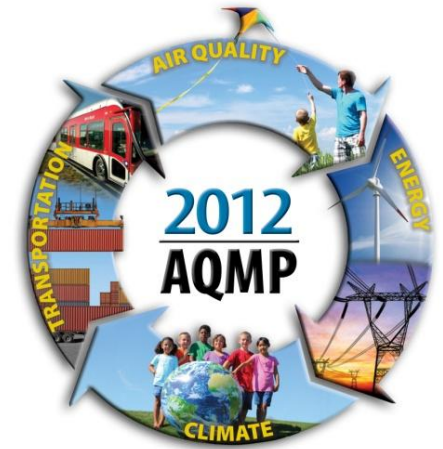


2012 Air Quality Management Plan



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

REGIONAL PUBLIC HEARINGS
NOVEMBER 13-15, 2012

Cleaning The Air That We Breathe...

Background



- U.S EPA designated South Coast Air Basin non-attainment for 24-hour PM_{2.5} - 2009
- 24-hour PM_{2.5} SIP due – *Dec 2012*
 - ❑ Builds upon previous plans and control programs
- 8-hour ozone SIP approved – 2012
 - ❑ Includes over 200 tons/day NO_x reductions to be adopted by 2020 for full implementation by 2023



Consequence of CAA Non-Compliance



- Emission offset ratio to 2:1
- Federal Implementation Plan
- Transportation/highway funding restrictions



SCAQMD Board Directive



- **AQMP Design Principles**
 - ❑ Most Efficient Path to Clean Air
 - ❑ Minimize Socioeconomic Impacts
 - ❑ All Feasible Measures and Promote Fair Share Responsibility
 - ❑ Maximize Private/Public Partnership
 - ❑ Equitable and Expeditious Progress

