

Proposed State Strategy for the California State Implementation Plan (SIP)

Air Resources Board
Planning and Technical Support Division
September 27, 2007
Diamond Bar, CA



Reach Higher to Achieve Air Quality Goals

- ARB staff proposal strengthened with:
 - Additional NO_x reductions to meet South Coast District's PM_{2.5} target
 - New emission reductions for the San Joaquin Valley to advance ozone air quality progress

Collaboration / Actions

- Air Resources Board
- South Coast AQMD
- Southern Calif. Assn. of Governments
- San Joaquin Valley Air Quality Task Force

Regulations



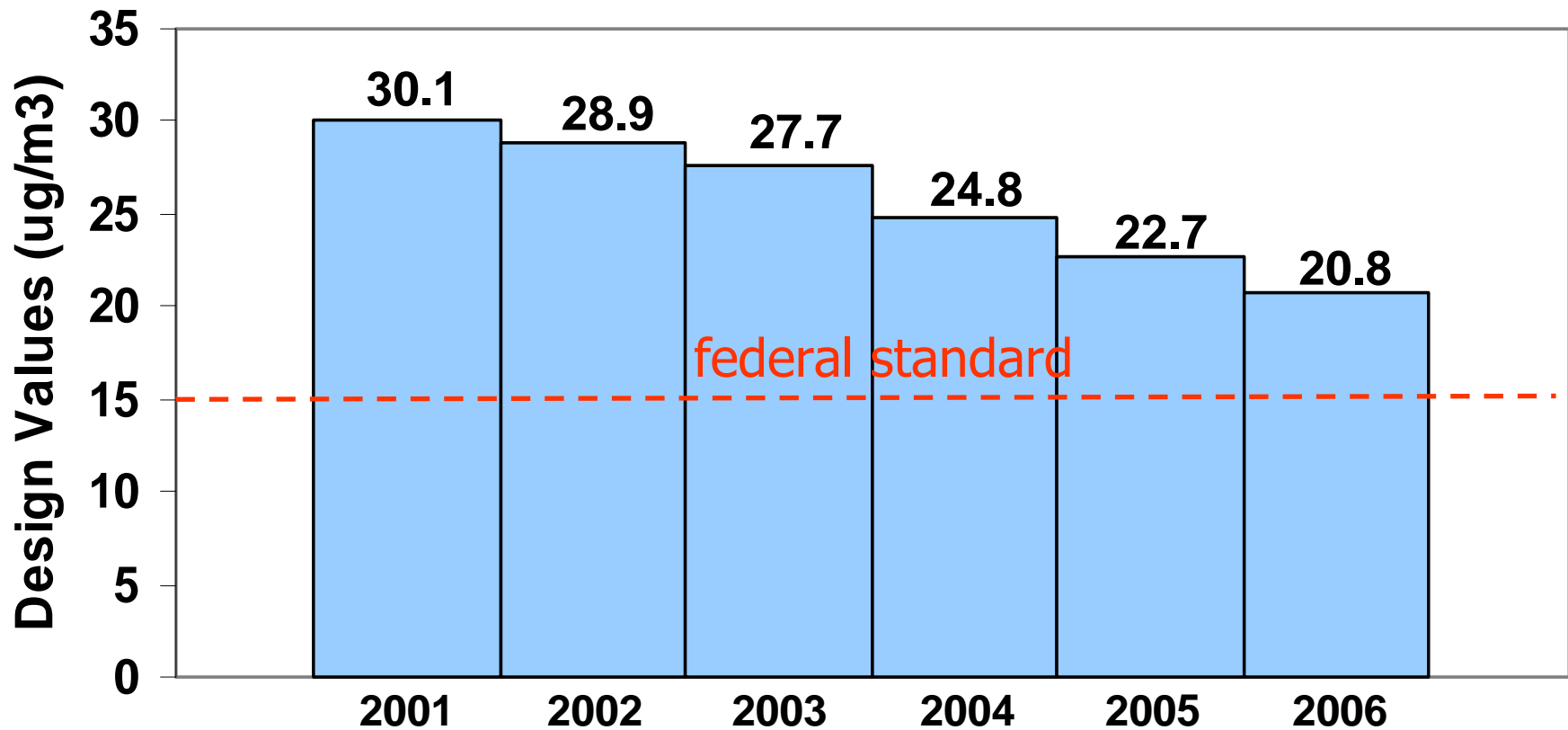
Incentives



Meeting the South Coast District's PM2.5 Emission Reduction Target

PM2.5 Progress

South Coast PM2.5 Levels -- Annual Average
(Rubidoux - Riverside)



