SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

FINAL PROGRAM ENVIRONMENTAL ASSESSMENT FOR:

PROPOSED FLEET VEHICLE RULES AND RELATED RULE AMENDMENTS

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Please note that minor modifications have been made to the rules since this printing. You may review the final rule version in the Staff Report. Any modifications made to the rules do not change the CEQA analysis.

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CHAPTER 1 - LEGISLATIVE AUTHORITY AND EXECUTIVE SUMMARY

INTRODUCTION 1-1

LEGISLATIVE AUTHORITY 1-3

CALIFORNIA ENVIRONMENTAL QUALITY ACT 1-3
Type of Environmental Assessment 1-3
Notice of Preparation and Initial Study 1-5

INTENDED USES FOR THIS DOCUMENT 1-5

EXECUTIVE SUMMARY 1-7
Summary Chapter 1 1-7
Summary Chapter 2 1-7
Summary Chapter 3 1-8
Summary Chapter 4 1-14
Summary Chapter 5 1-19

CHAPTER 2 - PROJECT DESCRIPTION

PROJECT LOCATION 2-1

BACKGROUND 2-2
Air Toxics Control Plan 2-2
SCAQMD's Multiple Air Toxics Exposure (MATES II) Study 2-4

STATUTORY AUTHORITY 2-5

PROJECT OBJECTIVES 2-7

PROJECT DESCRIPTION 2-7
Main Components of the Proposed Fleet Vehicle and Related Amendments 2-8
PR 1191 – Light and Medium-Duty Public Fleet Vehicles 2-9
PR 1192 – Clean On-Road Transit Buses 2-10
PR 1193 – Clean On-Road Residential and Commercial Refuse Collection Vehicles 2-10
PR 1194 – Commercial Airport Operations Ground Access Fleet Vehicles 2-11
PR 1195 – Clean On-Road School Buses 2-11

PR 1196 – Clean On-Road Heavy-Duty Public Fleet Vehicles 2-12
PR 1186.1 – Alternative Fuel Sweepers 2-12
Proposed Amended Rule (PAR) 431.2 – Sulfur Content of Liquid Fuels 2-12
Rule Adoption Schedule 2-13

AIR QUALITY BENEFITS ESTIMATE 2-13

MOBILE SOURCE REGULATIONS 2-18
CAAA 2-18
EPAct 2-19
CARB's Low Emission Vehicle (LEV) I/II Regulations 2-19
CARB's Transit Bus Rule 2-23
USEPA's Proposed Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements 2-24

CHAPTER 3 – EXISTING SETTING

INTRODUCTION 3-1

AIR QUALITY 3-1
Ozone 3-2
Carbon Monoxide 3-12
Nitrogen Dioxide 3-12
Particulate Matter 3-13
Sulfur Dioxide 3-13
Lead 3-14
Sulfates 3-14
Visibility 3-14
Volatile Organic Compounds 3-14
Non-Criteria Pollutants 3-15

WATER RESOURCES 3-26
Water Demand 3-26
Water Quality 3-29

TRANSPORTATION/CIRCULATION 3-35
Freeways, Highways, and Arterials 3-35
CARB Estimated Vehicle Population 3-37
Rail 3-38

Maritime *3-39*
Air Travel *3-39*

PUBLIC SERVICES **3-40**
Schools *3-40*
Law Enforcement *3-41*
Fire Protection *3-41*

SOLID / HAZARDOUS WASTE **3-42**
Solid Waste *3-42*
Hazardous Waste *3-43*

ENERGY / MINERAL RESOURCES **3-44**
Electricity *3-44*
Natural Gas *3-52*
Liquid Petroleum Fuels *3-55*
Alternative Clean Transportation Fuels *3-58*

HAZARDS **3-73**
Hazardous Materials Management Planning *3-73*
Hazardous Materials Transportation *3-74*
Hazardous Material Worker Safety Requirements *3-74*
Hazardous Waste Handling Requirements *3-76*
Emergency Response to Hazardous Materials and Wastes Incidents *3-77*
Hazardous Materials Incidents *3-77*
Alternative Clean-Fuels *3-77*

CHAPTER 4 - POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

INTRODUCTION **4-1**

THE PROPOSED FLEET VEHICLE UNIVERSE **4-3**

COMPARISON OF CONVENTIONAL FUELS TO ALTERNATIVE CLEAN-FUELS **4-10**

AIR QUALITY **4-14**
Emission Reductions from Implementing the Proposed Fleet Vehicle Rules and Related Amendments *4-14*
Estimated Relative Toxicity of Diesel- and Natural Gas-Fueled Transit Buses, School Buses, and All Other HDVs *4-15*

Methodology and Assumptions *4-17*
Significance Criteria *4-20*
Direct Air Quality Effects *4-21*
Indirect Air Quality Effects *4-40*
Overall Net Air Quality Benefits *4-46*

WATER RESOURCES **4-47**
Significance Criteria *4-48*
Water Demand Effects *4-48*
Water Quality Effects *4-51*

TRANSPORTATION / CIRCULATION **4-58**
Methodology and Assumptions *4-59*
Significance Criteria *4-59*
Direct Transportation / Circulation Effects *4-60*
Indirect Transportation / Circulation Effects *4-62*

PUBLIC SERVICES **4-64**
Significance Criteria *4-65*
Public Services Effects *4-65*

SOLID / HAZARDOUS WASTE EFFECTS **4-68**
Methodology and Key Assumptions *4-68*
Significance Criteria *4-68*
Solid/Hazardous Waste Effects *4-68*

ENERGY / MINERAL RESOURCES **4-75**
Methodology and Key Assumptions *4-75*
Significance Criteria *4-76*
Direct Energy/Mineral Resources Effects *4-76*
Indirect Energy/Mineral Resources Effects *4-81*

HAZARDS **4-83**
Significance Criteria *4-83*
Hazards Effects *4-84*

ENVIRONMENTAL IMPACTS FOUND NOT TO BE SIGNIFICANT **4-103**
Land Use and Planning *4-103*
Population and Housing *4-104*
Geophysical *4-104*
Biological Resources *4-105*
Noise *4-105*

Aesthetics/Recreation *4-107*
Cultural Resources *4-107*
Economic and Social Impacts *4-108*

OTHER CEQA TOPICS **4-108**
Irreversible Environmental Changes *4-108*
Growth-Inducing Impacts *4-109*

CONSISTENCY **4-109**
Consistency with the Air Quality Management Plan (AQMP) *4-110*
Consistency with Regional Comprehensive Plan and Guide (RCPG) Policies *4-112*
Consistency with the Regional Transportation Plan/ Regional Mobility Element (RME) *4-114*

CHAPTER 5 – PROJECT ALTERNATIVES

INTRODUCTION **5-1**

ALTERNATIVES REJECTED AS INFEASIBLE **5-1**

DESCRIPTION OF ALTERNATIVES **5-5**
Alternative A – No Project *5-6*
Alternative B – CARB HDV Standards *5-6*
Alternative C – Delay Implementation Dates by One-Year *5-7*
Alternative D – Minimum Fleet Size is $\geq$ 50 Vehicles *5-7*
Alternative E – Phased Acquisition Rate *5-8*
Alternative F – School Buses *5-8*

COMPARISON OF THE ALTERNATIVES **5-8**
Air Quality *5-9*
Water Resources *5-20*
Transportation / Circulation *5-23*
Public Services *5-25*
Solid / Hazardous Waste *5-27*
Energy / Mineral Resources *5-28*
Hazards *5-32*

CONCLUSION **5-34**

REFERENCES

APPENDIX A - PROPOSED RULES 1991, 1192, 1193, 1194 AND 1186.1

APPENDIX B - NOTICE OF PREPARATION AND INITIAL STUDY

APPENDIX C - RESPONSES TO NOTICE OF PREPARATION / INITIAL STUDY COMMENTS

APPENDIX D - PUBLIC WORKSHOP COMMENTS AND RESPONSES TO COMMENTS

APPENDIX E - EMISSION REDUCTIONS CALCULATION METHODOLOGIES

APPENDIX F - CONSTRUCTION AND OPERATIONAL EMISSION CALCULATION METHODOLOGIES

APPENDIX G - SPREAD SHEETS FOR ENERGY / MINERAL RESOURCES IMPACTS ANALYSIS

APPENDIX G1 - REVISED SPREAD SHEETS FOR ENERGY / MINERAL RESOURCES IMPACTS ANALYSIS

LIST OF TABLES

Table 1-1: Environmental Impacts from The Proposed Fleet Vehicle Rules 1-17
Table 1-2: Comparison of Adverse Environmental Impacts Associated With Project Alternatives 1-20
Table 1-3: Ranking of Alternatives 1-21
Table 2-1: ~~Light & Medium-Duty Vehicle~~ Emission Benefits Estimates for PR~~s~~ 1191 ~~and 1194~~ (tons/yr) 2-15
Table 2-2: ~~Heavy-Duty Vehicle~~ Emission Benefits Estimates For PRs 1192, ~~1193, 1194, 1195, 1196, and 1186.1~~ (tons/yr) 2-15
Table 2-3: CARB's Transit Bus Fleet Rule Requirements And Emission Standards 2-16
Table 2-4: Emission Benefits Estimates For PR 1194 (tons/yr) 2-16
Table 2-5: Emission Benetfits Estimates For PR 1195 (tons/yr) 2-17
Table 2-6: Emission Benefits Estimates For PR 1196 (tons/yr) 2-17
Table 2-7: Emission Benefits Estimates For PR 1186.1 (tons/yr) 2-17
Table 2-8: CARB's Transit Bus Fleet Rule Requirements And Emission Standards 2-24
Table 3-1: Federal and State Ambient Air Quality Standards 3-3
Table 3-2: 1998 SCAQMD Air Quality Data 3-4

