



# Draft 2016 Air Quality Management Plan

**Clean Fuels Program  
September 2016**



# Background



U.S. EPA sets National Ambient Air Quality Standards (NAAQS) for criteria pollutants

Areas designated attainment or nonattainment

If nonattainment, state submits State Implementation Plan (SIP) to demonstrate how and when NAAQS will be achieved, maintained and enforced

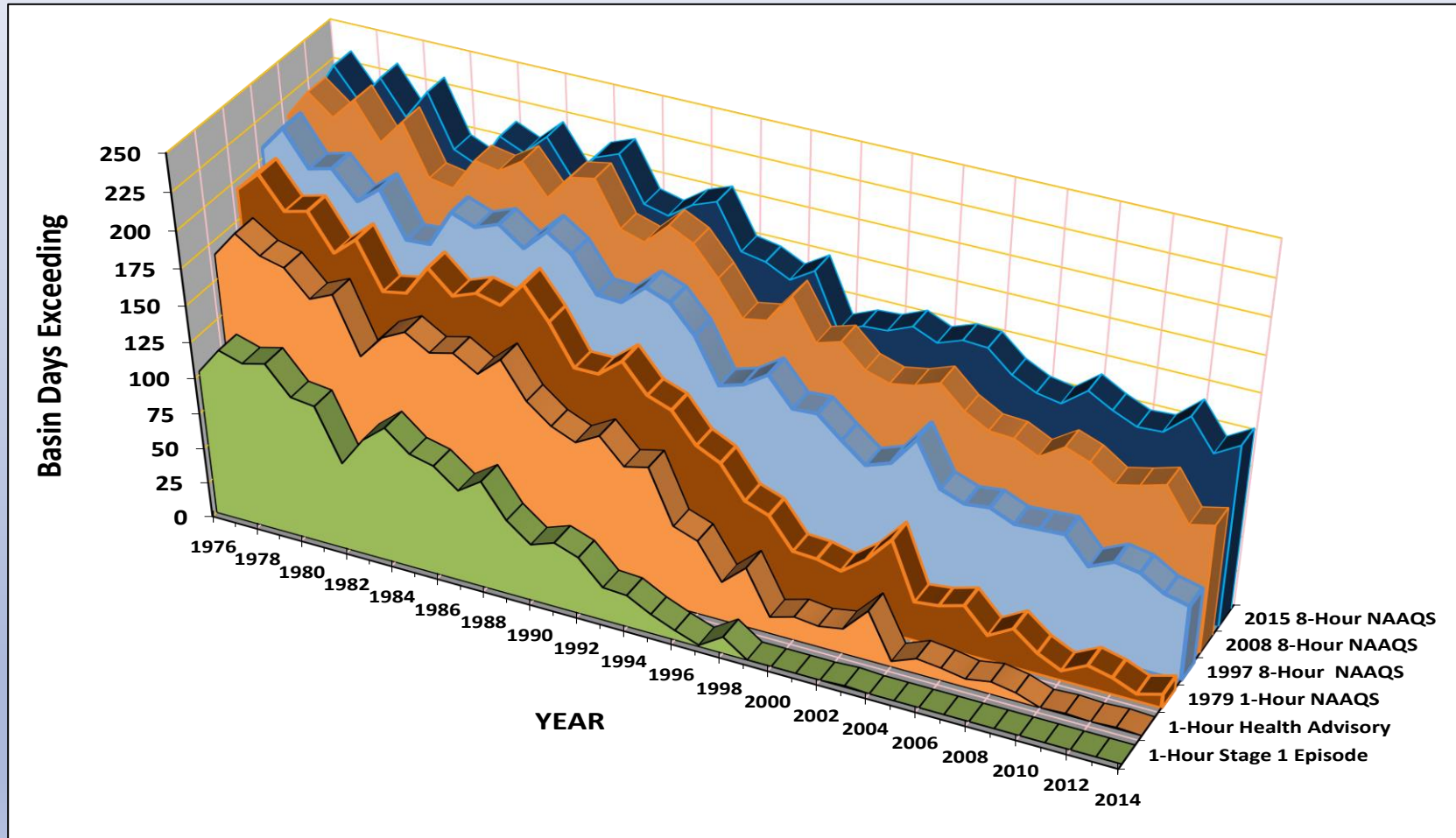
California Health & Safety Code requires AQMP since 1979