District's PM2.5 Emission Reduction Target

	NOx tons/day 2014
District Emission Reduction Target	203
Reductions from June Proposal	129
Additional Reductions Needed	74



Working Together to Reach the Target

- ARB and Air District staff collaboration
- 3-Agency (ARB, District, SCAG) staff recommendation
- 3-Agency Board-level team

Additional Actions to Meet District's PM2.5 Target (NOx Equivalent Reductions – 2014)

Action / Measure	Responsible Agency	NOx
Enhanced Heavy-Duty Truck Measure	ARB	27
Co-Benefits from Greenhouse Gas Reduction Measures	ARB	3
SOON Program Opt-in for Construction Equipment	District	12
Residential Wood Burning and Commercial Cooking Rule	District	11
Additional Incentive Funds for Port-Related & Other Sources	District/ARB	3
Funding for Selective Catalytic Reduction on Metrolink Trains	District/ARB	3
DMV Registration Fees Used for SIP-Creditable Projects	Local Gov	4
Federal Funding to Mitigate Locomotive Emissions in 2014 Pending Implementation of New Locomotive Standards	Federal Gov	10
SIP Credit for Moyer Program Projects Already Funded	District	3
Additional Reductions		76

ARB Actions

- Enhanced Heavy-Duty Truck Measure
 - Equivalent to MY2006 and older meeting MY2007 emission standards by 2014
 - Port trucks
 - Private fleets
- Co-Benefits of GHG Reduction Measures
 - Energy efficiency equates to some criteria pollutant reductions



30
tpd

District Actions

- Wood Burning and Commercial Cooking Rule
 - Direct PM2.5 reductions (11 tpd NOx equivalent)
- SOON Opt-In for Construction Equipment
 - \$120M from Moyer Program
- SCR on Metrolink Trains
 - \$15M (\$300K x 50 trains)
- Incentives for further reductions
- Credit for already-funded Moyer projects



32
tpd

Local Government and Federal Actions

- Motor Vehicle Registration Fees
 - Local Cities and Counties (\$19M/yr.)
 - Use good portion on SIP-creditable projects
 - MSRC surplus emission reductions
- Federal Actions
 - Mitigate locomotive emissions

