fuel Content for CO	SCAQMD	CO		Higher oxygen content of gas sold in winter months	X	X			
CTY-14	Emission Reductions from Miscellaneous Sources (Weed Abatement)	SCAQMD	PM10		Require mowing vs discing, lower vehicle speeds, watering		X		X	
Conceptual Control Measures	Accelerate Penetration and Use of Existing Technologies	TBD	ALL	2	Retrofit on and off-road trucks, vehicles, and equipment with existing technologies (e.g., diesel particulate filters). Low or zero-emission ground support equip. at airports; low-emission switcher locomotives.					
Conceptual Ideas for Possible Consideration as Long-Term Measures										
	Demand-Side Strategies	TBD	ALL		Speculative					
	Accelerated Retirement of Older High-Emitting Vehicles	ARB	ALL	2	Implement programs to encourage replacement of older vehicles					

TABLE ES-1 (Continued)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
	Clean Communities Concept	TBD	ALL	3	Incentives to change purchasing habits					
	Smog Check Improvements	ARB	VOC, NOx, CO	2,3	Improved emission testing					
	Remove Disincentives on Voluntary Measures	SCAQMD	ALL	1	Remove impediments created by SCAQMD rules					
	Expand Fleet Rules to Private Fleets	SCAQMD	VOC, NOx, CO		Develop emission requirements for private fleets	X				
	Modify Stationary Source Monitoring Requirements	SCAQMD	ALL	3	More frequent monitoring					
Conceptual Control Measures (concluded)	Add Flexibility to Current Programs	SCAQMD	ALL	2,3	Reduce emissions from less controlled or uncontrolled sources					
	Educational Programs	SCAQMD	ALL	3	Education programs on emission impacts of energy efficiency measures					

TABLE ES-1 (Concluded)

2003 AQMP Control Measure Analysis

Control Measure No.	AQMP Control Measure Description	Agency	Pollutant	Not Significant	Control Measure	Potential Impact				
						Secondary Air	Energy	Hazard	Water	Solid/Haz. Waste
	Control of Emissions from Port Operations	ARB U.S.EPA	ALL		Cold-ironing, electrification, diesel truck retrofit, low sulfur diesel	X	X	X	X	X
	“Emission Bubbles” at Ports and Airports	TBD	ALL	2,3	Develop annual allocations of emissions that must be reduced					
	Consumer Products	SCAQMD	VOC		Regulate additional consumer products	X		X	X	

1 Control technologies do not generate adverse impacts.

2 Changes in operating practices with no impact identified.

3 Changes in testing, inspection, or enforcement procedures, or educational programs, with no impact identified.

TABLE ES-2

Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY		
Secondary impacts from increased electricity demand are not significant.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
Secondary impacts from control of stationary sources are not significant.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
Secondary impacts from consumer products regulations including household and personal care products, and aerosol and other coating products are expected to be less than significant.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
Secondary impacts from dust suppression are expected to be less than significant.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
Secondary impacts from miscellaneous sources were determined to be significant due to an increase in NOx emissions from trucks hauling manure out of the district. The impacts of other pollutants are considered to be less than significant.	Incentive programs to use alternative clean fuels or install particulate transport and oxidation may reduce NOx emissions from haul trucks to less than significant. However, because incentive programs are voluntary, NOx emission reductions are not guaranteed. No other feasible mitigation measures were identified.	NOx emission increases from this control measure remain significant.
Secondary impacts from mobile sources are considered significant for PM10 emissions; were considered less than significant for refineries to produce additional fuels due to existing rules and regulations; and significant for emissions from marine vessels and trains importing oxygenates and other refinery feedstocks into the district.	Modifications of existing equipment and installation of new equipment would both be subject to New Source Review, LAER and BACT requirements. Emissions from marine vessels and trains are under the jurisdiction authority of U. S. EPA so that the SCAQMD is specifically pre-empted from regulating emissions from these sources.	The overall impact of mobile sources due to short-term control measures has been considered significant for PM10 emissions. These emissions were largely associated with the increased transportation of oxygenates and feedstocks.