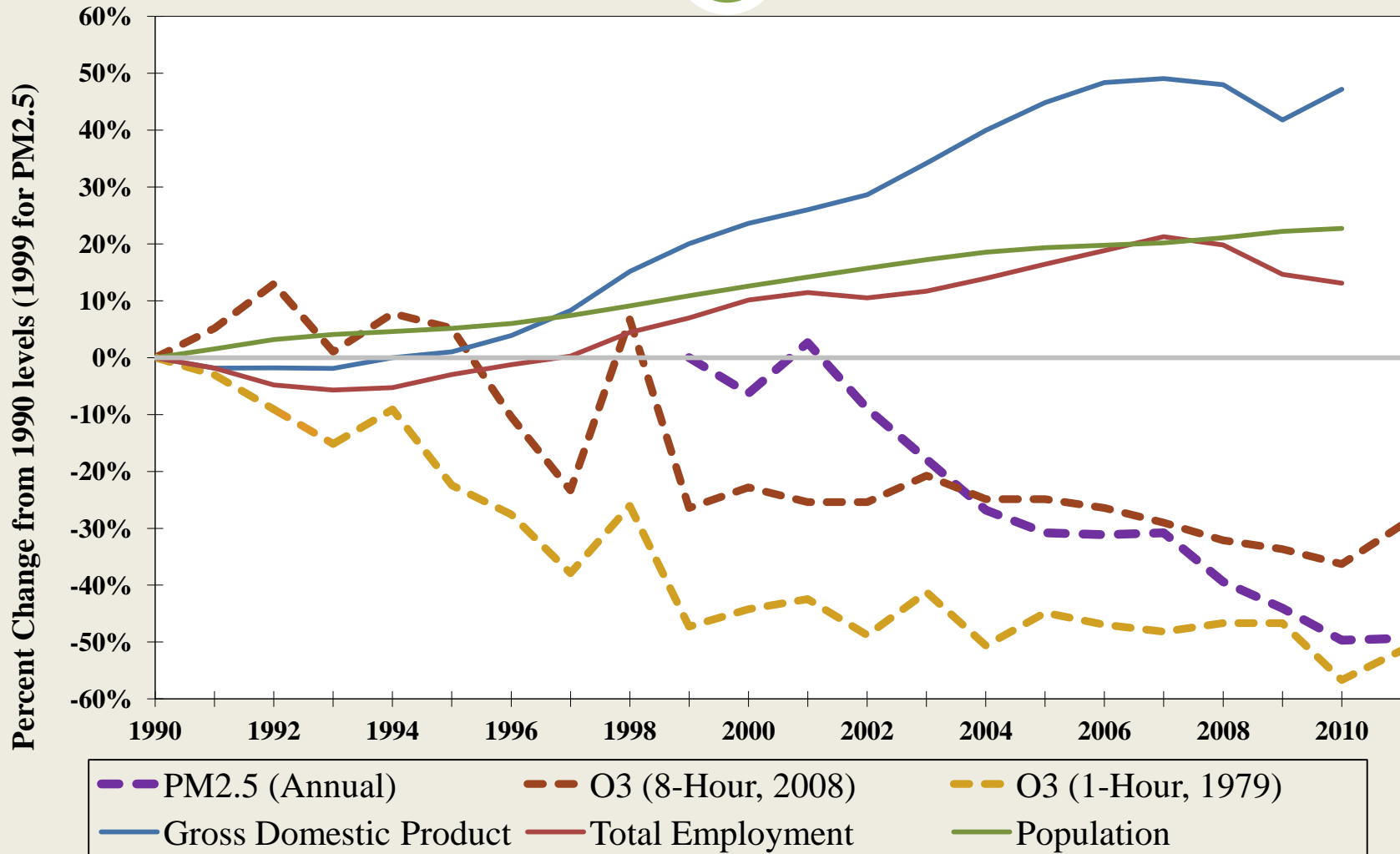


Scope of the 2012 AQMP

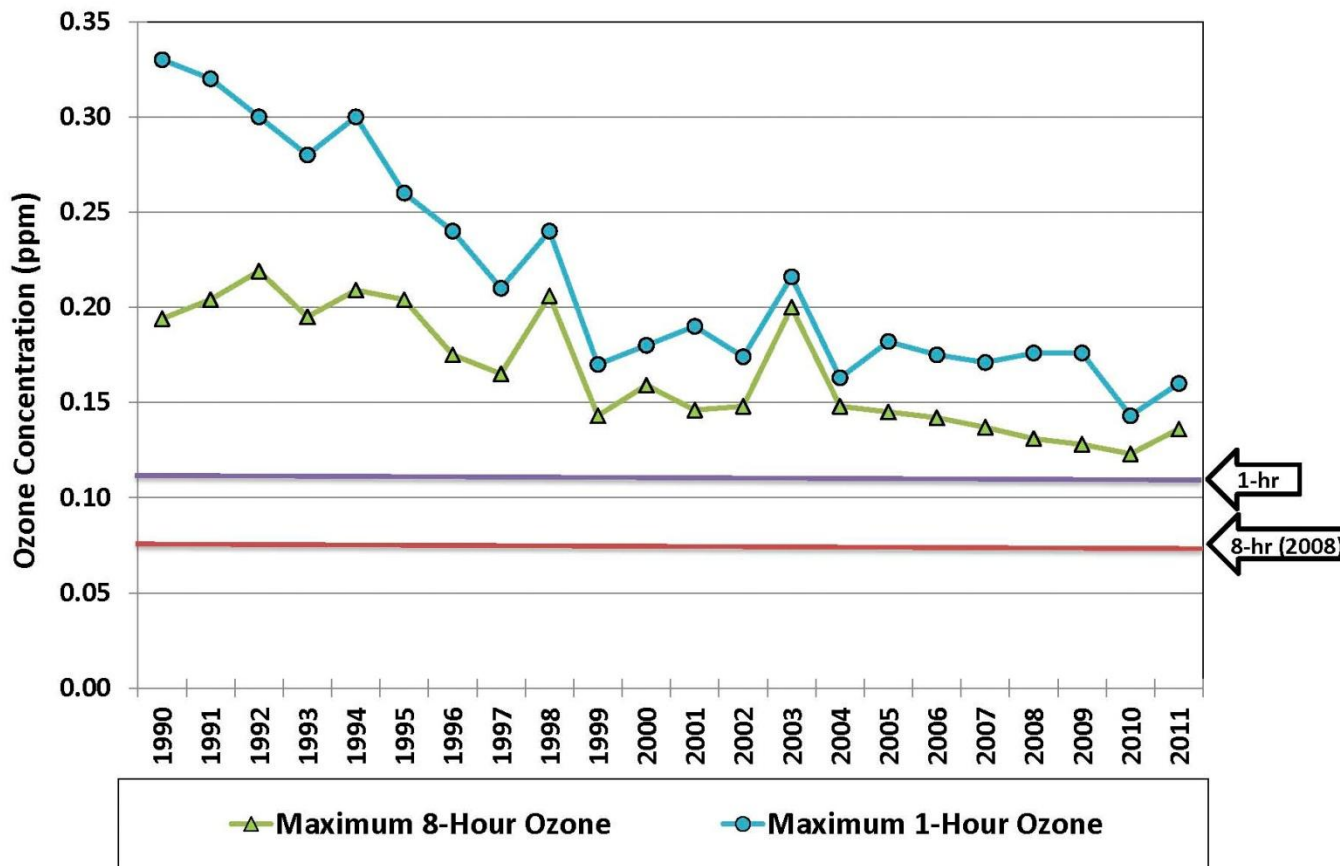


- **Meet 24-Hr PM_{2.5} Standard**
 - Earliest feasible date (2014)
- **Partially Fulfill 2007 AQMP Ozone SIP Commitment**
 - Integrated approach to maximize co-benefits
- **1-hour Ozone Attainment Demonstration**
- **VMT Offset Requirement Demonstration**