Blueprint for how to meet and maintain state and federal air quality standards

AQMP serves as the SIP for South Coast and Coachella Valley

The 2016 AQMP will be SCAQMD's 11th Plan

# Air Quality Trends (ozone)



***Air quality has dramatically improved; however, region still suffers from some of the worst air pollution in the nation***

Number of Days Exceeding Current and Former Ozone NAAQS

# Standards to be Addressed in Plan

- Clean Air Act requires attainment of standard to be achieved as “**expeditiously as practicable**” but no later than attainment year listed.
- Integrated Plan to address all standards in 2016 AQMP

Criteria Pollutant	Standard	Classification	Latest Attainment Year	SIP Submittal Due Date
8-hour Ozone	75 ppb	Extreme	2031	July 20, 2016
Annual PM2.5	12 $\mu\text{g}/\text{m}^3$	Serious*	2025	October 15, 2016
24-hour PM2.5	35 $\mu\text{g}/\text{m}^3$	Serious	2019	August 12, 2017
8-hour Ozone	80 ppb	Extreme	2023	Update
1-hour Ozone	120 ppb	Extreme	2022	Update

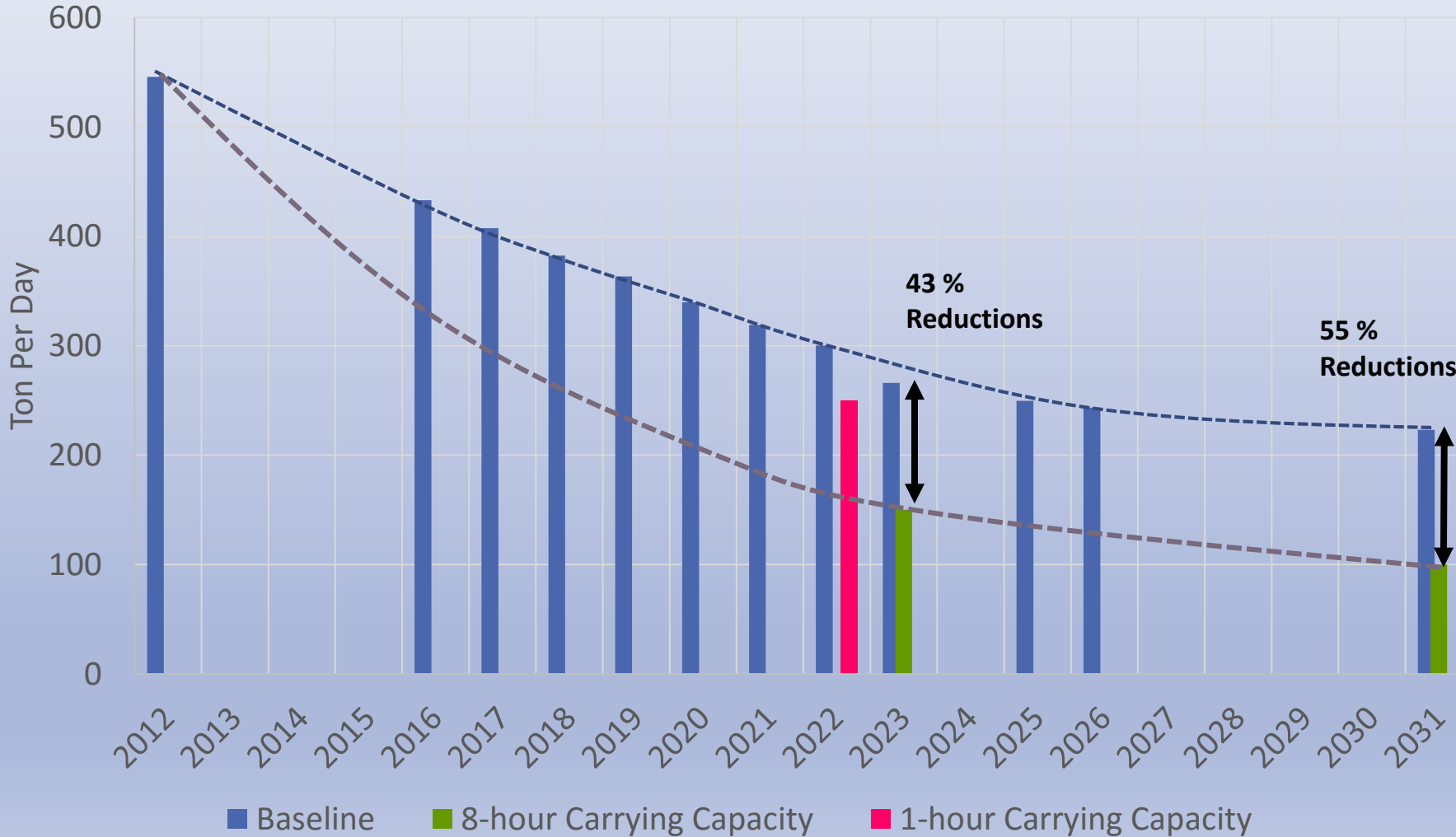
\*Draft 2016 AQMP requests re-classification to ‘serious’ from ‘moderate’