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TABLE ES-2 (Continued)

Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (Continued)		
<p>The impacts associated with the transportation control measures are considered to be significant for PM10 from increased tire and brake wear of future growth of vehicle miles traveled but not significant from the overall plan.</p>	<p>None required since no significant impacts were identified.</p>	<p>Impacts are expected to be less than significant.</p>
<p>The secondary impacts associated with construction activities are potentially significant for PM10 emissions</p>	<p>Develop a Construction Traffic Emission Management Plan for the proposed project. The Plan shall include measures to minimize emissions from vehicles including: scheduling truck deliveries to avoid peak hour traffic, consolidating truck deliveries, and prohibiting truck idling in excess of 10 minutes. Other measures include: use electricity or alternate fuels for on-site mobile equipment instead of diesel equipment to the extent feasible; maintain construction equipment by conducting regular tune ups and retard diesel engine timing; use electric welders where electricity is available; use on-site electricity rather than temporary power generators where electricity is available; evaluate the feasibility of retrofitting the large off-road construction equipment; Diesel-powered construction equipment shall use low sulfur diesel, to the maximum extent feasible; and Suspend the use of all construction activities during first stage smog alerts.</p>	<p>The emissions associated with construction activities from the proposed 2003 AQMP control measures were considered to be significant for PM10 emissions.</p>
<p>Secondary impacts from long-term control measures would be significant for NOx emissions from trucks hauling manure out of the district; significant for PM10 emissions from mobile sources; and significant for PM10 emissions from construction activities.</p>	<p>Additional secondary air quality impacts are associated with implementation of the long-term control measures were identified for secondary emissions from mobile sources and construction activities (over and above those discussed in other portions of the EIR). The mitigation measures identified under the discussion of short-term measures for mobile sources and construction activities would be required for the long-term measures as well. No additional feasible mitigation measures have been identified.</p>	<p>The residual impact is the same as the mobile source and construction activities short-term measures impacts, i.e., remain significant for significant for NOx emissions from trucks hauling manure out of the district; significant for PM10 emissions from mobile sources; and significant for PM10 emissions from construction activities.</p>

TABLE ES-2 (Continued)

Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
AIR QUALITY (Continued)		
The impacts associated with non-criteria pollutants were determined to be less than significant.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
The impacts of the 2003 AQMP is expected to reduce emissions of compounds that contribute to global warming and ozone so no significant impacts were identified.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
Implementation of the control measures identified in the 2003 AQMP is expected to result in improvements to ambient air quality. Considering the air quality benefits provided by the plan, no significant adverse impacts are expected.	None required since no significant impacts were identified.	Considering the air quality benefits provided by the plan, no significant cumulative adverse impacts are expected.
Cumulative air quality impacts for criteria pollutants is expected to result in sufficient emission reductions to attain and maintain compliance with applicable state and federal ambient air quality standards. Considering the air quality benefits provided by the plan, no significant cumulative adverse impacts are expected.	No significant cumulative impacts were identified so no mitigation measures are required.	The 2003 AQMP is expected to (1) attain the 1-hour federal ozone standard by 2010; (2) maintain compliance with state and federal NO ₂ standards (3) maintain compliance with state and federal SO ₂ standards; (4) attain the federal annual average PM10 standard by 2006; and (5) attain the federal 24-hour PM10 standard by 2010. Cumulative air impacts are expected to be beneficial.
The cumulative air quality impacts for non-criteria pollutants are potentially significant since exempt solvents containing toxic air contaminants could be more commonly used.	The potential increases in toxic air contaminants shall be investigated during the rulemaking process. Feasible measures to minimize the potential increase in toxic air contaminants will be developed.	The mitigation measures should reduce the potential significant impacts to less than significant.