Table 3-3: 1998 Annual Average Day Toxic Emissions for the South Coast Air Basin 3-15
Table 3-4: Comparison Of The Network Averaged Modeled Risk To Measured Risk At The Ten MATES-II Sites 3-21
Table 3-5: South Coast Air Basin Modeled Estimated Risk 3-21
Table 3-6: 1994/1995 Water Demand..... 3-27
Table 3-7: Total Average Daily Flow and Capacity for District POTWs..... 3-32
Table 3-8: Examples of Wastewater Treatment Methods 3-32
Table 3-9: Projected Number of Vehicles Operated In The SCAQMD's Jurisdiction And Statewide 3-37
Table 3-10: Electricity Consumption by Sector 3-45
Table 3-11: Electric End-Use Coincident Peak Demand By Sector..... 3-47
Table 3-12: Individual Capacity Balances For The SCAQMD's Jurisdiction..... 3-49
Table 3-13: Total Capacity Balances For The SCAQMD's Jurisdiction..... 3-51
Table 3-14: In-Basin Electricity Capacity 3-51
Table 3-15: Southern California Gas Service Territory Natural Gas End-Use Consumption By Sector 3-53
Table 3-16: California Natural Gas Supply Sources Base Cast Production..... 3-54
Table 3-17: California Crude Oil Supply Possibilities..... 3-56
Table 3-18: Projected Petroleum Demand for Stationary Sources .. 3-56
Table 3-19: Projected Gasoline And Diesel Fuel Demand For Transportation In The Los Angeles Region..... 3-57
Table 3-20: Projected Total Stock Of Light-Duty Vehicles And Medium And Heavy Duty Trucks For Los Angeles Region and Statewide 3-59
Table 3-21: Transportation Fuel Demand Forecast for California 3-61
Table 3-22: M85 Fueling Facilities by Outlet Type..... 3-63
Table 3-23: CNG Fueling Facilities by Outlet Type..... 3-64
Table 3-24: LPG Fueling Facilities by Outlet Type 3-66
Table 3-25: Reported Hazardous Materials Incidents..... 3-77
Table 3-26: Fuel Characteristics Comparison 3-78
Table 4-1: Various On-Road Fleet Vehicles by Gross Vehicle Weight (GVW) Category 4-3
Table 4-2: Universe of Fleet Vehicles At the Release Of The Draft PEA..... 4-5
Table 4-3: Universe of Affected Fleet Vehicles At The Release Of The Draft PEA..... 4-5

Table 4-4: Universe of Affected Fleet Vehicles Broken Down by Fleet Vehicle Rule At The Release Of The Draft PEA 4-6
Table 4-5: Revised Universe Of Affected Fleet Vehicles Broken Down By Fleet Vehicle Rule 4-6
Table 4-6: Estimated Number of Fleet Vehicles At The Release of the Draft PEA That Would Switch to Alternative Clean-Fuels Due to the Proposed Fleet Vehicle Rules 4-8
Table 4-7: Comparison of Performance Indices of Conventional Fuels to Alternative Clean-Fuels) 4-13
Table 4-8: ~~Light- & Medium-Duty Vehicle~~ Emission Benefits Estimates for ~~PRs 1191 and 1194~~ The Proposed Fleet Vehicle Rules (tons/yr) 4-14
~~*Table 4-8: Heavy-Duty Vehicle Emission Benefits Estimates for PRs 1192, 1193, 1194, 1195, 1196, and 1186.1* ..... 4-13~~
Table 4-9: Estimated Relative Toxic Risk 4-17
Table 4-10: Estimated Vehicle Toxic Risk Ratio 4-17
Table 4-11: SCAQMD Air Quality Significance Thresholds 4-20
Table 4-12: New Fueling Stations Anticipated for Compliance with the Proposed Fleet Vehicle Rules 4-22
Table 4-13: Summary of the Proposed Fleet Vehicle Rules Refueling Station Construction Air Quality Impacts 4-23
Table 4-14: Summary of the Proposed Fleet Vehicle Rules Refinery Modifications Construction Air Quality Impacts 4-25
Table 4-15: Construction-Related Mitigation Measures and Control Efficiency 4-26
Table 4-16: Summary of Refinery Modifications Construction Air Quality Impacts (Mitigated) 4-26
Table 4-17: Summary of Emissions from Increased Fuel Delivery Trips from the Proposed Fleet Vehicle Rules 4-29
Table 4-18: Summary of the Proposed Fleet Vehicle Rules Emissions Changes from Removal of Transit Bus Lines 4-43
Table 4-19: Summary of the Proposed Fleet Vehicle Rules Emissions (Mitigated) 4-47
Table 4-20: Methanol Half-Lives in Various Environmental Media 4-52
Table 4-21: Motor Oil Toxic Contaminant Concentrations 4-56
Table 4-22: Estimated Annual Mass Release of Toxics from Illegal Disposal of Used Motor Oil in the SCAQMD's Jurisdiction 4-57
Table 4-23: Truck and Workers Trips Required to Construct a Typical Refueling Station 4-60

Table 4-24: Amount of Nonhazardous Waste Landfilled During Construction-Related Activities 4-69
Table 4-25: Amount of Nonhazardous Waste Landfilled During Operational-Related Activities 4-74
Table 4-26: Total Projected Fuel Usage for the Proposed Fleet Vehicle Rules' Construction Activities 4-77
Table 4-27: Total Projected Fuel Usage for the Proposed Fleet Vehicle Rules' Operational Activities (Direct) 4-78
Table 4-28: Total Projected Fuel Usage for the Proposed Fleet Vehicle Rules' Operational Activities (Indirect) 4-81
Table 4-29: Hazard Summary of Methanol Compared to Gasoline 4-85
Table 4-30: Summary of Hazards and Existing Safety Regulations/Procedures Associated with Alternative Clean-Fuels 4-99
Table 4-31: In-use Penetration Rates for Mobile Source Advanced Technologies 4-111
Table 5-1: Description of Alternatives Rejected as Infeasible or Incorporated into the Proposed Fleet Vehicle Rules or Project Alternatives 5-2
Table 5-2: Number of Vehicles Replaced Each Year By Fuel Type Due to the Implementation of Alternative B 5-11
Table 5-3: Summary of Alternative B Construction Air Quality Impacts 5-11
Table 5-4: Summary of Alternative B Peak Operational Air Quality Impacts (Year 2003) 5-12
Table 5-5: Number of Fleet Vehicles Replaced Each Year By Fuel Type Due to the Implementation of Alternative D 5-13
Table 5-6: Summary of Alternative D Construction Air Quality Impacts 5-14
Table 5-7: Summary of Alternative D Air Quality Impacts (Year 2003) 5-15
Table 5-8: Number of Vehicles Replaced Each Year by Fuel Type Due to the Implementation of Alternative F 5-17
Table 5-9: Summary of Alternative F Construction Air Quality Impacts 5-18
Table 5-10: Summary of Alternative F Peak Air Quality Impacts (Year 2003) 5-18
Table 5-11: Comparison of Net Emission Benefits for Year 2010 From the Proposed Project and the Project Alternatives 5-19
Table 5-12: Total Projected Fuel Usage for Each Alternative During Construction Activities 5-30

Table 5-13: Total Projected Fuel Usage for 2010 for Each Alternative During Operational Activities (Direct) *5-31*
Table 5-14: Comparison Of Adverse Environmental Impacts Associated With Project Alternatives) *5-35*
Table 5-15: Ranking Of Alternatives *5-36*

LIST OF FIGURES

Figure 2-1: South Coast Air Quality Management District *2-1*
Figure 3-1: Major Pollutants Contributing To Cancer Risk In The South Coast Air Basin *3-20*
Figure 3-2: Cancer Risks At The MATES-II Fixed Sites Risks Are Shown For All Sources Including Diesel Particulates, All Sources Excluding Diesel Particulates, And Stationary Sources *3-22*
Figure 3-3: Monthly Variation In Cancer Risks For All Sources Including Diesel Particulates And For Stationary Sources *3-23*
Figure 3-4: Model Estimated Risk For The Basin (All Sources) *3-24*
Figure 3-5: Model Estimated Risk For The Basin (Without Diesel Sources) *3-25*

PREFACE

This document constitutes the Final Program Environmental Assessment (PEA) for the proposed fleet vehicle rules. The Draft PEA was released for a 45-day public review and comment period from March 10, 2000, to April 25, 2000. During the 45-day public review and comment period, the South Coast Air Quality Management District (SCAQMD) received a total of eight comment letters from the public on the Draft PEA. Complete and comprehensive responses to all comments received on the Draft PEA are included in Appendix H.