An aerial photograph of a city, likely Los Angeles, showing a dense urban landscape with numerous buildings and a prominent multi-lane highway in the foreground. The text "THE CHALLENGES" is overlaid in the center in a large, white, sans-serif font.

# THE CHALLENGES

# Emission Reductions Needed

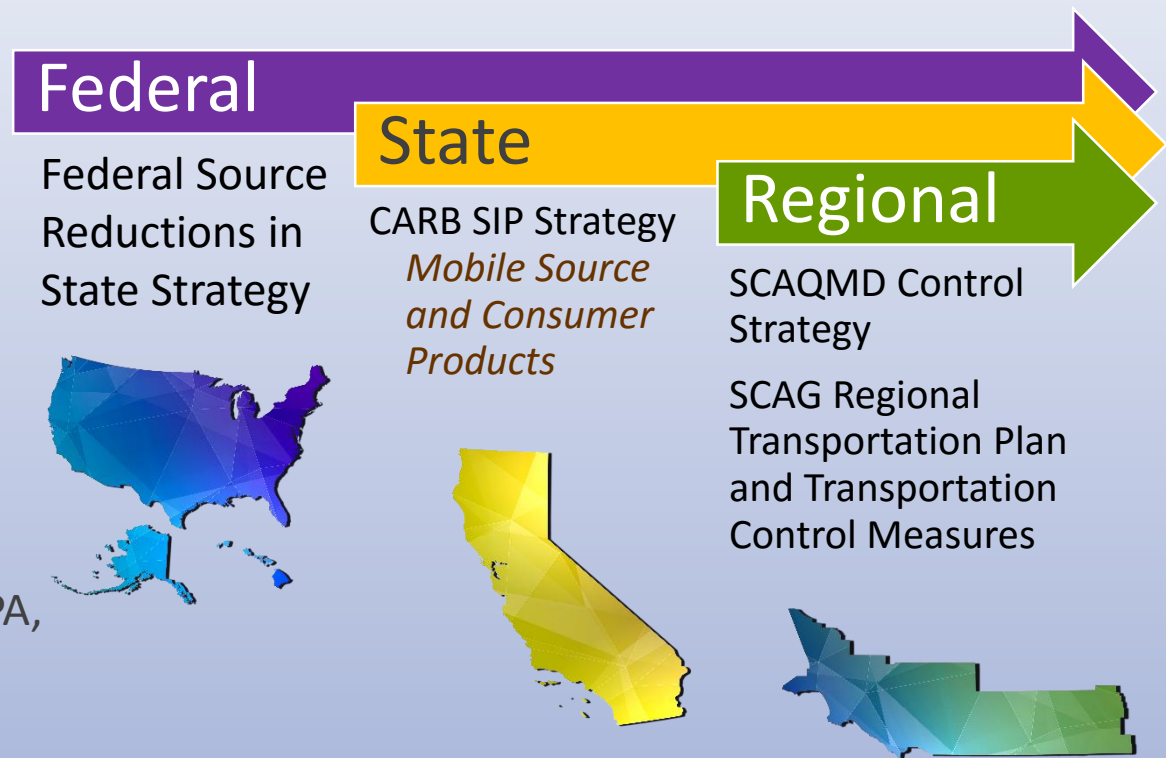