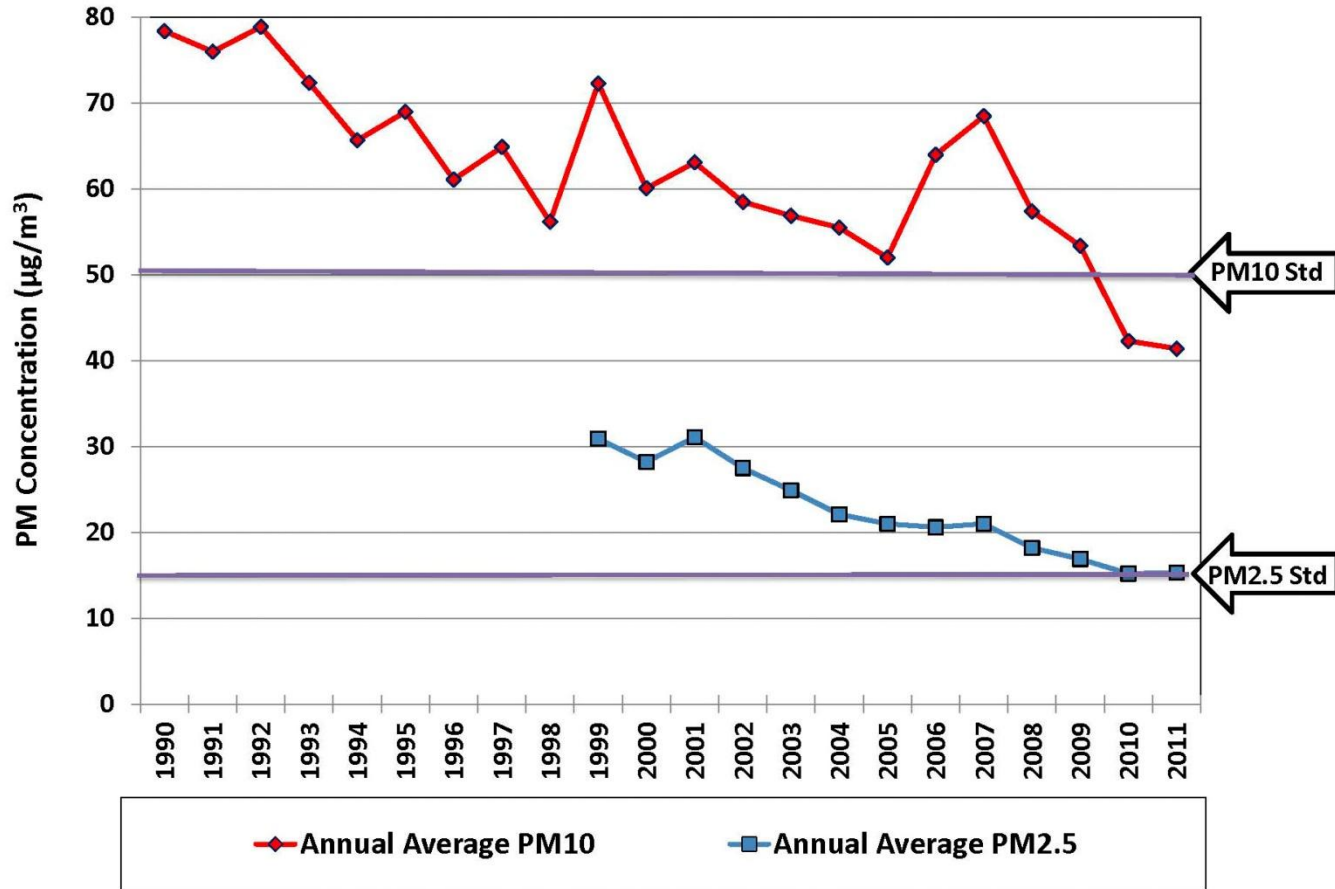
Air Quality/Demographic Trends



Air Quality Trends - Ozone



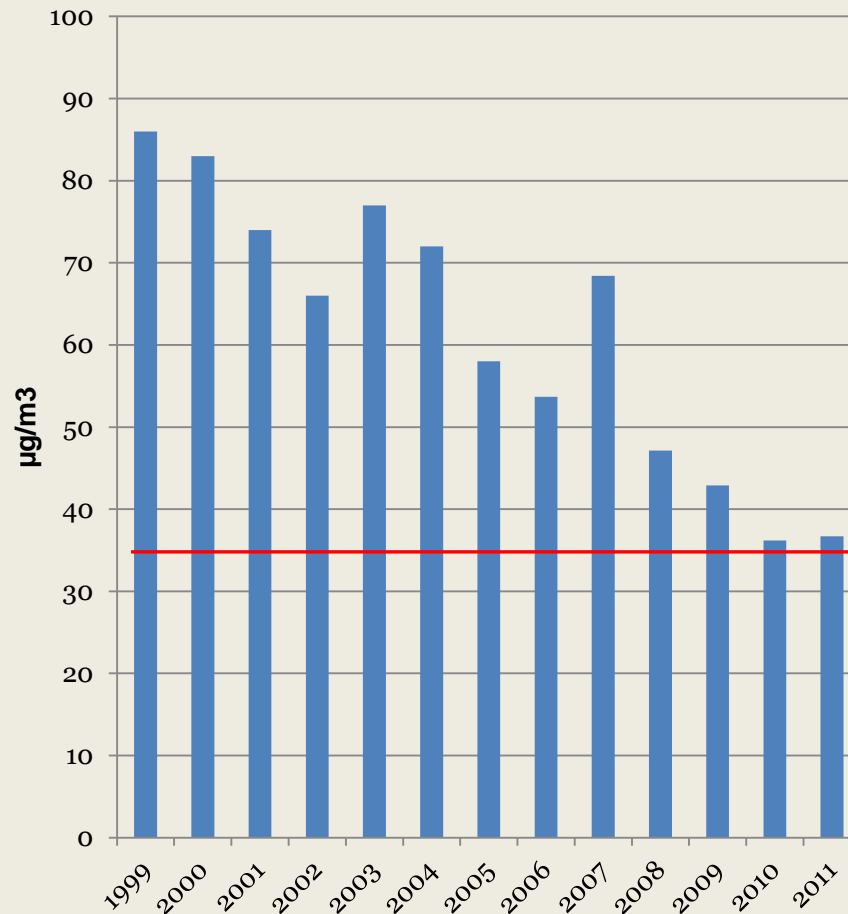
Air Quality Trends – Annual PM



Air Quality Trends – 24-hour PM

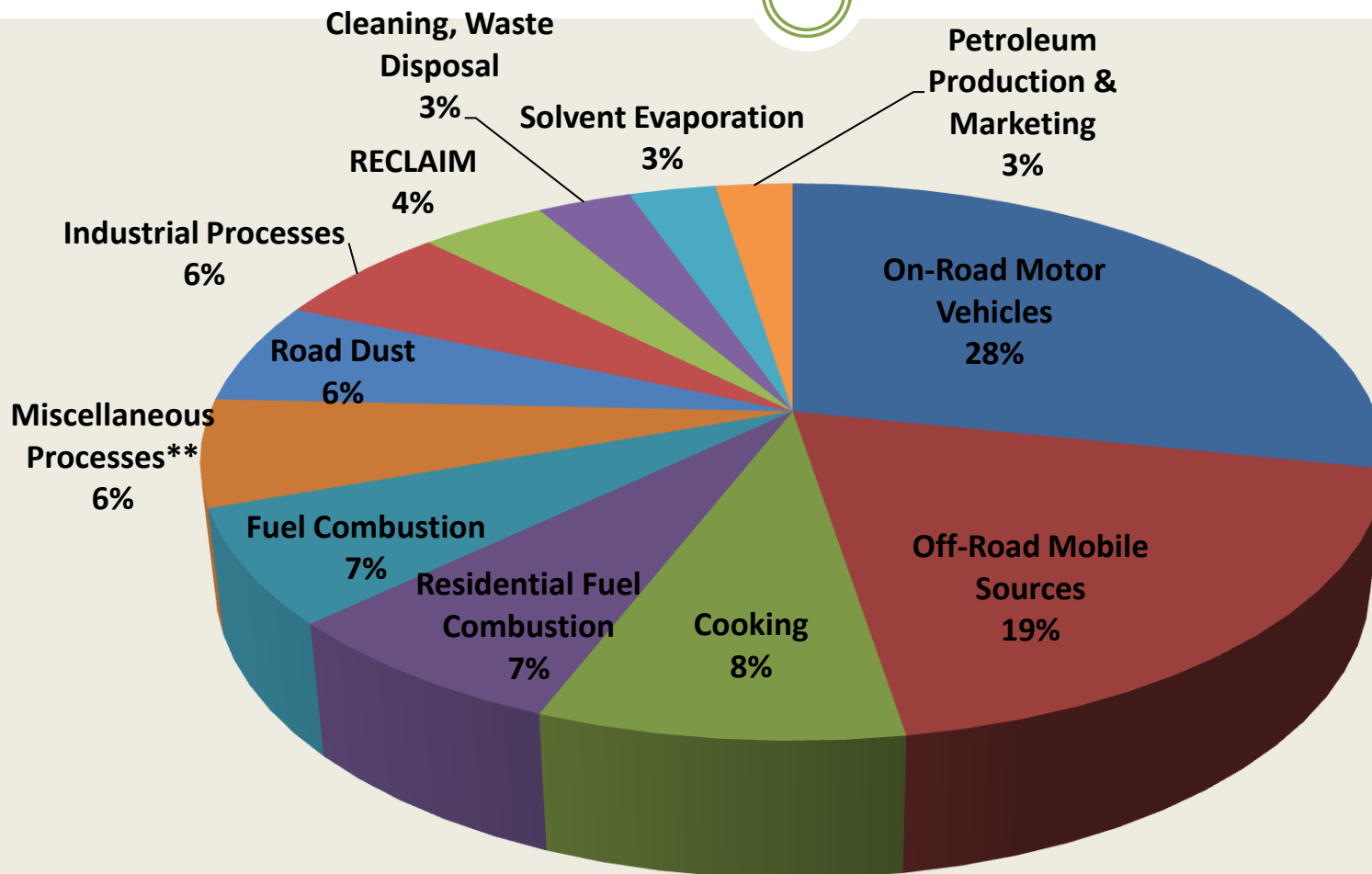


PM2.5 24-hour 98th Percentile



***Federal Standard
35 µg/m³***

Sources of PM2.5*



*2014 emission inventory based on PM2.5 formation potential (incl. precursors)