Along with responses to comments, minor modifications deleting or adding text denoted using ~~strikethrough~~ and underlined, respectively, have been made to the Draft such that it is now a Final PEA. In the context of minor modifications to the Draft PEA, the SCAQMD has updated it to include in this Final PEA the following:

- the current state of each individual rule,
- revised air quality benefits estimates, and
- revised vehicle universe.

However, these minor modifications and updates do not constitute "significant new information"[1] and, therefore, does not require recirculation of the document pursuant to CEQA Guidelines §15088.5. For example, the revised synopsis of each individual rule now considers alternative compliance options, including dual-fuel, hybrid diesel-electric, clean diesel, and other technologies. As a result of allowing the use of these technologies to comply with the proposed fleet vehicle rules, infrastructure changes will be less than what was originally analyzed in the Draft PEA since not all affected fleet vehicles will be required to convert to alternative clean-fuels (e.g., methanol, natural gas, propane, and electricity). The Draft PEA comprehensively analyzed all relevant environmental impacts,

[1] "Significant new information" requiring recirculation include, for example, a disclosure showing that:
(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
(4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

including infrastructure changes, associated with all affected fleet vehicles converting to alternative clean-fuels.

As part of the public comment on the proposed fleet vehicle rules, a number of comments were received to revise the methodology to estimate air quality benefits. After conferring with the California Air Resources Board (CARB) and other affected entities, the SCAQMD decided to refine its methodology for estimating air quality benefits associate with the proposed project. The revised air quality benefits analysis reveals that the proposed fleet vehicle rules will result in more air quality benefits than what was previously estimated. Thus, the net overall air quality benefits when considering air quality impacts will be greater. This modification does not meet any of the criteria in CEQA Guidelines §15088.5 requiring recirculation of this PEA.

Lastly, the revised vehicle universe analysis reveals that the total number of vehicles that will convert to alternative clean-fuels is less than what was originally analyzed in the Draft PEA. Consequently, the extent of potential adverse environmental impacts, including infrastructure changes (e.g., the number of refueling stations) resulting from the proposed project would be less. However, as a "worst-case" the SCAQMD in this Final PEA has left the environmental impacts analysis presented in the Draft PEA intact, so none of the conclusions regarding the environmental analysis have changed.

Consistent with CEQA Guidelines §15168(a) the SCAQMD has decided to prepare a PEA for the proposed fleet vehicle rules and related rule amendments since the project is: (1) a series of actions that are related geographically; (2) logical parts in the chain of contemplated actions; (3) connected with the issuance of rules/regulations, which is a continuing program; and/or (4) carried out under the same authorizing statutory or regulatory authority having generally similar environmental effects which can be mitigated in similar ways. The proposed fleet vehicle rules and proposed amendments to Rule 431.2 are geographically related in that the contemplated project affects fleet vehicles throughout the SCAQMD's jurisdiction. The proposed fleet vehicle rules and proposed amendments to Rule 431.2 are logical parts of a chain of contemplated actions in that the rules are geared toward reducing TACs and criteria pollutants from mobile sources. Additionally, the proposed fleet vehicle rules and related amendments partially implement the SCAQMD's Governing Board's EJ Initiatives #2 and #7 as well as control measures in the SCAQMD's Air Toxics Control Plan. Lastly, as subsequent fleet vehicle rules such as 1194, 1195, 1196, and 1186.1 are adopted as well as Rule 431.2 is amended to

reduce TACs and criteria pollutants from mobile sources, these subsequent actions will generally have similar environmental effects. Accordingly, a PEA is the appropriate document for the proposed project.

The SCAQMD's preparation of a PEA for the proposed project is consistent with CEQA in that the PEA format provides an occasion for a more exhaustive consideration of effects and alternatives that would be impractical in individual rule-specific EAs. Furthermore, under existing CEQA case law, rule-specific EAs might be considered as "piecemealing," a practice the courts have found to be unacceptable. Additionally, this PEA allows in particular the SCAQMD to consider the broad policy alternatives and program-wide mitigation measures, which have been incorporated in revised rule language and appropriate mitigation measures.

The degree of specificity required in this PEA corresponds directly to the specificity of information available to the SCAQMD when analyzing the environmental impacts associated with the implementation and adoption of the proposed fleet vehicle rules and proposed amendments to Rule 431.2. The CEQA Guidelines (§15144) recognize that draft a CEQA document involves some degree of forecasting. While forseeing the unforseeable is not possible, the SCAQMD has made its best efforts to discover and disclose all pertinent information that it reasonably can. As a result, some of the environmental impact analyses are general or qualitative in nature. In the instances where specific information was available, the environmental impacts are quantified to the level of detail warranted by the specificity of the information. If new issues not addressed in this Final PEA and Draft PEA are raised in subsequent individual rule development efforts, the SCAQMD will prepare the appropriate focused CEQA document (e.g., Supplemental or Subsequent EA) by "tiering-off" this Final PEA (CEQA Guidelines §§15152 and 15385). This Final PEA for the proposed fleet vehicle rules and related rule amendments provides the basis for future environmental analyses and will allow individual rule-specific EAs, if necessary, to focus solely on new environmental issues not previously considered in this Final PEA.

CHAPTER 1

EXECUTIVE SUMMARY

Introduction
Legislative Authority
California Environmental Quality Act
Executive Summary

INTRODUCTION

The South Coast Air Basin has seen improved air quality and reduced levels of toxic exposure over the last 25 years. During that time, much of the focus in reducing emissions has been on industrial sources locally while the state and federal governments focus on mobile sources. Despite the large reduction in emissions, exceedances of air quality standards still occur and the average toxic risk level is estimated to be about 1400 in one million. Accordingly, as part of the Governing Board's Environmental Justice (EJ) Initiatives #2 and #7 as well as the South Coast Air Quality Management District's (SCAQMD) Air Toxics Control Plan, the SCAQMD is proposing a series of new rules (referred to hereafter as proposed fleet vehicle rules) that would target specific mobile source categories[2]. These rules as listed below would upon implementation provide early emission reductions of toxic air contaminants (TACs) and ~~to a certain extent~~ criteria pollutants (e.g., oxides of nitrogen (NOx), carbon monoxide (CO), particulate matter (PM), and hydrocarbons (HC)) compared to current projections in the SCAQMD's 1997 Air Quality Management Plan (AQMP) as amended in 1999 as well as provide surplus reductions above California Air Resources Board (CARB) emission standards. The proposed fleet vehicle rules consist of the following new rules.

- 1190 – Reserved
- 1191 – Clean On-Road Light- and Medium-Duty Public Fleet Vehicles
- 1192 - Clean On-Road Transit Buses
- 1193 – Clean On-Road Residential and Commercial Waste Refuse Collection Vehicles
- 1194 – Commercial Airport Ground Access
- 1195 – Clean On-Road School Buses
- 1196 - Clean On-Road Heavy-Duty Public Fleet Vehicles
- 1186.1 – Alternative Fuel Sweepers

In addition as part of this strategy, the SCAQMD intends to amend the following rule to help facilitate further reductions in TACs and criteria pollutants.

- 431.2 – Sulfur Content of Liquid Fuels

[2] It should be noted that the SCAQMD originally proposed the series of 1190 rules as one all encompassing rule entitled *1190 – Clean On-Road Vehicles for Government and Airport Operations*. However, based on numerous comments received at the various public workshops and to alleviate possible confusion, the SCAQMD has broken 1190 in to seven subsequent rules that target specific vehicle categories.

In particular, the proposed fleet vehicle rules will require government fleets and certain private fleets to acquire CARB-certified lower emitting gasoline or clean-burning alternative-fueled vehicles when adding or replacing vehicles to their existing fleets. Examples of fleets affected by this proposal include those operated by federal, state, county, and city agencies, as well as airports, and special districts such as school districts and transit districts. In addition, private fleets providing conventional governmental functions to government agencies such as waste hauling, and street sweeping, as well as private fleets transporting passengers (e.g., taxis, limousines, and shuttle services) to and from airports would be potentially affected by the proposed rules. Examples of clean-burning alternative-fueled vehicles include, but are not limited to, those powered by methanol, natural gas, liquefied petroleum gas, electricity, or a fuel that would meet the definition of low emission vehicle under the California Health and Safety Code.

