Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Imperial County 2009 Reasonably Available Control Technology (RACT) State Implementation Plan (SIP)

Lead Agency: Imperial County Air Pollution Control District — Contact Person: Monica Soucier

Mailing Address: 150 South Ninth Street — Phone: 760-482-4606

City: El Centro — Zip: 92243 — County: Imperial

Project Location: County: Imperial — City/Nearest Community: Countywide

Cross Streets: _____ — Zip Code: _____

Longitude/Latitude (degrees, minutes and seconds): ____° ____′ ____″ N / ____° ____′ ____″ W — Total Acres: _____

Assessor's Parcel No.: _____ — Section: _____ Twp.: _____ Range: _____ Base: _____

Within 2 Miles: State Hwy #: _____ — Waterways: _____

Airports: _____ — Railways: _____ — Schools: _____

Document Type:

CEQA: ☐ NOP ☐ Early Cons ☑ Neg Dec ☐ Mit Neg Dec — ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) _____ Other: _____

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other: _____

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☑ Other: _____

Development Type:

☐ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
☐ Educational: _____
☐ Recreational: _____
☐ Water Facilities: Type _____ MGD _____
☐ Transportation: Type _____
☐ Mining: Mineral _____
☐ Power: Type _____ MW _____
☐ Waste Treatment: Type _____ MGD _____
☐ Hazardous Waste: Type _____
☑ Other: 2009 RACT SIP

Project Issues Discussed in Document:

☐ Aesthetic/Visual
☐ Agricultural Land
☐ Air Quality
☐ Archeological/Historical
☐ Biological Resources
☐ Coastal Zone
☐ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☐ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☐ Geologic/Seismic
☐ Minerals
☐ Noise
☐ Population/Housing Balance
☐ Public Services/Facilities
☐ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☐ Soil Erosion/Compaction/Grading
☐ Solid Waste
☐ Toxic/Hazardous
☐ Traffic/Circulation
☐ Vegetation
☐ Water Quality
☐ Water Supply/Groundwater
☐ Wetland/Riparian
☐ Growth Inducement
☐ Land Use
☐ Cumulative Effects
☑ Other: Rules and Regs

Present Land Use/Zoning/General Plan Designation:

Project Description: *(please use a separate page if necessary)*
(See Attachment)

The 2009 Reasonably Available Control Technology State Implementation Plan (2009 RACT SIP) has been developed to meet the requirements of the federal Clean Air Act (CAA) for areas classified as "Moderate" or above non-attainment of the National Ambient Air Quality Standard (NAAQS) for the 1997 8-hour ozone. The CAA requires, as part of any State Implementation Plan (SIP) that RACT be demonstrated for sources subject to Control Technique Guideline (CTG) documents and for major sources of VOC and NOx that are not subject to a CTG.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

X	Air Resources Board		Office of Emergency Services
	Boating & Waterways, Department of	X	Office of Historic Preservation
	California Highway Patrol		Office of Public School Construction
X	Caltrans District #	X	Parks & Recreation, Department of
	Caltrans Division of Aeronautics		Pesticide Regulation, Department of
X	Caltrans Planning	X	Public Utilities Commission
	Central Valley Flood Protection Board		Regional WQCB #
X	Coachella Valley Mtns. Conservancy	X	Resources Agency
	Coastal Commission	X	S.F. Bay Conservation & Development Comm.
	Colorado River Board	X	San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
X	Conservation, Department of		San Joaquin River Conservancy
	Corrections, Department of		Santa Monica Mtns. Conservancy
	Delta Protection Commission	X	State Lands Commission
X	Education, Department of		SWRCB: Clean Water Grants
X	Energy Commission		SWRCB: Water Quality
X	Fish & Game Region #		SWRCB: Water Rights
X	Food & Agriculture, Department of		Tahoe Regional Planning Agency
	Forestry and Fire Protection, Department of	X	Toxic Substances Control, Department of
	General Services, Department of		Water Resources, Department of
	Health Services, Department of		
X	Housing & Community Development		Other:
	Integrated Waste Management Board		Other:
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date June 10,2010 Ending Date July 12, 2010

Lead Agency (Complete if applicable):

Consulting Firm:
Address:
City/State/Zip: El Centro
Contact:
Phone:

Applicant: Imperial County Air Pollution Control District
Address: 150 South Ninth Street
City/State/Zip: El Centro, CA 92243
Phone: 760-482-4606

Signature of Lead Agency Representative: [signature] **Date:** 7/13/10

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

AIR POLLUTION CONTROL DISTRICT

FINAL
NEGATIVE DECLARATION

PROJECT PROPONENT: Imperial County Air Pollution Control District (ICAPCD)

ADDRESS/LOCATION: 150 S. Ninth Street, El Centro, CA 92243

CONTACT PERSON: Monica N. Soucier, APC Division Manager

PROJECT NAME: 2009 8-HOUR OZONE MODIFIED AIR QUALITY MANAGEMENT PLAN

PROJECT DESCRIPTION:

The 2009 8-Hour Ozone Modified Air Quality Management Plan (2009 Modified AQMP) has been developed to meet the requirements of the federal Clean Air Act (CAA) for areas classified as "Moderate" non-attainment of the National Ambient Air Quality Standard (NAAQS) for the 1997 8-hour ozone. The 2009 Modified AQMP includes Nitrogen Oxide (NOx) and Volatile Organic Compound (VOC) growth emission inventories, a discussion on the implementation of Reasonably Available Control Technology (RACT) (40 CFR 51.912) and NOx and VOC emission offsets of 1.15 to 1 for major source permits along with other planning requirements as per the CAA.

PROJECT LOCATION:

The 2009 Modified AQMP applies to VOC and NOx emission sources located within Imperial County. Imperial County extends over 4,597 square miles within the southeastern portion of California, bordering Mexico to the south, Riverside County to the north, San Diego County to the west and the State of Arizona to the east. The terrain elevation varies from as low as 230 feet below sea level at the Salton Sea to the north to more than 2,800 feet above sea level at the mountain summits to the west. The climate is desert type with hot summers and mild winters, gusty winds frequently occurring during the months of April and May with very little rainfall. The combination of the flat terrain of the valley and the strong temperature differentials, created by intense solar heating, produce moderate winds and deep thermal convection. It is not uncommon to see temperatures above 110° during the month of August.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA):

The 2009 Modified AQMP is a "project" as defined by the California Environment Quality Act (CEQA). Under CEQA a lead agency has the principal responsibility for

carrying out or approving a project that may have a significant effect upon the environment. Since the 2009 Modified AQMP imposes the greatest discretionary authority of approval upon the Imperial County Air Pollution Control District (ICAPCD) it is therefore the lead agency for this project.

As part of the review process the ICAPCD examined the 2009 Modified AQMP for applicability to CEQA. Because the 2009 Modified AQMP does not propose or impose any new regulation and in fact demonstrates attainment of the NAAQS a Class 8 categorical exemption applies. However, in order to provide for optimum public participation and involvement the ICAPCD has opted not to utilize the exemption and instead provide an additional resource for the identification of any potential environmental impacts associated with the 2009 Modified AQMP. Thus, in order to fulfill the purpose and intent of CEQA the ICAPCD prepared an Initial Study to address any potential environmental impacts associated with the 2009 Modified AQMP.

The Environmental Evaluation Committee (EEC) met June 10, 2010 at 1:30pm and reviewed the Initial Study making the overall mandatory finding of "No Impact". Subsequently thereafter the ICAPCD released the Public Notice of Proposed Negative Declaration for a 30 day public review on June 11, 2010.

STATEMENT OF THE PROBLEM:

On July 18, 1997, the U.S. EPA promulgated an 8-hour ozone National Ambient Air Quality Standard (NAAQS) of 0.080 parts per million (ppm) in order to promote greater protection of the public health by strengthening the already existing 1-hour ozone NAAQS. In accordance with the provisions of the CAA the United States Environmental Protection Agency (U.S. EPA) classified the Imperial County as a "Marginal" non-attainment area on April 30, 2004 for the new ozone NAAQS. Subsequently, on February 13, 2008 the U.S. EPA found that the Imperial County failed to meet attainment for the new ozone NAAQS by the set deadline of June 15, 2007. As a result, Imperial County was reclassified as a "Moderate" non-attainment area and was required under the CAA provisions to develop a revised State Implementation Plan (SIP) by December 31, 2008.

On December 3, 2009, the U.S. EPA issued a final ruling determining that the Imperial County "Moderate" 8-hour ozone non-attainment area attained the new ozone NAAQS. This determination effectively suspended the requirement for the state to submit a full attainment demonstration typical of a SIP. However, because the determination from the U.S. EPA did not constitute a re-designation to attainment under the CAA section 107(d)(3) the classification and designation status for Imperial County remains as a "Moderate" non-attainment area. As such, Imperial County is required to submit for U.S. EPA approval a Modified AQMP.

REGULATORY BACKGROUND:

The CAA gives the state primary responsibility for achieving the NAAQS. The NAAQS are set by the U.S. EPA as the maximum concentrations in the atmosphere for specific air contaminants to protect the public health and welfare. The principle mechanism at the state and local level for complying with the CAA is the SIP. A SIP outlines the programs, actions, and commitments a state will carry out to implement its responsibilities under the CAA. The U.S. EPA must approve all SIP's before they can be implemented by the state and local governments. Once approved by the U.S. EPA, a SIP becomes a legally binding document under both state and federal law, and may be enforced by either government.

As mentioned above a new ozone NAAQS of 0.080 was promulgated in 1997which required the averaged measurement of 8 hours of ozone concentrations not to exceed 0.084 ppm. Non-compliance with the new ozone NAAQS occurs when the calculated design value is greater than or equal to 0.085ppm. The design value is calculated by arriving at an average of the annual fourth highest daily maximum 8-hour ozone value over a three consecutive year period per monitor. The highest monitor design value is the value used to determine the classification of the non-attainment area.

Early efforts at developing an attainment demonstration or an ozone State Implementation Plan (SIP) began as early as 2007. A Technical Advisory Committee (TAC) group was formed to address issues pertinent to the ozone SIP with a kick off meeting date of March 2008. TAC meetings continued up until April 2009. Subsequently, soon after the ICAPCD filed a Clean Data Finding request to the California Air Resources Board for review and submittal on our behalf to the U.S. EPA for approval. On December 3, 2(CARB) 009 the U.S. EPA concurred with our clean data finding and finalized their ruling determining that the Imperial County "Moderate" non-attainment area had attained the 1997 8-hour NAAQS for ozone. Stakeholders included health, environmental, industry, and community representatives. The state and federal agencies included the CARB, U.S. EPA and transportation.

PLAN DESCRIPTION:

The Modified AQMP serves as a comprehensive planning document intended to provide guidance to the ICAPCD, the County, and other local agencies on the methods for continued maintenance or compliance of the 1997 8-hour ozone NAAQS also referred to as the new ozone NAAQS. The Modified AQMP must include at a minimum the following moderate area requirements:

1. A growth emissions inventory for Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOC's) (CAA, sections 172(c)(3) and 182(a)(1))

2. New Source Review (CAA, sections 172(c)(4) and (5); and 182(a)(2)(C))

3. Subpart 2 RACT for VOC's and NOx (CAA, sections 182(b)(2), 182(f))

4. Periodic Inventory (CAA, section 182(a)(3)(A))

5. Emissions Statement Rule (CAA, section 182(a)93)(B))

6. Offset Ratio 1.15 to 1 (CAA, sections 182(a)(4) and 182(b)(5))

7. Stage 2 Gasoline Vapor Recovery (GVR) (CAA, section 182(b)(3))

The 2009 Modified AQMP has been developed to meet the requirements of the federal CAA for areas classified as “Moderate” non-attainment of the NAAQS for the1997 8-hour ozone.

Cover Sheet
Assessment Form
(County of Imperial)

Initial Study # 09-0019 Date: 06/10/2010

Project type/name: 2009 1997 8-Hour Ozone Modified AQMP

Applicant's name: Imperial County Air Pollution Control District

Applicant's address: 150 S. 9th Street, El Centro, CA 92243

Name of person preparing Initial Study: Monica N. Soucier

Signature of person preparing Initial Study: _____

I. Project Information

a. Assessor's Parcel Number: Entire County

b. Street address: Entire County

c. Cross street: N/A

d. Township/Section/Range: N/A

e. Project area (acres) ☑: Entire County

II. General Plan Consistency

a. General Plan Designation. N/A

b. Is Project in an Urban area? Various

c. Name of Urban area. Various

d. Is Project within an adopted Specific Plan area? Yes

e. Name of Specific Plan area. Various

f.	Existing zoning.	Various
g.	Proposed zoning, if any.	N/A
h.	Adjacent zoning.	N/A
i.	Is proposal consistent with the site's existing or proposed zoning?	N/A
j.	Is proposal compatible with existing or surrounding zoning or can it be made compatible?	N/A
k.	Is the proposal consistent with a Specific Plan for the area?	N/A
l.	Is the proposal compatible with existing plans and planned surrounding land uses or can it be made compatible?	N/A
m.	Is the proposal consistent with the land use designation and policies of the 1993 General Plan?	N/A

Comments: (if any)

This is the 2009 8-Hour Modified Air Quality Management Plan required by those areas designated as moderate non-attainment by the Clean Air Act. This plan is not a full blown demonstration of attainment because Imperial County was able to demonstrate attainment using three years of certified and verified air monitoring data.

PROJECT REPORT

TO: ENVIRONMENTAL EVALUATION COMMITTEE

FROM: AIR POLLUTION CONTROL DISTRICT

AGENDA DATE: June 10, 2010

JUN 15 2010
AIR POLLUTION CONTROL DISTRICT

AGENDA TIME 1:30 PM/No. 2

PROJECT TYPE: 2009 8-Hour Ozone Modified AQMP (IS #10-0019) SUPERVISOR DIST: ALL

LOCATION: Countywide APN: N/A

PARCEL SIZE: Countywide

GENERAL PLAN (existing) N/A GENERAL PLAN (proposed) N/A

ZONE (existing) N/A ZONE (proposed) N/A

GENERAL PLAN FINDINGS ☐ CONSISTENT ☐ INCONSISTENT ☐ MAY BE/FINDINGS

PLANNING COMMISSION DECISION: HEARING DATE:

☐ APPROVED ☐ DENIED ☐ OTHER

PLANNING DIRECTORS DECISION: HEARING DATE:

☐ APPROVED ☐ DENIED ☐ OTHER

ENVIROMENTAL EVALUATION COMMITTEE DECISION: HEARING DATE: 06/10/10

INITIAL STUDY: 10-0019

☐ NEGATIVE DECLARATION ☐ MITIGATED NEG. DECLARATION ☐ EIR

DEPARTMENTAL REPORTS / APPROVALS:

PUBLIC WORKS	☒ NONE	☐ ATTACHED
AG / APCD	☒ NONE	☐ ATTACHED
E.H.S.	☒ NONE	☐ ATTACHED
FIRE / OES	☒ NONE	☐ ATTACHED
OTHER	(See Attached)	

REQUESTED ACTION:

SEE ATTACHED

Planning & Development Services Department
801 MAIN ST., EL CENTRO, CA.., 92243 760-482-4236
(Jurg Heuberger, AICP, Director)

EEC ORIGINAL PKG

IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT
INITIAL STUDY/ENVIRONMENTAL CHECKLIST

A. PROJECT BACKGROUND INFORMATION

1. Project Title:

   2009 8-HOUR OZONE MODIFIED AIR QUALITY MANAGEMENT PLAN (Modified AQMP)

2. Lead Agency Name and Address:

   Imperial County Air Pollution Control District
   150 South Ninth Street
   El Centro, CA 92243
   (760) 482-4606

3. Contact Person:

   Mr. Reyes Romero, Assistant APCO

   Ms. Monica Soucier, APC Division Manager

4. Project Location:

   The Modified AQMP applies to volatile organic compounds (VOC's) and nitrogen oxides (NOx) emission sources located within the political boundary of the Imperial County (see Exhibit 1, Map of Imperial County). Imperial County extends over 4,597 square miles within the southeastern portion of California, bordering Mexico to the south, Riverside County to the north, San Diego County to the west and the State of Arizona to the east. The terrain elevation varies from as low as 230 feet below sea level at the Salton Sea to the north to more than 2,800 feet above sea level at the mountain summits to the west. The climate is desert type with hot summers and mild winters, gusty winds frequently occurring during the months of April and May with very little rainfall. The flat terrain of the valley and the strong temperature differentials created by intense solar heating produce moderate winds and deep thermal convection. It is not uncommon to see temperatures above 110° during the month of August.

5. Project Sponsor's Name and Address:

   Imperial County Air Pollution Control District
   150 South Ninth Street
   El Centro, CA 92243
   (760) 482-4606

6. Project Overview

A. Introduction

The United States Environmental Protection Agency (U.S. EPA) in a continuing effort to protect the public health and welfare established different types of Air Quality Control Regions to facilitate management and identification of air quality patterns and effects. U.S. EPA identified Imperial County as part of the Southeast Desert Intrastate Air Quality Control Region. However, because States are primarily responsible for the submittal of State Implementation Plans (SIPs) the California Legislature enacted legislation empowering local county districts to adopt and enforce rules and regulations to help achieve and maintain both the state and federal ambient air quality standards in all areas affected by emission sources under their jurisdiction. Locally, the Imperial County Air Pollution Control District (ICAPCD) is responsible for air quality assessment and improvement in Imperial County.

B. California Environmental Quality Act

The Modified AQMP is a "project" as defined by the California Environmental Quality Act (CEQA). Under CEQA a lead agency has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment. Since the SIP imposes the greatest discretionary authority of approval upon the ICAPCD it is therefore the lead agency for this project.

As part of the review process the ICAPCD examined the Modified AQMP for applicability to CEQA. As directed by section 21084 of the Public Resources Code the Secretary for Resources identified a list of projects determined not to have a significant effect on the environment and which by their very nature are therefore exempt from the provisions of CEQA. Because the Modified AQMP does not propose or impose any new regulation and in fact is a modified plan addressing how the ICAPCD intends to maintain an attainment status a Class 8 categorical exemption applies. A class 8 exemption describes those actions by regulatory agencies which assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for the protection of the environment. However, in order to provide for optimum public participation and involvement the ICAPCD has opted not to utilize the exemption and instead provide an additional resource for the identification of any potential environmental impacts associated with the Modified AQMP.

Thus, in order to fulfill the purpose and intent of CEQA the ICAPCD has prepared this Draft Initial Study to address any potential environmental impacts associated with the Modified AQMP.

C. Statement of the Problem

On July 18, 1997, the U.S. EPA promulgated an 8-hour ozone National Ambient Air Quality Standard (NAAQS) of 0.080 parts per million (ppm) in order to promote greater protection of the public health by strengthening the already existing 1-hour ozone NAAQS. In accordance with the provisions of the Clean Air Act (CAA) the U.S. EPA classified the Imperial County as a "Marginal" non-attainment area on April 30, 2004 for the new ozone NAAQS. Subsequently, on February 13, 2008 the U.S. EPA found that the Imperial County failed to meet attainment for the new ozone NAAQS by the set deadline of June 15, 2007. As a result, Imperial County was

reclassified as a "Moderate" non-attainment area and required under the CAA provisions to develop a revised SIP by December 31, 2008. On December 3, 2009, the U.S. EPA issued a final ruling determining that the Imperial County "Moderate" 8-hour ozone non-attainment area attained the new ozone NAAQS. This determination effectively suspended the requirement for the state to submit a full attainment demonstration typical of a SIP. However, because the determination from the U.S. EPA did not constitute a re-designation to attainment under the CAA section 107(d)(3) the classification and designation status for Imperial County remain as a "Moderate" non-attainment area. As such, Imperial County is required to submit for U.S. EPA approval a Modified AQMP.

D. Background

As mentioned above a new ozone NAAQS of 0.080 ppm was promulgated in 1997 which required the averaged measurement of 8 hours of ozone concentrations not to exceed 0.084 ppm (per the rounding convention). Non-compliance with the new ozone NAAQS occurs when the calculated design value is greater than or equal to 0.085 ppm. The design value is calculated by arriving at an average of the annual fourth highest daily maximum 8-hour ozone value over a three consecutive year period per monitor. The highest monitor design value is the value used to determine the classification of a non-attainment area.

Early efforts at developing a full blown Ozone SIP began as early as 2007. A Technical Advisory Committee (TAC) group was formed to address issues pertinent to the Ozone SIP with the kick off meeting date of March 2008. TAC meetings continued up until April 2009. Subsequently soon after the ICAPCD filed a Clean Data Finding request to California Air Resources Board for review and submittal on our behalf to the U.S. EPA for approval. As mentioned earlier on December of 2009 the U.S. EPA concurred with our clean data finding and finalize their ruling determining that the Imperial County "Moderate" non-attainment area has attained the 1997 8-hour NAAQS for ozone.

