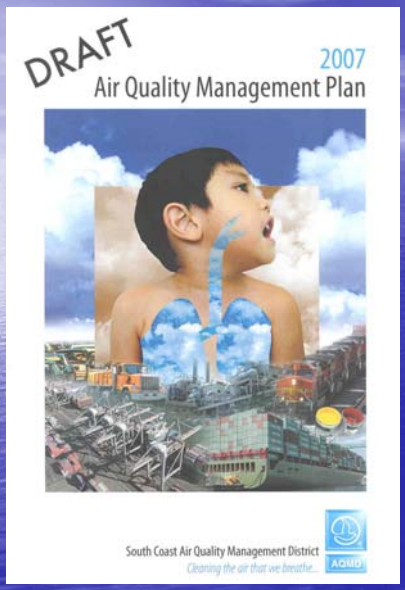


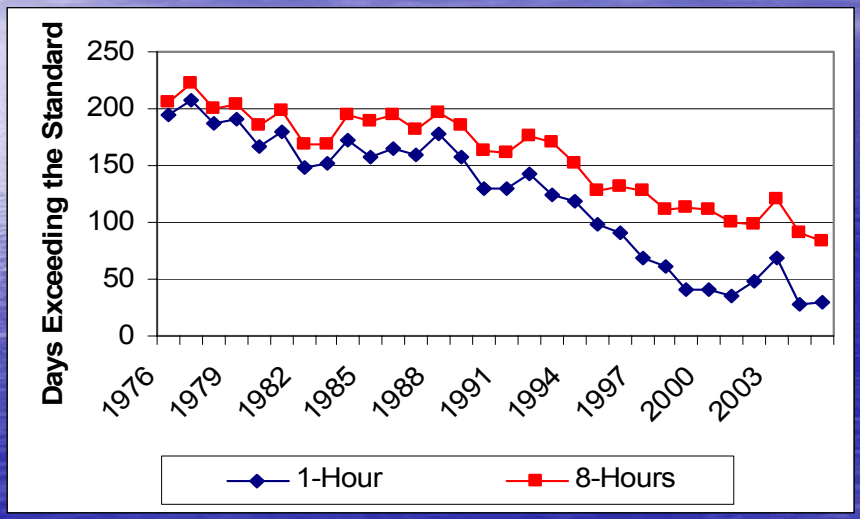
Draft 2007 Air Quality Management Plan

Faster Freight
Cleaner Air 2007
February 26, 2007

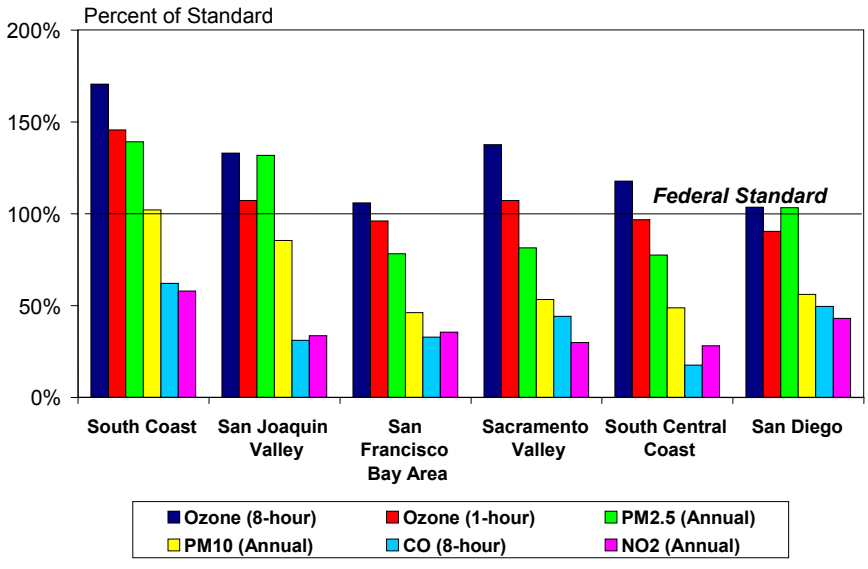
Overview

- Regional Blueprint to Meet Air Quality Standards
- Integrated Plan to Address Both PM2.5 and 8-hour Ozone Standards
  - PM2.5: 2015
    - Building Blocks
      - ⇒SOx, PM2.5, NOx. VOC
  - 8-Hour ozone: 2024
    - Building Blocks
      - ⇒VOC, NOx