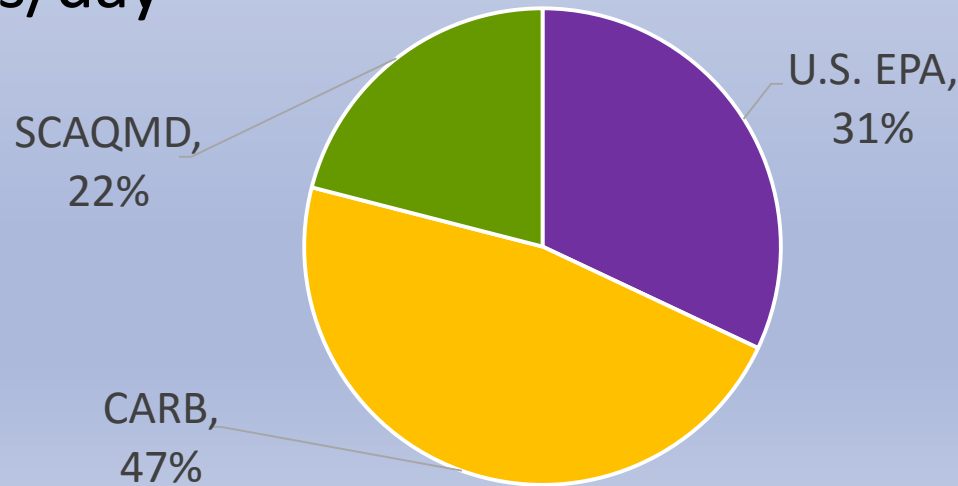
Basin Total NOx Emissions



8-hour Ozone strategy targeting 2023 will ensure 1-hour attainment for 2022

# Legal Authority and Responsibility

- In 2012, 88% of NO<sub>x</sub> comes from mobile sources
- Limited local authority over mobile sources
- 2031 NO<sub>x</sub> baseline emissions: 223 tons/day