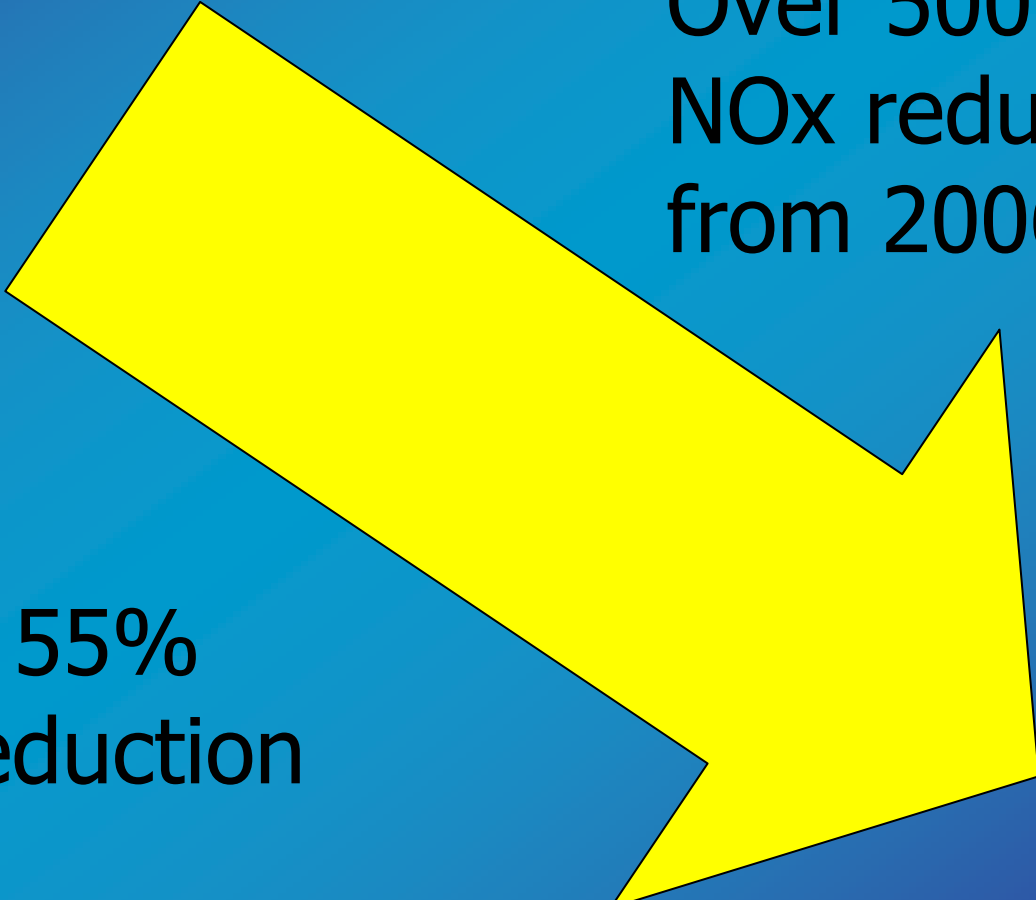


14
tpd



Enhanced State Strategy

Over 500 tons of
NOx reduced
from 2006-2014



55%
Reduction



Further Development of Long-Term Measures

- New technologies needed to meet ozone standard in South Coast and SJV
- Staff will explore potential strategies
- 3-Agency discussion paper within four months



Actions to Accelerate Ozone Air Quality Progress in the San Joaquin Valley



Outreach

- Town hall meetings in Parlier (Aug 22), Arvin (Aug 29), and Merced (Nov 7)
- Task force meetings: Aug 22, Aug 30, Sept 24, Oct 29, Nov 7



Strengthen SIP for San Joaquin Valley

- New mobile source reductions
 - Today's proposal
- ARB staff review of stationary sources
 - Review concepts in ISSRC report
 - Look for further reductions
 - Report to Board in November




Enhanced Mobile Source Reductions

- Construction equipment - “SOON”
 - San Joaquin Valley and South Coast
- On-road trucks
 - Enhanced proposal
- Mobile agricultural equipment
 - Quantify benefits

Additional Actions to Accelerate Ozone Air Quality Progress in the Valley

NOx Emission Reductions – tons/day in 2017

Action / Measure	Responsible Agency	NOx
SOON Program Opt-in for Construction Equipment	District/ARB	4
Enhanced Heavy-Duty Truck Measure	ARB	17
Mobile Agricultural Equipment	ARB	5-10
Stationary Sources	District	Under evaluation
Additional Reductions		26-31



2007 South Coast 8-hour Ozone and PM2.5 State Implementation Plan



NAAQS Attainment Status

Ozone NAAQS: 0.085 ppm, 8-hour average

- Basin design value 0.129 ppm
- 85 days/year over the standard
- Severe-17 classification: 2021 deadline
- District requests bump-up to extreme, 2024 deadline

PM2.5 NAAQS: 15.0 ug/m³, annual average

- Basin annual average 20.8 ug/m³
- NO_x, ROG, SO_x, and direct PM2.5 contribute
- 2015 attainment deadline



South Coast SIP Process

- District, ARB and SCAG roles
- District establishes carrying capacity
- Controls determined by implementing agency
- SIP needs ARB approval