The SCAQMD plans to bring the aforementioned proposed rules and amendments to its Governing Board for adoption at various times. The exact schedule by which the various proposed fleet vehicle rules will be heard by the SCAQMD's Governing Board is tentative at this time. However, proposed rules (PRs) 1191, 1192, and 1193 are currently scheduled to be heard by the Governing Board at the ~~May~~ June 2000 Public Hearing. Depending on the resolution of various issues, the SCAQMD will in subsequent months bring other proposed fleet vehicle rules individually or in-groups to its Governing Board for consideration and adoption.

Pursuant to California Environmental Quality Act (CEQA) (California Public Resources Code §§21000 et seq.), this document includes a comprehensive analysis of potential environmental impacts from implementing the proposed fleet vehicle rules and amendments. Based upon an initial evaluation in the Initial Study prepared for the original comprehensive fleet vehicle rule, PR 1190, the SCAQMD identified seven environmental topics as having the potential to be adversely affected by the adoption and implementation of the proposed fleet vehicle rules. These environmental areas include: air quality, water resources (e.g., water demand and water quality), transportation/circulation, energy/mineral resources, hazards, public services, and solid/hazardous waste. These potentially impacted environmental areas are comprehensively analyzed in this document. Results of the analysis indicate that the proposed fleet vehicle rules and amendments may generate significant, but short-term, adverse impacts to air quality during the construction of alternative-clean fueling sites and modification of refinery processes to produce low sulfur diesel. However, the results of the analysis indicate that the proposed fleet vehicle rules and related amendments will not create any potentially significant direct or indirect adverse impacts for any of the identified environmental impact areas during the operational phase of the proposed project.

LEGISLATIVE AUTHORITY

The California Legislature created the SCAQMD in 1977 (Lewis-Presley Air Quality Management Act, Health and Safety Code §§40400 et seq.) as the agency responsible for developing and enforcing air pollution control rules and regulations within the SCAQMD's area of jurisdiction. Under Health and Safety Code §40447.5, the SCAQMD has the authority to require owners/operators of public and commercial fleets of 15 vehicles or more, to acquire vehicles powered by methanol or other equivalently clean burning alternative fuels, when adding or replacing vehicle(s) to their fleet. In addition, Health and Safety Code §40919 allows certain nonattainment districts (those that are designated serious and above for ozone) to adopt measures requiring fleets to use a significant number of low-emission vehicles. It is under these authorities that the SCAQMD is proposing to adopt the proposed fleet vehicle rules, which at this time specifically target government fleets and certain private fleets.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The proposed fleet vehicle rules and the proposed amendments to 431.2 are a "project" as defined by the California Environmental Quality Act (CEQA) (~~Cal.~~California Public Resources Code §§21000 et seq.). The SCAQMD is the lead agency for the project and is preparing the appropriate environmental analysis pursuant to its certified regulatory program (SCAQMD Rule 110). California Public Resources Code §21080.5 allows public agencies with regulatory programs to prepare a plan or other written document in lieu of an environmental impact report once the Secretary of the Resources Agency has certified the regulatory program. The Secretary of the Resources Agency certified the SCAQMD's regulatory program on March 1, 1989.

Type of Environmental Assessment

CEQA includes provisions for Program Environmental Impact Reports in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, including adoptions of broad policy programs, from those prepared for specific types of projects (e.g., land use projects) (CEQA Guidelines §15168). As mentioned earlier, the SCAQMD has a certified regulatory program. This program codified in SCAQMD Rule 110 requires *an assessment* of anticipated environmental impacts as well as an analysis of feasible methods to substantially reduce any significant adverse environmental impacts (emphasis supplied). To fulfill the purpose and intent of Rule 110 and consistent with CEQA Guidelines §15168, the SCAQMD has prepared this ~~Draft~~Final Program Environmental Assessment (PEA) to address the environmental areas potentially impacted by the adoption and implementation of the proposed fleet vehicle rules and proposed amendments to Rule 431.2.

Pursuant to CEQA Guidelines §15168(a), "[a PEA] is [an EA] which may be prepared on a series of actions that can be characterized as one large project and are related either: (1) [g]eographically, (2) [a] logical parts in the chain of contemplated actions, (3) [i]n connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or (4) [a]s individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways." The proposed fleet vehicle rules and proposed amendments to Rule 431.2 are geographically related in that the contemplated project affects fleet vehicles in the area of the SCAQMD's jurisdiction. The proposed fleet vehicle rules and proposed amendments to Rule 431.2 are logical parts of a chain of contemplated actions in that the rules are geared toward reducing TACs and criteria pollutants from mobile sources. Additionally, the proposed fleet vehicle rules and related amendments are partially implementing the SCAQMD's Governing Board's EJ Initiatives #2 and #7 as well as the SCAQMD's Air Toxics Control Plan. Lastly, as subsequent fleet vehicle rules such as 1194, 1195, 1196, and 1186.1 are adopted as well as Rule 431.2 is amended to reduce TACs and criteria pollutants from mobile sources, these subsequent actions will generally have similar environmental effects. Accordingly, a PEA is the appropriate document for the proposed project.

There are many advantages to preparing a PEA for this type of project (CEQA Guidelines §15168(b)). For example, a PEA can provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EA on an individual action. A PEA can ensure a more thorough consideration of cumulative impacts that might be slighted in a case-by-case analysis. Also, a PEA can avoid duplicative reconsideration of basic policy considerations. Additionally, a PEA may allow the Lead Agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts. Lastly, a PEA can allow reduction in paperwork since subsequent analysis of the project can rely on the PEA depending on its comprehensiveness. "A [PEA] will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the [PEA], and no further environmental documents would be required (CEQA Guidelines §15168(c)(5)).

The degree of specificity required in a PEA corresponds directly to the specificity of information available for the underlying activity described in the PEA (CEQA Guidelines §15146). Because information regarding some of the potential environmental impacts associated with the future adoption of the proposed fleet vehicle rules and amendments to related rules is difficult to ascertain at this time, some of the environmental impact analyses are general or qualitative in nature. In the instances where specific information is available, the environmental impacts are quantified to the level of detail warranted by the information available. If new issues not addressed in this PEA are raised in subsequent rule development

efforts associated with the proposed fleet vehicle rules, the SCAQMD will prepare the appropriate focused CEQA document (e.g., Supplemental or Subsequent EA).

Notice of Preparation and Initial Study (NOP/IS)

A NOP/IS for this ~~Draft~~Final PEA (included herein as Appendix B) were distributed to responsible agencies and interested parties for a 30-day review and comment period ending December 14, 1999[3]. The NOP/IS identified potential adverse impacts for the following seven environmental topic areas: air quality, water resources (e.g., water demand and water quality), transportation/circulation, public services, solid/hazardous waste, energy/mineral resources, and hazards. The SCAQMD received eight comment letters during the public comment period for the NOP/IS. The SCAQMD's responses to comments submitted on the NOP/IS are presented in Appendix C of this ~~Draft~~Final PEA. Additionally, CEQA-related comments were received during oral testimony given at a Public Workshop/CEQA Scoping Meeting held December 21, 1999 and Public Workshops held on January 12, 2000 and February 16, 2000. The SCAQMD's responses to these are presented in Appendix D of this ~~Draft~~Final PEA.

It should be noted that the original version of PR 1190 in the NOP/IS required affected fleet operators to acquire an alternative clean-fueled vehicle when purchasing or replacing **any** fleet vehicle. No allowance was made for gasoline-fueled or diesel-fueled vehicles. However, based on the comments received during the NOP/IS comment period as well as comments received at the Public Workshop/CEQA Scoping Meeting on December 21, 1999, and Public Workshops held on January 21, 2000, and February 16, 2000, the SCAQMD has modified the original comprehensive PR 1190 proposal.

The current proposal, which consists of a series of new rules and rule amendments, now allows different compliance approaches depending on the type of vehicle being purchased or replaced. The SCAQMD's current approach to reducing TACs and criteria pollutants from specific mobile sources is explained in detail in Chapter 2 of this ~~Draft~~Final PEA.