** Includes construction/demolition, farming operations, fires, waste burning/disposal

Proposed PM2.5 Control Measures



- **Measures to Achieve Attainment by 2014:**
 - Episodic residential wood burning curtailment
 - Episodic open burning curtailment

Reductions: 12 tons/day PM2.5



Proposed PM2.5 Control Measures – *continued*



- **Measures to Ensure Attainment:**

- ❑ Backstop measure for Indirect Sources from Ports and Port-related Sources
- ❑ Under-fired Charbroilers (2 phases)
- ❑ Livestock Waste (2 phases)
- ❑ Education, Outreach and Incentives
- ❑ All Feasible Measures (state/federal requirement)



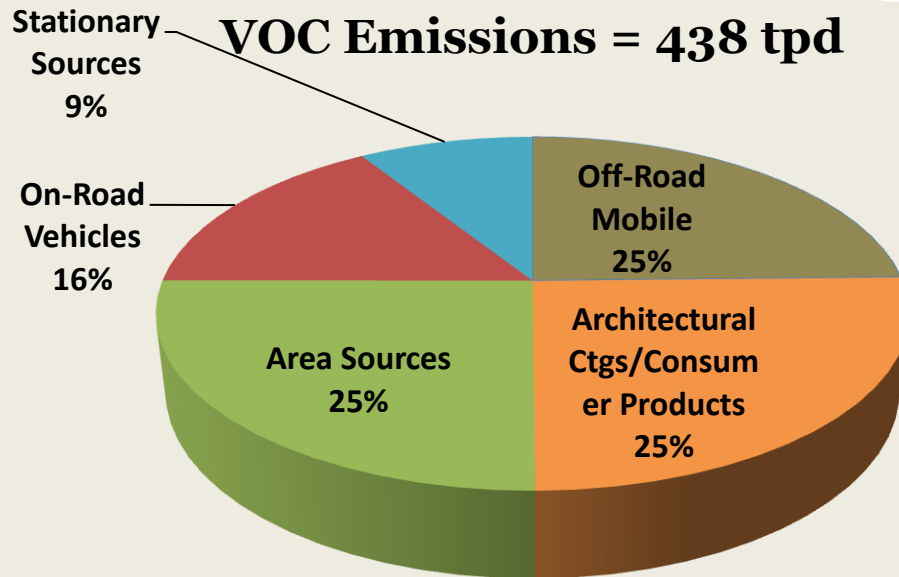
Contingency Measures

- Required by Federal Clean Air Act
- Beyond those needed for attainment, OR
- Automatically triggered if attainment not achieved
- Measures designated for contingency
 - ❑ Residential wood burning curtailment (partial)
 - ❑ Open burning curtailment (partial)
 - ❑ NOx reductions from RECLAIM