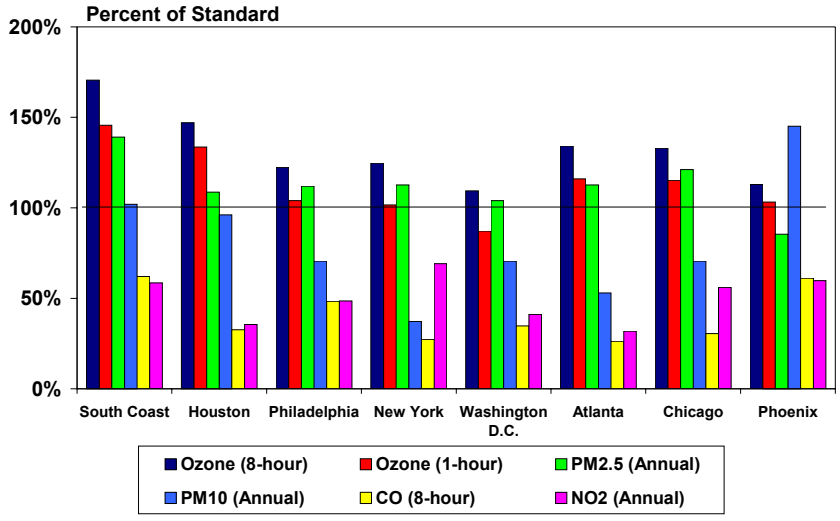
Air Quality Trend
Days Exceeding Ozone Standards



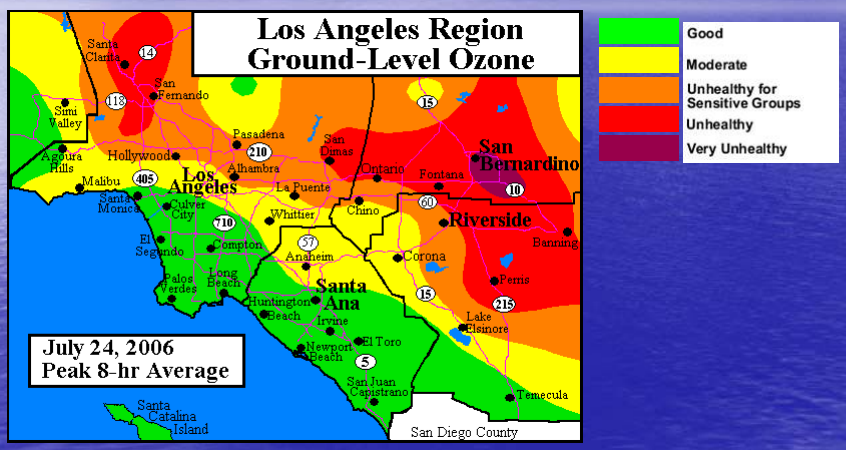
2005 South Coast Air Basin Quality
Compared to Other California Air Basins



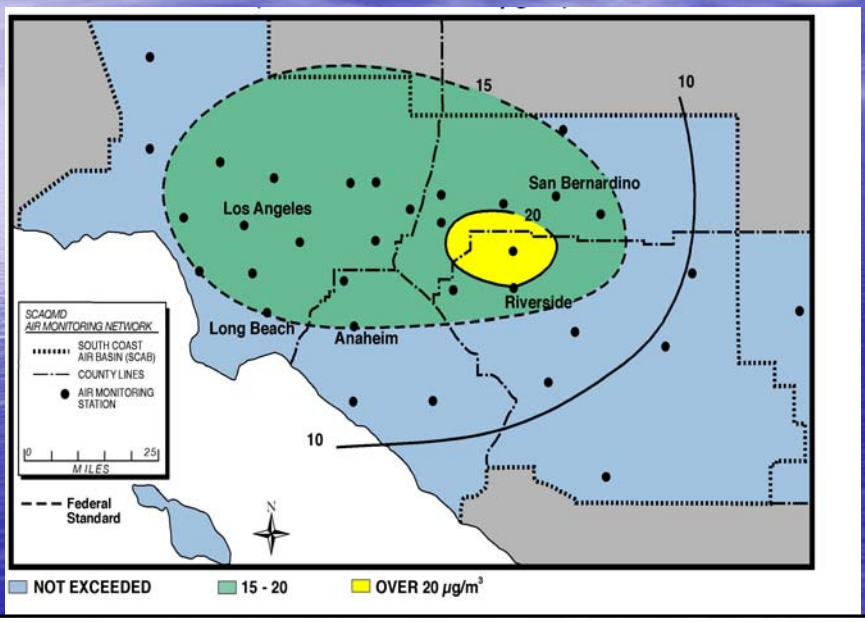
2005 South Coast Air Basin Quality Compared to Other U.S. Cities