INTENDED USES OF THIS DOCUMENT

In general, an EA (e.g., CEQA document) is an informational document that informs a public agency's decision-makers and the public generally of the significant environmental effects of a project, identifies possible ways to minimize the significant effects, and describe reasonable alternatives to the project (CEQA Guidelines §15121). A public agency's decision-makers must consider the information in a CEQA document prior to making a decision on the project. Accordingly, this ~~Draft~~Final PEA is intended to: (a) provide the lead agency, responsible agencies, decision makers, and the general public with information on the

[3] It should be noted that the public comment period was extended to December 21, 1999, as the result of the SCAQMD's Public Workshop and CEQA Scoping Meeting held on that same day.

environmental effects of the proposed project; and, (b) be used as a tool by decision makers to facilitate decision making on the proposed project.

The concept of covering broad policies in a PEA and incorporating the information contained therein by reference into subsequent EAs for specific projects is known as "tiering" (CEQA Guidelines §15385). A PEA for the purposes of the proposed fleet vehicle rules and related rule amendments provides the basis for future environmental analyses and will allow project-specific EAs to focus solely on the new effects or detailed environmental issues not previously considered in this PEA. It is important to note, however, that if the SCAQMD finds no new effects would occur or no new mitigation measures would be required from the implementation of future fleet vehicle rules or related rule amendments, the SCAQMD can approve the activity as being within the scope of the project covered by this PEA, and no new environmental document would be required (CEQA Guidelines §15168(c)(2)).

Additionally, CEQA Guidelines §15124(d)(1) require a public agency to identify the following specific types of intended uses:

A) A list of the agencies that are expected to use the EA in their decision-making;

B) A list of permits and other approvals required to implement the project; and

C) A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

To the extent that local public agencies, such as cities, county planning commissions, etc., are responsible for making land use and planning decisions related to the proposed fleet vehicle rules, they could possibly rely on this PEA during their decision-making process. Similarly, public agencies approving projects at facilities complying with the proposed fleet vehicle rules and related rule amendments may rely on this PEA.

Lastly, rule development such as the proposed fleet vehicle rules and rule amendments such as 431.2 are required to undergo a CEQA analysis since they are considered a project. Consequently, a CEQA document prepared for a new rule or rule amendment is part of the administrative record. The Final PEA will be part of the record for each such rule.

EXECUTIVE SUMMARY

CEQA Guidelines §15123 requires an EIR to include a brief summary of the proposed actions and their consequences[4]. In addition, areas of controversy including issues raised by the public must also be included in the executive summary. This ~~Draft~~Final PEA consists of the following chapters: Chapter 1 – Legislative Authority and Executive Summary; Chapter 2 – Project Description; Chapter 3 – Existing Setting, Chapter 4 – Environmental Impacts and Mitigation Measures; Chapter 5 – Project Alternatives; and various appendices. The following subsections briefly summarize the contents of each chapter.

Summary of Chapter 1 – Executive Summary

Chapter 1, this chapter, includes a discussion of the legislative authority that allows the SCAQMD to regulate fleet vehicles. Chapter 1 also identifies general CEQA requirements, explains the rationale for preparing a program CEQA document, and the intended uses of this CEQA document. Finally, Chapter 1 is comprised of the summaries of the remaining chapters that comprise this PEA.

Summary of Chapter 2 – Project Description

In addition to including a description of the project location, Chapter 2 also includes a brief description of the proposed fleet vehicle rules and contemplated amendments to Rule 431.2. The proposed project will accomplish the following:

- Require government agency fleet vehicle owners/operators of 15 vehicles or more, including commercial airport fleet operations and certain private fleets, to acquire vehicles powered by clean burning or alternative clean-fuels, when purchasing new or replacing existing fleet vehicles;
- Require fleet vehicle owners/operators to keep records of fleet vehicle purchases; and
- Provide an exemption for emergency services fleet vehicle owners/operators for all fleet categories
- Provide various fleet category specific exemptions, waivers, alternative compliance options, etc.

For the complete textual language of PRs 1191, 1192, and 1193 the reader is referred to Appendix A of this ~~Draft~~Final PEA. For brief synopses of PRs 1191, 1192, 1193, 1194,

[4] Although the SCAQMD has an approved Certified Regulatory Program, it follows the CEQA recommended EIR structure when preparing its EAs.

1195, 1196, and 1186.1 as well as contemplated amendments to Rule 431.2, the reader is referred to Chapter 2 of this ~~Draft~~Final PEA.

Summary of Chapter 3 - Existing Setting

Pursuant to the CEQA Guidelines §15125, Chapter 3 – Existing Setting, includes descriptions of those environmental areas that could be adversely affected as a result of the implementation of the proposed fleet vehicle rules and amendments to Rule 431.2 as they exist at the time the NOP/IS was released for public review. The following subsections briefly highlight the existing settings for the seven identified environmental areas that could potentially be adversely affected when implementing the proposed project.

Air Quality

Over the last decade and a half, there has been significant improvement in air quality in the SCAQMD's jurisdiction. Nevertheless, several 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 area within the SCAQMD's jurisdiction is only in attainment with the sulfur dioxide, nitrogen dioxide, and lead standards. Chapter 3 provides a brief description of the existing air quality setting for each criteria pollutant, as well as the human health effects resulting from each pollutant.

Over the last few years, the SCAQMD has regulated pollutants other than criteria pollutants, such as TACs, greenhouse gases, and stratospheric ozone depleting compounds. The SCAQMD has developed a number of rules to control non-criteria pollutants from both new and existing sources. These rules originated through state directives, Clean Air Act requirements, or the SCAQMD rulemaking authority. The proposed fleet vehicle rules and proposed amendments to Rule 431.2 are being undertaken pursuant to the SCAQMD's authority under the Health and Safety Code for the purposes of reducing TACs and other criteria pollutants from mobile sources, which are the biggest contributors of toxic, NOx, and CO emissions in the SCAQMD's jurisdiction.

In particular, the most comprehensive study of urban toxic air pollution ever undertaken, the Multiple Air Toxics Exposure Study II (MATES II), shows that motor vehicles and other mobile sources of air pollution are the predominant source of cancer causing air pollutants in the SCAQMD's jurisdiction. The MATES II study found that the average carcinogenic risk in the South Coast Air Basin is about 1,400 in one million. Mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) represent the greatest contributor. About 70 percent of all risk is attributed to diesel particulate emissions; about 20 percent to other air toxics associated with mobile sources (including benzene, butadiene, and formaldehyde); about 10 percent of all risk is attributed to stationary sources (which include industries and specific businesses such as dry cleaners and chrome plating operations.)

Water Resources

Total water demand within the district was approximately 4.22 million-acre feet (MAF) or about 1.4 trillion gallons in fiscal year 1995 (July 1994 through June 1995). About two-thirds of that demand occurred in the service area of the Metropolitan Water District of Southern California (MWD). The MWD's service area includes southern Los Angeles County, all of Orange County, the western portion of Riverside County, and the Chino Basin in southwestern San Bernardino County. The MWD supplied 1.57 MAF and the Los Angeles Department of Water and Power, the other major water supplier in Southern California, supplied 0.55 MAF in the fiscal year 1995 (Rodrigo, 1996). The remaining 2.1 MAF were drawn from local water sources by local water districts within the MWD service area. About 89 percent of water consumed in the MWD region goes to urban uses with the rest going to agriculture.

The State Water Resources Control Board (SWRCB) and the nine regional water quality control boards (RWQCB) are responsible for protecting surface and groundwater supplies in California, regulating waste disposal, and requiring cleanup of hazardous conditions. 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 district. These agencies also regulate discharges to state waters through federal National Pollution Discharge Elimination System (NPDES) permits. Discharges to publicly owned treatment works (POTW) are regulated through federal pre-treatment requirements enforced by the POTWs.

Transportation/Circulation

The agencies that share authority for transportation-related programs in the SCAQMD's area of jurisdiction include the Southern California Association of Governments (SCAG), the county transportation authorities, local government transportation departments, Caltrans, and the SCAQMD. For the purposes of the AQMP, however, the SCAQMD and SCAG share the responsibility for developing transportation measures in the AQMP. SCAG develops transportation plans for the region, including the Regional Mobility Element (RME) and the Regional Transportation Improvement Program (RTIP), which detail all of the capital and non-capital improvements to the transportation system that will occur between now and 2010.

Both federal conformity regulations and state law require transportation plans to show increases in average vehicle ridership, decreases in vehicle trips and vehicle miles traveled, and restrict growth in vehicle emissions. Approximately 80 percent of the commuters in SCAG's jurisdiction drive alone to work, while 5 percent use mass transit. The percent of commuters who carpool to work has remained at approximately 15 to 16 percent since 1991. The average travel distance to work is 16.1 miles (one way), and the average travel time to work is 32 minutes, while the average travel time home is 37 minutes. Bus riders commute an average distance of 13.6 miles.

The transportation network in the SCAQMD's jurisdiction is a complex intermodal system consisting of roads, highways, public transit, railroads, airports, seaports, and intermodal terminals. The public transit system includes local shuttles, public bus operations, rail rapid transit, commuter rail services, and interregional passenger rail service. The railroad network includes an extensive system of private railroads and several publicly owned freight lines. The airport system consists of commercial and general aviation airport facilities serving passenger, freight, business, and recreational needs. The region's ports support significant international and interregional freight movement and tourist travel.