E. Plan Description

The Modified AQMP serves as a comprehensive planning document inteded to provide guidance to the ICAPCD, the County, and other local agencies on the methods for continued maintenance or compliance of the 1997 8-hour ozone NAAQS also refered to as the new ozone NAAQS. The Modified AQMP must include at a minimum the following moderate area requirements:

1 NOx and VOC growth emission inventory
2 A discussion on the implementation of Reasonably Available Control Technology (RACT) (40 CFR 51.912)
3 NOx and VOC emission offsets of 1.15 to 1 for major source permits (40 CFR 51.165(a))

7. Other Agencies Whose Approvals Are Required and Permits Needed:
   No other agencies have discretionary authority over this project

8. Project Compatibility with Existing Zones and Plans:
   Not applicable to this project

9. Name of Person Who Prepared Initial Study:
   Monica N. Soucier
   APC Division Manager

IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT JUNE 2010
INITIAL ASSESSMENT FOR THE 2009 8-HOUR MODIFIED AIR QUALITY MANAGEMENT PLAN

B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. Any checked items represent areas that may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

☐ Aesthetics	☐ Agriculture Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Mineral Resources	☐ Noise	
☐ Public Services	☐ Recreation	☐ Population/Housing
☐ Utilities/Service Systems	☐ Mandatory Findings of Significance	☐ Transportation/Traffic

E.E.C. DETERMINATION

C. After review of the Initial Study, the Environmental Evaluation Committee has:

☒ Found that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ Found that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION wil be prepared.

☐ Found that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ Found that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on th environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 1) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, an ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Found that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION, pursuant to applicable standard and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

CALIF. DEPARTMENT OF FISH AND GAME DE MINIMIS IMPACT FINDING Y☒ N☐

VOTE:

YES	NO	ABS	
✓			Public Works
✓			EHS
✓			OES
✓			APCD
✓			Planning

I certify that this project was independently reviewed and analyzed and that this document reflects the independent judgement of the Environmental Evaluation Committee.

SIGNATURE: _____

Printed Name: **Brad Poiriez**
Title: **Air Pollution Control Officer**

EEC ORIGINAL PKG

D. ENVIRONMENTAL IMPACT CHECKLIST

The following checklist evaluates the proposed project's potential adverse impacts. For those environmental topics for which a potential adverse impact may exist, a discussion of the existing environment related to the topic is presented followed by an analysis of the project's potential adverse impacts. When the project does not have any potential adverse impacts for an environmental topic, the reasons why there are no potential adverse impacts are described. Control measures previously adopted by the ICAPCD are considered to be part of the existing setting and, therefore, are not evaluated further in the following checklist (e.g. CV CTY 1 - Turf Overseeding).

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
I. *AESTHETICS* Would the project:				
a) Have a substantial adverse effect on a scenic vista or scenic highway?	☐	☐	☐	☑
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☑
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☑
II. *AGRICULTURE RESOURCES AND FOREST RESOURCES* In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether environmental impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Dept. of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☑
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑

		Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
c)	Conflict with existing zoning for, or cause rezoning of , forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☑
III.	***AIR QUALITY*** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☑
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☑
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☑
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑
IV.	***BIOLOGICAL RESOURCES*** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑

		Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
c)	Have a substantial adverse effect on federally protected wetlands as defined by §404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑
V.	**CULTURAL RESOURCES** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☑
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☑
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☑
VI.	***GEOLOGY AND SOILS*** Would the project:				
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☑
i)	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☑
ii)	Strong seismic ground shaking?	☐	☐	☐	☑
iii)	Seismic-related ground failure, including liquefaction and seiche/tsunami?	☐	☐	☐	☑
iv)	Landslides?	☐	☐	☐	☑
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑

		Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☑
VII.	***GREENHOUSE GAS EMISSIONS*** Would the project:				
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☑
b)	Conflict with an applicable plan or policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☑
VIII.	***HAZARDS AND HAZARDOUS MATERIALS*** Would the project:				
a)	Create a significant hazard to the public or the enviornment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☑
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☑
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☑
d)	Be located on a site where is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☑
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑

		Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
h)	Expose people or structures to a significant risk or loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑
IX.	**HYDROLOGY/WATER QUALITY** Would the project:				
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☑
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowing of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☑
d)	Substantially alter the existing drainage pattern of the site or area, including through the alternation of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site?	☐	☐	☐	☑
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
f)	Otherwise substantially degrade water quality?	☐	☐	☐	☑
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☑
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☑
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑
X.	***LAND USE AND PLANNING*** would the project:				
a)	Physically divide an established community?	☐	☐	☐	☑

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		Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑
XI.	***MINERAL RESOURCES*** Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑
XII.	***NOISE*** Would the project result in:				
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☑
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☑
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
XIII.	***POPULATION AND HOUSING*** Would the project:				
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

	Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
XIV. *PUBLIC SERVICES*				
a) would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☑
Police protection?	☐	☐	☐	☑
Schools?	☐	☐	☐	☑
Parks?	☐	☐	☐	☑
Other public facilities?	☐	☐	☐	☑
XV. *RECREATION*				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☑
XVI. *TRANSPORTATION/TRAFFIC* Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersetions, streets, highways and freeways, predestrian and bicycle paths, and mass transit?	☐	☐	☐	☑
b) Conflict with an applicable congestion management program, including but not limited to level of service standard and travel demand measures, or other standards established by the county congestion/management agency for designated roads or highways?	☐	☐	☐	☑

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		Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
e)	Result in inadequate emergency access?	☐	☐	☐	☑
f)	Conflicts with adopted policies, plans, programs, regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☑
XVII.	***UTILITIES AND SERVICE SYSTEMS*** Would the project:				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

		Potentially Significant Impact	Potentially Significant Impact Unless Mitigated	Less Than Significant Impact	No Impact
XVIII.	***MANDATORY FINDINGS OF SIGNIFICANCE***				
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant of animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

(TO BE COMPLETED BY THE EEC AT THE HEARING)

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E. ENVIRONMENTAL IMPACT CHECKLIST COMMENTS

The District conducts CEQA review on each rule during the rule development process at which time a better idea of the methods or compliance is known. The discussion of impacts provided below reflects the general level of knowledge now available.

I. *AESTHETICS* — a) thru d) No Impact

Because the Modified AQMP does not propose any new regulation but merely analyzes and demonstrates how with currently adopted regulation the Imperial County will continue to attain the 1997 8-hour NAAQS there would be no impact. The Modified AQMP would not create aesthetically offensive sites visible to the public and therefore, no significant adverse aesthetic or recreation impacts would be expected from the Modified AQMP. The Modified AQMP may however have a beneficial efect in that improvement in visibility may continue as air quality is improved.

II. *AGRICULTURE RESOURCES AND FOREST RESOURCES* — a) thru e) No Impact

Because the Modified AQMP does not propose any new regulation but merely analyzes and demonstrates how with currently adopted regulation the Imperial County will continue to attain the 1997 8-hour NAAQS there would be no impact. The Modified AQMP does analyze the Large Confined Animal Facilities Permits Required regulation which will not result in any conversion of prime or unique farmland to non-agricultural use nor conversion of forest land to non-forest use. The Modified AQMP will not conflict with existing zoning for agricultural use, Williamson Act contracts or timberland. Ozone levels are expected to improve and therefore the Modified AQMP would provide a benefit to the agricultural resources by reducing the adverse impacts of ozone on plants and animals.

III. *AIR QUALITY* — a) thru e) No Impact

Based on the fact that the Modified AQMP is not proposing new regulation the Modified AQMP will not violate any air quality standard or significantly contribute to an existing or projected air quality violation. The purpose of the Modified AQMP is to demonstrate how with currently adopted regulation the Imperial County will continue to attain the 1997 8-hour Ozone NAAQS. No alteration of air movement, moisture, temperature, climate change or creation of objectinable odors will result from the adoption of the Modified AQMP.

IV. *BIOLOGICAL RESOURCES* — a) thru f) No Impact

Adoption of the Modified AQMP is not expected to adversely affect existing plant or animal species or communities, unique or endangered plant or animal species, or agricultural crops. No additional significant adverse impacts to biological resources will be affected because biological resources are already disturbed on existing sites and area where the Modified AQMP is implemented. Any improvement resulting from the Modified AQMP will be a benefit to plant and animal species, as well as to humans in the Imperial Valley.

V. *CULTURAL RESOURCES* — a) thru d) No Impact

The Modified AQMP describes current existing regulation and how it affects facilities which are typically located in apparoximately zoned commercial or industrial areas that have previously been disturbed. Any effects from the current regulations are occuring at exiting sites and areas. As a result, significant impacts to cultural resources are not expected by the Modified AQMP because there is no requirement for the destruction of existing buildings or sites with prehistoric, historic, archaeological, religious, or ethnic significance. Adoption of the Modified AQMP is not anticipated to result in any activities or promote any programs that could have a significant adverse impact on cultural resources within the Imperial County.

VI. *GEOLOGY AND SOILS* — a) thru e) No Impact

There ar no provisions in the Modified AQMP that would call for the disruption or over-covering of soil, changes in topography or surface relief features, the erosion of beach sand or a change in existing siltation rates. The ICAPCD does not have land use authority (California Health and Safety Code, Sec. 40716(b)) so the ICAPCD is generally prohibited from encouraging or probating specific land uses in specific locations in the Imperial Valley. As such, adoption of the Modified AQMP willnot incrase the exposure of people or property to geologic hazards, fault rupture, seismic ground shaking, seismic ground failure, seiche, tsunami or volcanic hazard.

VII. *GREENHOUSE GASES* a) & b) No Impact

Assembly Bill 32 (AB32) was passed in 2006 by the Legislature and signed by Governor Schwarzenegger setting the 2020 greenhouse gas emissions reduction goal into law. Although carbon dioxide has been identified as the largest contributor to greenhouse gases AB32 has identified methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF6), hydrofluorocarbons (HFC's) and perfluorocarbons (PFC's). The Scoping Plan developed by the California Air Resources Board identified sectors which contribute to greenhouse gases. Following is a list of sectors cited with the percentage of contribution if "business as usual" is maintained. Transportation (38%), Electricity (23%), Industry (20%), Commerical and Residential (9%), Agriculture (6%), High global warming potential (GWP) (3%) and Recycling and Waste (1%). Although agriculture is mentioned the identified agricultural greenhouse gases are largely methane emissions from livestock, both from the animals and their waste. Current regulation limiting VOC emissions also reduces Greenhouse gas emissions.

With the reduction of ozone levels there is a direct link to a reduction in greenhouse gases. Therefore, this Modified AQMP could have a beneficial effect on greenhouse gases and climate change.

VIII. HAZARDS AND HAZARDOUS MATERIALS a) thru h) No Impact

As mentioned before there are no proposed new regulations therefore no anticipated new emissions of hazards and hazardous materials is expected. However, when control measures undergo rule development, hazardous risk assessments and other analyses are conducted to identify any potential hazards. These analyses are addressed in separate CEQA documents accompanying the rule in the rule development and adoption process. For example, some rules regulate VOC content limits from coatings and othe products. These regulated limits can normally be achieved by industry practice in application and handling and reformulation with acetone-exempt solvents and water-based solvents. The trend is to replace solvents with less toxic/less hazardous materials that do not contain hazardous air pollutants. However, no new regulation is proposed under the Modified AQMP and therefore no known hazardous materials or hazards are expected either to the public, environment, schools, airport or interfere with an adopted emergency response plan or emergency evacuation plan.

IX. *HYDROLOGY/WATER QUALITY* a) thru j) No Impact

The Modified AQMP does not contain any control measures that increase water usage at any of the affected facilities. The Moadified AQMP will not generate new structures that could alter existing drainage patterns by altering rthe course of a river or stream that would result in erosion, siltation, or flooding on or offsite, increase the rate or amount of surface runoff that would exceed the capacity of existing or planned stormwater drainage systems, etc. The Modified AQMP does not cause or include the new construction or relocation of existing housing or other types of facilities and as such would not require the placement of housing or other structures within a 100-year flood hazard area. Therefore, the Modified AQMP would not be involved in creating a significant risk from flooding, expose people or structures to significant risk of loss, injury or death involving flooding or increase existing risks if any, of inuandation by seiche, tsunami, or mudflow.

X. *LAND USE AND PLANNING* a) thru c) No Impact

The Modified AQMP does not have any characteristics that would directly change land use, zoning or land use plans or directly affect the land use classification, or location criteria of any public or private residential, commerical, industrial or public lands use facility. Land use planning is handled at the local level and contributes to planning (i.e. growth projections) but the Modified AQMP does not affect local government land use planning decisions.

XI. *MINERAL RESOURCES* a) thru b) No Impact

No provision of the Modified AQMP would directly result in the loss of availablility of a known mineral resource of value to the region and the residents of the state or of a locally-important mineral resource recovery site delinated on a local general plan, specific plan, or other land use plan. Therefore, significant adverse impacts to mineral resources are not anticipated.

XII. *NOISE* a) thru f) No Impact

Because the Modified AQMP is not proposing any new regulation the Modified AQMP does not require existing industrial owners/operatoars to install new air pollution control equipment or to modify their operations to reduce stationary source emissions. Therefore the Modified AQMP is not anticipated to increase groundborne vibration levels, nor directly or indirectly cause substantial noise or excessive groundborne vibration impacts. In addition, there are no components to the Modified AQMP that would increase to any level ambient noise levels, either intermittently or permanently.

XIII. *POPULATION AND HOUSING* a) thru c) No Impact

The Modified AQMP is not anticipted to generate any significant effects, either directly or indirectly, on the Imperial County's population or population distribution. There are no provisions in the Modified AQMP that would result in the creation of any industry that would affect population growht or directly or indirectly induce the construction of single - or multiple-family units. Adopting the Modified AQMP will not result in any significant changes in population densities or induce significant growth in population.

XIV. *PUBLIC SERVICES* a) No Impact

The Modified AQMP will not generate any significant adverse impacts to public services (i.e., fire departments, police departments, and local governments). The Modified AQMP would not result in the need for new or physically alter government facilities in order to maintain acceptable service ratios, response times or other performance objectives.

XV. *RECREATION* a) & b) No Impact

No provisions of the Modified AQMP would directly or indirectly affect land use plans, policies, ordinances, or regulations. Land use and other planning considerations are determined by local governments. No land use or planning requirements, including those related to recreational facilities, would be altered by the adoption of the Modified AQMP. The Modified AQMP does not have the potential to directly or indirectly induce population growth or redistribution. As a result, the Modified AQMP does not increase the use of or demand for existing neighborhood and/or regional parks or other recreational facilities, nor would it require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

XVI. *TRANSPORTATION/TRAFFIC* a) thru f) No Impact

No provisions of the Modified AQMP proposes to increase vehicle trips, vehicle miles traveled, result in inadequate parking at any affected facility or increase air traffic levels. In addition the provisions of the Modified AQMP would not directly or indirectly increase roadway design hazards or incompatible risks. The provisions of the Modified AQMP does not require the construction of any structures that might obstruct emergency access routes at any affected facilities. Therefore, adopting the Modified AQMP would not conflict with adopted policies, plans or programs supporting alternative transportation programs. The Modified AQMP is not expected to generate any significant adverse impacts to transporations or traffic systems.

XVII. *UTILITIES AND SERVICE SYSTEMS* a) thru g) No Impact

The Modified AQMP will not result in any demand for new utilities or service systems or result in any substantial demand on existing sources. There are no provisions in the Modified AQMP that would affect existing communication systems, sewer or septic tanks, or regional water treatment or distribution facilities. The Modified AQMP would not result in any demand for new utilities or service systems, or result in any substantial demand on existing sources.

F. SOURCES

1. IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT. *Draft 2009 8-Hour Ozone Modified Air Quality Management Plan*

2. IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT. *1991 Air Quality Attainment Plan*

3. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. Federal Notice Volume 74, December 03, 2009 Pages 63309 thru 63310 (74 FR 63309-63310)

4. Office of Planning and Research (OPR) CEQA and Climate Change; CEQA GUIDELINES SECTIONS PROPOSED TO BE ADDED OR AMENDED; www.opr.ca.gov

5. CALIFORNIA AIR RESOURCES BOARD. Greenhouse Gas Protocols; http://www.arb.ca.gov/cc/protocols/protocols.htm

6. CALIFORNIA AIR RESOURCES BOARD. Climate Change Scoping Plan December 2008 Pursuant to AB32 http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm

AIR POLLUTION CONTROL DISTRICT

FINAL
2009 8-HOUR OZONE MODIFIED AIR QUALITY MANAGEMENT PLAN

JULY 13, 2010

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CHAPTER 1

INTRODUCTION/BACKGROUND

CHAPTER 1 – INTRODUCTION/BACKGROUND

1.1 INTRODUCTION

On July 18, 1997, the United States Environmental Protection Agency (U.S. EPA) promulgated an 8-hour ozone National Ambient Air Quality Standard (NAAQS) of 0.080 parts per million (ppm) in order to promote greater protection of the public health by strengthening the already existing 1-hour ozone standard. The new standard, hence forth referred to as the 1997 8-hour ozone NAAQS is therefore much more stringent than the previous 1-hour ozone standard. With the promulgation of the 1997 8-hour ozone NAAQS the U.S. EPA classified the Imperial County as a "Marginal" non-attainment area on April 30, 2004 this was in accordance with the provisions of the Clean Air Act (CAA). Subsequently, on February 13, 2008 the U.S. EPA found that the Imperial County failed to meet attainment for the 1997 8-hour ozone NAAQS by the "Marginal" deadline of June 15, 2007.[1] As a result, Imperial County was reclassified as a "Moderate" non-attainment area for the 1997 8-hour ozone NAAQS. Those areas classified under a "Moderate" classification are required to attain the standard "as expeditiously as practicable," but no later than 6 years after designation or June 15, 2010. According to the CAA a state must provide for implementation of all control measures needed for attainment requiring the submittal of an attainment demonstration, a reasonable further progress (RFP) plan, contingency measures along with other planning requirements. Therefore, Imperial County was required to develop a revised State Implementation Plan (SIP) by December 31, 2008.

On December 3, 2009 the U.S. EPA issued a final ruling determining that the Imperial County "moderate" 8-hour ozone non-attainment area attained the 1997 8-hour NAAQS for ozone (see Appendix A). The determination by U.S. EPA was based upon complete, quality-assured and certified ambient air monitoring data for the years 2006 thru 2008. This determination effectively suspended the requirement for the state to submit an attainment demonstration, a RFP plan, contingency measures and other planning requirements for so long as Imperial County continues to attain the 1997 8-hour ozone NAAQS. However, this determination did not constitute a re-designation to attainment under the CAA section 107(d)(3). Therefore, the classification and designation status for Imperial County remain as a "moderate" non-attainment area of the 1997 8-hour ozone NAAQS. As such, Imperial County is then required to submit for U.S. EPA approval a 2009 8-Hour Ozone "Modified" Air Quality Management Plan.

The 2009 8-Hour Ozone "Modified" Air Quality Management Plan, hence forth referred to as the Modified AQMP, is a legal document that fulfills the stipulations contained under Title 40 of the Code of Federal Regulations pertaining to the preparation, adoption and submittal of Implementation Plans.

Because Imperial County is currently in attainment of the 1997 8-hour ozone NAAQS

[1] Determination of Nonattainment and Reclassification of the Imperial County, 8-Hour Ozone Nonattainment Area: Federal Register: February 13, 2008 (Volume 73, Number 30)

the Modified AQMP serves as a comprehensive planning document intended to provide guidance to the Air Pollution Control District, the County, and other local agencies on how to continue maintaining the 1997 8-hour ozone NAAQS.[2] The Modified AQMP must include at a minimum the following moderate area requirements: (1) Nitrogen Oxide (NOx) and Volatile Organic Compound (VOC) growth emission inventory, (2) a discussion on the implementation of RACT (40 CFR 51.912), and (3) NOx and VOC emission offsets of 1.15 to 1 for major source permits (40 CFR 51.165(a)). For a complete detailed list of SIP requirements please review the Checklist of SIP requirements found in Chapter 7. As a bonus, several of the ozone control measures described in the Modified AQMP also reduce PM_{10} emissions.

1.2 PURPOSE

Clean air is a valuable and essential resource which affects many aspects of our daily lives. It is vital to our health and welfare, to the local agricultural economy, and to the esthetic beauty and quality of life enjoyed by county residents. Because the capacity of the air to absorb environmental contaminants is limited, wise management must be practiced in order to avoid significant deterioration of the resource. At its core the CAA adopted the NAAQS to protect public health, vegetation, materials and to improve visibility. Continued compliance with the NAAQS can only be accomplished by developing, adopting and implementing a Modified AQMP that specifically addresses those issues related to the continued compliance of the 1997 8-hour ozone NAAQS in a sound, reasonable and effective manner.