Severe Air Quality Problem



2005 Annual Average PM2.5 Concentration



Recent CARB Assessment of PM Health Effects

SCAB Cases/Year due to PM2.5 *

Premature Deaths	5,400
Hospitalizations	2,400
Asthma & Lower Respiratory Symptoms	140,000
Lost Work Days	980,000
Minor Restricted Activity Days	5,000,000

* 1999-2000 Air Quality Data

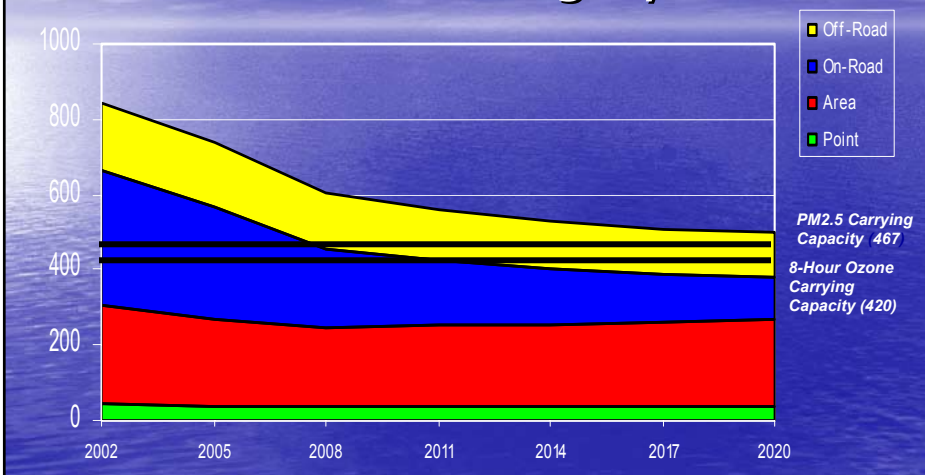
CARB Ports And Goods Movement Health Impact Assessment

- 2,400 Premature death per year
- 2,000 Respiratory hospital admissions
- 830 Cardiovascular hospital admissions
- 62,000 Asthma and lower respiratory symptoms
- 3,900,000 Restricted activity days