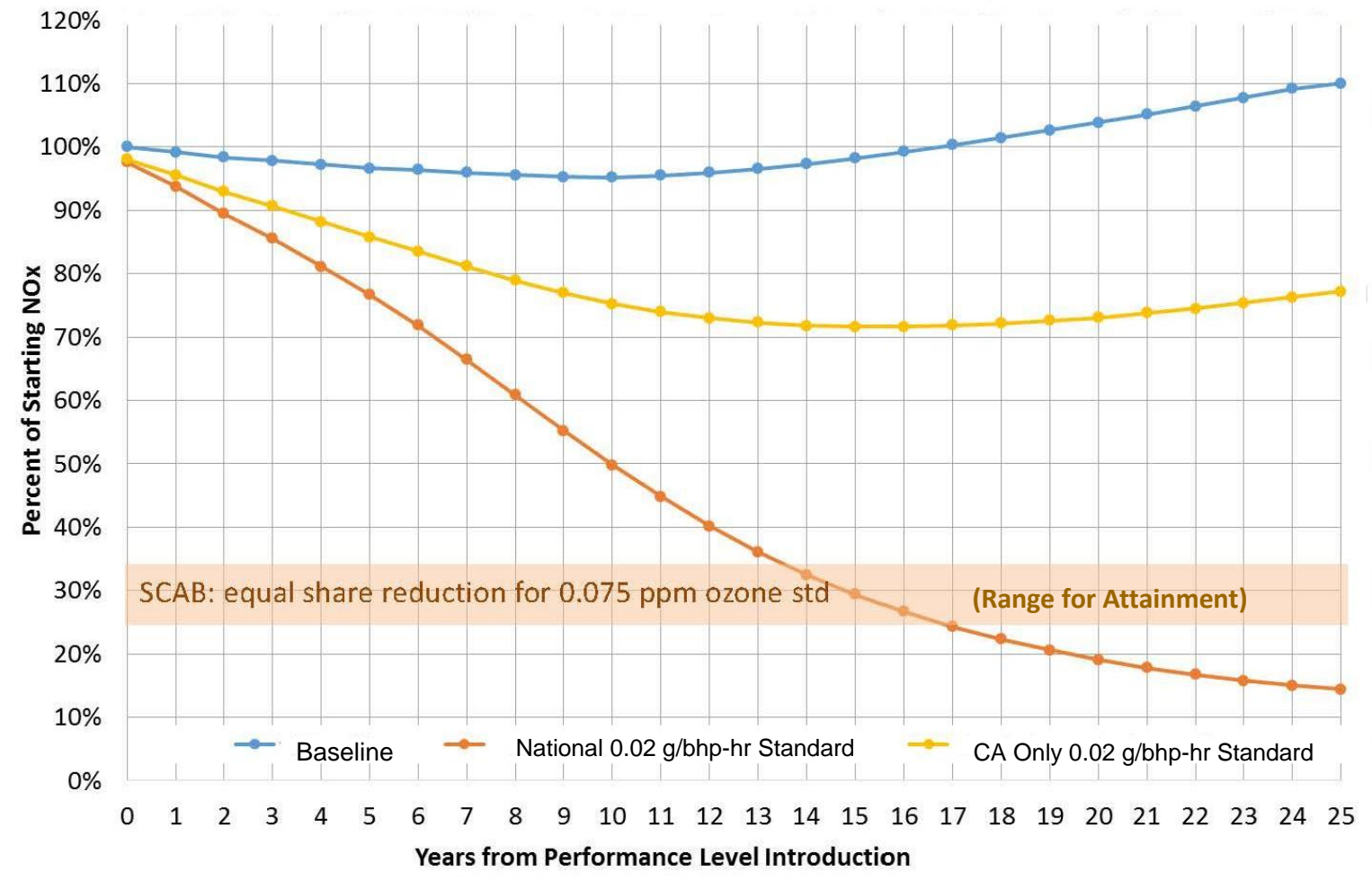
# Petition to U.S. EPA

- June 2016, SCAQMD and 10 co-petitioners requested U.S. EPA to undertake rulemaking
- Revise national on-road heavy-duty engine exhaust NO<sub>x</sub> standard
- From 0.2 g/bhp-hr to 0.02 g/bhp-hr
- Recommend regulation implementation by January 2022
- Estimated NO<sub>x</sub> reduction by 70-90 percent in 14-25 years





# Emission Analysis of Statewide vs National Introduction of New Truck Standards



Source: Presentation by Mr. Cory Palmer, ARB at the Symposium on California's Development of its Phase 2 Greenhouse Gas Emission Standards for On-Road Heavy-Duty Vehicles (April 22, 2015)

# AQMP Approach

~~2016 AQMP~~



# Stationary Source Approach

**Thoroughly evaluated all source categories and control options**

- Detailed look at emission inventory
- Analysis of measures implemented through-out the country (RACT)
- Symposium, working groups, and advisory group