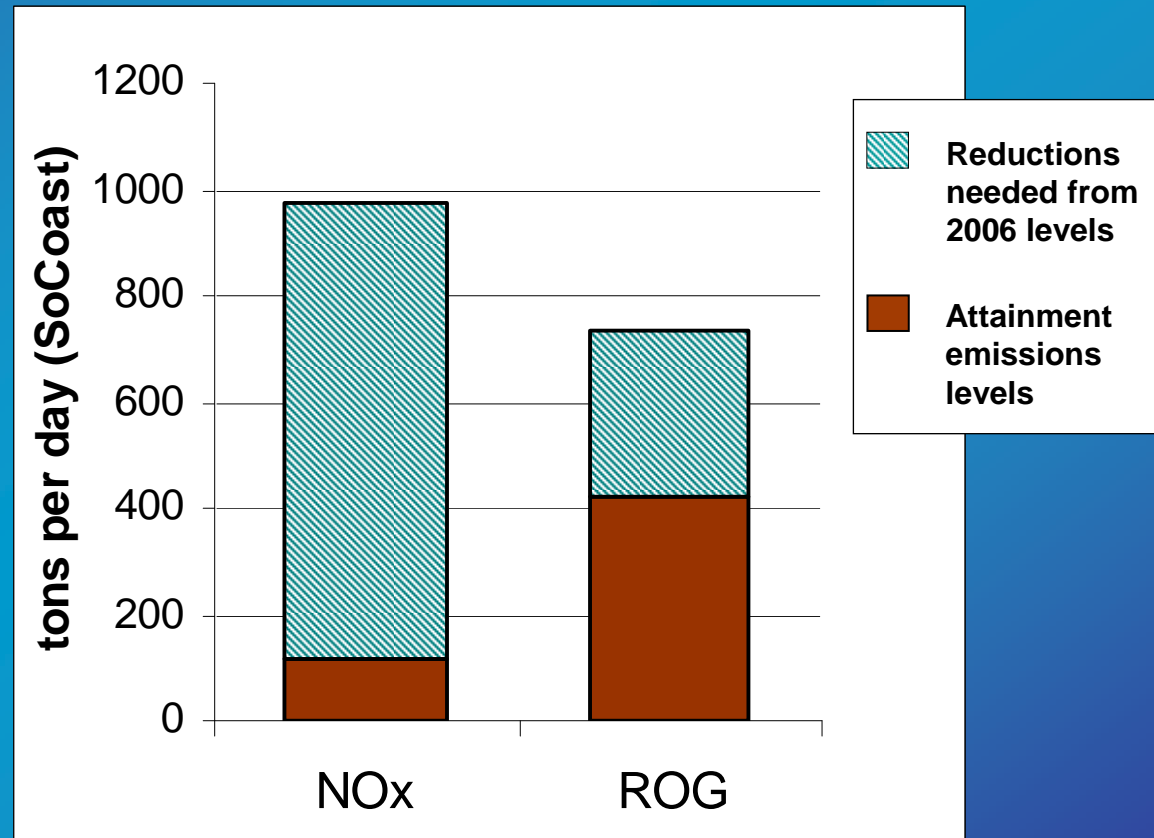
Ozone Attainment Targets

**South Coast
reduction target:**

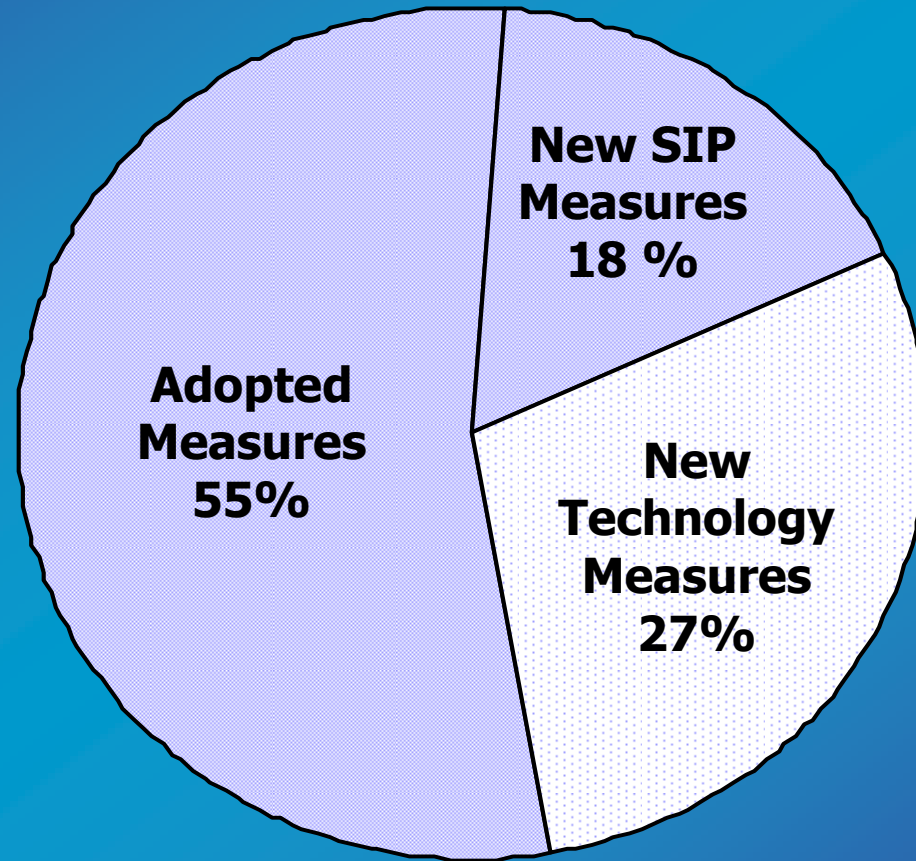
~ 90% NO_x

~ 45% ROG

**Reductions
needed by 2023**



2023 NOx Commitment South Coast



2006 Baseline: 972 tpd

2023 Carrying Capacity: 114 tpd

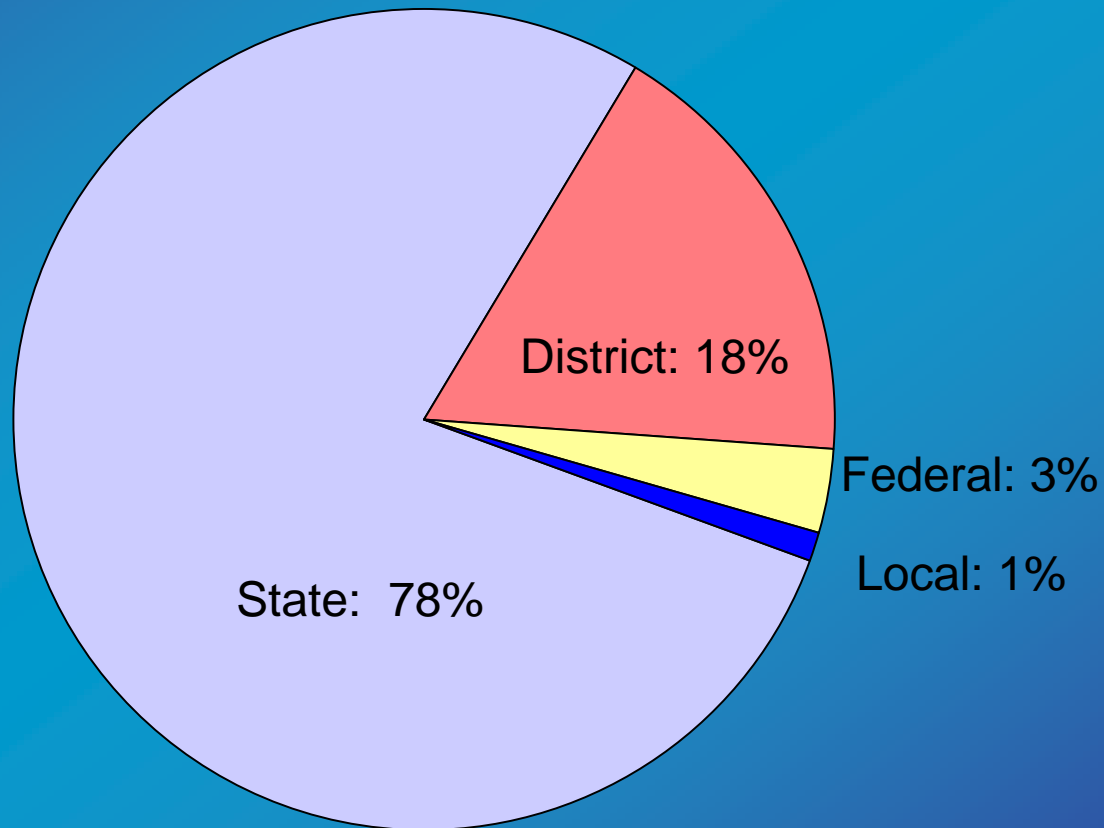


PM2.5 Reduction Targets

- South Coast 2014 Reduction Targets (from 2006 levels)
 - ~ 55% NOx
 - ~ 35% ROG
 - ~ 70% SOx
 - ~ 15% directly emitted PM2.5
- Supplemental analysis indicates possible attainment with lower reductions
- New 3-agency proposal meets target

PM2.5 Target Reductions

Pollutant Weighted



Pollutant Weighting:

ROG = 1

NOx = 3

SOx = 10

PM2.5 = 5



Local Plan Elements

- Short- and mid-term measures
 - 16 quantified control measures
 - Focus on bringing older technology up to date
 - Additional consumer products reductions
 - Residential fireplace reductions
- Long-term measures
 - Advanced technologies, improved efficiencies
 - Reductions are not yet quantified



AQMP Ports Backstop Measure

- Submit District commitment to adopt backstop rule
- Emission goals would not establish enforceable SIP commitments