Public Services

Public services offered and available within the SCAQMD's jurisdiction are extensive and numerous although statistical data specific to the SCAQMD are not available. In particular, the public service areas for SCAG's jurisdiction that were evaluated include schools, law enforcement, and fire protection.

Southern California, containing 44 percent of California's population, has 50 percent of her elementary-secondary students, 44 percent of the community college students, 38 percent of the California State University (CSU) students and 37 percent of those enrolled in the University of California (UC). There are 200 school districts, 44 community colleges in 27 districts, eight CSU campuses and three UC campuses. There is also a large and vigorous sector of private education.

As of 1990, there were approximately 55,471 law enforcement officers employed within the SCAG Region, yielding a ratio of one police officer and/or sheriff per 263 civilians. Most cities in the district maintain their own police departments. The California Highway Patrol provides law enforcement services on state and interstate highways.

Fire protection consists of fire fighting, paramedical care, fire detection and building and fire code inspection. In addition, fire departments are usually the first agency to respond to an emergency release of hazardous materials. City and county fire departments generally provide these services with some cities contracting with the county for services.

Solid/Hazardous Waste

Solid wastes consist of residential wastes (trash and garbage produced by households), construction wastes, commercial and industrial wastes, home appliances and abandoned vehicles, and sludge residues (waste remaining at the end of the sewage treatment process). A total of 32 Class III active landfills and two transformation facilities are located within the district with a total disposal capacity of 111,198 tons per day. Los Angeles County has 14 active landfills with a permitted capacity of over 58,000 tons per day. San Bernardino County has nine public and private landfills within the district's boundaries with a combined permitted capacity of 11,783 tons per day. Riverside County has 12 active sanitary landfills with a total capacity of 14,707 tons per day. Each of these landfills is located within the

unincorporated area of the county and is classified as Class III. Orange County currently has four active Class III landfills with a permitted capacity of over 25,000 tons per day.

Energy

California is the second largest consumer of electricity in the United States, Texas being the largest. Statewide electricity consumption reached 246,225 gigawatt hours (GWh) in 1997, the second consecutive year that electricity demand grew in excess of 2.9 percent compared to the previous year. In 1997, the residential and commercial sectors accounted for almost two-thirds of all electricity consumed in the state. With little change to the sector shares anticipated during the next ten years, overall growth will continue to be dominated by the residential and commercial sectors even though growth in the remaining sectors is expected. Statewide energy consumption is expected to increase by 1.8 percent per year from 246,225 GWh in 1997 to 291,473 GWh in 2007.

In the SCAQMD's jurisdiction, there are a variety of commercial, residential, and industrial end-users of electricity. Electricity is transmitted to end-users through an extensive electricity distribution system. Electricity distribution is provided for the Southern California service area by Southern California Edison (SCE)[5], the LADWP and the municipal utilities of Burbank, Glendale, and Pasadena (BGP). The LADWP and BGP planning areas are located entirely within the boundaries of the SCAQMD, while SCE's territory extends above the northern borders of Los Angeles County and San Bernardino County to include Ventura, Inyo, Mono and portions of Kings and Kern counties. Although the SCE planning area is large, most of the electricity transmitted by SCE is to areas within the SCAQMD's jurisdiction.

Similar to its electricity consumption ranking, California is the second largest consumer of natural gas in the nation, ranking behind Texas. In 1997, California consumed more than 20,000 million therms (e.g., 5.5 billion cubic feet (BCF) per day), with about 35 percent of that amount used to generate electricity. Statewide natural gas consumption (i.e., without electric generation) is expected to increase by one percent per year from 12,978 million therms in 1997 to 14,235 million therms in 2007. Furthermore, it is estimated that natural gas demand in California will exceed seven BCF by 2019. The industrial sector, primarily the process-related industries, is responsible for the bulk of the anticipated increase in gas demand. Residential customers comprise the largest consuming group of natural gas, accounting for nearly 40 percent of total end-use consumption.

The specific uses for natural gas can be broken down into sectors. For example, the residential sector uses natural gas primarily for water and space heating equipment. In addition to use for water and space heating equipment, commercial facilities such as office

[5] The SCE planning area includes the cities of Anaheim, Anza, Asuza, Banning, Colton, Riverside, and Vernon and the Metropolitan and Southern California Water Districts. A planning area denotes a geographic region of an electric investor-owned utility in which there resides municipal utilities and/or irrigation districts. An electric service area denotes a geographic area for which a single utility provides electric distribution services.

buildings, grocery stores, schools, hotels and motels, hospitals, and restaurants use natural gas for space heating and cooling, refrigeration and food preparation. Industrial processes consume natural gas in a variety of processes including water heating and steam generation, drying and curing processes, metal melting, heat treatment and general space heating, as well as cogeneration. Because of its clean burning characteristics, natural gas-powered technology is considered to be Best Available Control Technology for most combustion sources in the SCAQMD's jurisdiction and, therefore, is required to be the primary fuel for most combustion sources. The transportation sector is beginning to use compressed natural gas as an alternative clean motor vehicle fuel. In the utility electric generation sector, natural gas is used as the primary combustion fuel in power generating equipment such as utility boilers and gas turbines.

Liquid petroleum fuels include fuel oil, gasoline, and diesel fuel. The majority of stationary source combustion equipment in the district uses natural gas as the primary combustion fuel. Some types of stationary combustion equipment such as boilers, heaters, and internal combustion equipment may use fuel oil as a backup during natural gas curtailments or in emergency situations. Gasoline and diesel fuels are consumed primarily as a transportation fuel in all vehicle classes.

California is the third largest consumer of gasoline in the world. It is surpassed only by the rest of the United States and the former Soviet Union. In 1997, Californians used more than 14 billion gallons of gasoline a year and another two billion gallons of diesel fuel. California is a major producer of gasoline products. A total of 15 refineries currently operate in the state and produce the vast majority of gasoline used in California. They are located in three regions: the eastern San Francisco Bay Area, the Bakersfield area and southern Los Angeles County. In general, the Bay Area refineries supply gasoline for Northern California, while the Bakersfield and Los Angeles County refineries supply Southern California. The oil industry typically has moved gasoline between the two halves of the state, as well as exported gasoline from California to other states and the world market. Much of the fuel produced at California refineries is transported via pipeline to bulk terminals in outlying areas. The fuel is then transferred to tank trucks, which bring the gasoline to service stations.

The transportation sector contributes large amounts of air pollutants in California. Tailpipe and evaporative emissions contribute to the formation of ozone. Tailpipe emissions also add to carbon dioxide and toxic emissions from fossil fuel combustion. Through dependence on one fuel the state economy is vulnerable to petroleum price increases which pose an energy security risk. Reducing this risk can be achieved by developing alternative fuel vehicle technologies that offer choices for the driving public.

There are two basic approaches to the commercialization of clean fuels: (1) reformulating conventional petroleum-based fuels by lowering the content of air pollution precursors and toxic compounds (such as aromatics, benzene, sulfur, particulates); and (2) substituting inherently cleaner-burning alternative fuels such as methanol, ethanol, natural gas, propane/butane, and electricity. Since September 1989, several oil companies have unveiled

"environmentally enhanced" gasoline (e.g., reformulated gasoline). Beginning in 1996, reformulated gasoline produced to meet stringent air quality standards set by the federal Clean Air Act and CARB has lowered vehicle exhaust Statewide. Ford, Chrysler, and several foreign vehicle manufacturers have developed electric, natural gas, propane, methanol, and other clean-fueled vehicles. Numerous public and private programs are underway to test and promote more widespread use of alternative clean-fueled vehicles including buses. However, the current market for alternative fueled vehicles is principally motor vehicle fleets operated by federal, state and local agencies; electric and natural gas utilities; and commercial businesses.

Despite anticipated increases in vehicles and vehicle miles traveled, it is expected that without the proposed fleet vehicle rules the total gasoline demand in California will remain relatively constant due to increases in alternative fuel use, fuel economy increases primarily from technology advances, and switching from gasoline to diesel for movement of goods. However, while sales of electric vehicles are assumed to be sufficient, to meet the CARB's Zero Emission Vehicle mandates, sales of natural gas vehicles are forecast to be lower than in previous forecasts, and methanol vehicles, unlike past forecasts, are not assumed to reach a significant percentage of sales. Thus, the current use of methanol as a fuel will decrease in future years from present levels. The most likely scenario will be that either electric vehicles or compressed natural gas vehicles will replace methanol-fueled vehicles.