1.3 BACKGROUND

Since the 1977 amendments to the CAA, areas of the country that violated the NAAQS for a particular pollutant were formally designated as non-attainment for that pollutant. With the 1990 amendments to the CAA, areas designated as non-attainment for the 1-hour ozone NAAQS were classified as to the degree of non-attainment status, effectively adding a greater degree of accountability upon states. Five classification categories were created (§181 of the 1990 CAA). In increasing severity, these were marginal, moderate, serious, severe and extreme. Each classification retained a different attainment date which would guarantee further protection to the public health and welfare. The classification of non-attainment areas is accomplished by the determination of a design value.

As mentioned above, with the promulgation of the new ozone standard in June of 1997 a stricter standard of 0.080 parts per million (ppm) averaged over 8 hours was implemented. An exceedance of the 1997 8-hour ozone NAAQS occurs when a monitor measures ozone above 0.084 ppm (per the rounding convention). Non-compliance with the ozone NAAQS occurs when the calculated design value is greater than or equal to 0.085 ppm. The design value is calculated by arriving at an average of the annual

[2] It is important to note, that Imperial County recorded three (3) years of complete quality assured ambient air quality monitoring data for the years 2006, 2007, and 2008 demonstrating attainment of the 1997 8-hour ozone NAAQS.

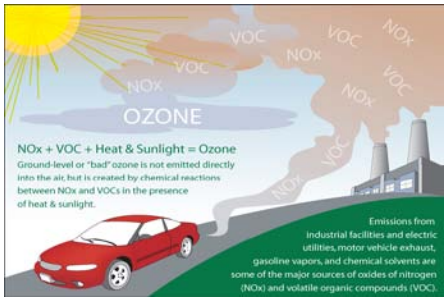
fourth highest daily maximum 8-hour ozone value over a three consecutive year period per monitor. The highest monitor design value in a non-attainment area determines its classification.

1.4 OZONE PRODUCTION AND HEALTH EFFECTS

The intent of the CAA is to provide a level of protection to the nation's public health and the environment. The measurement standard used by U.S. EPA in providing protection to the public and environment is known as the NAAQS. Utilizing sections 108 and 109 of the CAA the U.S. EPA set NAAQS for six criteria pollutants one of which is ozone. There are essentially two types of ozone, good ozone which is found in the upper atmosphere while bad ozone is found at ground level. With the implementation of the 1997 8-hour ozone NAAQS U.S. EPA intended to protect the public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly and to protect the public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings. Children are at a higher risk from exposure to ozone, since they breathe more air per pound of body weight than adults and because children's respiratory systems are still developing. Children also spend a considerable amount of time outdoors during summer and during the start of the school year (May - September) when the highest ozone levels are recorded. Therefore, lawmakers understanding that the availability of scientific information is always changing provided a provision in the CAA which requires U.S. EPA to review the latest scientific information and standards every five years in order to make recommendations on revisions to the NAAQS.

OZONE

Ozone occurs in two layers of the atmosphere. The layer closest to the Earth's surface is the troposphere where ground-level ozone is found. Ground-level or "bad" ozone is not emitted directly into the air, but is formed by a complex series of chemical reactions involving NOx, the result of combustion processes, and reactive organic gases (ROG) in the presence of sunlight. Organic gases are also known as VOCs, which include many industrial solvents, toluene, xylene and hexane as well as the various hydrocarbons that are evaporated from the gasoline used by motor vehicles or emitted through the tailpipe following combustion.



Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are some of the major sources of NOx and VOC.

Bad Ozone. Ground-level or "bad" ozone is an air pollutant that is harmful to the human respiratory function and is known to damage crops, trees and other vegetation. It is the

main ingredient of urban smog. At ground level, ozone is of greatest concern during the summer months because strong sunlight and the hot weather result in harmful ozone concentrations in the air we breathe. Essentially, its formation is promoted by strong sunlight, warm temperatures and winds. High concentrations of ground-level ozone tend to be a problem in Imperial County only during the hot summer months when these conditions frequently occur.

Good Ozone. Ozone occurs naturally in the Earth's upper atmosphere - 6 to 30 miles above the Earth's surface - where it forms a protective layer that shields us from the sun's harmful ultraviolet rays. Manmade chemicals are known to destroy this beneficial ozone. An area where the protective "ozone layer" has been significantly depleted-for example, over the North or South Pole is sometimes called "the ozone hole." The United States, along with over 180 other countries, recognized the threats posed by ozone depletion and in 1987 adopted a treaty called the Montreal Protocol to phase out the production and use of ozone-depleting substances. The U.S. EPA has established regulations to phase out ozone-depleting chemicals in the United States.

Health Effects. Repeated exposure to ozone pollution may cause permanent damage to the lungs. Even when ozone is present in low levels, inhaling it triggers a variety of health problems. Although breathing impairment is the primary and most noticeable health effect, ozone, can cause chest pains, coughing, nausea, throat irritation, and congestion. It can also worsen bronchitis, heart disease, emphysema, and asthma, and reduce lung capacity. Asthma is a significant and growing threat to children and adults. Ozone can aggravate asthma, causing more asthma attacks, increased use of medication, more medical treatment and more frequent visits to hospital emergency clinics. Although breathing impairment is the primary and most noticeable health effect, symptoms of sore throat, nausea or dizziness, coughing and headaches may occur in healthy individuals exposed to high ozone concentrations. If exposure to higher concentrations is of limited duration, most people can recover to their previous functioning level. However, recent studies have shown that routine exposure to lower concentrations of ozone can cause chronic lung damage in children, with permanent reductions in lung capacity of up to 50% measured.

Healthy people also experience difficulty in breathing when exposed to ozone pollution. Because ozone pollution usually forms in hot weather, anyone who spends time outdoors in the summer may be affected, particularly children, the elderly, outdoor workers and people exercising outdoors. Children are most at risk from exposure to ozone because they are active outside, playing and exercising, during the summertime when ozone levels are at their highest. Table 1-1 presents Imperial County's population at risk from ozone exposure as of 2005 population.

***Table 1-1**
Imperial County's population at risk from Ozone exposure

GROUPS AT RISK	POPULATION
Pediatric Asthma:	4,389
Adult Asthma:	8,365
Chronic Bronchitis:	4,614
Emphysema:	1,844
Cardiovascular Disease:	34,768
Diabetes:	7,963
Total Population:	160,301
Population Under 18:	47,295
Population 65 & Over:	16,478

*Table 1-1: 2005 Information provided by American Lung Association. www.stateoftheair.org/2008/states/california/imperial-06025.html

Environmental Effects. Ground-level ozone damages plant life and is responsible for an estimated 500 million dollars in reduced crop production in the United States each year. Ozone interferes with the ability of plants to produce and store food, making them more susceptible to disease, insects, other pollutants, and harsh weather. It damages the foliage of trees and other plants, ruining the landscapes of cities, parks and forests, and recreation areas.

Ozone is also considered a serious threat to California agriculture and native vegetation due to its pervasive nature. Many sensitive plant species are known to suffer damage at concentrations below human health standards. Ozone interferes with photosynthesis by attacking leaves, causing them to yellow, develop dead areas and drop leaves early. Ozone stunts growth in many crop varieties, reduces yields, or causes esthetic damage which lowers market value. Many of the crops grown within this county are particularly sensitive to ozone injury, including orchard crops, lettuce and several other varieties of vegetation.

1.5 RESPONSIBILITIES OF AGENCIES

Agencies with direct and indirect interest in air quality which participate in the planning process as it pertains to the CAA are discussed below.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (U.S. EPA)

The U.S. EPA administers the CAA and other air quality related legislation. As a regulatory agency, U.S. EPA responsibilities include establishing national emission limits for major sources of air pollution; inspecting and monitoring emission sources, enforcing federal air quality laws, promulgating new regulations, providing financial and technical support for air quality research and development programs, setting NAAQS and preparing guidance for and action on SIP's to meet and/or maintain those NAAQS. Essentially, the U.S. EPA is required to take action on the California SIP. The California

SIP is comprised of plans developed at the regional or local level. Each of these plans is individually reviewed and approved by U.S. EPA prior to incorporation into the SIP

The U.S. EPA says that 146 million Americans live in counties where monitored air in 2002 was unhealthy because of high levels of principal air pollutants; that more than 160 million tons per year of emissions of criteria air pollutants were emitted into the air by cars, trucks, industrial facilities and utilities, small businesses and other sources; and that 124 metropolitan areas are still considered "non-attainment" for one of the six pollutants targeted by the CAA. Since the 1990 Amendments to the CAA which instituted the classification process, there has been a vast improvement in the amount of emissions of criteria pollutants compared to 1970.

Clean Air Act Amendments of 1990 (CAA)

Anticipated economic impacts were the primary component in the debate over the 1990 Amendments to the CAA which included the strengthening of the ozone and particulate matter (PM) standards. Still, the CAA and new federal and state regulations are creating new markets for alternative fuels, pollution control equipment, and new services. Supporters believe that the economic value public-health benefits resulting from the CAA can be measured in fewer sick days, hospitalizations, and deaths which more than offset initial economic costs.

U.S. EPA is required to do the following:

1. The U.S. EPA will provide technical assistance to the state and local area in the development of an attainment plan.

2. The U.S. EPA will move quickly to review and act on completed plans after submission of any revision to the SIP by the state.

3. Provided that the monitors in the area reflect attainment by the due date and the area submits an approvable maintenance plan and re-designation request, the U.S. EPA will move expeditiously to re-designate the area as attainment and impose no additional requirements.

The 1990 Amendments also established a local air quality planning process, requiring SIP's for each local area that had not attained a particular standard. These plans are to be prepared by local agencies and are to be incorporated into the SIP. The U.S. EPA was given power to impose sanctions for failure to submit a plan or carry out commitments in a plan. Sanctions could include offset sanctions and the withholding of federal highway funds.

CALIFORNIA AIR RESOURCES BOARD (CARB)

The California Air Resources Board (CARB) is the state agency responsible for the coordination and administration of both state and federal air pollution control programs

in California. The CARB undertakes research, sets state ambient air quality standards (CAAQS), provides technical assistance to local Air Pollution Control Districts, compiles emission inventories, develops suggested control measures, and provides oversight of Air Pollution Control District control programs.

A key function of CARB is to coordinate and guide regional and local air quality planning efforts required by the California Clean Air Act (CCAA), and to prepare and submit required SIP's to U.S. EPA. CARB also establishes emission standards for motor vehicles. The CAA allows California to adopt more stringent vehicle emission standards than the rest of the nation due to California's severe air pollution problem.

IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT (ICAPCD)

The Imperial County Air Pollution Control District (ICAPCD) shares responsibility with CARB for ensuring that all state and federal ambient air quality standards are achieved and maintained within the County. State law assigns to local Air Pollution Control Districts the primary responsibility for control of air pollution from stationary sources, while reserving an oversight role for CARB. Generally, the Air Pollution Control Districts must meet minimum state and U.S. EPA program requirements. The Air Pollution Control District is also responsible for the inspection of stationary sources, monitoring of ambient air quality, and planning activities such as modeling and maintenance of the emissions inventory. As it pertains to this Modified AQMP the ICAPCD will:

1. Maintain the NOx and VOC growth emission inventory

2. Provide a discussion on the implementation of RACT (40 CFR 51.912)

3. Provide NOx and VOC emission offsets of 1.15 to 1 for major source permits (40 CFR 51.165(a)).

CHAPTER 2

PLANNING AREA

2.1 PHYSICAL DESCRIPTION OF THE PLANNING AREA

2.2 CLIMATE

2.3 ATMOSPHERIC STABILITY AND DISPERSION

2.4 LAND USE

2.5 POPULATION

CHAPTER 2 – PLANNING AREA

2.1 PHYSICAL DESCRIPTION OF THE PLANNING AREA

Geographical Description

Imperial County extends over 4,482 square miles in the southeastern corner of California. It is bordered on the south by Mexico, on the east by Arizona, on the west by the Coyote and Fish Creek Mountains (which are in San Diego County), and on the north by Riverside County. The Salton Trough runs approximately northwest-southeast through the center of the county and extends into Mexico. The elevation in Imperial County ranges from about 230 feet below sea level in the Salton Sea to the north to more than 2800 feet on the mountain summits to the east.

2.2 CLIMATE

Winters are mild and dry with daily average temperature ranges between 65 and 75ºF (18-24ºC). During winter months it is not uncommon to record maximum temperatures of up to 80ºF. Summers are extremely hot with daily average temperature ranges between 104 and 115ºF (40-46ºC). It is not uncommon, during summer months, to record maximum temperatures of 120ºF. The annual rainfall is just over 3 inches (7.5 cm) with most of it coming in late summer or midwinter.

Climatic conditions in the Imperial County are governed by the large-scale sinking and warming of air in the semi-permanent tropical high pressure center of the Pacific Ocean. The high pressure ridge blocks out most mid-latitude storms except in winter when the high is weakest and farthest south. The coastal mountains prevent the intrusion of any cool, damp air found in California coastal environs. Because of the weakened storms and barrier, the Imperial County experiences clear skies, extremely hot summers, mild winters, and little rainfall. The flat terrain of the valley and the strong temperature differentials created by intense solar heating, produce moderate winds and deep thermal convection.

The combination of subsiding air, protective mountains and distance from the ocean all combine to severely limit precipitation. Rainfall is highly variable with precipitation from a single heavy storm exceeding the entire annual total during a later drought condition.

The Imperial County enjoys a year-round climate characterized by a temperate fall, winter and spring and a harsh summer. Humidity often combines with the valley's normal high temperatures to produce a moist, tropical atmosphere that frequently seems hotter than the thermometer suggests. The sun shines, on the average, more in the Imperial County that anywhere else in the United States.

2.2.1 Humidity

Humidity is low throughout the year, ranging from 28 percent in summer to 52 percent in winter. The large daily oscillation of temperature produces a corresponding large

variation in the relative humidity. Nocturnal humidity rises to 50-60 percent, but drop to about 10 percent during the day. Summer weather patterns are dominated by intense heat induced low-pressure areas that form over the interior desert.

2.2.2 Typical Weather Patterns

The wind direction follows two general patterns. The prevailing winds are from the west and northwest seasonally from fall through spring. These originating prevailing winds are known to be from the Los Angeles area.

Occasionally Imperial County experiences periods of extremely high winds speeds. Wind speeds can exceed 31 mph occurring most frequently during the months of April and May. However, speeds of less than 6.8 mph account for more than one-half of the observed wind measurements. Wind statistics indicate prevailing winds are from the west-northwest through southwest; a secondary flow maximum from the southeast is also evident.

2.3 ATMOSPHERIC STABILITY AND DISPERSION

Air pollutant concentrations are primarily determined by the amount of pollutant emissions in an area and the degree to which these pollutants are dispersed in the atmosphere. The stability of the atmosphere is one of the key factors affecting pollutant dispersion. Atmospheric stability regulates the amount of vertical and horizontal air exchange, or mixing, that can occur within a given air basin. Restricted mixing and low wind speeds are generally associated with a high degree of stability in the atmosphere. These conditions are characteristic of temperature inversions.

In the atmosphere, air temperatures normally decrease as altitude increases. At varying distances above the earth's surface, however, a reversal of this gradient can occur. This condition, termed an inversion, is simply a warm layer of air above a layer of cooler air, and it has the effect of limiting the vertical dispersion of pollutants. The height of the inversion determines the size of the mixing volume trapped below. Inversion strength or intensity is measured by the thickness of the layer and the difference in temperature between the base and the top of the inversion. The strength of the inversion determines how easily it can be broken by winds or solar heating.

Imperial County experiences surface inversions almost every day of the year. Due to strong surface heating, these inversions are usually broken allowing pollutants to be more easily dispersed. Weak, surface inversions are caused by radiational cooling of air in contact with the cold surface of the earth at night. In valleys and low lying areas this condition is intensified by the addition of cold air flowing down slope from the hills and pooling on the valley floor.

The presence of the Pacific high pressure cell can cause the air to warm to a temperature higher than the air below. This highly stable atmospheric condition, termed a subsidence inversion can act as a nearly impenetrable lid to the vertical mixing of

pollutants. The strength of these inversions makes them difficult to disrupt. Consequently, they can persist for one or more days, causing air stagnation and the buildup of pollutants. Highest or worst-case ozone levels are often associated with the presence of this type of inversion.

2.4 LAND USE

Since 1990, Imperial County's $1.6 billion dollar agricultural industry grew over 52% in 2008. Vegetable and melon crops led the county tally, grossing more than $675 million followed by field crops (hay) which grossed $482 million. More than 40 types of crops and commodities are grown in the Imperial County. This ranks Imperial County tenth among all California counties, and twelfth among all counties in the United States. Approximately one half a million acres of land are farmed in Imperial County and the total farmable acres have remained fairly constant over the past decade. During the high season, approximately 25% of Imperial County's labor force work in the Agricultural Sector. Additionally, Imperial County has more acreage and production of alfalfa than any other county in the United States. It is also a major producer of lettuce, feedlot beef, melons, carrots, Sudan grass hay, onions and numerous other commodities.

2.5 POPULATION

Growth has been a central part of local discussion for the past few years in the Imperial County. Table 2-1 below shows the population estimates for the larger incorporated areas in Imperial County. In addition, the category "Balance of County" identifies the population estimates for the cities of Bombay Beach, Desert Shores, Heber, Niland, Ocotillo, Palo Verde, Salton City, Salton Sea Beach, Seeley, and Winterhaven. The increase in population is evident when one compares the populations for 1990 and 2007. Between 1990 and 2007 Imperial County increased its population by 62,200 new residents.

Table 2-1
*** There are seven incorporated cities in Imperial County**

IMPERIAL COUNTY	1990	2000	2001	2002	2003	2004	2005	2006	2007
Brawley	18,923	22,052	22,365	22,497	22,731	23,402	23,915	25,426	25,522
Calexico	18,633	27,109	28,049	29,783	32,014	34,256	36,079	36,651	37,295
Calipatria	2,690	7,289	7,280	7,612	7,651	7,791	7,884	7,819	7,750
El Centro	31,405	38,025	38,476	38,738	39,359	39,862	40,817	41,904	41,789
Holtville	4,820	5,612	5,674	5,694	5,710	5,726	5,715	5,832	6,257
Imperial	4,113	7,560	7,766	8,112	8,524	9,281	9,516	10,116	11,772
Westmorland	1,380	2,131	2,175	2,195	2,201	2,210	2,430	2,368	2,359
Balance of County	27,339	32,583	32,977	33,118	33,625	33,870	34,733	36,116	38,832
County Total	**109,303**	**142,361**	**144,762**	**147,749**	**151,815**	**156,398**	**161,089**	**166,232**	**171,576**

*Information provided by the Department of finance at www.dof.ca.gov

CHAPTER 3

EXISTING AIR QUALITY

3.1 AIR QUALITY STANDARDS

3.2 AIR QUALITY MONITORING

3.3 LOCAL OZONE MEASUREMENTS

CHAPTER 3 - EXISTING AIR QUALITY

3.1 AIR QUALITY STANDARDS

In 1970 Congress simultaneously created the U.S. EPA and passed the CAA creating a national campaign to maintain healthy air quality standards for the control of air pollution. The CAA was subsequently amended in 1990 which intensified the national air quality control efforts to clean up air pollution in the United States. The provisions within the 1990 amendments included the NAAQS for six common air pollutants, State attainment plans, vehicle emission standards, stationary source emission standards, permits, and enforcement provisions.

The U.S. EPA established the NAAQS which identify the impact to humans and to the environment. The primary standard is designated to protect human health while the secondary standard is designated to protect the public welfare and the environment. The CAA requires not only that the U.S. EPA establish the NAAQS but that the U.S. EPA periodically review and amend those standards as needed.

Over the past several decades, the federal government has set and periodically revised the NAAQS for pollutants that are of the greatest public health concern. These standards encompass the most common varieties of airborne materials which can pose a health hazard. The NAAQS is expressed as a measure of the amount of pollutant per unit of air. Because these pollutants are found all over the United States tribal, state and local governments must comply with the CAA by meeting the NAAQS. As a consequence, pollutants with ambient standards remain the chief focus of air quality management activities around the nation.

At the state and national level, the process of setting standards involves careful review of scientific studies which relate pollutant concentrations to public health and welfare. These studies are used to establish the criteria on which the standards are based. Air quality standards are typically set at levels which provide a reasonable margin of safety and protect the health of the most sensitive individuals in the population. Pollutants for which ambient standards have been established based on the criteria studies mentioned above are known as 'criteria pollutants'. Criteria pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, PM_{10} (a general category of airborne particles 10 microns or less in diameter), $PM_{2.5}$ a specific particulate matter, and lead. Different standards for these and other pollutants have been set by the federal and the California governments. California standards tend to be more restrictive than national standards.

The California Clean Air Act (CCAA) requires Air Pollution Control Districts to use the more restrictive State standards when setting up new source review limits to achieve no net increase. In addition, State law requires all Districts that cannot demonstrate attainment of the State ozone standard to adopt all feasible measures to reduce ROG and NOx, the precursors to ozone. Beyond the tighter standards for the criteria pollutants listed below, California has also set standards for sulfates, hydrogen sulfide,

vinyl chloride, and visibility-reducing particles. The ambient air quality standards for each of these pollutants are shown in Table 3-1.