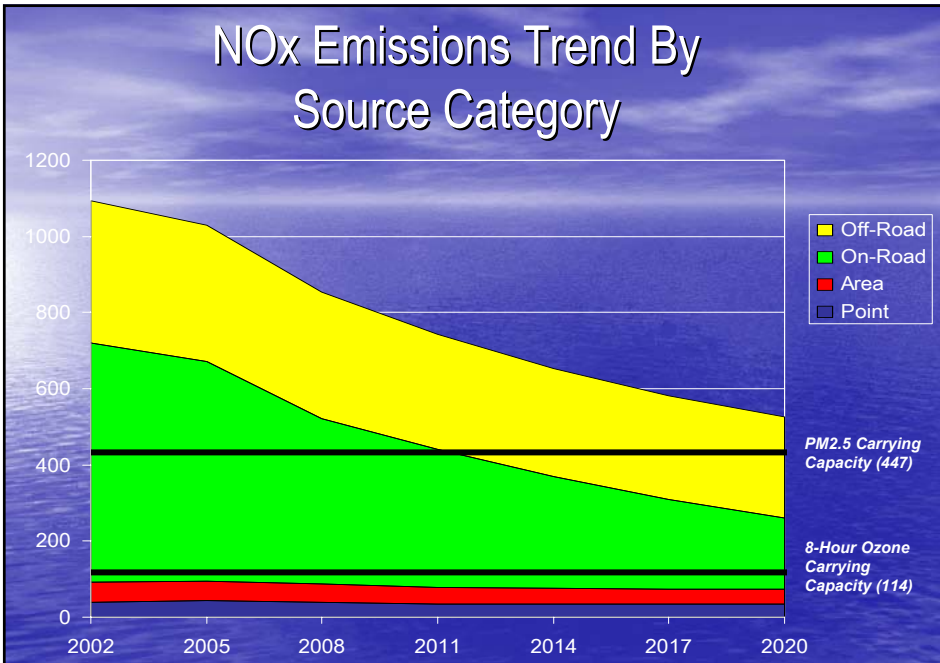
The Challenge

- Significant reductions needed for attainment
- Continued underestimation of mobile source inventories
- Delayed mobile source controls
- Goods movement growth
- Only 7 years for PM2.5 attainment
- Incentive/Grant funding
- Actions needed now

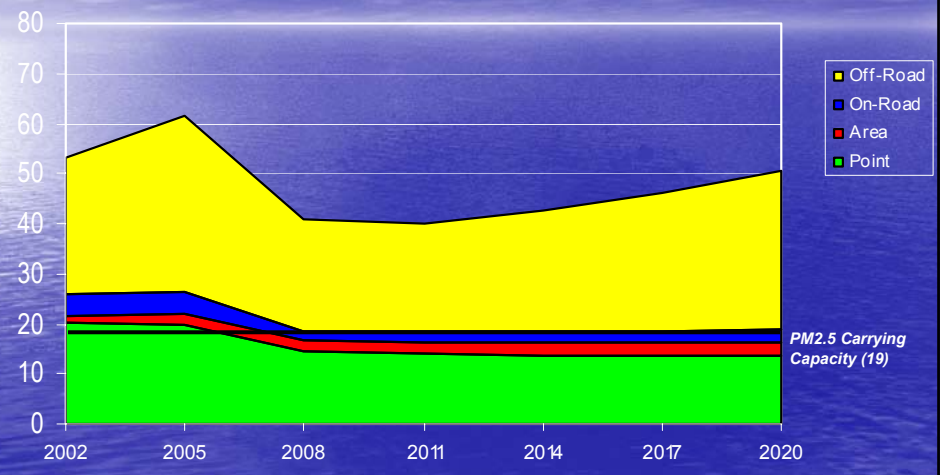
VOC Emissions Trend By Source Category



NOx Emissions Trend By Source Category



SOx Emissions Trend By Source Category

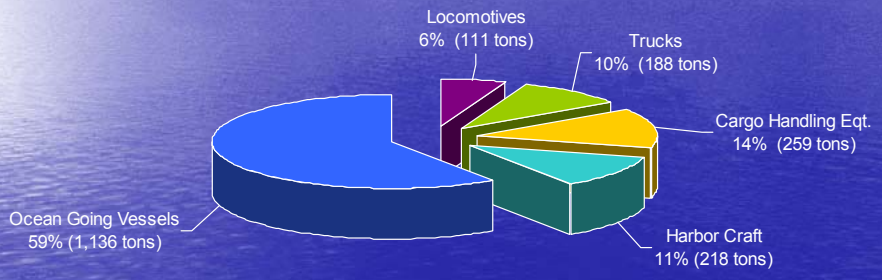


Needed Pollution Reduction (tons per day)

	2014	2023
NOx	203 (31%)	389 (77%)
VOC	60 (11%)	116 (22%)
SOx	24 (57%)	---
PM2.5	13 (13%)	---

International Goods Movement

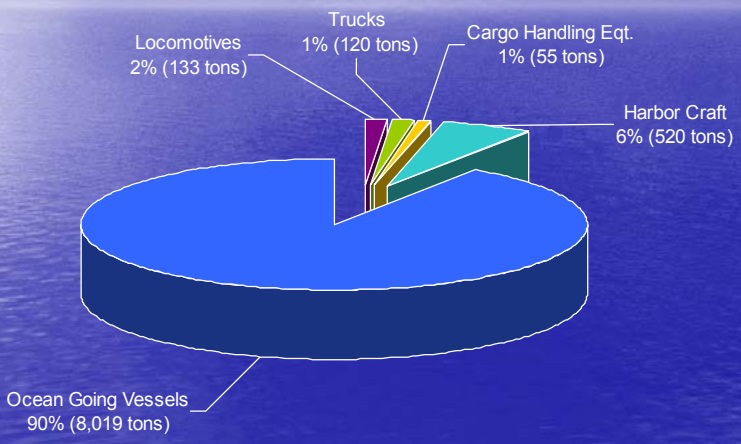
Diesel Particulate Matter Emissions (2001)