Hazards

Potential hazard impacts may be associated with the production, use, storage, and transport of hazardous materials. For the purposes of this ~~Draft~~Final PEA, 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. Currently, hazardous materials are transported throughout the SCAQMD’s jurisdiction in great quantities via all modes of transportation including rail, highway, water, air and pipeline.

Hazard concerns are also related to the risks of explosions, 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.

During 1998, the counties of Orange, Riverside, San Bernardino and Los Angeles reported a total of 1,726 hazardous material releases, while the statewide total was 5,811. The breakdown is as follows: 940 releases in Los Angeles County, 222 releases in Orange County, 306 releases in Riverside County, and 258 in San Bernardino County.

Conversion of existing vehicles to alternative clean-fuels or electric power reduces air pollution but introduces operational changes with different hazards than those associated with gasoline or diesel. However, proper installation, operation, and maintenance of alternative clean-fuel fueling stations consistent with local, state, and federal safety regulations/guidelines significantly reduces the hazards associated with alternative clean-fueled vehicles.

Summary of Chapter 4 – Environmental Impacts and Mitigation Measures

CEQA Guidelines §15126(a) requires the following: "An [EA] shall identify and focus on the significant environmental effects of the proposed project. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects."

The following subsections briefly summarize the analysis of potential adverse environmental impacts from the adoption and implementation of the proposed project.

Air Quality

The adoption and implementation of the proposed fleet vehicle rules and proposed amendments to Rule 431.2 are expected to produce long-term TAC and criteria pollutant emission reductions from affected government, certain private, and commercial airport fleet vehicles. There are, however, short-term, significant adverse air quality impacts from construction-related activities associated with the implementation of the proposed fleet vehicle rules and related amendments. In particular, the air quality construction impact analysis revealed that the simultaneous construction of alternative clean-fuel (e.g., methanol, compressed natural gas, liquefied natural gas, liquefied petroleum gas, and electric power) fueling stations as well as refinery modifications to produce low sulfur diesel, which are both necessary for fleet owners/operators to comply with the proposed fleet vehicle rules and related amendments, result in significant adverse air quality impacts. However, these significant adverse air quality impacts are temporary. It is anticipated that construction activities related to refinery modifications will only last for two years. Once the refinery construction activities have ceased the remaining construction activities associated with refueling stations result in insignificant air quality impacts, which are projected to last another three years, at which time all construction activities will cease. Accordingly, although the proposed project results in a permanent long-term emission benefit, proposed fleet vehicle rules and related amendments have the potential to generate short-term significant adverse air quality impacts associated with the construction activities.

The analysis also revealed that there are no significant adverse direct air quality impacts associated with operational activities (e.g., transporting fleet vehicle alternative clean fuels). Additionally, the potential indirect operational-related air quality impacts associated with affected fleet operators reducing services, keeping vehicles longer, and driving longer distances to refuel are also evaluated in Chapter 4. The analysis of these impacts concluded

that even if a significant portion of the vehicle population were to keep their vehicles longer or are required to drive longer distances to refuel, the proposed fleet vehicle rules and related amendments would not create indirect significant adverse air quality impacts. The proposed fleet vehicle rules and related amendments are expected to still achieve air quality benefits.

Regarding the potential removal of certain vehicles from service due to costs considerations, the analysis concluded that for all affected vehicles, with the exception of small transit agencies' buses, fleet vehicle operators would operate their vehicles longer rather than remove them from service. This rationale is based on comments received from various commentators who have asserted that since fleet operators are not mandated to acquire alternative clean-fueled vehicles by a certain date they will continue to operate their vehicles longer until funding and/or refueling infrastructure are available.

In the context of school buses, the SCAQMD intends to include various provisions in PR 1195 when adopted, that allows school districts to delay purchasing alternative clean-fueled buses until appropriate funding, models are available, and/or refueling infrastructure is in place. For all other heavy-duty vehicles, PR 1196 is expected to include a provision that would allow public fleet operators to delay purchasing alternative clean-fueled buses until models are available for certain specialty vehicles. Lastly, for transit buses, the SCAQMD analyzed a scenario where buses were taken out of service due to cost considerations. The analysis of this scenario revealed that although the removal of service of certain buses would increase private sector trips in the SCAQMD's jurisdiction, significant air quality impacts would not occur. Accordingly, the SCAQMD's analysis of all indirect air quality impacts concluded that significant adverse air quality impacts are not expected from the implementation of the proposed fleet vehicle rules and related amendments.

Water Resources

Increased water demand as well as additional wastewater generation from the implementation of the proposed fleet vehicle rules and amendments to Rule 431.2 are evaluated in Chapter 4. The analysis concludes that water demand/quality impacts associated with the proposed project are insignificant.

Transportation / Circulation

The additional trips caused by construction workers involved in the construction of alternative clean-fuel fueling stations as well as the potential increase in fuel delivery/vehicle refueling and private sector trips are presented and evaluated in Chapter 4. The analysis concludes that transportation/circulation impacts associated with the proposed fleet vehicle rules and amendments to Rule 431.2 will be insignificant.

Public Services

Potential increased public services impacts from the implementation of the proposed fleet vehicle rules and amendments to Rule 431.2 are evaluated in Chapter 4. The analysis

concludes that local fire departments would not have to expand their current level of service when responding to transporting, storing, or handling alternative clean-fuel activities associated with the implementation of the proposed project.

Solid / Hazardous Waste

The solid/hazardous waste evaluation examined the increased disposal of debris associated with the demolition and removal of underground gasoline and diesel storage tanks during construction activities. The analysis also evaluated the potential increased disposal of EV battery packs. The analysis included in Chapter 4 concluded that solid/hazardous waste impacts associated with the proposed project will be insignificant.

Energy / Mineral Resources

Potential energy/mineral resources impacts were identified from fuel consumed by construction equipment and worker vehicles associated with the installation and erection of alternative clean-fuel fueling stations. Additionally, potential energy/mineral resources impacts were identified from the switching from conventional motor vehicle fuels (e.g., gasoline and diesel) to alternative clean-fuels. Also analyzed, was the potential increase in fuel delivery/vehicle refueling trips and potential increase in the use of private sector vehicles. The analysis included in Chapter 4 concluded that energy/mineral resources impacts associated with the proposed project will be insignificant.

Hazards

The hazards impacts analysis in Chapter 4 examines the construction and operational hazards of the conversion from gasoline- and diesel-fuel to the various alternative-clean fuels and compares operational-related hazards with those of gasoline and diesel. The analysis of hazards associated with the storage, transport, and handling of alternative clean-fuels concluded that hazard impacts associated with the implementation of the proposed fleet vehicle rules and amendments to Rule 431.2 will be insignificant.

Mitigation

As described above, the implementation of the proposed fleet vehicle rules and amendments to Rule 431.2 will result short-term significant adverse air impacts during construction-related activities. Table 1-1 summarizes the impacts and mitigation measures associated with the environmental impact areas that the SCAQMD analyzed for the proposed fleet vehicle rules and related amendments.

TABLE 1-1

Environmental Impacts From The Proposed Fleet Vehicle Rules

Environmental Impact Area	Significance Determination	Mitigation Measures
Air Quality		

Construction (Direct/Indirect)	Significant increase in CO, VOC, and PM10 emissions	Additional Watering in addition to complying with Rule 403, Proper Equipment Maintenance
Operational*		
Direct	Not Significant	None Required
Indirect	Not Significant	None Required
Water Resources		
Water Demand		
Construction	Not Significant	None Required
Operational	Not Significant	None Required
Water Quality		
Construction	Not Significant	None Required
Operational	Not Significant	None Required
Transportation/Circulation		
Construction (Direct/Indirect)	Not Significant	None Required
Operational		
Direct	Not Significant	None Required
Indirect	Not Significant	None Required
Public Services		
Construction	Not Significant	None Required
Operational	Not Significant	None Required

TABLE 1-1 (CONTINUED)

Environmental Impacts From The Proposed Fleet Vehicle Rules

Environmental Impact Area	Significance Determination	Mitigation Measures
Solid/Hazardous Waste		
Construction	Not Significant	None Required
Operational	Not Significant	None Required
Energy/Mineral Resources		
Construction		
(Direct/Indirect)	Not Significant	None Required
Operational		
Direct	Not Significant	None Required
Indirect	Not Significant	None Required
Hazards		
Construction	Not Significant	None Required
Operational		
Direct	Not Significant	None Required
Indirect	Not Significant	None Required

* Air Quality benefits associated with the implementation of the proposed fleet vehicle rules and related amendments are discussed in Chapter 4 of this ~~Draft~~Final PEA.