**Limited feasible regulatory options remaining for NO<sub>x</sub> reductions**

- Reductions in NO<sub>x</sub> from non-refinery flares
- NO<sub>x</sub> controls for cooking appliances
- Further NO<sub>x</sub> reductions from continuing RECLAIM reassessments

**If all stationary sources brought to zero emissions, would still not meet goals**

**Incentive programs for residential/small business sources can achieve cost-effective reductions on a project-by-project basis**



# Facility-based Measures

- *SCAQMD does not have primary regulatory authority*
- *Set targets, work collaboratively to achieve creditable NOx reductions*
- *Approach:*

**TRUST**

**VERIFY**

**ENFORCE**

- ✓ **New Development and Redevelopment Projects (EGM-01)**

- ✓ **Commercial Marine Ports (MOB-01)**

- ✓ **Commercial Airports (MOB-04)**

- ✓ **Rail Yards/Intermodal Facilities (MOB-02)**

- ✓ **Warehouse Distribution Centers (MOB-03)**



# Mobile Source Technologies Needed for Attainment Exist

- Electric passenger vehicles
- Electric/Hybrid medium-duty trucks
  - ✓ Fed-Ex, UPS, Frito-Lay, EVI
- Heavy-duty electric trucks being demonstrated
  - ✓ Class 7-8 trucks
  - ✓ Challenges – range, cost, infrastructure
- Zero-emission corridors
  - ✓ Wayside power using overhead catenary
- Next generation heavy-duty trucks (90% lower NOx)



# Bottom Line

- Accelerated early deployment of zero and near-zero technologies for mobile and stationary sources
- Significant expansion of financial incentive programs needed
- Total incentive funding needs:
  - ✓ \$11 – \$14 Billion over 15 years



~ \$1 billion/year

# Incentive Funding



- Critical to achieving healthful air for our residents
- Work with CARB, U.S. EPA, and state and federal lawmakers
  - ✓ e.g., seek to establish Federal Clean Air Investment Fund
- Context:
  - ✓ Basin GDP: \$1.1 trillion/year
  - ✓ Basin Energy Costs: ~\$40 – 60 billion/year
  - ✓ Proposed Basin Transportation Infrastructure Cost:  
~ \$20 billion/year
- Sanctions (e.g. loss of transportation funding) more costly than incentive funding needs
- Action plan to secure funding will be developed

# Weighing the Investment



\$1 Billion in Incentives

\$1 Billion in Incentives

## Significant Health Benefits

- ✓ Health care cost: \$22 billion/yr (2008)

## Co-Benefits

- ✓ Greenhouse gas reduction
- ✓ Toxic risk reduction - Environmental Justice
- ✓ Energy Efficiency
- ✓ Clean-tech jobs
- ✓ Incentives – local investments in cleaner equipment
- ✓ Attracting businesses
- ✓ Tourism/Sport Events



# Current Status

- Draft Plan (and Appendix IV) publicly released June 30
- Technical appendices posted online when available
- Workshops conducted in four counties, Coachella Valley and nighttime at SCAQMD headquarters
- Ongoing AQMP Advisory Group and regional stakeholder meetings
- Preparing to release a Revised Draft Plan that will include comments received on the Draft Plan
- On July 8, 2016 U.S. EPA issued a final rule for the attainment of the 1997 annual PM<sub>2.5</sub> (15 µg/m<sup>3</sup>) and 24-hour PM<sub>2.5</sub> (65 µg/m<sup>3</sup>) for the South Coast Air Basin based on 2011-2013 monitoring period



# Plan Development Timeline

September  
**2016**

- Release Revised Draft AQMP
- AQMP Advisory Group Mtg #13
- Ongoing Preparation of Response to Comments

October  
**2016**

- AQMP Advisory Group Mtg #14
- Release Draft Response to Comments for Public Review

November  
**2016**

- Release Draft Final AQMP
- AQMP Advisory Group Mtg #15
- Regional Public Hearings

December  
**2016**

- Governing Board to consider approval
- Prepare Submittal for CARB

# Contact Information

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