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TABLE ES-2 (Continued)

Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
ENERGY		
The increase in electricity use is expected to be less than significant.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
The increase in natural gas is expected to be less than significant.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
The energy impacts associated with implementation of the control measures and strategies in the 2003 AQMP are expected to result in a reduction in use of petroleum fuels so that no significant impacts on petroleum fuels are expected.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
The increased used in alternative transportation fuels is not expected to be significant since alternative fuels (e.g., natural gas and hydrogen) are available or the feedstock that produces the fuels are generally available.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
The increase in energy demand associated with the long-term control measures is expected to be within the available resources so that no significant impacts are expected.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
No significant cumulative energy impacts have been identified.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
HAZARDS		
The analysis indicates that the hazard impacts associated with reformulated coatings, solvents and consumer products are expected to be less than significant.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.

TABLE ES-2 (Continued)

Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
HAZARDS (continued)		
<p>The 2003 AQMP could result in significant hazard impacts at refineries due to modifications to produce additional fuels. Based on the analysis from previous refinery modifications, it is expected that some of these modifications would result in significant hazard impacts, resulting in an increase in exposure to hazardous materials/flammable materials to the surrounding population.</p>	<p>To reduce occurrences of an upset condition, a pre-start up safety review will be performed for those additions and proposed modifications, where the change is substantial enough to require a change in the process safety information and/or where an acutely hazardous and/or flammable material would be used. The review will verify the following: (1) Construction and modifications are in accordance with design specifications and applicable codes; (2) Safety, operating, maintenance, and emergency procedures are in place and are adequate; (3) Process hazard analysis recommendations have been addressed and actions necessary for start-up have been completed; (4) Training of each operating employee and maintenance worker has been completed; and (5) Written process safety information is available for the employer and employees to identify and understand the hazards posed by the process.</p>	<p>The mitigation measures are expected to reduce but not eliminate the potential hazard impacts. Therefore, the impacts due to refinery modifications are expected to remain significant.</p>
<p>The hazard impacts associated with the use of alternative fuels were determined to be less than significant.</p>	<p>None required since no significant impacts were identified.</p>	<p>Impacts are expected to be less than significant.</p>
<p>The use of ammonia in SCRs is considered to be potentially significant due to implementation of the control measures.</p>	<p>The following mitigation measures were imposed: (1) Rules encouraging the use of SCRs or permits for SCRs shall limit the catalyst to aqueous ammonia or its equivalent; (2) Require the use of transportation routes for ammonia shipments to facilities that ensures minimum exposure to sensitive population and further minimize risks by shipping ammonia during off-peak times; (3) construction of containment dikes is required to be used during off-loading operations; and (4) require construction of containment dikes around ammonia storage tanks to contain the volume of the tank.</p>	<p>The use of aqueous ammonia at concentrations less than 20 percent by volume in conjunction with additional mitigation measures are expected to reduce hazard impacts to less than significant.</p>

ES-30

TABLE ES-2 (Continued)

Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
HAZARDS (continued)		
The hazard impacts associated with fuel additives are expected to be less than significant since the use of fuel additives would require evaluation for their potential health and environmental impacts prior to approval and use.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
The analysis indicates that the hazards associated with vapor recovery were potentially significant at marinas due to the potential build up of vapors.	Rules implementing the vapor recovery control measures at marinas shall ensure that vapor recovery systems are submitted to the State Fire Marshal, if applicable, for review and comment prior to implementation.	The mitigation measure is expected to minimize the potential impacts to less than significant.
No additional significant hazard impacts (over and above those discussed above) are expected from implementation of the long-term control measures.	None required, above those measures identified for the other hazard areas, since no additional significant impacts were identified associated with the long-term measures.	No additional significant hazard impacts (over and above those discussed above) are required due to implementation of the long-term control measures.
No additional cumulative hazard impacts were identified.	None required since no significant impacts were identified.	No additional significant hazard cumulative impacts (over and above those discussed above) are required.
HYDROLOGY/WATER QUALITY		
Increased discharge of wastewater exceeding regulatory effluent limits set by the state and implemented by POTWs as a result of the reformulation of solvents are expected to be not significant.	The following mitigation measures were imposed: (1) SCAQMD will provide an outreach and education program for affected parties; (2) Sanitation Districts and other sewage agencies must increase their surveillance programs to quantify measurable effects resulting from this control measure and take appropriate action; and (3) CARB will monitor the use and limit or prohibit the use of toxic air contaminants in reformulated consumer products.	Although the impacts are not expected to be significant, the mitigation measures have been imposed to ensure the potential impacts on POTWs remain less than significant.