- Emission targets will be further evaluated during District rulemaking



Coachella Valley Ozone SIP

- Part of South Coast District in Salton Sea Air Basin
- Impacted by South Coast transport
 - Coachella emissions are 5% of SCAB emissions
- Classified as Serious with 2010 attainment date
- Reclassification to severe-15 requested
 - 2019 attainment date
- District predicts attainment with new local and state measures, upwind reductions



Other SIP Requirements

- Reasonable Further Progress (RFP)
- Contingency measures
- Reasonably available control technology/measures
- Public participation & notification
- Revised conformity budgets
 - ARB adoption in November



SIP Commitments

- Achieve emission reductions by specific dates
- Propose defined new SIP measures by specific dates
- Long-term strategy commitment (new technology)

Recommendations



Recommendations for Board Action

State Strategy

- Adopt proposed State Strategy for California's 2007 SIP, including proposed enhanced commitments for South Coast in 2014 and San Joaquin in 2017.

SIP administrative documents

- Adopt Infrastructure SIP, Interstate Transport SIP



Recommendations (cont.)

South Coast

- Approve reclassification from Severe-17 to Extreme for 8-hour ozone
- Approve request for extension of PM2.5 attainment deadline
- Approve 8-hour ozone SIP
- Approve PM2.5 SIP

Coachella Valley

- Approve reclassification request and attainment demonstration



Next Steps: ARB Actions to Implement State Strategy



Board Action: 2007

- Modifications to Reformulated Gasoline Program (done)
- Enhanced Vapor Recovery for Above-Ground Storage Tanks (done)
- Cleaner In-Use Off-Road Equipment (done)
- Cleaner Main Ship Fuel
- Ship Speed Reduction
- Shore Power for Ships (electrification)
- Clean Up Existing Harbor Craft



Board Action: 2008

- Cleaner In-Use Heavy-Duty Trucks
- Port Truck Modernization
- Cleaner Ship Auxiliary Engines
- Cleaner Line-Haul Locomotives (enforceable agreement)
- Consumer Products Program I



Board Action: 2009-2012

2009

- Cleaner In-Use Agricultural Equipment
- New Emission Standards for Recreational Boats
- Expanded Off-Road Recreational Vehicle Emission Standards
- Additional Evaporative Emission Standards

2010-2012

- Consumer Products Program II