Table 3-1 California and Federal Ambient Air Quality Standards

Pollutant	Averaging Times	California Standards Concentration	Federal Standards Primary	Federal Standards Secondary
Carbon Monoxide	8-hour	9 ppm (+10 mg/m^3)	9 ppm (10 mg/m^3)	None
	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	None
Lead	30 Day-Average Quarterly Average	1.5 µg/m^3 ---	--- 1.5 µg/m^3	--- Same as Primary
Nitrogen Dioxide	Annual (Arithmetic Mean)	0.030 ppm (56 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
	1-hour	0.18 ppm (338 µg/m^3)	---	---
Particulate Matter (PM_{10})	Annual (Arithmetic Mean)	20 µg/m^3	Revoked	Revoked
	24-hour	50 µg/m^3	150 µg/m^3	Same as Primary
Particulate Matter ($PM_{2.5}$)	Annual (Arithmetic Mean)	12.0 µg/m^3	15.0 µg/m^3	Same as Primary
	24-hour	---	35 µg/m^3	Same as Primary
Ozone	8-hour	0.07 ppm (137 µg/m^3)	0.08 ppm *	Same as Primary
	1-hour	0.09 ppm (180 µg/m^3)	---	Same as Primary
Sulfur Dioxide (SO2)	Annual (Arithmetic Mean)	---	0.03 ppm (80 µg/m^3)	----
	24-hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)	---
	3-hour	-------	---	0.5 ppm (1300 µg/m^3)
	1-hour	0.25 ppm (655 µg/m^3)	---	---

*On January 19, 2010 the U.S. EPA filed a proposal to reconsider the existing ozone standard to a level of 0.060 to 0.070 ppm.

3.2 AIR QUALITY MONITORING

Imperial County began its ambient air monitoring in 1976; however, monitoring of ozone began in 1986 at the El Centro monitoring station. Since that time, monitoring has been performed by the ICAPCD, CARB and private industry. Ambient monitoring is typically performed either in locations representative of where people live and work. Air monitoring is performed to meet many objectives. These include determining compliance with air quality standards, identifying areas with the highest pollutant concentrations, evaluating pollutant transport, and as the basis of daily reports to the public in newspapers and television about air quality levels.

For most pollutants, continuous monitoring occurs 24 hours a day, usually for periods of many years at one location. Because of many years of continual monitoring, a baseline level has been established allowing for trends and progress towards air quality goals to be identified. Air monitoring demands close attention by experienced technicians. Stringent quality assurance procedures for instrument operation and data validation are followed before monitoring data is included into the county's air quality record. The monitoring network in this county has slowly but steadily expanded over the years, with total operational cost now estimated to exceed $ 100,000 annually.

The Imperial County ground level ozone is measured at 6 monitoring stations throughout the County: Calexico East, Calexico Ethel Street, El Centro, Brawley,

Westmorland, and Niland. Figure 3-1 shows the location of the six monitoring stations currently in operation in Imperial County.

In addition to the Imperial County monitoring stations, three ozone monitoring stations have similarly been located in Mexicali, Baja California, Mexico. This reflects the cooperative efforts between the US Government and that of the Mexican Government in attempting to clean the air in both Mexicali and Imperial County. These stations were established to help identify cross-border transport of pollutants and associated pollutant precursors.

Air Quality measurements are collected and stored in a comprehensive air quality data base maintained by U.S. EPA. In addition, CARB maintains a comprehensive air quality database that can be accessed through CARB's webpage. Monitoring instruments and resulting data are routinely reviewed and audited by the CARB to ensure the integrity of the data. The data from these monitoring stations can also help to identify cross-border transport of pollutants and associated pollutant precursors.

***Figure 3-1**
Imperial County Monitoring Site Location

***W. First Street is the nearest cross street for Westmorland**

Calexico-East – The Calexico East monitoring station, run and maintained by the CARB, was installed in 1996. Located above sea level the absolute location is latitude 32° 40' 27" and longitude 115° 23' 28". Its relative location is north of the U.S. – Mexico border in close vicinity to the Highway 7 Calexico/Mexicali checkpoint border crossing. The site currently records measurements for ozone (O_3), CO, NO_2, SO_2, and $PM_{2.5}$, as well as surface wind speed and wind direction.

Calexico-Ethel/Belcher – The Calexico Belcher monitoring station formerly known as the Ethel monitoring station, run and maintained by the CARB, was installed in 1994. Located above sea level it has an absolute location of latitude 32° 40' 34" and longitude 115° 28' 59". Its relative location is 1029 Belcher Street within the property boundary on the Southeast corner of the Calexico High School football field parking lot. To the north is located an athletic sports field used for football, baseball and track. The monitoring station is surrounded by a suburban neighborhood directly to the south, southeast and southwest. Relative to the international border crossing the monitoring station is approximately 1.2 km directly north. The site is recording measurements for ozone (O_3), CO, NO_2, SO_2, $PM_{2.5}$, $PM_{10,}$ lead and toxics.

Calexico-Grant - The Calexico Grant monitoring station was installed in 1991 and its operation was discontinued in 2007. Located at sea level the Calexico Grant station had an absolute location of latitude 32° 40' 26" and longitude 115° 30' 59". Its relative location was 900 Grant Street, at the southwestern portion of the city of Calexico. Located behind the local City Fire Department the Calexico Grant monitoring station was surrounded by a suburban neighborhood directly to the south, east and west. Farther to the South past the residences and skate park there lies the New River (approximately 0.2 km South), the Calexico International Airport (approximately 0.8 km South, Anza Road (slightly over 0.8 km South), and the International border to Mexico (approximately 1.2 km South.) Approximately 1.2 km to the Southeast of the monitoring station is a large (5 acre) unpaved lot on Anza Road that lies about 0.4 km from customs, on the U.S. side of the border the Calexico-Grant site recorded measurements of ozone and PM_{10}.

El Centro - The El Centro monitoring station was installed in 1986. Located above sea level its absolute location is latitude 32° 47' 32" and longitude 115°33' 47". Its relative location is 150 South 9th Street on the roof of the ICAPCD building. The monitoring station is surrounded by governmental and commercial buildings. It is the first monitoring site north of the City of Calexico creating the south to north monitoring network for Imperial County. The El Centro monitoring station is classified as urban with large agricultural areas to the East and West of the city's boundaries. This site records measurements for ozone (O_3), CO, NO_2, $PM_{2.5}$, and PM_{10}.

Brawley - The current Brawley monitoring station which was installed in 2003 as a new station replacing the old Brawley monitoring station installed in 1982 is located below sea level and has an absolute location of latitude 32° 58' 42" and longitude 115° 32' 21". Its relative location is 220 Main Street atop the Imperial County courthouse in the middle of the city of Brawley surrounded by commercial buildings. Like other cities within Imperial County the City of Brawley is surrounded by agricultural lands to the east, north and the west. The Brawley station is the third furthest northerly station within the Imperial County monitoring network. This site records measurements for $PM_{2.5}$, and PM_{10}.

Westmorland - The Westmorland monitoring station which was installed in 1994 commenced measuring ozone in 1998. Located below sea level its absolute location is

latitude 33° 1' 57" and longitude 115° 37' 25". Its relative location is 570 Cook Street in Westmorland. The site is the fourth most northerly station within the Imperial County monitoring network. It lies west of Brawley but southwest of Niland. Residential and agricultural areas lie within 10m and 400m of the site. The site records both ozone (O_3) and PM_{10} concentrations using a sampling inlet that is approximately 5m above ground level.

Niland - The Niland monitoring station was installed in 1996 and commenced measuring ozone in 1997. Located below sea level its absolute location is latitude 33° 12' 49" and longitude 115° 32' 43". Its relative location is 7711 English road. It is adjacent to English Road which is an unpaved and lightly travelled road (approximately 100 vehicles per day). The monitoring site is surrounded by agricultural land to the south, southwest and southeast. A single residence exists to the west of the station across English Road. The monitoring station is southeast of the Salton Sea and Riverside County. The Niland monitoring station is the most northerly site within the Imperial County monitoring network. The site records measurements for ozone (O_3) and PM_{10}.

3.3 LOCAL OZONE MEASUREMENTS

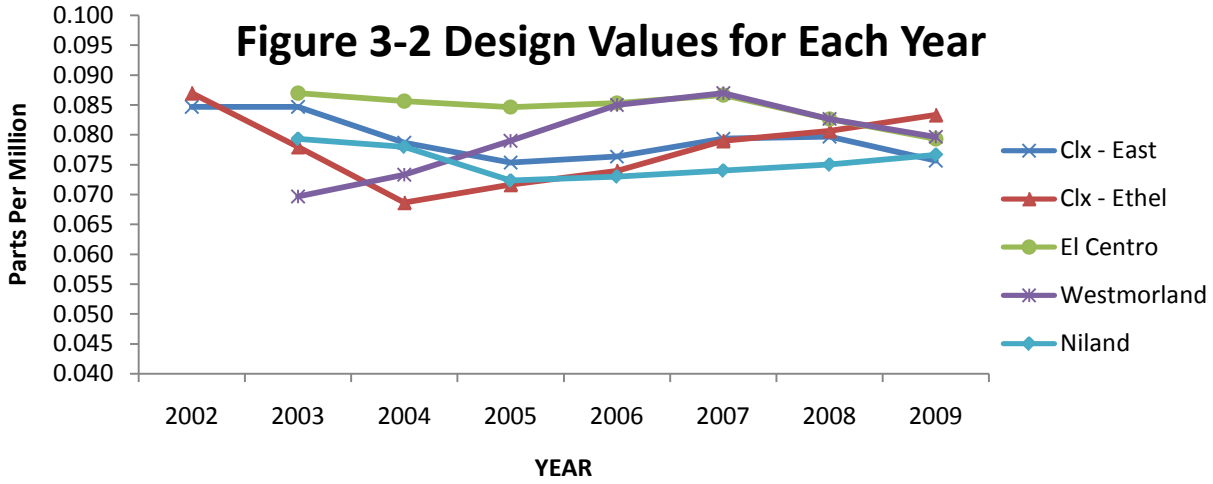
Typically, pollutant levels at any one location vary widely over time. As a result, air monitoring produces highly diverse data sets which are difficult to characterize with a few simple numbers. Statistical descriptors of air quality data can range from simple averages and highest values to more involved indicators. The simplest measure, cited in the narrative below, is to note the highest levels observed at different locations each year. Maximum and average values are useful for evaluating compliance with established air quality standards and for defining the time periods when highest pollutant concentrations are most likely to occur. As such, they characterize only the most adverse air quality conditions measured during the year and are not representative of more commonly occurring pollutant levels.

Due to the extensive and complicated nature of an exhaustive evaluation of the criteria pollutants monitored in Imperial County, this section evaluates only the most recent ozone data collected by our monitors and associated trends of compliance with the NAAQS.

Air quality trend analysis is important in assessing pollutant levels, and is particularly useful for planning purposes. Trends are evaluated in this analysis using two indicators of local ozone levels: the 4^{th} highest 8-hour average concentration measured each year and the design value for each year.

According to the U.S. EPA regulation, 40 CFR part 50, the primary and secondary 1997 8-hour ozone standard is met when a given 3-year average of an annual fourth highest daily maximum 8-hour average ambient air quality ozone concentration is less than or equal to 0.08 ppm (i.e., 0.084 ppm when rounding is considered). Simply put, ozone is measured hourly, known as hourly measurements at each monitoring site. From the

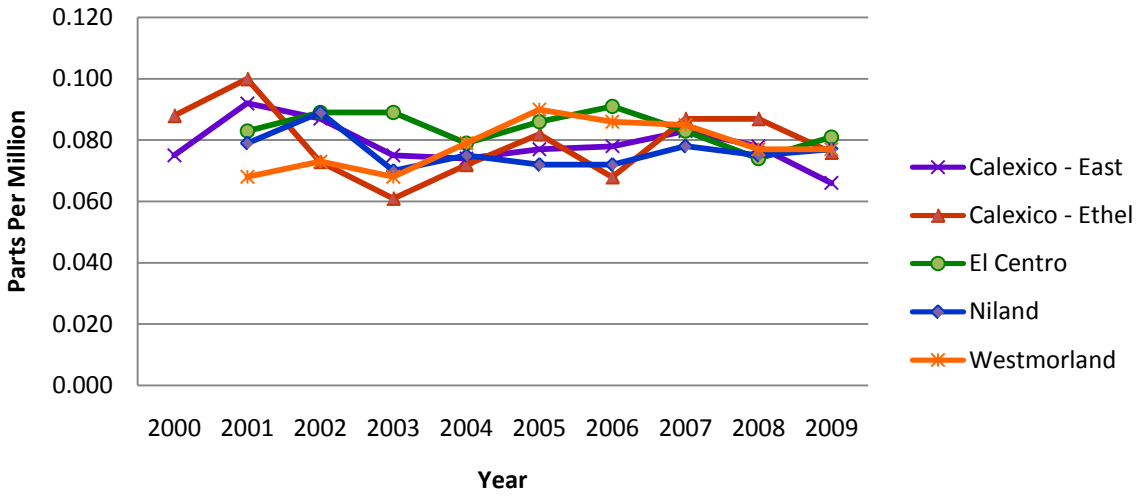
hourly measurements, 8-hour averages are calculated per hour and per monitoring site. At each site, the highest daily 8-hour average is identified and recorded as the maximum 8-hour concentration for that day. Thus, for any given single year the fourth highest daily maximum 8-hour average is identified and averaged over three years per site. This 3-year average is referred to as the design value. When the design value is less than or equal to 0.084 ppm at each monitor within the area, then the area is meeting the NAAQS (see Figure 3-2).



In addition, ambient air quality monitoring data for the 3-year period must meet a data completeness requirement. The ambient air quality monitoring data completeness requirement is met when the average percent of days with valid ambient monitoring data is greater than 90 percent, and no single year has less than 75 percent of data completeness as determined in Appendix I of part 50.

Despite an approximate growth of 39.5% in the Imperial County, Air quality, as it pertains to ozone, has improved greatly in this region in recent years. Figure 3-3 demonstrates how the Imperial County's air quality has improved dramatically since 2002, the base year for the 2009 Modified AQMP. As mentioned in Chapter 1 the U.S. EPA made a determination based on the 2006-2008 monitoring data that the Imperial County moderate 8-hour ozone nonattainment area attained the 1997 8-hour NAAQS. To illustrate the downward trend in ozone concentrations, Figure 3-3 shows the Highest 4th 8-hour average concentrations for the years 2000 thru 2009.

Figure 3-3 4th Highest 8 Hr Averages per Year 2000 to 2009



To further substantiate the progress towards attainment the ICAPCD ozone design value was at 30% above the standard more than 10 years ago (1995). Since that time ozone air quality has continued to improve and most recently in 2007 the design value was less than 10% above the standard culminating in attainment with the 1997 8-Hour ozone NAAQS in 2008.

Table 3-2 shows 8-hour Ozone design values per year for each monitoring station. It also demonstrates attainment of the 1997 8-Hour NAAQS for the Imperial County.

Table 3-2. 8-hour Ozone Design Values at Each Monitor

Year	Air Monitoring Stations				
	Calexico Ethel	Calexico East	El Centro	Westmorland	Niland
2000	0.088	0.075	NED	NED	NED
2001	0.100	0.092	0.083	0.068	0.079
2002	0.087	0.084	NED	NED	NED
2003	0.078	0.084	0.087	0.069	0.079
2004	0.068	0.078	0.085	0.073	0.078
2005	0.071	0.075	0.084	0.079	0.072
2006	0.074	0.076	0.085	0.085	0.073
2007	0.079	0.790	0.086	0.087	0.074
2008	0.080	0.079	0.082	0.082	0.075
2009	0.083	0.076	0.079	0.080	0.077

Note: NED indicates that either a monitor was not established or validated data was incomplete

CHAPTER 4

EMISSION INVENTORY

4.1 INTRODUCTION

4.2 EMISSION SOURCE CLASSIFICATION SYSTEM

4.3 2002 BASELINE INVENTORY CATEGORIES

CHAPTER 4 - EMISSION INVENTORY

4.1 INTRODUCTION

An emissions inventory identifies the sources of air pollution in a given region and quantifies their emissions. Inventories are used to track emission levels over designated time periods in order to help with the planning process in a given region or area. Inventories allow for the understanding of current emissions levels and the projection of future emission levels. Effective control strategies cannot be developed without an understanding of the type and number of emission sources contributing to the air quality problem. This chapter describes the inventory and discusses how it is developed, while chapter 6 discusses how the baseline inventory is used to project inventories for future years.

In cooperation with CARB, the ICAPCD develops a complete emissions inventory every year for all sources in Imperial County. This chapter presents emissions that occurred in Imperial County during the base year 2002. The U.S. EPA designates the 2002 inventory as the baseline for measuring progress toward attainment of the 8-hour ozone NAAQS. Thus, a significant effort has gone into making this inventory as complete and as accurate as possible. The pollutants included in the emissions inventory are reactive organic compounds (ROG) and oxides of nitrogen (NOx), both precursors to ozone formation.

The emissions from many types of sources change by season, time of day, or even day of the week, either because of changes in the activity level (usage or throughput) or in the emission rate. For example, passenger cars tend to be used more in the summer than in the winter because there are more daylight hours and more people are traveling. Drivers are more likely to use air conditioners during the summer months while higher outdoor temperatures also increase the rate at which fuel evaporates from cars. Emissions from the passenger vehicle category are higher in the summer than in the winter because both the activity levels and emission rates are higher.

Any strategy designed to mitigate air pollution in the Imperial County must consider this seasonal variation in ambient air quality. The Modified AQMP uses the “summer planning inventory,” which is a better representation of emissions because emissions which occur from May through October are when exceedances of the standard are more likely to occur. The 2002 summer planning inventory reports emissions in units of tons per day (tpd) and includes data for the pollutants ROG and NOx, the two precursors to ozone (Table 4-1). Although the summer planning inventory forms the basis for maintaining compliance with the 1997 8-hour ozone NAAQS and provides the basis for the emissions reduction strategies presented in Chapter 5 it is part of an overall emissions inventory assembled and maintained by CARB in the California Emission Inventory Development and Reporting System (CEIDARS) and the California Emission Forecasting and Planning Inventory System (CEFS).

4.2 EMISSION SOURCE CLASSIFICATION SYSTEM

All reportable sources are categorized as either stationary or mobile. Stationary source categories are subdivided into point and area-wide sources, depending primarily on their permit status, relative size and emission characteristics while mobile source categories are subdivided into on-road and off-road.

Stationary Sources

Point sources are generally larger commercial or industrial facilities that are required to have a District Permit to Operate. The point source category includes facilities such as factories, geothermal plants, rock quarries, and farming operations.

Area-Wide Sources

The area-wide category includes aggregate point sources or facilities that are not inventoried individually, but are estimated as a group and reported as a single source category. These sources consist of categories associated with human activity and emissions that take place over a wide geographic area. Examples include pesticides, consumer products, and residential fuel combustion.

Mobile Sources

Mobile source categories consist of two subcategories: on-road and off-road. On-road sources include passenger cars, school buses, and trucks. CARB's most recent mobile source Emission Factors model, EMFAC2007, is used to calculate emission rates from all motor vehicles, such as passenger cars to heavy-duty trucks, operating on highways, freeways and local roads in California. EMFAC2007 uses Department of Motor Vehicle (DMV) registration data for the number of vehicles, Southern California Association of Governments (SCAG) travel demand output model for the number of vehicle miles traveled, Bureau of Automotive Repair (BAR) odometer readings and emission factors from vehicle surveillance programs and dynamometer readings.

Off-road sources are generally regulated at the state or federal level and consist of aircrafts, trains, and off-road recreational vehicles. The off-road emissions inventory is generated by the CARB OFFROAD Model, which uses source population, activity, and emissions data to estimate emissions for each type of off-road equipment. The model provides emission estimates for all off-road vehicles, including boats, outdoor recreational vehicles, industrial and construction equipment, farm equipment, lawn and garden equipment, aircraft, and trains.

4.3 2002 BASELINE INVENTORY CATEGORIES

This section provides a brief description of the major emission inventory categories. The major sources are grouped according to either the stationary source or mobile source category. Within each category, the sources are further classified according to the

appropriate activity, such as the burning of fuel or the processing of petroleum. However, it is not uncommon to find different source types at the same facility. Thus, an individual company's emission inventory may be divided among two or more source categories. The major source category discussion and tables are based on the emissions inventory data obtained from the summer planning emissions inventory.

Table 4-1 summarizes the 2002 planning emissions inventory by major source categories. A detailed breakdown of NOx and ROG emissions from 2002 through 2023 by source category is presented in Appendix B. The baseline inventory, including future year projections, reflects the regulations adopted as of December 31, 2006. A listing of ICAPCD and CARB rules and regulations that are reflected in the baseline inventory can be found in Chapter 5.