Environmental Impacts Found Not To Be Significant

The Initial Study for the original comprehensive PR 1190, which has subsequently been changed to the proposed fleet vehicle rules and amendments to Rule 431.2, includes an environmental checklist of approximately 15 environmental topics. As discussed above, review of the current proposed project identified seven environmental topics for further review in the ~~Draft~~Final PEA. The Initial Study concluded that the project would have no significant direct or indirect adverse effects on the remaining environmental topics. No comments were received on the NOP/IS to refute this conclusion. Therefore, SCAQMD staff has determined that there will be no significant impacts to the following environmental areas in the SCAQMD's jurisdiction as a result of implementing the proposed fleet vehicle rules and amendments to Rule 431.2:

- Land Use and Planning
- Population and Housing
- Geophysical
- Biological Resources
- Noise
- Aesthetics

- Cultural Resources
- Secondary Environmental Impacts from Economic Impacts

Other CEQA Topics

CEQA requires EAs to address the potential for irreversible environmental changes and growth-inducing impacts. Analysis of the proposed project concluded that it would not result in irreversible environmental changes or the irretrievable commitment of resources, or foster economic or population growth or the construction of additional housing.

Consistency

CEQA requires that EAs address the potential for inconsistencies with regional plans. Analysis of the proposed project concluded that it would not be inconsistent with various regional plans.

Summary of Chapter 5 – Project Alternatives

Chapter 5 provides a discussion of alternatives to the proposed project as required by CEQA Guidelines. The alternatives analyzed include measures for attaining the objectives of the proposed project and provide a means for evaluating the comparative merits of each alternative. Table 1-2 lists the alternatives considered by the SCAQMD and how they compare to the proposed project.

Table 1-3 presents a matrix that lists the significant adverse impacts as well as the cumulative impacts associated with the proposed project and the project alternatives for all environmental topics analyzed. The table also ranks each impact section as to whether the proposed project or a project alternative would result in greater or lesser impacts relative to one another.

TABLE 1-2
Comparison Of Adverse Environmental Impacts Associated With Project Alternatives

Environmental Topic	**Alternative A** (No Project)	**Alternative B** (USEPA ~~CARB~~ Future HDV Standards)	**Alternative C** (Delay Implement-ation Dates by One Year)	**Alternative D** (Minimum Fleet Size ≥50 Vehicles)	**Alternative E** (Phased Acquisition Rate)	**Alternative F** (School Buses)	**Mitigation Measures**
Air Quality Pollutants[a]	TACs, NOx, CO, VOC, PM10	TACs, NOx, CO, VOC, PM10	TACs, NOx, CO, VOC, PM10	TACs, NOx, CO, VOC, PM10	TACs, NOx, CO, VOC, PM10	TACs, NOx, CO, VOC, PM10	NOx, CO, VOC, PM10
Construction	Not Significant	Significant, less than Proposed Project[b]	Significant, equivalent to Proposed Project	Significant, slightly less than Proposed Project	Significant, equivalent to Proposed Project	Significant, less than Proposed Project	For the proposed project and Alternatives B – F, ~~A~~additional Watering in addition to complying with Rule 403, Proper Maintenance
Operational	Not Significant (loss of TAC/criteria pollutant emission reductions)	Not Significant, less than Proposed Project (loss of TAC/criteria pollutant emission reductions)	Not Significant, equivalent to Proposed Project (loss of TAC/criteria pollutant emission reductions)	Not Significant, less than Proposed Project (loss of TAC/criteria pollutant emission reductions)	Not Significant, equivalent to Proposed Project (loss of TAC/criteria pollutant emission reductions)	Not Significant, less than Proposed Project (loss of TAC/criteria pollutant emission reductions)	None Required
Water Resources							
Water Demand	Not Significant, less than Proposed Project	Not Significant, less than Proposed Project	Not Significant, equivalent to Proposed Project	Not Significant, slightly less than Proposed Project	Not Significant, equivalent to Proposed Project	Not significant, less than Proposed Project	None Required
Water Quality	Not Significant, less than Proposed Project	Not Significant, less than Proposed Project	Not Significant, equivalent to Proposed Project	Not Significant, slightly less than Proposed Project	Not Significant, equivalent to Proposed Project	Not significant, less than Proposed Project	None Required
Public Services	Not Significant, less than Proposed Project	Not Significant, less than Proposed Project	Not Significant, equivalent to Proposed Project	Not Significant, slightly less than Proposed Project	Not Significant, equivalent to Proposed Project	Not significant, less than Proposed Project	None Required
Transportation/ Circulation	Not Significant, less than Proposed Project	Not Significant, less than Proposed Project	Not Significant, equivalent to Proposed Project	Not Significant, slightly less than Proposed Project	Not Significant, equivalent to Proposed Project	Not significant, less than Proposed Project	None Required
Solid/Hazardous Waste	Not Significant, less than Proposed Project	Not Significant, less than Proposed Project	Not Significant, equivalent to Proposed Project	Not Significant, slightly less than Proposed Project	Not Significant, equivalent to Proposed Project	Not significant, less than Proposed Project	None Required

TABLE 1-2 (CONTINUED)

Comparison Of Adverse Environmental Impacts Associated With Project Alternatives

Environmental Topic	**Alternative A** (No Project)	**Alternative B** (USEPA ~~CARB~~ Future HDV Standards)	**Alternative C** (Delay Implementation Dates by One Year)	**Alternative D** (Minimum Fleet Size ≥50 Vehicles)	**Alternative E** (Phased Acquisition Rate)	**Alternative F** (School Buses)	**Mitigation Measures**
Energy/Mineral Resources	Not Significant, less than Proposed Project (loss of gasoline and diesel fuel savings)	Not Significant, less than Proposed Project (loss of gasoline and diesel fuel savings)	Not Significant, equivalent to Proposed Project (temporary loss of gasoline and diesel fuel savings)	Not Significant, slightly less than Proposed Project (loss of gasoline and diesel fuel savings)	Not Significant, equivalent to Proposed Project (temporary loss of gasoline and diesel fuel savings)	Not significant, less than Proposed Project (loss of gasoline and diesel fuel savings)	None Required
Hazards	Not Significant, less than Proposed Project	Not Significant, less than Proposed Project	Not Significant, equivalent to Proposed Project	Not Significant, slightly less than Proposed Project	Not Significant, equivalent to Proposed Project	Not significant, less than Proposed Project	None Required

[a] Pollutants = Emission benefits and increases associated with the proposed project.
[b] Proposed Project = The proposed fleet vehicle rules and amendments to Rule 431.2.

TABLE 1-3

Ranking Of Alternatives[a]

Project/ Alternative	**Air Quality Impacts**		**Water Demand Impacts**		**Water Quality Impacts**		**Transportation/ Circulation Impacts**		**Public Services**		**Solid/Hazardous Waste Impacts**		**Energy/Mineral Resources Impacts**		**Hazards Impacts**	
	Sign. Impacts	*Cum. Impacts*	*Sign. Impacts*	*Cum. Impacts*	*Sign. Impacts*	*Cum. Impacts*	*Sign. Impacts*	*Cum. Impacts*	*Sign. Impacts*	*Cum. Impacts*	*Sign. Impacts*	*Cum. Impacts*	*Sign. Impacts*	*Cum. Impacts*	*Sign. Impacts*	*Cum. Impacts*
Project[b]	**X (5)**	**X**	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓
A	**X (1)**	**X**	**✓ (1)**	✓	**✓ (1)**	✓	**✓ (1)**	✓	**✓ (1)**	✓	**✓ (1)**	✓	**✓ (1)**	✓	**✓ (1)**	✓
B	**X (3)**	**X**	**✓ (3)**	✓	**✓ (3)**	✓	**✓ (3)**	✓	**✓ (3)**	✓	**✓ (3)**	✓	**✓ (3)**	✓	**✓ (3)**	✓
C	**X (5)**	**X**	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓
D	**X (4)**	**X**	**✓ (4)**	✓	**✓ (4)**	✓	**✓ (4)**	✓	**✓ (4)**	✓	**✓ (4)**	✓	**✓ (4)**	✓	**✓ (4)**	✓
E	**X (5)**	**X**	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓	**✓ (5)**	✓
F	**X (2)**	**X**	**✓ (2)**	✓	**✓ (2)**	✓	**✓ (2)**	✓	**✓ (2)**	✓	**✓ (2)**	✓	**✓ (2)**	✓	**✓ (2)**	✓

[a] Rankings do not take into consideration the benefits of the proposed project or project alternative.
[b] Project = The proposed fleet vehicle rules (e.g., PRs 1191, 1192, 1193, 1194, 1195, 1196, and 1186.1) and PAR Rule 431.2.

Notes: The ranking scale is such that 1 represents the least impacts and subsequent higher number represent increasingly worse impacts.
The same two numbers in brackets for a specific Impact Section means that these proposals would have the same impacts if implemented.
An X denotes either a project-specific significant adverse impact or cumulative significant adverse impact.
A ✓ denotes no significant adverse impact or no cumulative significant adverse impact.