1,912 tpy = 5.2 tpd

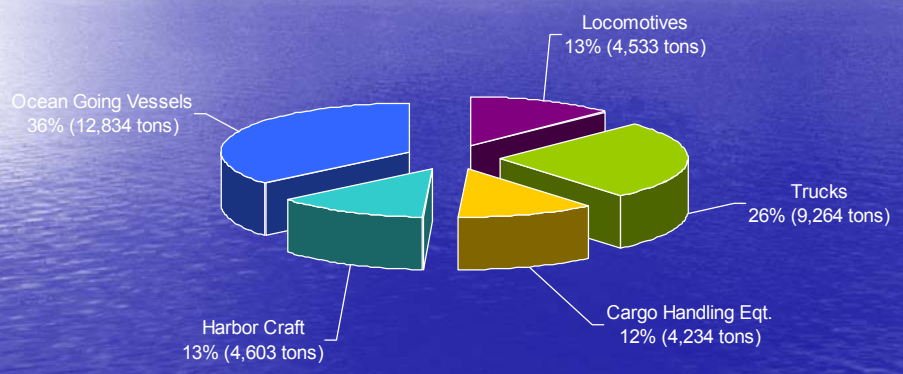
International Goods Movement

SOx Emissions (2001)



8,847 tpy =24.2 tpd

International Goods Movement
NOx Emissions
(2001)

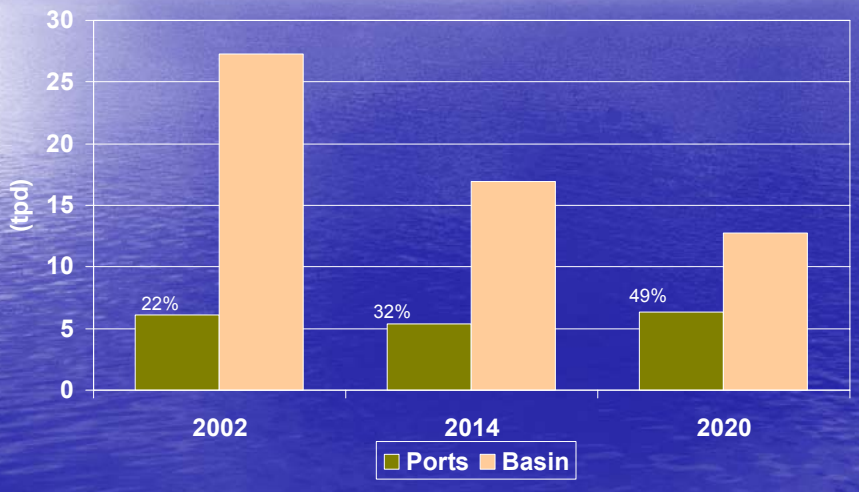


35,468 tpy = 97.2 tpd

Goods Movement Growth
2001-2020

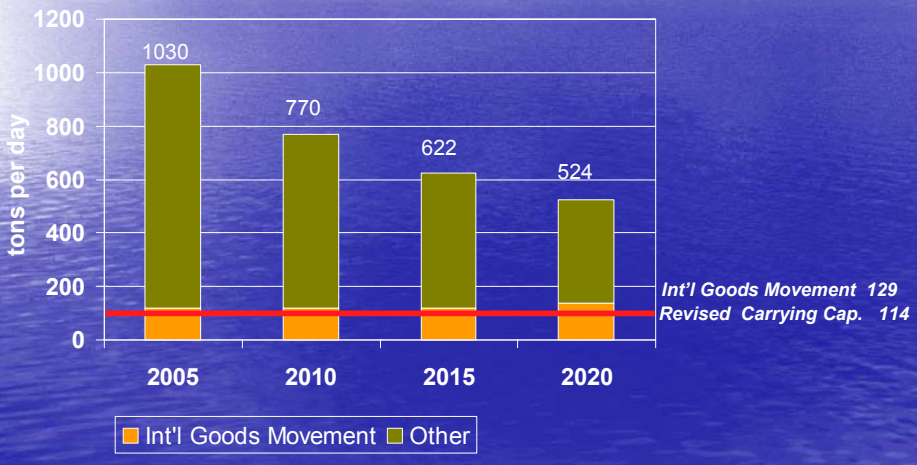
- 300 % increase in cargo through the ports
- 170% increase in truck travel
- 150% increase in rail cargo