Fuel Combustion: This category includes sources that burn fuel such as natural gas and diesel as a matter of operations or to produce useful heat. Combustion processes are a significant source of NOx emissions due to the oxidation of nitrogen in the fuel and in the combustion of air. Examples of sources in this category are electric utility boilers, process heaters, internal combustion engines, home furnaces, and orchard heaters. Emissions from this source category represent 9.5% of the NOx emissions and 0.32% of the ROG emissions in the 2002 summer planning emissions inventory.

Managed Burning and Disposal: The emission inventory data for this activity is reported in the Miscellaneous Processes source category. The burning of agricultural waste can generate considerable quantities of ROG, CO and PM_{10} because of the incomplete combustion process. Reports indicate that the majority of the reported emissions are a result of the open burning of wheat straw and Bermuda grass. Other sources represented in this category include residential burning, open burning of agricultural and residential tree pruning, and range improvement burns. Waste burning generates approximately 2.32 tpd or 6.2% of the ROG emissions in the summer planning emissions inventory.

Solvent Use: Organic solvents are used in a wide variety of industrial processes and are ingredients in numerous household and commercial products. The major concern here is that most solvents volatilize as ROG, which then becomes available to form ozone Example categories are dry cleaning, degreasing, asphalt paving, architectural coatings, and printing operations. These sources are responsible for approximately 24.14% of the ROG emissions in the summer planning emissions inventory.

Petroleum Production and Marketing: Emissions represented in this category result from the petroleum industry (petroleum pumping stations, truck loading and unloading.) Other activities include retail and commercial gasoline marketing and combustion related emissions that do not qualify for the Fuel Combustion category above. This source category accounts for 1.7% of the ROG emissions in the 2002 summer planning inventory.

Industrial Processes: The sources and activities included here primarily emit PM_{10} and

ROG. Examples are feed and grain mills, rock quarries, sand and gravel operations, and concrete batch plants. The ROG emissions from this group of sources represent approximately 0.2% of the ROG emissions in the 2002 summer planning emissions inventory.

Miscellaneous Processes: This category contains stationary source emissions which cannot be classified into those source groups already described. Included is the organic portion of both commercial and residential pesticide emissions. These sources combined are responsible for approximately 32 % of the ROG in the summer planning emissions inventory.

On-Road Motor Vehicles: This category is divided into vehicle types ranging from motorcycles to heavy duty trucks. Motor vehicle emissions occur both from combustion of fuel in the engine and from evaporation of fuel in the gas tank. This category represents a major portion of the ROG and NOx emissions in Imperial County, contributing approximately 54% of the NOx and 24% of the ROG in the 2002 summer planning emissions inventory.

Off-Road Mobile Sources: Included here are moving sources of air pollution that do not use paved roads. Examples are trains, boats, aircraft, off-road recreational vehicles, farm vehicles, and construction equipment. Some sources such as motorcycles can travel both on and off the road, but only emissions resulting from the latter activity are in this section. Emissions from these source types represent approximately 34% of the NOx and 17% of the ROG in the summer planning emissions inventory.

Table 4-1
Emissions By Major Source Category 2002 Base Year
Summer Planning Emissions Inventory (tons/day)

Source Category	ROG	% Total	NOx	% Total
Stationary Sources				
Fuel Combustion	0.12	0.32	3.57	9.54
Waste Disposal	0.02	0.05	0.00	0.00
Cleaning and Surface Coatings	0.42	1.13	0.00	0.00
Petroleum Prod. and Marketing	0.65	1.74	0.00	0.00
Industrial Processes	0.07	0.19	0.03	0.08
Total Stationary Sources	**1.28**	**3.43**	**3.60**	**9.62**
Area-wide Sources				
Solvent Evaporation	9.01	24.14	0.00	0.00
Miscellaneous Processes	11.81	31.65	0.92	2.46
Total Area-Wide Sources	**20.82**	**55.79**	**0.92**	**2.46**
Mobile Sources				
On-Road Vehicles	8.77	23.50	20.21	53.99
Off-Road Vehicles	6.45	17.28	12.70	33.93
Total Mobile Sources	**15.22**	**40.78**	**32.91**	**87.92**
Total for Imperial	**37.32**	**100.00**	**37.43**	**100.00**

One aspect of the summer planning inventory that is not readily apparent is that it does not include emissions from natural sources such as wildfires and biogenic emissions (organic compounds emitted from trees and plants) that are beyond the Air District's control.

It is important to note that emissions for some source categories can vary from one ozone season to the next, while other sources may generate emissions at a relatively stable rate over an extended period. However, because the number of facilities that produce significantly variable emissions is low, there is not enough of an impact by these emissions to cause significant variances in the inventory. Considered as a whole, the effect of these fluctuations by individual facilities or source groups is largely muted by the substantial number and diversity of sources and by the volume of emissions generated each year. Because the 2002 emissions inventory is representative of the average emissions that occur during the summer planning period the use of the 2002 emissions inventory as the baseline emissions year is therefore appropriate for planning purposes.

The 2002 summer planning emissions inventory is graphically displayed in Figures 4-1 and 4-2.

Figure 4-1 Emissions By Major Source Category: 2002 Base Year - Reactive Organic Gases

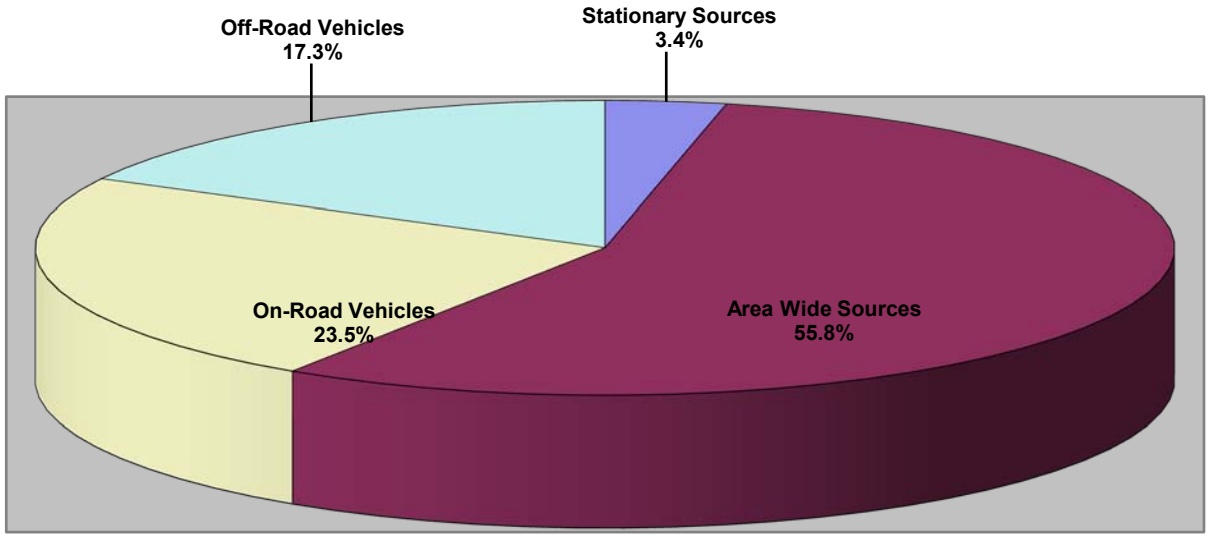
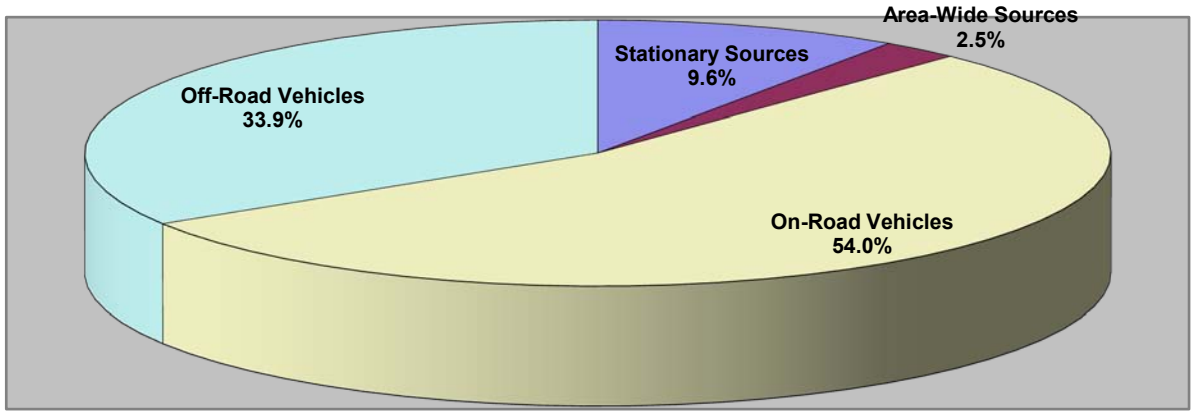


Figure 4-2 Emissions By Major Source Category: 2002 Base Year - Nitrogen Oxides



CHAPTER 5

CONTROL MEASURES

CHAPTER 5 – CONTROL MEASURES

5.1 INTRODUCTION

The ICAPCD has the primary responsibility, under legislative authority, for regulating emissions from stationary sources as well as from some area sources found within the county. Currently, state and federal regulation prohibit the implementation of mobile source regulation by local air districts.

At the state level, the CARB is responsible for regulating on-road motor vehicles, some off-road mobile sources, consumer products as well as setting motor vehicle fuel specifications in California. At the federal level, the U.S. EPA traditionally regulates emission sources related to interstate commerce such as locomotives, aircraft, heavy-duty trucks and some off-road engines which are either exempt from state authority or are best regulated at the national level. Both the local and the combined state and federal component, together address the majority of the sources impacting air quality in Imperial County.[4] The ICAPCD recognizes that any maintenance of the NAAQS will depend largely on the current and proposed mobile source strategies under the state and federal jurisdictions.

The intent of this chapter is to provide the reader with an explanation of the existing control measures which are an integral part of the Modified AQMP. Essentially, the control measures are a compilation of regulations which address how the Imperial County currently controls the emissions of Reactive Organic Gas compounds (ROG's) and Nitrogen Oxides (NOx) within the moderate non-attainment area. Because mobile sources are a major contributor of ozone precursors this chapter dedicates a section to the regulations as adopted by the CARB. This chapter endeavors' to provide the reader with an analysis of the currently existing control measures and endeavors' to demonstrate how these control measures control ROG and NOx emissions as required by the CAA. Included in the discussion is a recap and assessment of the State strategy as a vital component of the Modified AQMP. Since, the late 1970's and early 1980's the ICAPCD has been committed to bringing major and non-major stationary sources under regulation for the effective control of precursor emissions.

5.2 CONTROL MEASURE ANALYSIS

The Modified AQMP control measures consist of three components: 1) the ICAPCD's Stationary Source Control Measures; 2) Regional Transportation Control Measures; and 3) the State Strategy. These measures primarily rely on the traditional command and control approach and as such provide the framework for ICAPCD rules that reduce ROG and NOx emissions.

[4] Although the Imperial County is currently in attainment of the 1997 8-hour ozone NAAQS, it is important to note that any future analysis of air emissions impacting Imperial County must take into consideration the influence of transport from three distinct sources, that of the South Coast Air Quality Management District (SCAQMD) via the Coachella Valley to the north, the San Diego Air Pollution Control District to the west and the international city of Mexicali, Mexico to the south.

5.3 STATIONARY SOURCE CONTROL MEASURES

This section provides a general overview of the current control measures as they apply to Imperial County. Currently adopted measures are represented as part of the most recently adopted rule book and represent ROG and NOx control measures adopted as part of the commitments contained in the previously approved 1991 Air Quality Attainment Plan (AQAP). The control measures discussed herein contain either or both Reasonably Available Control Measures (RACM) and/or Reasonably Available Control Technology. Although demonstrating the implementation of RACM is not a requirement for this Modified AQMP the ICAPCD finds it beneficial to explain how RACM is obtained through the adoption of RACT. RACM are non-technological measures which have been defined as cost-effective at reducing emissions. RACT are measures established by the U.S. EPA which have been scientifically proven techniques and/or equipment add-ons that can be applied to certain stationary sources to reduce ozone precursor emissions of ROG and NOx. These RACT measures are found within Control Technique Guidance (CTG) documents published by the U.S. EPA. As a result, the control measures adopted and implemented in Imperial County represent the implementation of all feasible control measures through the application of available technologies and management practices, as well as development and implementation of advanced technologies and control measures. Specifically, stationary source control measures are equipment and techniques for reducing air pollutant emissions from stationary sources. The stationary source control measures presented in the Modified AQMP are those measures representing emissions from both point sources (permitted facilities) and area sources (generally small and non-permitted) and have been found sufficient in maintaining the 1997 8-hour ozone NAAQS.

5.3.1 Control Measures with Emission Reductions Beyond 2002

The CAA requires that emission inventories be adjusted to reflect rule effectiveness. The baseline and future emission inventories have been adjusted to reflect applicability of the control measures described below. Table 5-1 below demonstrates the most current stationary source control measures which were evaluated and subsequently found to be sufficient in maintaining attainment of the 1997 8-hour ozone NAAQS. Table 5-1 also represents the modifications to the summer planning inventory as a result of the implementation of these measures. The ICAPCD is committed to continued implementation of these control measures.

Table 5-1
STATIONARY SOURCE CONTROL MEASURES

Emission Inventory Code (EIC)	TITLE	Effective Year Implemented	Emissions Reductions (tpd)
520 – Architectural Coatings	ICAPCD Rule 424, Architectural Coatings, Updated on 02/23/2010	2010	0.49 tpd of ROG
620-618-0262-0101, Farming Operations, Dairy Cattle	ICAPCD Rule 217, Large Confined Animal Facilities Permits Required, Adopted on 10/10/2006	2007-2009	5.2 tpd of ROG
620-618-0262-0101, Farming Operations, Range Cattle	ICAPCD Rule 217, Large Confined Animal Facilities Permits Required, Adopted on 10/10/2006	2007-2009	0.04 tpd of ROG
620-618-0262-0101, Farming Operations, Feedlot Cattle	ICAPCD Rule 217, Large Confined Animal Facilities Permits Required, Adopted on 10/10/2006	2007-2009	1.6 tpd of ROG
	ICAPCD Rule 400.1, Stationary Gas Turbines (RACT)	2010	No Impact
	ICAPCD Rule 400.2, Boilers, Process Heaters and Steam Generators (RACT)	2010	0.39 tpd of NOx

C- 424 Architectural Coatings (Amendment)

Architectural coatings are products that are applied to stationary structures and their accessories. They include house paints, stains, industrial maintenance coatings, traffic coatings, and many other products. Architectural coatings represent a significant source of VOC emissions throughout California. When these coatings are applied, VOCs are emitted from the coatings and from solvents that are used for thinning and clean-up. The ICAPCD updated its Architectural Coatings Rule according to the 2007 Suggested Control Measures (SCM) developed by CARB. The new revisions to the Architectural Coatings Rule are to enhance the effectiveness of the SCM in obtaining ROG emission reductions.

The baseline for determining emission reductions is the 2004 data from CARB's survey. For architectural coatings, the 95 tpd of statewide VOC emissions are apportioned to ICAPCD's based on population. The SCM is intended for districts outside of the South Coast AQMD. In addition, emission reductions are only calculated for large containers, because small containers (one liter or less) are exempt from the proposed VOC limits.

Amendment Adoption: 2010
Applicable ICAPCD Rule: 424
Cost-Effectiveness: Individual limits range from a net savings to a net cost of $ 13.90 per pound of VOC reduced. However, the overall average cost-effectiveness of the proposed limits is estimated to be $1.12 per pound of VOC reduced.
Year 2010 ROG Emission Reduction: 0.49 tpd

C-217 Large Confined Animal Facilities Permits Required

In accordance with Senate Bill 700 (SB700) – Florez – Agricultural Sources, on November 10, 2006, the ICAPCD adopted Rule 217 – Large Confined Animal Facilities (LCAF) Permits Required. Rule 217 requires that all LCAFs, including beef feedlots and dairies, apply for and obtain an Authority to Construct/Permit to Operate which includes a mitigation plan for which the LCAF implements in order to reduce VOC emissions. Any permit that is issued to a LCAF is subject to all pertinent provisions of the California Health & Safety Code and the ICAPCD Rules and Regulations. Rule 217 is currently being implemented and targets reductions of VOC and NH_3 emissions. Rule 217 requires compliance with RACT by providing a menu of mitigation measures for beef feedlots and dairies which comply with RACT measures.

Adoption: 2006
Applicable ICAPCD Rule: 217
Cost-Effectiveness: For dairies (3 in Imperial County) the cost effectiveness is $17,800 per ton of VOC reduced while Beef Feedlots (approximately 26) have a cost effectiveness of $14.00 per ton of VOC reduced.
Year 2010 ROG Emission Reduction: 6.84 tons per day

C- 400.1 Stationary Gas Turbines

Rule 400.1 was adopted to address RACT requirements. Essentially, Rule 400.1 imposes RACT upon any unit with a rated heat input capacity of 1 Megawatt (MW) or more. The rule establishes NOx limits of 42 parts per million by volume (ppmv) for gaseous fuel-fired units and 65 ppmv liquid fuel-fired units. The rule does not require the use of emission control technologies which might degrade or endanger the environment upon existing units. Rule 400.1 affects seven stationary gas turbines at four Imperial County major source facilities. These facilities already substantially comply with the specified thresholds imposed upon by this rule, so no significant changes in current Authority to Construct or Permit to Operate conditions are anticipated. Since, all existing emission units affected by Rule 400.1 are able to comply without additional installation of technology a substantial change, resulting from the implementation of this rule, in the emissions inventory for these facilities is not anticipated. The staff report contains a more detailed analysis on the impact and cost effectiveness associated with the implementation of the rule.

Adoption: February 23, 2010
Applicable ICAPCD Rule: 400.1

Cost-Effectiveness: Four major source facilities were affected in Imperial County by the adoption of this rule. The cost-effectiveness for the natural gas unit is $61,731 per ton of NOx and for the diesel units the cost effectiveness is $44,839 per ton of NOx
Year 2010 NOx Emission Reduction: No Impact

C- 400.2 Boilers, Process Heaters and Steam Generators

Like Rule 400.1, Rule 400.2 was adopted to address RACT requirements. Essentially, Rule 400.2 applies RACT to any unit with a rated heat input capacity of 5 million British thermal units per hour (MMBtu/hr) or more. The rule imposed a NOx limit of 30 ppmv (0.036 lb/MMBtu) for gaseous fuel-fired units and 40 ppmv (0.052 lb/MMBtu) for liquid fuel-fired units. The 30 ppmv gaseous-fuel limit is generally achievable via combustion controls such as low-NOx burners, oxygen control, staged combustion, and flue gas recirculation. The 40 ppmv non-gaseous fuel limit is achievable using combustion controls and low nitrogen content "clean" fuels, or by using post-combustion controls. In addition, Rule 400.2 established an alternative NOx emission limit of 70 ppmv for those emission units with an annual capacity factor of 30% or less. This alternative emission threshold was established for those peaking or seasonal emission units for which installation of advanced control technology would not have a significant impact in reducing NOx emissions. The rule similarly contains an alternative NOx threshold for biomass boilers equivalent to 120 ppmv at 12% CO_2 or as an alternative biomass boilers will be required to reduce NOx emissions at a minimum of 89% of the uncontrolled NOx emission concentration in the exhaust gas stream. Rule 400.2 affects several industries and businesses in Imperial County including some of our major source facilities.

Adoption: February 23, 2010
Applicable ICAPCD Rule: 400.1
Cost-Effectiveness: The cost-effectiveness ranged between the models for each impacted boiler. However on the average for a 50 MMBtu/hr, 100 MMBtu/hr, 150 MMBtu/hr and a 200 MMBtu/hr the cost-effectiveness is approximately $74,700, $108,300, $124,900 and $148,200 respectively.
Year 2010 NOx Emission Reduction: Approximately 143.3 tpy

5.3.2 External Adjustments to the Emissions Inventory

The “external adjustments” listed in Table 5-2 describe the recent adjustments accounted for external modifications to the CARB CEFS v1.06 Summer Planning Inventory. The adjustments incorporate the most recent data changes to the emissions inventory identified by CARB specific to Imperial County. The Modified AQMP emissions inventory was modified to incorporate changes that occurred between 2002 and 2009.