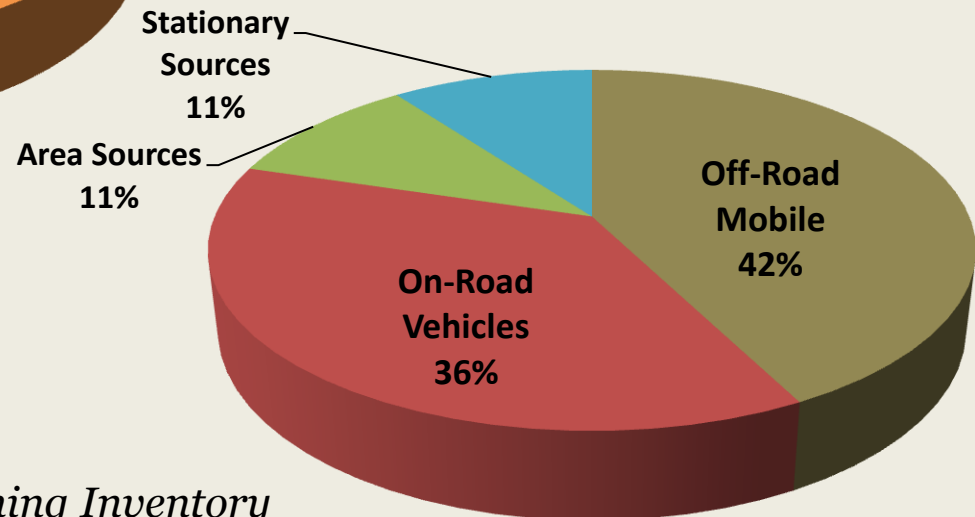


Sources of Ozone*

VOC Emissions = 438 tpd



NOx Emissions = 319 tpd

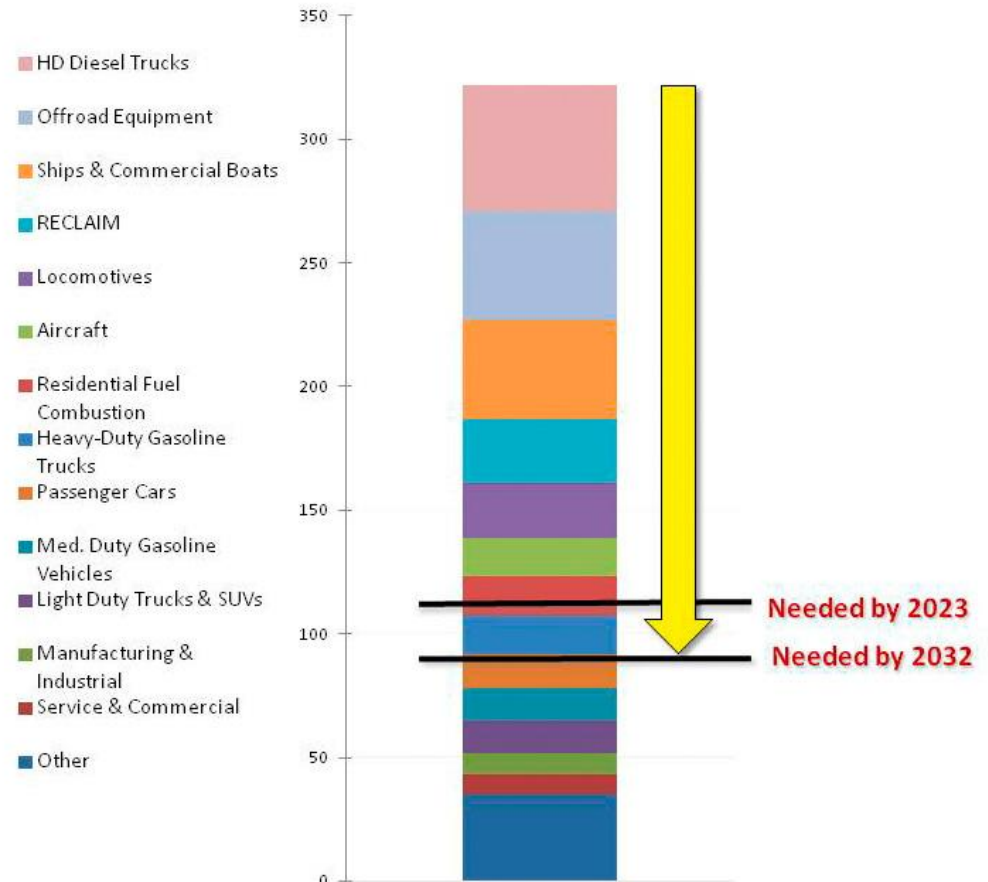


* Year 2023 emissions – Summer Planning Inventory

Emissions Reductions to Meet the Ozone Standards

Nitrogen Oxides Emissions in 2023 with Adopted Standards

Additional Needed Emission Reductions



* Source: Ambient ozone modeling conducted by SCAQMD, 2012; final data

8-hour Ozone Measures

- **Stationary Source Measures:**

- ❑ NOx RECLAIM
- ❑ Coatings, solvents, lubricants, adhesives
- ❑ Mold release products
- ❑ Landfill flares, commercial space heating
- ❑ Truck venting, propane gas refueling
- ❑ Leak detection and repair programs
- ❑ Greenwaste processing (chipping and grinding)
- ❑ Improve start-up, shutdown procedures
- ❑ Incentives, educational programs

- **Reductions: ~6 tpd VOC; ~3 tpd NOx**



8-hour Ozone Measures



- **Mobile On-Road:**

- ❑ Accelerated penetration of zero and near-zero emission vehicles
- ❑ Early retirement of older vehicles
- ❑ Reduce emissions from near-dock railyards



- **Mobile Off-Road:**