Contribution of Port-Related Sources to Regional Diesel PM



NOx Baseline Emissions and 8-Hour Ozone Carrying Capacity

(tons per day)



Control Strategy Design

- PM2.5 Strategy
  - Maximum controls of SOx and directly emitted PM2.5
  - Necessary NOx controls
  - Modest VOC controls to ensure progress toward ozone attainment
- 8-Hour Ozone Strategy
  - Continue NOx control programs
  - Necessary VOC reductions

Draft Final 2007 AQMP Control Strategy

- District's Stationary and Mobile Source Control Measures
- State and Federal Control Measures
  - CARB's Statewide Strategy
  - District Staff's Proposed Additional State and Federal Measures
- SCAG's RTP and TCMs
- Long-Term Strategy

District's Stationary and Mobile Source Control Approaches

- Facility Modernization
- Energy Efficiency/Conservation
- Good Management Practices
- Market Incentives/Compliance Flexibility
- Area Source Programs
- Emission Growth Management
- Mobile Source Programs

District's Proposed Measure for Ports and Related Sources

- Backstop Measure for Ports and Port-Related Sources
  - To ensure adequacy and effective implementation of port measures
  - Meet AQMP 2014 and 2020 targets and 2011 interim progress
  - Reduce health risk by 85% below 2000 levels, by 2020
  - Prevent significant emission increases and health risk from port projects

Mobile Source Control Approach

- Goods movement measures at ports
- Accelerate fleet turnover
  - Passenger vehicles
  - HHDT
  - Pleasure craft
- Fuel reformulation and fuel alternatives
- Exh/Evap. Stds for recreational vehicles and pleasure craft
- Retrofits (e.g., PM trap)

Goods Movement Measures

- CARB's Goods Movement Plan
  - Ocean-Going Vessels
  - Harbor Craft
- Clean Air Action Plan
  - Port Trucks
  - Locomotives
  - Cargo Handling Equipment

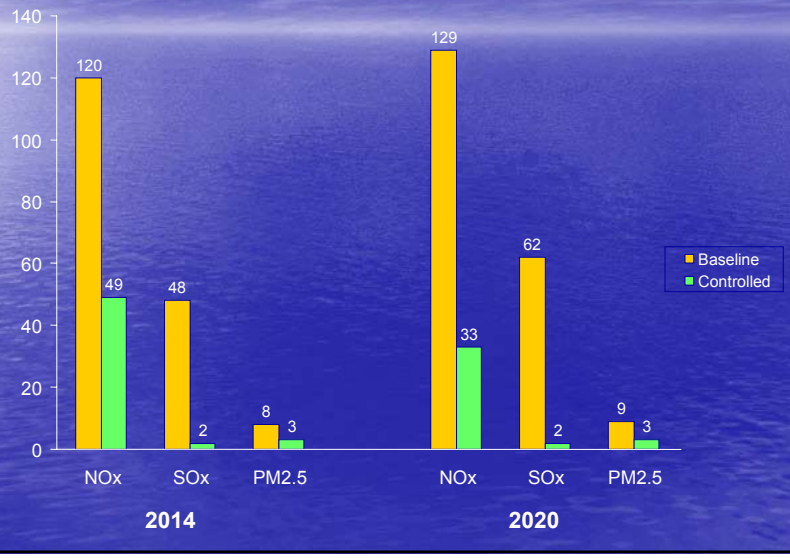
CARB's Proposed Strategy

- Ocean-Going Vessels
  - Hotelling Emission controls
  - Maine Engine Clean Fuel and Controls
  - Vessel Speed Reduction
- Port Truck Modernization
- Introduction of Tier III Locomotives
- Cleaner In-Use Harbor Craft

Proposed Additional AQMP Measures Affecting Goods Movement

- Expanded Port Trucks Modernization
- Tier III Locomotives
- Cargo Handling Equipment Modernization
- Fuel Reformulation and Use of Diesel Fuel Alternatives