Table 5-2
CARB ADJUSTMENTS TO THE EMISSIONS INVENTORY BASELINE

Emission Inventory Code (EIC)	Description	Effective Year Implemented	Emissions Reductions (tpd)
050-995-0110-0000, Fuel Combustion, Manufacturing and Industrial, Other, Natural Gas	NOx summer emissions were reduced based on updated natural gas data from the CA Energy Commission.	2002-2009	4.7 tpd of NOx in 2002 and 5.2 tpd NOx in 2009
060-995-0110-0000, Fuel Combustion, Services and Commercial, Other, Natural Gas	NOx summer emissions were reduced based on updated natural gas data from the CA Energy Commission.	2002-2009	0.3 tpd of NOx in 2002 and 2009
530, Pesticides/Fertilizers	ROG emissions were reduced based on 2004 pesticide emissions inventory data provided by the Department of Pesticide Regulation.	2002-2009	0.14 tpd ROG in 2002 and 0.33 tpd ROG in 2009

5.3.3 Reasonably Available Control Measures

Stationary source control measures rely on a variety of control technologies and management practices and as such the ICAPCD is seeking all feasible control measures that will aid in maintaining compliance with the federal and state standards. CAA sections 172(c)(1) and (c)(2) requires ozone non-attainment areas to submit a plan which contains provisions for the implementation of all RACM as expeditiously as practicable. Although, RACM is not required for this Modified AQMP it is beneficial to explain that RACM applies to stationary source control measures and transportation control measures and that the ICAPCD has nonetheless met the RACM requirements for stationary sources as demonstrated through the 2009 RACT SIP Report, summarized below.

Reasonably Available Control Technology

Ozone non-attainment areas are required by sections 182(b)(2) and 182(f) of the CAA to implement RACT for sources which are subject to CTG documents and for those major sources of ROG and NOx. RACT is defined as the lowest emissions limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility (44 FR 53762; September 17, 1979). In essence RACT requirements, as specified in the CAA, assure that major sources of ozone precursor emissions are controlled to a "reasonable" extent, but not necessarily to the more stringent best available control technology (BACT) or maximum achievable control technology (MACT) levels, expected

for new or modified existing major stationary sources. CTGs are EPA documents that define RACT for existing sources of air pollution.

Reasonably Available Control Technology (RACT) State Implementation Plan (SIP).

As part of the implementation process described in U.S. EPA's Final Rule to Implement the 8-Hour ozone NAAQS (70 FR 71612; November 29, 2005) a RACT demonstration is required of all areas classified as a moderate or higher ozone non-attainment area. In order to accomplish the RACT demonstration ICAPCD staff reviewed the list of CTG documents and compared them to existing rules and existing stationary sources. For each source category ICAPCD staff identified existing sources and applicable rules. This was accomplished by reviewing and researching the permit system, the phone book, internet and the emissions inventory. The criteria used for the evaluation and determination of the RACT SIP rules were based on 1) U.S. EPA rule approval and 2) RACT/BARCT determinations issued by CARB. 3) Comparison to other Moderate non-attainment areas. All CTG sources and major non-CTG sources under ICAPCD jurisdiction are controlled to RACT or better. Based on its review, the ICAPCD made a determination that all ozone precursor rules fulfill RACT requirements for the 1997 8-hour ozone NAAQS. In addition, with the adoption of Rules 400.1 and 400.2, the ICAPCD believes it not only fulfills VOC requirements but NOx requirements as well.

The ICAPCD intends to adopt its RACT SIP in conjunction with this Modified AQMP and send both documents to CARB for submittal to the U.S. EPA.

5.3.4 New Source Review

New Source Review (NSR) is a permitting process required by the CAA to help ensure that any new or modified equipment and facilities (i.e. boilers, turbines, crude oil storage tanks, power plants and factories) do not significantly degrade air quality or slow progress towards clean air. The ICAPCD rule which dictates the NSR requirements is the NSR rule 207. There are two primary components of NSR, the application of BACT and emission offsets. BACT plays a very important role in helping the ICAPCD to meet the no net increase in emissions required by the CAA by acting as an emissions limitation on pollutants emitted from or resulting from any new or modified stationary source. Emissions reduction credits (ERC's) are credits which are issued to sources that have reduced their emissions in excess of what is required by law. These emission reductions are banked and made available for offsetting emission growth from new or modified emissions units.

BACT is currently required for all new or modified emission units which have a potential to emit of 25 pounds per day or more of any non-attainment pollutants. New or modified sources with potentials to emit of 137 pounds per day of NOx and ROG will be required to offset those emissions through the use of ERC's. These reductions must be permanent, real, enforceable, quantifiable and surplus.

There are two versions of NSR rule that are enforced by the ICAPCD. A current version adopted as an amendment by the ICAPCD Air Board on October 10, 2006 and a SIP-approved rule version of Rule 207, Standards for Permit to Construct, approved on November 10, 1980. Both versions of Rule 207 fulfill the requirements of CAA Sections 172(c)(4) and (5), 182(a)(2)(C) and the 1.15 to 1 offset ratio required by Sections 182(a)(4) and 182(b)(5).

5.4 TRANSPORTATION CONTROL MEASURES

The largest source of ROG and NOx emissions for the summer planning inventory are by far mobile sources, which emit approximately 47% of the total ROG and 86% of the total NOx in 2009. Reduction of ozone precursor emissions from mobile sources is twofold: the first discussion is region wide while the second is local. The measures implemented region wide are consistent with the Regional Transportation Plan (RTP) adopted by the South California Association of Governments (SCAG). The transportation mitigation programs contained in SCAG's RTP were adopted to help maintain reductions of ROG and NOx emissions on a regional basis.

For the local strategy, the ICAPCD relied on the reductions of vehicle miles traveled (VMT) associated with the implementation of the Imperial County CEQA Air Quality Handbook (CEQA handbook). The CEQA handbook utilizes mitigation measures, imposed upon commercial, residential and industrial projects which help to reduce ROG, NOx, and particulate matter from mobile source emissions created by the operational phase of the residential, commercial and industrial projects.

5.4.1 Regional Measures

SCAG functions as the Metropolitan Planning Organization (MPO) for six counties, Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial. As the designated MPO, SCAG is mandated by the federal government to research and plan for transportation, growth management, hazardous waste management and air quality. The byproduct of this research is the 2008 RTP.

The 2008 RTP is SCAG's multi-modal plan for a better regional transportation system, integrated with the best possible growth pattern for the region out to 2035. The plan provides the basic policy and program framework for long-term investment in the region's vast transportation system in a coordinated, cooperative and continuous manner. Transportation investments in the SCAG region that receive state or federal transportation funds must be consistent with the RTP and must be included in the RTP when ready for funding.

As part of its many functions SCAG is required by law to ensure that transportation activities "conform" to and are supportive of, the regional and state air quality plans to attain the NAAQS. That is, SCAG has the responsibility under the CAA to determine conformity by comparing the Air Plan against projects, plans and programs, including the Transportation Conformity Rule. As such, SCAG's 2008 RTP provides the basis for

the transportation control measures for the Modified AQMP.

Currently, long term transportation planning requirements which target emission reductions from on road mobile sources, within the basin, are met by SCAG's RTP which is developed every four years with a 30 year planning horizon. The short term implementation requirements of the Transportation Conformity Rule are met by SCAG's biennial Regional Transportation Improvement Plan (RTIP).

Measures which reduce motor vehicle emissions by intentionally causing the reduction of vehicle trips, vehicle use, VMT, vehicle idling and traffic congestion are known as Transportation Control Measures (TCM's). The 2008 RTP includes the following types of transportation mitigation programs:

- Increased rideshare and work-at-home opportunities to reduce demand on the transportation system.
- Investments in non-motorized transportation and maximizing the benefits of the land use-transportation connection.
- Travel Demand Management (TDM) measures.
- Goods movement capacity enhancements.
- Key transportation investments targeted to reduce heavy-duty truck delay.

With each new RTP update a new list of TCMs from the first two years are rolled over into the Modified AQMP upon approval by CARB and U.S. EPA. Once a TCM project is completed, it is reported in the RTP update as completed and removed from future RTPs. However, a TCM substitution is required when a committed TCM project cannot be delivered or will be significantly delayed. Here, in Imperial County the Imperial County Transportation Commission (ICTC), in consultation with SCAG, is the agency which reviews projects to determine if TCMs are defined by a project according to the categories as listed below. Table 5-3 represents the TCM projects which have been deemed feasible in Imperial County. The TCM's listed are project categories for which local cities and the Imperial County have either implemented or are proposing as future measures.

Table 5-3
REGIONAL TRANSPORTATION PLAN
TRANSPORTATION CONTROL MEASURE PROJECT CATEGORIES

Project Category	
A	Ridesharing Measures Carpooling, Vanpooling, Park and Ride Lots, Ride Matching Services, Incentive Programs, Satellite Work Centers, Guaranteed Ride Home Programs, Station Cars, Onsite Services
B	Non-Motorized Measures Bicycle Paths/Facilities, Pedestrian Paths/Facilities, Telecommuting, Flexible Work Schedules, Bicycle and Pedestrian Programs
C	Traffic Flow Improvement Measures Signal Synchronization, Intersection Improvements, Incentive/Disincentive Programs, High Occupancy Vehicle Lanes, Intelligent Transportation Systems, Ramp Metering
D	Land Use Measures Transportation Demand Management (TDM) Ordinances, Smart Growth/Sustainable Community Projects, Mixed Use Development, Parking Management and Standards, Congestion Management Plan, TDM Strategies
E	Transit Measures Bus Fleet Expansion, Shuttles and Paratransit Vehicles Expansion, Transit Stations and Facilities, Express Busways, Passenger Rail Service, Rail Stations and Facilities, Real-Time Transit Information Systems, Transit Subsidies.

5.4.2 Local Strategy

On November 6, 2007, the Imperial County Air Pollution Control District Board of Directors approved the ICAPCD's guidance document known as the CEQA Air Quality Handbook. The CEQA handbook provides guidance to all interested parties on the significance of impacts resulting from the development of new residential, commercial, and industrial projects. Once the significance of the impact is determined, the CEQA handbook provides a list of feasible mitigation measures which are implemented for the reduction of those direct and indirect emissions created by the development project. Specifically, the CEQA handbook requires mitigation of construction and operational air emissions. However, important to the Modified AQMP is the reduction of mobile source emissions created as an indirect source of a development project. That is, the great majority of emissions during the operational phase of a project are from mobile source emissions in the form of increased VMT. The CEQA handbook serves as a guidance to help reduce or eliminate the number of VMT associated with new development projects. Therefore, the ICAPCD has adopted the CEQA measures as TCM's for the local strategy in reducing or eliminating VMT's.

Table 5-4 presents a list of the local TCM's which will either reduce or eliminate the number of VMTs.

Table 5-4
IMPERIAL COUNTY CEQA AIR QUALITY HANDBOOK
TRANSPORTATION CONTROL MEASURES

Local TCMs for Residential Projects	Local TCMs for Commercial Projects
Standard Site Design Measures	
Link cul-de sacs and dead-end streets to encourage pedestrian and bicycle travel;	Provide on-site bicycle lockers and/or racks;
Allocate easements or land dedications for bikeways and pedestrian walkways;	Provide on-site eating, refrigeration and food vending facilities to reduce lunchtime trips;
Provide continuous sidewalks separated from the roadway and adequate lighting;	Provide shower and locker facilities to encourage employees to bike and/or walk to work;
Provide bicycle storage at apartment complex or condos without garages;	
Discretionary Site Design Measures	
If project near transit route, improve accessibility;	If project near transit route, improve accessibility;
Increase street tree planting;	Increase street tree planting;
Outdoor electrical outlets to encourage use of electric appliances and tools;	Improve on-site circulation design elements in parking lots to reduce vehicles queuing;
Provide bikeways lanes and/or link new bikeways lanes to existing;	
Increase the number of bicycle routes/lanes;	Increase the number of bicycle routes/lanes;
Provide pedestrian signalization to improve pedestrian safety;	Provide pedestrian signalization to improve pedestrian safety;
Synchronize traffic lights on street impacted by development;	Synchronize traffic lights on street impacted by development;
Use Energy Efficiency Design Measures.	Use Energy Efficiency Design Measures.
Standard Site Design Measures for Industrial Projects	
Implement carpool/vanpool programs and incentives (i.e. carpool ride matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.)	
Provide for shuttle/mini bus service such as to establish a shuttle service from residential care areas to the worksite.	
Provide preferential carpool and vanpool parking	
Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc if the project is located on an established transit route.	
Design and locate buildings to facilitate transit access (i.e., locate building entrances near transit stops, eliminate building setbacks, etc.)	
Provide incentives to employees to take public transportation, walk, bike, etc.	
Provide pedestrian signalization and signage to improve pedestrian safety.	
Implement on-site circulation design elements in parking lots to reduce vehicle queing	

Table 5-4 IMPERIAL COUNTY CEQA AIR QUALITY HANDBOOK TRANSPORTATION CONTROL MEASURES
and improve the pedestrian environment.
Provide on-site bicycle and motorcycle parking. Such as providing weather-protected bicycle parking for employees.
Provide safe, direct access for bicyclists to adjacent bicycle routes.
Provide shower and locker facilities to encourage employees to bike and/or walk to work – typically, one shower and three lockers for every 25 employees.
Provide on-site eating, refrigeration and food vending facilities to reduce lunchtime trips.
Increase street tree planting
Measures which meet mandatory, prescriptive and/or performance measures as required by Title 24.
Use low emission fleet vehicles such as TLEV, ULEV, LEV, ZEV
Install an electrical vehicle charging station with both conductive and inductive charging capabilities.
Use built-in energy efficient appliances, where applicable.

5.5 INCENTIVE PROGRAMS

5.5.1 Carl Moyer Program

The majority of the new measures in the California state strategy encompass in-use measures which have traditionally resulted in flexible regulation – allowing the most cost-effective method to be used by those having to meet the emission requirements. Therefore, to accomplish early retirement of older more polluting engines the use of funding programs, such as Carl Moyer, became an integral part of creating emission reductions for Imperial County.

The Carl Moyer program essentially encourages the early introduction of clean air technologies onto the on-road and off-road vehicle fleets by providing funds to help purchase new vehicles or new engines (repowers) and for the installation of retrofit units on older engines. A variety of vehicle classes and types are funded under the Carl Moyer Program to help purchase new vehicles or new engines/repowers and for installation of retrofit units on older engines. In particular, this funding provides the technologies that reduce NOx and PM emissions caused by the combustion of diesel powered engines. Essentially, both new and retrofit engines should be CARB-certified and CARB-verified. The guidelines adopted for the Carl Moyer Program include “Fleet Modernization” and “Light-Duty Vehicle repair and Scrapping” programs. Although all potential projects must meet cost-effectiveness requirements to be eligible for funding considerations, less polluting engines, such as alternative fuel engines will be given preference for funding. New vehicles and engines must achieve a 30 percent reduction and repowered vehicles and retrofits must achieve a 15 percent reduction of NOx emissions compared to current emission standards. Therefore the move to cleaner burning engines holds a potential for the ICAPCD to take credit for the emission reductions achieved through past and future projects funded under this program. For

example, in 2007 estimated reductions as a result of the Carl Moyer Program for all applicable subcategories is reflected in the Table 5.5 below.

Table 5-5
CARL MOYER PROGRAM
REDUCTIONS IN TONS PER YEAR (tpy) FOR 2007

TOTAL EMISSION REDUCTIONS			
	NOx	ROG	PM
Grand Total	12.710	1.579	0.445

5.5.2 Emission Reductions from New Residential and Commercial Development Projects

The California Environmental Quality Act (CEQA) requires the identification of significant environmental impacts resulting from proposed projects and the reduction of those emissions by the application of feasible mitigation measures. Specifically, new development projects produce new sources of air pollution from new vehicle trips, use of consumer products, landscape maintenance, and fuel combustion. New residential, commercial, and industrial projects are required to implement standard and discretionary design measures to reduce air quality impacts. Since emissions from development projects cannot be entirely mitigated on-site, the ICAPCD adopted Rule 310, Operational Development Schedule Fee, which mandates development projects to mitigate emissions in off-site projects or to pay a mitigation fee that would be used to fund projects that reduce emissions in the most cost-effective manner possible. Typically, off-site reductions can occur as a result from either stationary or mobile sources. For example, NOx emissions from increased vehicle trips from a residential development could be reduced by funding the expansion of existing transit services.

5.5.3 Mobile Source Emission Reduction Credit Banking

The ICAPCD adopted in October 2006 Rule 214.1 Mobile Source Emission Reduction Credit (MSERC) Banking which was modeled after the Voluntary Accelerated Vehicle Retirement (VAVR) Program developed by CARB. This rule provides an incentive for the early removal of older more polluting vehicles. The potential level of emission reductions available through the use of an early retirement program will depend on the number of available older vehicles registered in Imperial County, the price a credit seeker is willing to pay, and the number of owners that are willing to sell their vehicles at the price offered.

5.6 STATE STRATEGY

On September 27, 2007, CARB adopted the state Strategy for California's 2007 SIP to achieve the additional emission reductions needed for all areas of the state, including

Imperial County, to attain both the federal 1997 8-hour ozone and the $PM_{2.5}$ standards.[5] The SIP outlines the plan for meeting air quality standards in all of its non-attainment areas. The State Strategy, including the control measures, revisions, and appendices, is available on CARB's SIP website. The control measures in CARB's State Strategy target passenger vehicles, trucks, construction equipment, agricultural equipment, goods movement, fuels, recreational vehicles and boats, and pesticides. Both CARB and U.S. EPA, who have primary regulatory authority over mobile sources, implement the measures within the State Strategy. Without regulatory authority the ICAPCD is unable to implement any of the measures found within the SIP State Strategy. However, the Modified AQMP incorporates the measures by reference and as such reflects those NOx and ROG emission reductions that the measures achieve in Imperial County.

[5] The CARB adopted a revision to the state strategy on April 24, 2009. The proposed revision accounts for emission reductions from the regulations adopted in 2007 and 2008, clarifies ARB's legal commitments in light of U.S. EPA's approval criteria, and clarifies the discussion of the long-term strategy for identifying future technologies to achieve the last increment of reductions. The proposed revision does not change the emission reductions of oxides of nitrogen, reactive organic gases, oxides of sulfur and direct PM2.5 that the Board committed to achieve by specific years when it adopted the 2007 State Strategy.

CHAPTER 6

EMISSION FORECAST

CHAPTER 6 - EMISSION FORECASTS

6.1 INTRODUCTION

Any evaluation of control measure effectiveness must include future emissions impacts. These impacts are typically analyzed in order to ascertain whether the control measures as implemented will be enough to maintain the 1997 8-hour ozone NAAQS or whether new control measures will be required. The primary tool utilized to analyze future impacts is the emissions forecast. The emission forecast provides estimates of future year emissions by projecting the effects of economic growth and existing regulations on future year emission inventories. The resulting projections can be used for a variety of purposes, including modeling of future air quality, assessing the effectiveness of new and proposed control measures, analyzing new source impacts, and tracking progress towards clean air.

The 2002 emissions inventory presented in Chapter 4 provides an up-to-date, comprehensive base inventory that can be used to forecast future year emissions. Since this Modified AQMP only addresses ozone, only emissions forecast of ROG and NOx, the precursors to ozone, are presented. Therefore, the 2002 planning inventory was used to generate emissions forecast for the years 2005 on thru 2023.

Essentially, the forecast inventories shown in this chapter take into account projected socioeconomic growth and the emission reductions ICAPCD rules as adopted are expected to generate. Emission reductions from control measures adopted prior to 2009 by the state CARB, for consumer products, pesticides, mobile sources, and mobile source controls adopted by U.S. EPA, are also reflected in the baseline future emissions forecast.

6.2 FORECAST METHODS AND ASSUMPTIONS

Emissions forecast are generated by applying emission growth and control estimates to the baseline emissions inventory**.** The California Emissions Forecasting System (CEFS), a computer model maintained by CARB, stores the baseline inventory, growth, and control data, and uses pollutant-specific algorithms to generate the inventories used in this Plan. This section describes the general methodology used to estimate emissions in future years.
The formula CEFS uses to forecast future year baseline emissions is as follows:

FYt = BY*GFt*CFt

Where:
FYt = controlled planning day emissions for the forecast year (t)
BY = base year (2002) planning day emissions per process
GFt = growth factor for forecast year (t)
CFt = control factor for forecast year (t)

Growth Factors

The emissions inventory is made up of individual source categories (base year emission category), each with its own socioeconomic activity factor and emissions factor as described in Chapter 4. To account for future growth, each of the base year emission categories is assigned a related activity indicator, such as population, housing, employment, or economic activity. These activity indicators are specific to each industry, for which future estimates are to be developed.

For most emission categories, general socioeconomic trends such as projected population or economic growth are the driving force behind the growth assumptions used in the emissions forecast. Some categories, however, such as on-road motor vehicles, electric utilities and others, may use more specific trend assumptions. For example, vehicle emissions were projected using changes in activity levels related to Vehicle Miles Travelled (VMT), Vehicle turnover, emission controls, fuel characteristics and consumer purchase patterns. VMT's, are typically provided by SCAG while CARB's EMFAC2007 model provides all other factors needed for the vehicle emissions projection. Growth factors for the energy categories are derived from the California Energy Commission's (CEC) energy use forecast.

Emission Controls

In addition to changes in socioeconomic conditions and specific trend assumptions, emissions will change over time due to the implementation process of a control measure known as a control factor.