- ❑ Extension of SOON provision
- ❑ Incentives to further reduce emissions from marine vessels



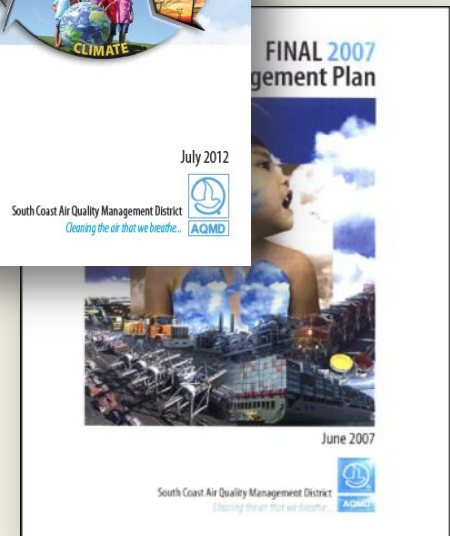
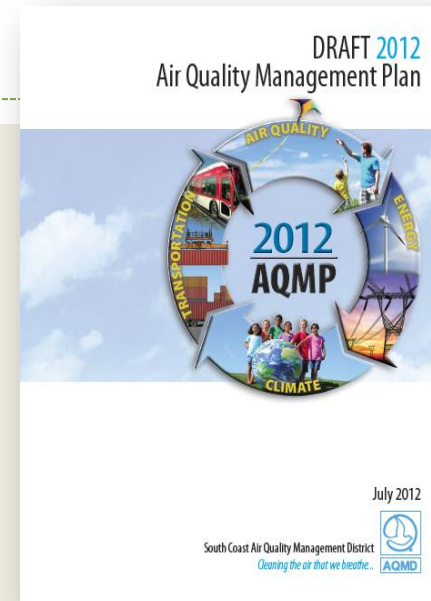
- **Action for Advanced Control Technologies:**

- ❑ Research & development, demonstrations, incentives

- **Reductions: ~8 tpd NOx**

1-hour Ozone Strategy

- **Specified Measures:**
 - ❑ 8-hour ozone measures
 - ❑ 2007 SIP remaining measures
 - ❑ Reductions: 13 tpd VOC; 35 tpd NO_x
- **“Black Box”:**
 - ❑ Long term emission reductions
 - ❑ Not new commitments; subset of 2007 SIP
 - ❑ Reductions: 17 tpd VOC; 150 tpd NO_x
- **Carrying Capacity:**
 - ❑ **VOC:** 410 tpd
 - ❑ **NO_x:** 150 tpd



VMT Emissions Offset Demonstrations



- **Base year vehicle miles traveled (VMT)**
 - 1-hour ozone: 1990
 - 8-hour ozone: 1990 with potential alternative base year of 2002



Main Comments on Draft Plan



- Inclusion of 8-hr ozone strategy
- Timing to submit 1-hour ozone attainment demonstration
- Need for VOC control
- Evaluation of consumer product LVP exemption
- PM2.5 health effects
- Public review and schedule



Revised Draft Plan (Sept.)