Reduction Targets for Port-Related Sources



SCAG's Regional Transportation Strategy and Control Measures

- Based on Adopted 2004 Regional Transportation Plan (RTP)
- Transportation Control Measures (TCMs) Based on Adopted 2006 Regional Transportation Improvement Plan (RTIP)

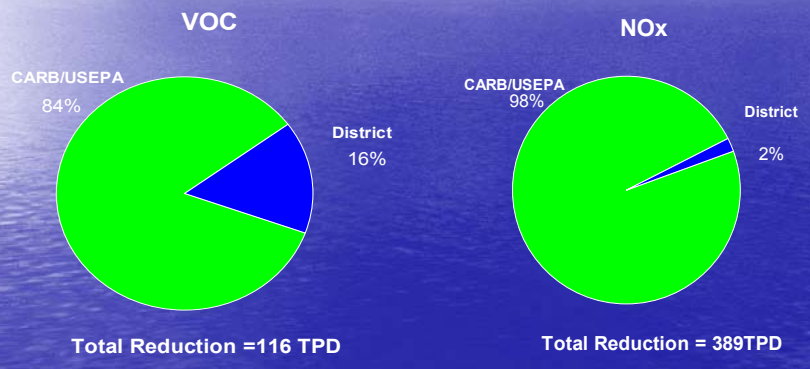
Goods Movement Related Programs

- 2004 RTP Goods Movement Program
  - Expected to reduce congestion and improve air quality
  - Dedicated toll-financed truck lanes
  - Truck climbing lanes
  - Regional rail capacity improvement program, including grade separation projects
- On-Going Multi-Partner Program: SCAG, CTCs, COGs, Ports, BTH, CARB, AQMD, U.S. EPA, U.S. DOT
  - Develop comprehensive system-wide goods movement plan
  - Mitigate existing impacts, improve future air quality, and accommodate facility needs
  - Consider alternative freight transport technologies

Draft 2007 AQMP Long-Term Strategy

- Builds on PM2.5 Control Strategy
- NOx Heavy Control Approach for 8-hour Ozone Attainment
- Reliance on 182(e)(5) Measures
- Size of the "Black Box"
  - NOx: 180 t/d
  - VOC: 27 t/d

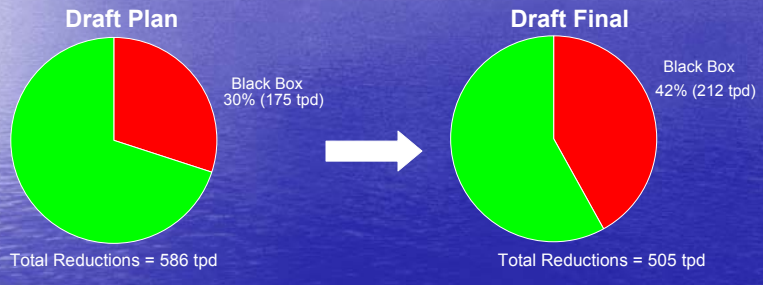
Reduction Responsibility By Agency



Total Reduction =116 TPD

Total Reduction = 389TPD

Ozone Attainment Strategy



Total Reductions = 586 tpd

Total Reductions = 505 tpd

Implementation Issues

- Funding
  - Operator Pays v Public Funding
  - Bond Initiative, Container Fee
  - Key need: Truck Measures
- All Available Implementation Tools
  - Ports' authority as landlords
  - Rulemaking
  - Funding
- Federal Help
  - E.g. Locomotive emissions standards

Elements Essential for Success

- Close collaboration among agencies and businesses for finding best solutions
- Significant reductions from existing levels required while accommodating projected growth
- Implementation Mechanisms
  - Rulemaking
  - Incentive-Based Programs
  - Public/Private Funding
  - Legislative Support

Key Messages

- California has worst A.Q. in nation
- Health impacts higher than previously estimated
- Meeting federal attainment deadlines difficult to almost impossible
- All feasible control strategies needed
- Reductions from goods movement essential for attainment

Next Steps

- Final Draft AQMP – Feb 2007
- Additional Public Workshops – Mar 2007
- Regional Hearings – April 2007
- Adoption Hearing – May 2007
- CARB Hearing – May 2007
- Submittal to U.S. EPA – June 2007

Cleaning the air that we breathe.