A control factor is a combination of the following four elements:

1. technological control efficiency (CE) of the control technology, equipment or strategy requirement of the control measure;
2. compliance efficiency, or rule effectiveness (RE) of the control measure, reflecting the actual "real world" ability of a control measure to achieve expected emission reductions;
3. Rule penetration (RP), or impact factor, representing the relative amount of emissions in a source category subject to a control measure, Taking into consideration any exemptions and other control measures; and,
4. implementation factors (IP), or relative amount of total control taking place in a given year, for control measures having phased implementation or control requirements taking place in tiers.

Control factors are useful in that they are used to quantify the remaining uncontrolled emissions in a source category after controls are applied in order to understand the impact to the emissions inventory. This impact or lack of impact to the emissions inventory helps the ICAPCD make appropriate determinations concerning rule development. Control Factors are represented by the following equation:

CF = 1 – (CE*RE*RP*IP)

Control Factors are specific to an emission source and are relative to the control levels for the base year 2002 which helps in the understanding of future year projected emission controls

Uncertainties in Forecasting

As with any forecasting scheme, the one used for the emission projections presented in this Modified AQMP can only be at best an estimate. Original forecasts in 2002 for 2010 could not have taken into account the decline in the economic stability currently witnessed. With the decrease in employment opportunities and the closing of businesses across all sectors earlier emissions projections may be lower than previously estimated creating a lower emissions projection.

Likewise, the Department of Finance's (DOF) population estimates are primarily based on past growth trends and do not account for potential resource constraints or other limitations to growth. Thus, the projected future emissions for source categories that are population dependent may be overestimated if population does not increase at the forecasted rate.

Conversely, if an existing control is not as effective as is estimated in the emission inventory, then future emissions would be higher than the forecast for that source category. Also, unforeseen technological changes could alter the accuracy of the emissions forecast.

The baseline inventory used to develop this plan reflects our understanding of sources, activity levels, and emission rates at a singular point in time. Planners use this "frozen" inventory to provide a stable base for an analysis of the causes of air pollution in the Imperial County and to evaluate the impact of current and potential new controls. However, the development of the baseline and forecast inventories is a dynamic process. Our understanding of the elements that go into the inventory and forecasts - the activity levels, emission rates, growth and control factors - changes as we learn more about each source category. Activity indicators (such as population, fuel consumption, etc.) must also be adjusted occasionally to reflect current socioeconomic conditions. Thus, refinement of the emission estimates is an ongoing process as new and better data becomes available. Future updates to the Modified AQMP will include revised estimates of both the baseline and forecast emissions.

6.3 EXTERNAL ADJUSTMENTS TO THE EMISSIONS INVENTORY

Table 6-1 identifies the primary updates made after CARB's CEFS v1.06 baseline inventory was finalized. These "off-model" adjustments are reflected in the emission projections for the Modified AQMP. The emission changes shown are the tons per day (tpd) impact during the summer months.

Table 6-1
CARB ADJUSTMENTS TO THE EMISSIONS INVENTORY BASELINE

Emission Inventory Code (EIC)	Description	Effective Year Implemented	Emissions Reductions (tpd)
050-995-0110-0000, Fuel Combustion, Manufacturing and Industrial, Other, Natural Gas	NOx summer emissions were reduced based on updated natural gas data from the CA Energy Commission.	2002-2009	4.7 tpd of NOx in 2002 and 5.2 tpd NOx in 2009
060-995-0110-0000, Fuel Combustion, Services and Commercial, Other, Natural Gas	NOx summer emissions were reduced based on updated natural gas data from the CA Energy Commission.	2002-2009	0.3 tpd of NOx in 2002 and 2009
530, Pesticides/Fertilizers	ROG emissions were based on 2004 pesticide emissions inventory data provided by the Department of Pesticide Regulation.	2002-2009	0.14 tpd ROG in 2002 and 0.33 tpd ROG in 2009

6.4 EMISSION INVENTORY FORECAST

This section summarizes the ROG and NOx emissions inventory forecast for 2009. The 2009 average annual and summer planning emissions inventories were developed from the 2002 Base Year Inventory, applying the CEFS growth factors and the impact of current control programs as described in Chapter 5. Resulting emission projections for 2009 average annual and summer planning emissions inventories are summarized in Table 6-3 and Table 6-4, respectively. A detailed breakdown of emissions per each source category is presented in Appendix B.

Both ROG and NOx emissions are predicted to decrease dramatically in Imperial County from 2002 to 2009 due to existing State and ICAPCD control measures and programs, as discussed in Chapter 5. The emission reductions discussed in this section, and depicted in Table 6-3 result from the control strategies relied upon for compliance with existing CAA requirements. Newly adopted controls as well as existing controls as described in Chapter 5 provide additional emissions reductions and contribute towards the maintenance of the 1997 8-hour ozone NAAQS.

The emission inventory data depicted in this document was obtained from CEFS, Version 1.06, and CARB's Planning and Support Division. The on-road mobile source data was evaluated by the Planning and Support Division using EMFAC2007 v2.3 and updated using the vehicle population information provided by SCAG as of March 2008.

Table 6-2 shows important motor vehicle growth indicators from the CARB EMFAC2007 v2.3 on-road mobile model and SCAG's 2008 RTP.

Table 6-2
MOTOR VEHICLE GROWTH TRENDS

Imperial County Totals	Indicators	2002	2009
All vehicle categories	Vehicles	121,707	161,231
Vehicle miles traveled (x1000)	VMT/1000	4,780	6,277
All vehicle trips	Trips	808,700	1,054,090
Fuel Consumption (1000 gallons)	Gasoline	217.44	285.15
	Diesel	97.07	115.09

Notes: EMFAC2007v2.3; Nov 1, 2006 Run Date: 03/18/2008 Season Summer

The 2009 summer planning emissions inventory is summarized in Table 6-3. An examination of this table provides the following information.

1. Total emissions of ROG for Imperial County were calculated at 32 tpd for the 2009 summer planning emissions inventory. Table 6-3 shows that over 21 % of daily ROG emissions are attributable to on-road vehicles, primarily automobiles. Other mobile sources, such as off-road vehicles, trains, and aircraft contribute another 26 % of these emissions. Area sources such as: solvent use (emissions from pesticides application), petroleum related activities, and farming operations (emissions from feedlots and dairies) constitute most of the remaining ROG emissions with approximately 48%.

2. The total NOx emissions in summer 2009 were estimated to be 32 tpd. As shown in Table 6-3, sources in the on-road vehicles category were the largest contributor, with about 52 % of the daily NOx emissions. Other mobile categories were again a significant component with about 35 % of daily NOx emissions.

3. Despite a significant reduction from the 2002 inventory, pesticide application is still a large stationary source of ROG emissions. In the summer of 2009 it will emit 3.5 tpd of ROG. See the detailed ROG Summer Planning Inventory list under Area-Wide Solvent Evaporation.

4. The largest source of NOx emissions for the summer planning inventory was the mobile source category, which will emit approximately 28 tpd or approximately 87 % of the total NOx emissions in 2009.

Table 6-3
EMISSIONS BY MAJOR SOURCE CATEGORY
2009 SUMMER PLANNING INVENTORY (tons/day)

Source Category	ROG	% TOTAL	NOX	% TOTAL
Stationary Sources				
Fuel Combustion	0.12	0.38	3.40	10.60
Waste Disposal	0.02	0.06	0.00	0.00
Cleaning and Surface Coatings	0.42	1.33	0.00	0.00
Petroleum Prod. and Marketing	0.72	2.28	0.00	0.00
Industrial Processes	0.07	0.22	0.04	0.12
Total Stationary Sources	**1.35**	**4.27**	**3.44**	**10.72**
Area-wide Sources				
Solvent Evaporation[a]	7.25	22.92	0.00	0.00
Miscellaneous Processes	8.04	25.42	0.89	2.77
Total Area-Wide Sources	**15.29**	**48.34**	**0.89**	**2.77**
Mobile Sources				
On-Road Motor Vehicles	6.76	21.37	16.53	51.51
Off-Road Vehicles	8.23	26.02	11.23	35.00
Total Mobile Sources	**14.99**	**47.39**	**27.76**	**86.51**
Total for Imperial	**31.63**	**100.00**	**32.09**	**100.00**

[a] **Under the detailed Summer Planning inventory list for ROG the Pesiticides/Fertilizers fall under the Area-Wide section.**

6.5 EMISSION INVENTORY TRENDS

A comparison of 2002 and 2009 ROG and NOx summer planning inventories is summarized in Table 6-4. The emission reductions as illustrated in Table 6-4 reflect the difference in emissions resulting from the adoption and implementation of rules adopted prior to December of 2009. ROG summer planning emissions should decrease by 5.69 tpd or 15.24% in 2009 compared to the 2002 base year. In addition, NOx summer planning emissions should decrease by 5.35 tpd or 14.29 % for the same year period.

Table 6-4
IMPERIAL COUNTY SUMMER PLANNING
EMISSIONS INVENTORY COMPARISON

ROG				
	Tons per Day		**Reductions 2002-2009**	
	2002	**2009**	**Tons per day**	**Percent**
Stationary	1.28	1.35		
Area-Wide	20.82	15.29		
On-Road Mobile	8.77	6.76		
Off-Road Mobile	6.45	8.23		
Total ROG	37.32	31.63	5.69	15.24

Table 6-4
IMPERIAL COUNTY SUMMER PLANNING
EMISSIONS INVENTORY COMPARISON

NOx				
	Tons per Day		Reductions 2002-2009	
	2002	2009	Tons per day	Percent
Stationary	3.60	3.44		
Area-Wide	0.92	0.89		
On-Road Mobile	20.21	16.53		
Off-Road Mobile	12.70	11.23		
Total NOx	37.43	32.09	5.34	14.27

6.6 TRANSPORTATION CONFORMITY

Transportation conformity is a CAA provision which requires transportation planning agencies to demonstrate that their transportation plans, funding programs, and projects are conforming to an adopted SIP. One manner in which conformity may be demonstrated is a comparison, by transportation planning agencies, of vehicle emissions from transportation plans to emissions budgets in an adopted SIP. An emissions budget is reflective of the level of emissions from on-road motor vehicles that ensures an area either maintains the NAAQS or makes progress toward clean air.

According to the CAA in nonattainment and maintenance areas conformity means that any action will not: (1) cause or contribute to violations of a NAAQS, (2) worsen the severity of an existing violation, or (3) delay timely attainment of any NAAQS or any interim milestone. Actions involving Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) funding or approval are subject to the transportation conformity rule (40 CFR part 93, subpart A). Under this rule, metropolitan planning organizations (MPOs) in nonattainment and maintenance areas coordinate with state air quality and transportation agencies, U.S. EPA, and the FHWA and FTA to demonstrate that their metropolitan transportation plans (“plans”) and transportation improvement programs (TIP) conform to applicable SIPs. This is typically determined by showing that estimated emissions from existing and planned highway and transit systems are less than or equal to the motor vehicle emissions budgets (“budgets”) contained in an adopted SIP.

For U.S. EPA to find any budget adequate and approvable, the submittal must meet the conformity adequacy requirements of 40 CFR 93.118(e)(4) and be approvable under all pertinent SIP requirements. For transportation conformity purposes, the cap on motor vehicle emissions is known as the motor vehicle emissions budget. The budget must reflect all of the motor vehicle control measures contained in the attainment demonstration (40 CFR 93.118(e)(4)(v)).

On April 16th, 2008, the U.S. EPA found the budgets for VOC and NOx for 2009 from the Imperial County 8-hour Ozone Early Progress Plan adequate for use for transportation conformity purposes; see http://www.epa.gov/fedrgstr/EPA-AIR/2008/May/Day-05/a9821.htm. An early progress plan is an optional plan and must simply show some progress toward attainment. As such, the early progress plan was designed to show reductions from a base year of 2002 to the year 2009. These budgets apply to all future years until a new budget is submitted in a control strategy plan. The budgets listed in Table 6-5 are the caps for Imperial County transportation planning efforts.

Table 6-5
2009 Imperial County VOC and NOx Budgets, tons per day

Pollutant -->	NOx	VOC
2009	17	7

CHAPTER 7

CONCLUSIONS AND SIP CHECKLIST

7.1 CHECKLIST OF SIP REQUIREMENTS

CHAPTER 7 – CONCLUSION AND SIP CHECKLIST

7.1 CHECKLIST OF SIP REQUIREMENTS AND CONCLUSIONS

A checklist of the 8-hour ozone SIP requirements pertinent to the Modified AQMP (as outlined both in the U.S. EPA general SIP guidelines for ozone Part D for "moderate" non-attainment areas and the final rule of Determination of Attainment of the 1997 8-hour ozone NAAQS for Imperial County, 74FR 63309, December 3, 2009) is presented in Table 7.1.[1] Because the U.S. EPA made a final determination that Imperial County attained the 1997 8-hour ozone NAAQS in 2006-2008 the ruling effectively suspended the following requirements: an attainment demonstration, a RFP plan, contingency measures, and other planning SIP requirements. As documented in Table 7.1, all remaining SIP requirements applicable to the Modified AQMP have been successfully addressed.

Table 7.1
STATE IMPLEMENTATION PLAN CHECKLIST

Required Element	Document Location	Comments
Attainment Demonstration, (CAA, Section182(b)(1))		Not Required
Subpart 1 Reasonable Available Control Measures (RACM), (CAA, Section 172(c)(1))		Not Required
RFP (CAA, Sections 172(c)(2), 182(b)(1))		Not Required
Emissions Inventory, (CAA, Sections 172(c)(3) and 182(a)(1))	Chapter 4	This chapter explains the 2002 emissions inventory which has been designated as the baseline for measuring progress toward attainment of the 8-hour ozone NAAQS. The pollutants included in the emissions inventory are reactive organic compounds (ROG) and oxides of nitrogen (NOx), both precursors to ozone formation.
New Source Review (CAA, Sections172(c)(4) and (5); and 182(a)(2)(C)	Chapter 5	There are two versions of NSR rule that are enforced by the ICAPCD. A current version adopted as an amendment by the ICAPCD Air Board on October 10, 2006 and a SIP version of Rule 207, Standards

[1] See Appendix A for a copy of the Federal Register Notice 74FR 63309 dated December 3, 2009.

Table 7.1
STATE IMPLEMENTATION PLAN CHECKLIST

Required Element	Document Location	Comments
		for Permit to Construct, approved on November 10, 1980. Both versions of Rule 207 fulfill the requirements of CAA Sections 172(c)(4) and (5), 182(a)(2)(C) and the 1.15 to 1 offset ratio required by Sections 182(a)(4) and 182(b)(5).
Contingency Measures (CAA, Section 172(c)(9)		Not Required
Subpart 2 RACT for VOCs and NOx, (CAA, Sections 182(b)(2), 182(f))	Chapter 5	This chapter explains the overall State and local control strategies. The local component of the control strategy consists of Reasonably Available Control Measures (RACM) which are essentially cost effective stationary source control measures. The EPA established stationary source control measures and introduced the control measures via Control Technique Guidance (CTG) documents. When rules are adopted and are in conformance with CTG documents RACT requirements as prescribed by the CAA are typically fulfilled. A more complete analysis can be found in the 2009 RACT SIP for Imperial County which is concurrently adopted with the Modified AQMP.
Vehicle Inspection and Maintenance (I/M), (CAA, Sections 182(a)(2)(B), (b)(4))		Not Applicable to Imperial County because population below 200,000.
Periodic Inventory, (CAA, Section 182(a)(3)(A))	Chapter 6	This chapter explains the forecasted inventory to year 2009 and it takes into account projected socioeconomic growth and the emission reductions

Table 7.1
STATE IMPLEMENTATION PLAN CHECKLIST

Required Element	Document Location	Comments
		anticipated from ICAPCD rules and State control measures adopted prior to 2007.
Emissions Statement Rule, (CAA, Section 182(a)(3)(B))		ICAPCD Rule 116, Emissions Statement and Certification, adopted on February 23, 2010.
Offset Ratio 1.15 to 1 (CAA, Sections 182(a)(4) and 182(b)(5))	Chapter 5	As explained in Chapter 5, there are two versions of NSR rule that are enforced by the ICAPCD. A current version adopted as an amendment by the ICAPCD Air Board on October 10, 2006 and a SIP version of Rule 207, Standards for Permit to Construct, approved on November 10, 1980. Both versions of Rule 207 fulfill the 1.15 to 1 offset ratio required by CAA, Sections 182(a)(4) and 182(b)(5).
Stage 2 Gasoline Vapor Recovery (GVR), (CAA, Section 182(b)(3))		Stage 2 GVR requirements no longer apply to moderate areas following promulgation of Onboard Refueling Vapor Recovery rule. CAA 202(a)(6); 59 FR 16262, April 6, 1994.

APPENDIX A

APPROVAL AND PROMULGATION OF AIR QUALITY IMPLEMENTATION PLANS; CALIFORNIA DETERMINATION OF ATTAINMENT OF THE 1997 8-HOUR OZONE STANDARD

EPA FINAL RULEMAKING
74FR 63309 – 63310, DECEMBER 3, 2009

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2009–0188; FRL–9086–7]

Approval and Promulgation of Air Quality Implementation Plans; California; Determination of Attainment of the 1997 8-Hour Ozone Standard

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The EPA is determining that the Imperial County, California moderate 8-hour ozone nonattainment area has attained the 1997 8-hour National Ambient Air Quality Standard (NAAQS) for ozone. This determination is based upon certified ambient air monitoring data that show the area has monitored attainment of the 8-hour ozone NAAQS since the 2006–2008 monitoring period. In addition, quality controlled and quality assured ozone data for 2008 that are available in the EPA Air Quality System database, but not yet certified, show that this area continues to attain the 1997 8-hour ozone NAAQS. This determination suspends the requirements for California to submit an attainment demonstration, a reasonable further progress plan, contingency measures, and other planning State Implementation Plans for this area related to attainment of the 8-hour ozone NAAQS. These requirements shall remain suspended for so long as the area continues to attain the ozone NAAQS.

DATES: *Effective Date:* This rule is effective on January 4, 2010.

ADDRESSES: EPA has established a docket for this action under Docket Identification No. EPA–R09–OAR–2009–0188. All documents in the docket are listed on the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at the Air Planning Office, U.S. Environmental Protection Agency, 75 Hawthorne Street, San Francisco, CA 94105–3901. EPA requests that if at all possible, you contact the contact listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are Monday through Friday, 8 to 4:55, excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Wienke Tax, Air Planning Office, U.S. Environmental Protection Agency Region 9, 75 Hawthorne Street, San Francisco, CA 94105–3901, telephone number (415) 947–4192, fax number (415) 947–3579, electronic mail *Tax.wienke@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document whenever ''we,'' ''us,'' or ''our'' is used, we mean EPA.

Table of Contents

I. What Action Is EPA Taking?

EPA is determining that the Imperial County, California moderate 8-hour ozone nonattainment area has attained the 1997 8-hour National Ambient Air Quality Standard (NAAQS) for ozone. This determination is based upon certified ambient air monitoring data that show the area has monitored attainment of the 1997 ozone NAAQS since the 2006–2008 monitoring period. In addition, quality controlled and quality assured ozone data for 2009 that are available in the EPA Air Quality System (AQS) database, but not yet certified, show that this area continues to attain the ozone NAAQS.

Other specific requirements of the determination and the rationale for EPA's proposed action are explained in the Notice of Proposed Rulemaking (NPR) published on September 23, 2009 (74 FR 48495) and will not be restated here. EPA received no public comments on the NPR.

II. What Is the Effect of This Action?

Under the provisions of EPA's ozone implementation rule (see 40 CFR 51.918), this determination suspends the requirements for the Imperial County, California moderate ozone nonattainment area to submit an attainment demonstration, a reasonable further progress plan, section 172(c)(9) contingency measures, and any other planning State Implementation Plans (SIPs) related to attainment of the 1997 8-hour ozone NAAQS for so long as the area continues to attain the 1997 ozone NAAQS.

This action does not constitute a redesignation to attainment under CAA section 107(d)(3), because the area does not have an approved maintenance plan as required under section 175A of the CAA, nor a determination that the area has met the other requirements for redesignation. The classification and designation status of the area remains moderate nonattainment for the 1997 8-hour ozone NAAQS until such time as EPA determines that it meets the CAA requirements for redesignation to attainment.

If EPA subsequently determines, after notice-and-comment rulemaking in the **Federal Register**, that the area has violated the 1997 8-hour ozone standard, the basis for the suspension of these requirements would no longer exist, and the area would thereafter have to address the pertinent requirements.

III. Final Action

EPA is determining that the Imperial County, California 8-hour ozone nonattainment area has attained the 1997 8-hour ozone standard and continues to attain the standard based on data through the 2009 ozone season. As provided in 40 CFR 51.918, this determination suspends the requirements for California to submit an attainment demonstration, a reasonable further progress plan, and contingency measures under section 172(c)(9), and any other planning SIP related to attainment of the 1997 8-hour ozone NAAQS for this area, for so long as the area continues to attain the standard.