- **Changes to the Revised Draft Plan in response to comments**
 - ❑ Contingency measure – tpd reductions (per EPA)
 - ❑ General conformity – set aside
 - ❑ Transportation conformity – pollutant flexibility
 - ❑ NOx RECLAIM – shifted to a contingency measure
 - ❑ Clarifications to several control measures

Draft Final Plan (Nov.)



- **Noted changes to the Revised Draft Plan**
 - ❑ Finalized inventory data, modeling results
 - ❑ Updated precursor equivalency ratios and expanded methodology discussion in Appendix V
 - ❑ Clarified transportation conformity flexibility
 - ❑ Clarification of control measures write-ups (per public comments)
 - ❑ Added RACT/RACM analysis for 1-hour ozone (repeated from Appendix VI)
 - ❑ Added alternative VMT offset base year approach

Socioeconomic Analysis



- Costs of Control Measures
 - Capital, Installation, Operation & Maintenance
 - Including Voluntary/Incentive Measures
 - Cost to Public & Private Sectors and Consumers by Year till 2035
- Benefits of Clean Air (PM2.5)
 - Health, Visibility & Material Benefits
- Job, Price, Competitiveness & Community Impacts
- CEQA Alternatives
- Peer-reviewed and circulated 45-day public review



Impacts and Benefits (average annual)



Draft Plan	Cost (in millions of 2005\$)	Job Impact
PM2.5 Strategy	\$326.55*	-1,620
Ozone Strategy	\$121.59	-1,639
Grand Total	\$448.15	-3,257
Benefit Category	Benefit (in millions of 2005\$)	Job Impact
Total**	\$10,670	42,174

* 99% of cost from implementation of TCMs

** Benefit would be \$3.5 billion with 12,300 projected job gains if considering only committed TCMs.

4-county GDP in 2010 = \$768 billion; Jobs in 2010 = 8.9 million

Average Annual Impact of 2012 AQMP (SCAQMD Portion)

	Costs (in millions \$)		Job Impacts
Control Measures	Total \$121.72		Total -1,646
District PM _{2.5}	\$0.12		-4
Ozone Strategy	\$121.59		-1,639
Clean Air Benefits		Total \$2,958	Total 9,037
Health		\$2,247	3,910
Visibility		\$696	4,947
Materials		\$14	179

Environmental Analysis



- **Program Environmental Impact Report**

- ❑ 45-day public comment period: Sept 7, 2012 – Oct 23, 2012
- ❑ All PM2.5, ozone, & contingency CMs analyzed for potential adverse environmental impacts
- ❑ Nine environmental topic areas analyzed:
 - Aesthetics; air quality; energy; hazards/hazardous materials; hydrology/water quality; land use, noise, solid/hazardous wastes, & transportation/traffic
- ❑ Less than significant impacts for:
 - Aesthetics, land use, & solid/hazardous wastes



Environmental Analysis (*Continued*)



- **Four project alternatives identified**

- ❑ **Alternative 1** – No Project (*Continued implementation of the 2007 AQMP*)
- ❑ **Alternative 2** – PM2.5 Plan with localized CMs that apply only to Mira Loma
- ❑ **Alternative 3** – Greater reliance on NOx emission reductions
- ❑ **Alternative 4** – PM2.5 only CMs



Environmental Analysis (*Continued*)



- **Comments received on the Draft PEIR**
 - ❑ Baseline inventory
 - ❑ Control measure descriptions
 - ❑ Alternative 3 supporting and opposing
 - ❑ Support for Alternative 4
 - ❑ Level of detail of the analysis
 - ❑ Minor corrections to existing setting



Public Participation



- Public process since July 2011 (17 months)
- 80 comment letters received; over 400 comments
- Program EIR and Socioeconomic Report – 45 day review
- 7 public workshops; 8 regional hearings
- 13 AQMP Advisory Group meetings
- 75 outreach meetings and 65 presentations
 - ❑ Local stakeholders
 - ❑ Focus groups
 - ❑ Topical workshops



Next Steps

- **Continue outreach efforts**
- **Released Draft Final:**
November 7, 2012
- **New regional hearings:**
November 13-15, 2012
- **Adoption hearing:**
December 7, 2012
- **Submit to CARB/EPA:**
December 2012/January 2013