TABLE ES-2 (Continued)

Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
HYDROLOGY/WATER QUALITY (continued)		
The potential water quality impacts from the use of chemical dust suppressants is expected to be less than significant.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
The use of these alternative fuels is not expected to result in greater adverse water quality impacts than the use of regular diesel fuels and is, therefore, less than significant.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
Illegal disposal of electric batteries could result in significant water quality impacts by allowing toxic metals or acids to leach into surface or ground waters.	Mitigation measures include: (1) Requiring leasing, deposit, or rebate programs for electric batteries; and (2) Requiring spent battery exchange for battery replacement.	Mitigation measures were developed that are expected to minimize any increase in illegal disposal of batteries to less than significant.
No significant adverse water resource impacts are expected from additional use of add-on control equipment.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
The control measures that may require add-on control equipment are generally not expected to result in adverse impacts on water demand, as the demand is expected to be within the capacity of water suppliers.	Require the use of native and drought resistant species in tree planting programs to minimize water consumption.	The mitigation measure is expected to minimize the potential impacts to less than significant.
No additional significant hydrology/water quality impacts (over and above those discussed above) are expected from implementation of the long-term control strategies.	None required, above those measures identified for the other water resource areas, since no additional significant impacts were identified associated with the long-term measures.	Impacts are expected to be less than significant.

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TABLE ES-2 (Continued)

Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
HYDROLOGY/WATER QUALITY (concluded)		
Implementation of the 2003 AQMP will have only minor incremental impacts on water quality and water demand compared to the impacts from population growth. The project-specific impacts would be minimized by the impact specific mitigation measures identified for each resource category.	One additional mitigation measures was required to ensure that cumulative water demand impacts are not significant. The mitigation measure will require the use of reclaimed water where available and feasible.	Impacts are expected to be less than significant.
SOLID/HAZARDOUS WASTE		
The analysis indicates that the solid/hazardous waste impacts associated with spent batteries were potentially significant.	Mitigation measures include: (1) Requiring leasing, deposit, or rebate programs for electric batteries; and (2) Requiring spent battery exchange for battery replacement.	The mitigation measure is expected to minimize the potential impacts to less than significant.
No significant solid/hazardous waste impacts were identified for solid waste impacts due to short-term air pollution control technologies as part of the 2003 AQMP.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
The solid/hazardous waste impacts associated with the use of carbon adsorption are considered significant prior to mitigation.	Recycling and reusing activated carbon should be required to minimize the amount of spent carbon waste being transferred to landfills.	The mitigation measure is expected to minimize the potential impacts to less than significant.
The increase in the amount of waste generated from the use of filters and the collection of additional particulate matter is expected to be small.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
The impacts associated with catalytic oxidization were not expected to be significant, due to the recycling of catalysts.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.

TABLE ES-2 (Concluded)

Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

IMPACT	MITIGATION MEASURES	RESIDUAL IMPACT
SOLID/HAZARDOUS WASTE (Concluded)		
Control measures that would require new equipment will generally require that it occur as the life of the old equipment is exhausted. Therefore, no significant solid/hazardous waste impacts were identified due to implementation of the control measures.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.
Additional solid/hazard waste impacts are possible due to implementation of the long-term control measures (over and above those discussed in other portions of the EIR). No additional significant waste impacts (over and above those discussed above) are expected.	None required, above those measures identified for the other solid/hazardous waste issues, since no additional significant impacts were identified associated with the long-term measures.	Impacts are expected to be less than significant.
The increase in solid waste is expected to be within the permit capacity so that no significant cumulative impacts would be expected.	None required since no significant impacts were identified.	Impacts are expected to be less than significant.

ES-34