V. Statutory and Executive Order Reviews

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a ''significant regulatory action'' and therefore is not subject to review by the Office of Management and Budget. For this reason, this action is also not subject to Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001). This action makes a determination based on air quality data, and results in the suspension of certain Federal requirements. Accordingly, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Because this rule makes a determination based on air quality data, and results in the suspension of certain Federal requirements, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4).

This rule also does not have tribal implications because it will not have a substantial direct effect on one or more

Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes, as specified by Executive Order 13175 (59 FR 22951, November 9, 2000). This action also does not have Federalism implications because it does not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999), because it merely makes a determination based on air quality data and results in the suspension of certain Federal requirements, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. This rule also is not subject to Executive Order 13045 ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), because it determines that air quality in the affected area is meeting Federal standards.

The requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply because it would be inconsistent with applicable law for EPA, when determining the attainment status of an area, to use voluntary consensus standards in place of promulgated air quality standards and monitoring procedures that otherwise satisfy the provisions of the Clean Air Act.

This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*)

Under Executive Order 12898, EPA finds that this rule involves a determination of attainment based on air quality data and will not have disproportionately high and adverse human health or environmental effects on any communities in the area, including minority and low-income communities.

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by May 19, 2008. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: November 13, 2009.

Laura Yoshii,

Acting Regional Administrator,

Region IX.

■ Part 52 of chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52—[AMENDED]

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart F—California

■ 2. Section 52.282 is amended by adding paragraph (c) to read as follows:

§ 52.282 Control strategy and regulations: Ozone.

* * * * *

(c) *Determination of attainment.* Effective January 4, 2010, EPA is determining that the Imperial County, California 8-hour ozone nonattainment area has attained the 1997 8-hour ozone standard. Under the provisions of EPA's ozone implementation rule (see 40 CFR 51.918), this determination suspends the reasonable further progress and attainment demonstration requirements of section 182(b)(1) and related requirements of section 172(c)(9) of the Clean Air Act for as long as the area does not monitor any violations of the 8-hour ozone standard. If a violation of the 1997 ozone NAAQS is monitored in the Imperial County, California 8-hour ozone nonattainment area, this determination shall no longer apply.

[FR Doc. E9–28536 Filed 12–2–09; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 192 and 195

[Docket ID PHMSA–2007–27954; Amdt. Nos. 192–112 and 195–93]

RIN 2137–AE28

Pipeline Safety: Control Room Management/Human Factors

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA); DOT.

ACTION: Final rule.

SUMMARY: PHMSA is amending the Federal pipeline safety regulations to address human factors and other aspects of control room management for pipelines where controllers use supervisory control and data acquisition (SCADA) systems. Under the final rule, affected pipeline operators must define the roles and responsibilities of controllers and provide controllers with the necessary information, training, and processes to fulfill these responsibilities. Operators must also implement methods to prevent controller fatigue. The final rule further requires operators to manage SCADA alarms, assure control room considerations are taken into account when changing pipeline equipment or configurations, and review reportable incidents or accidents to determine whether control room actions contributed to the event.

Hazardous liquid and gas pipelines are often monitored in a control room by controllers using computer-based equipment, such as a SCADA system, that records and displays operational information about the pipeline system, such as pressures, flow rates, and valve positions. Some SCADA systems are used by controllers to operate pipeline equipment, while, in other cases, controllers may dispatch other personnel to operate equipment in the field. These monitoring and control actions, whether via SCADA system commands or direction to field personnel, are a principal means of managing pipeline operation.

This rule improves opportunities to reduce risk through more effective control of pipelines. It further requires

APPENDIX B

NOx AND ROG
DETAILED EMISSIONS INVENTORY

NOx -IMPERIAL COUNTY - SUMMER PLANNING INVENTORY - ADJUSTED FOR MEASURES AND CATEGORIES THROUGH 31 DEC 2006															
SUBCATEGORY	**2002**	**2005**	**2006**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2017**	**2018**	**2020**	**2023**
STATIONARY															
Fuel Combustion															
ELECTRIC UTILITIES	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
MANUFACTURING AND INDUSTRIAL	1.27	1.22	1.21	1.12	1.11	1.10	1.11	1.10	1.09	1.08	1.09	1.08	1.07	1.05	1.03
FOOD AND AGRICULTURAL PROCESSING	0.71	0.70	0.69	0.67	0.67	0.66	0.65	0.65	0.65	0.64	0.64	0.62	0.61	0.59	0.56
SERVICE AND COMMERCIAL	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
OTHER (FUEL COMBUSTION)	0.15	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.19	0.20	0.20	0.21
TOTAL FUEL COMBUSTION	**3.57**	**3.53**	**3.51**	**3.41**	**3.40**	**3.38**	**3.38**	**3.38**	**3.37**	**3.35**	**3.36**	**3.34**	**3.33**	**3.29**	**3.25**
Waste Disposal															
OTHER (WASTE DISPOSAL)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL WASTE DISPOSAL															
Cleaning and Surface Coatings															
LAUNDERING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEGREASING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COATINGS AND RELATED PROCESS SOLVENTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ADHESIVES AND SEALANTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL CLEANING AND SURFACE COATINGS															
Petroleum Production and Marketing															
PETROLEUM REFINING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PETROLEUM MARKETING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER (PETROLEUM PRODUCTION AND MARKETING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL PETROLEUM PRODUCTION AND MARKETING															
Industrial Processes															
FOOD AND AGRICULTURE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MINERAL PROCESSES	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
METAL PROCESSES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER (INDUSTRIAL PROCESSES)	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
TOTAL INDUSTRIAL PROCESES	**0.03**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.05**	**0.05**
STATIONARY SUBTOTAL	**3.60**	**3.56**	**3.55**	**3.44**	**3.44**	**3.42**	**3.42**	**3.42**	**3.41**	**3.40**	**3.40**	**3.38**	**3.37**	**3.33**	**3.30**
AREA-WIDE															
Solvent Evaporation															
CONSUMER PRODUCTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ARCHITECTURAL COATINGS AND RELATED PROCES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PESTICIDES/FERTILIZERS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ASPHALT PAVING / ROOFING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL SOLVENT EVAPORATION															
Miscellaneous Processes															
RESIDENTIAL FUEL COMBUSTION	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
FARMING OPERATIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONSTRUCTION AND DEMOLITION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PAVED ROAD DUST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UNPAVED ROAD DUST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NOx -IMPERIAL COUNTY - SUMMER PLANNING INVENTORY - ADJUSTED FOR MEASURES AND CATEGORIES THROUGH 31 DEC 2006															
SUBCATEGORY	**2002**	**2005**	**2006**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2017**	**2018**	**2020**	**2023**
FUGITIVE WINDBLOWN DUST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FIRES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MANAGED BURNING AND DISPOSAL	0.85	0.84	0.83	0.82	0.82	0.81	0.81	0.81	0.80	0.80	0.79	0.78	0.78	0.77	0.75
COOKING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL MISCELLANEOUS PROCESSES	**0.92**	**0.90**	**0.90**	**0.89**	**0.89**	**0.88**	**0.88**	**0.87**	**0.87**	**0.87**	**0.86**	**0.85**	**0.85**	**0.84**	**0.83**
AREA-WIDE SUBTOTAL	**0.92**	**0.90**	**0.90**	**0.89**	**0.89**	**0.88**	**0.88**	**0.87**	**0.87**	**0.87**	**0.86**	**0.85**	**0.85**	**0.84**	**0.83**
ON-ROAD MOBILE															
LIGHT DUTY PASSENGER (LDA)	2.98	2.51	2.39	2.16	2.10	2.03	1.95	1.90	1.85	1.80	1.76	1.69	1.67	1.66	1.66
LIGHT DUTY TRUCKS - 1 (LDT1)	1.57	1.25	1.18	1.02	1.01	0.98	0.95	0.91	0.88	0.84	0.79	0.68	0.62	0.51	0.38
LIGHT DUTY TRUCKS - 2 (LDT2)	1.36	1.35	1.30	1.22	1.19	1.16	1.12	1.07	1.02	0.97	0.91	0.80	0.75	0.65	0.53
MEDIUM DUTY TRUCKS (MDV)	0.33	0.42	0.41	0.41	0.40	0.39	0.38	0.37	0.37	0.36	0.35	0.32	0.31	0.27	0.23
LIGHT HEAVY DUTY GAS TRUCKS - 1 (LHDV1)	0.06	0.06	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07
LIGHT HEAVY DUTY GAS TRUCKS - 2 (LHDV2)	0.09	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.03	0.03
MEDIUM HEAVY DUTY GAS TRUCKS (MHDV)	0.15	0.13	0.13	0.11	0.11	0.11	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.04	0.03
HEAVY HEAVY DUTY GAS TRUCKS (HHDV)	0.13	0.12	0.11	0.10	0.10	0.10	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07	0.07
LIGHT HEAVY DUTY DIESEL TRUCKS - 1 (LHDV1)	0.01	0.10	0.12	0.14	0.13	0.12	0.11	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.04
LIGHT HEAVY DUTY DIESEL TRUCKS - 2 (LHDV2)	0.10	0.11	0.10	0.10	0.10	0.10	0.09	0.08	0.08	0.07	0.06	0.05	0.05	0.04	0.03
MEDIUM HEAVY DUTY DIESEL TRUCKS (MHDV)	0.69	0.63	0.61	0.59	0.59	0.55	0.52	0.47	0.42	0.38	0.34	0.26	0.23	0.19	0.15
HEAVY HEAVY DUTY DIESEL TRUCKS (HHDV)	12.48	8.98	11.41	10.82	10.38	9.66	8.95	8.22	7.49	6.77	6.14	4.90	4.45	3.84	3.39
MOTORCYCLES (MCY)	0.02	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.08	0.08
HEAVY DUTY DIESEL URBAN BUSES (UB)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HEAVY DUTY GAS URBAN BUSES (UB)	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHOOL BUSES (SB)	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.12	0.12	0.13
OTHER BUSES (OB)	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.04	0.03
MOTOR HOMES (MH)	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.02
ON-ROAD SUBTOTAL	**20.21**	**16.02**	**18.19**	**17.07**	**16.53**	**15.60**	**14.67**	**13.71**	**12.76**	**11.81**	**10.95**	**9.27**	**8.63**	**7.68**	**6.86**
OTHER MOBILE															
AIRCRAFT	0.79	0.79	0.69	1.43	1.82	2.17	2.52	2.87	3.21	3.27	3.33	3.33	3.33	3.33	3.33
TRAINS	6.98	5.82	5.47	5.28	5.30	3.92	4.02	4.11	4.20	4.30	4.40	4.61	4.73	4.97	5.38
RECREATIONAL BOATS	0.32	0.40	0.42	0.43	0.43	0.43	0.43	0.42	0.42	0.42	0.42	0.43	0.43	0.43	0.42
OFF-ROAD RECREATIONAL VEHICLES	0.06	0.07	0.07	0.08	0.08	0.09	0.09	0.09	0.10	0.10	0.11	0.11	0.12	0.13	0.14
OFF-ROAD EQUIPMENT	1.77	1.69	1.60	1.52	1.48	1.44	1.41	1.37	1.34	1.28	1.22	1.11	1.06	0.97	0.88
FARM EQUIPMENT	2.78	2.52	2.44	2.21	2.11	2.04	1.94	1.81	1.68	1.57	1.46	1.24	1.14	0.96	0.75
FUEL STORAGE AND HANDLING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OFF-ROAD SUB-TOTAL	**12.70**	**11.29**	**10.69**	**10.96**	**11.23**	**10.09**	**10.40**	**10.68**	**10.95**	**10.95**	**10.94**	**10.83**	**10.80**	**10.79**	**10.90**
TOTAL INVENTORY	**37.43**	**31.77**	**33.33**	**32.37**	**32.08**	**29.99**	**29.36**	**28.68**	**27.99**	**27.02**	**26.16**	**24.34**	**23.64**	**22.64**	**21.88**

ROG - IMPERIAL - SUMMER PLANNING INVENTORY -- ADJUSTED FOR MEASURES AND CATEGORIES THROUGH 31 DEC 2006															
SUBCATEGORY	**2002**	**2005**	**2006**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2017**	**2018**	**2020**	**2023**
STATIONARY															
Fuel Combustion															
ELECTRIC UTILITIES	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
MANUFACTURING AND INDUSTRIAL	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
FOOD AND AGRICULTURAL PROCESSING	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
SERVICE AND COMMERCIAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER (FUEL COMBUSTION)	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
TOTAL FUEL COMBUSTION	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**	**0.12**
Waste Disposal															
OTHER (WASTE DISPOSAL)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
TOTAL WASTE DISPOSAL	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**
Cleaning and Surface Coatings															
LAUNDERING	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
DEGREASING	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.20
COATINGS AND RELATED PROCESS SOLVENTS	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.17	0.17	0.18	0.18	0.18	0.18	0.18	0.19
ADHESIVES AND SEALANTS	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04
TOTAL CLEANING AND SURFACE COATINGS	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.43**	**0.43**	**0.43**	**0.43**	**0.44**
Petroleum Production and Marketing															
PETROLEUM REFINING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PETROLEUM MARKETING	0.64	0.68	0.69	0.70	0.71	0.71	0.71	0.73	0.73	0.74	0.75	0.76	0.76	0.78	0.79
OTHER (PETROLEUM PRODUCTION AND MARKETING	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TOTAL PETROLEUM PRODUCTION AND MARKETING	**0.65**	**0.69**	**0.70**	**0.71**	**0.72**	**0.72**	**0.72**	**0.74**	**0.74**	**0.75**	**0.76**	**0.77**	**0.78**	**0.79**	**0.81**
Industrial Processes															
FOOD AND AGRICULTURE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MINERAL PROCESSES	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
METAL PROCESSES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OTHER (INDUSTRIAL PROCESSES)	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08
TOTAL INDUSTRIAL PROCESSES	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.08**	**0.08**	**0.08**	**0.08**	**0.08**	**0.08**	**0.09**	**0.09**
STATIONARY SUBTOTAL	**1.28**	**1.31**	**1.32**	**1.33**	**1.35**	**1.35**	**1.36**	**1.38**	**1.38**	**1.40**	**1.41**	**1.43**	**1.44**	**1.46**	**1.48**
AREA-WIDE															
Solvent Evaporation															
CONSUMER PRODUCTS	1.16	1.10	1.10	1.08	1.09	1.11	1.13	1.15	1.17	1.19	1.21	1.25	1.28	1.32	1.39
ARCHITECTURAL COATINGS AND RELATED PROCES	0.62	0.60	0.55	0.57	0.58	0.59	0.59	0.60	0.61	0.62	0.63	0.64	0.65	0.67	0.70
PESTICIDES/FERTILIZERS	5.26	4.04	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45
ASPHALT PAVING / ROOFING	1.96	2.05	2.08	2.12	2.13	2.15	2.16	2.17	2.17	2.18	2.19	2.21	2.21	2.22	2.24
TOTAL SOLVENT EVAPORATION	**9.01**	**7.79**	**7.19**	**7.21**	**7.25**	**7.29**	**7.33**	**7.37**	**7.40**	**7.45**	**7.48**	**7.55**	**7.59**	**7.66**	**7.78**
Miscellaneous Processes															
RESIDENTIAL FUEL COMBUSTION	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
FARMING OPERATIONS	9.47	6.99	8.21	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78
CONSTRUCTION AND DEMOLITION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PAVED ROAD DUST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UNPAVED ROAD DUST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FUGITIVE WINDBLOWN DUST	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FIRES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ROG - IMPERIAL - SUMMER PLANNING INVENTORY -- ADJUSTED FOR MEASURES AND CATEGORIES THROUGH 31 DEC 2006															
SUBCATEGORY	**2002**	**2005**	**2006**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2017**	**2018**	**2020**	**2023**
MANAGED BURNING AND DISPOSAL	2.32	2.28	2.26	2.24	2.23	2.22	2.20	2.19	2.18	2.17	2.16	2.13	2.12	2.09	2.06
COOKING	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03
TOTAL MISCELLANEOUS PROCESSES	**11.81**	**9.30**	**10.50**	**8.05**	**8.04**	**8.03**	**8.02**	**8.01**	**7.99**	**7.98**	**7.97**	**7.95**	**7.94**	**7.91**	**7.88**
AREA-WIDE SUBTOTAL	**20.82**	**17.08**	**17.69**	**15.27**	**15.29**	**15.32**	**15.35**	**15.37**	**15.40**	**15.43**	**15.45**	**15.50**	**15.53**	**15.57**	**15.65**
ON-ROAD MOBILE															
LIGHT DUTY PASSENGER (LDA)	4.08	3.42	3.24	2.90	2.78	2.66	2.53	2.44	2.34	2.25	2.18	2.05	1.99	1.92	1.85
LIGHT DUTY TRUCKS - 1 (LDT1)	1.74	1.48	1.43	1.31	1.30	1.28	1.26	1.23	1.20	1.16	1.11	0.99	0.92	0.80	0.65
LIGHT DUTY TRUCKS - 2 (LDT2)	1.14	1.12	1.10	1.05	1.04	1.02	1.00	0.97	0.95	0.93	0.89	0.83	0.81	0.76	0.70
MEDIUM DUTY TRUCKS (MDV)	0.22	0.28	0.27	0.27	0.27	0.27	0.26	0.27	0.27	0.28	0.28	0.29	0.30	0.30	0.29
LIGHT HEAVY DUTY GAS TRUCKS - 1 (LHDV1)	0.08	0.06	0.06	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03
LIGHT HEAVY DUTY GAS TRUCKS - 2 (LHDV2)	0.09	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.02	0.02
MEDIUM HEAVY DUTY GAS TRUCKS (MHDV)	0.25	0.20	0.18	0.15	0.15	0.14	0.13	0.11	0.10	0.08	0.07	0.05	0.05	0.03	0.02
HEAVY HEAVY DUTY GAS TRUCKS (HHDV)	0.09	0.07	0.07	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.01	0.01	0.01
LIGHT HEAVY DUTY DIESEL TRUCKS - 1 (LHDV1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LIGHT HEAVY DUTY DIESEL TRUCKS - 2 (LHDV2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MEDIUM HEAVY DUTY DIESEL TRUCKS (MHDV)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
HEAVY HEAVY DUTY DIESEL TRUCKS (HHDV)	0.84	0.62	0.78	0.74	0.71	0.67	0.62	0.58	0.54	0.49	0.45	0.38	0.35	0.30	0.28
MOTORCYCLES (MCY)	0.11	0.25	0.27	0.29	0.29	0.30	0.30	0.31	0.31	0.32	0.33	0.34	0.34	0.35	0.36
HEAVY DUTY DIESEL URBAN BUSES (UB)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HEAVY DUTY GAS URBAN BUSES (UB)	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SCHOOL BUSES (SB)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
OTHER BUSES (OB)	0.05	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01
MOTOR HOMES (MH)	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.00
ON-ROAD SUBTOTAL	**8.77**	**7.68**	**7.56**	**6.96**	**6.76**	**6.54**	**6.31**	**6.10**	**5.89**	**5.68**	**5.48**	**5.07**	**4.87**	**4.54**	**4.23**
OTHER MOBILE															
AIRCRAFT	0.91	0.91	0.81	1.47	1.62	1.75	1.88	2.00	2.13	2.25	2.36	2.36	2.36	2.36	2.36
TRAINS	0.53	0.55	0.55	0.54	0.54	0.55	0.55	0.56	0.56	0.57	0.58	0.59	0.60	0.61	0.64
RECREATIONAL BOATS	0.79	0.84	0.83	0.80	0.79	0.77	0.76	0.75	0.75	0.74	0.74	0.74	0.74	0.74	0.75
OFF-ROAD RECREATIONAL VEHICLES	2.65	3.42	3.62	3.86	3.98	4.10	4.24	4.38	4.52	4.68	4.84	5.19	5.37	5.76	6.40
OFF-ROAD EQUIPMENT	0.76	0.81	0.76	0.72	0.71	0.70	0.69	0.69	0.68	0.66	0.65	0.62	0.61	0.60	0.61
FARM EQUIPMENT	0.58	0.54	0.52	0.46	0.44	0.43	0.40	0.37	0.34	0.31	0.29	0.24	0.22	0.19	0.16
FUEL STORAGE AND HANDLING	0.23	0.23	0.22	0.16	0.15	0.14	0.13	0.13	0.12	0.11	0.11	0.10	0.10	0.09	0.09
OFF-ROAD SUB-TOTAL	**6.45**	**7.30**	**7.31**	**8.03**	**8.23**	**8.43**	**8.65**	**8.87**	**9.10**	**9.32**	**9.56**	**9.83**	**9.99**	**10.35**	**11.00**
TOTAL INVENTORY	**37.32**	**33.37**	**33.88**	**31.59**	**31.63**	**31.65**	**31.67**	**31.72**	**31.77**	**31.83**	**31.90**	**31.84**	**31.83**	**31.92**	**32.37**