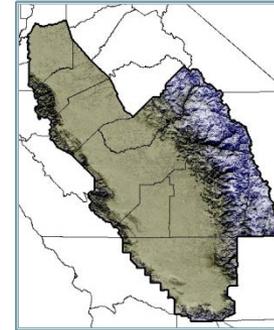


# 2016 OZONE SIP FOR THE SAN JOAQUIN VALLEY



July 21, 2016

California Environmental Protection Agency

 **Air Resources Board**

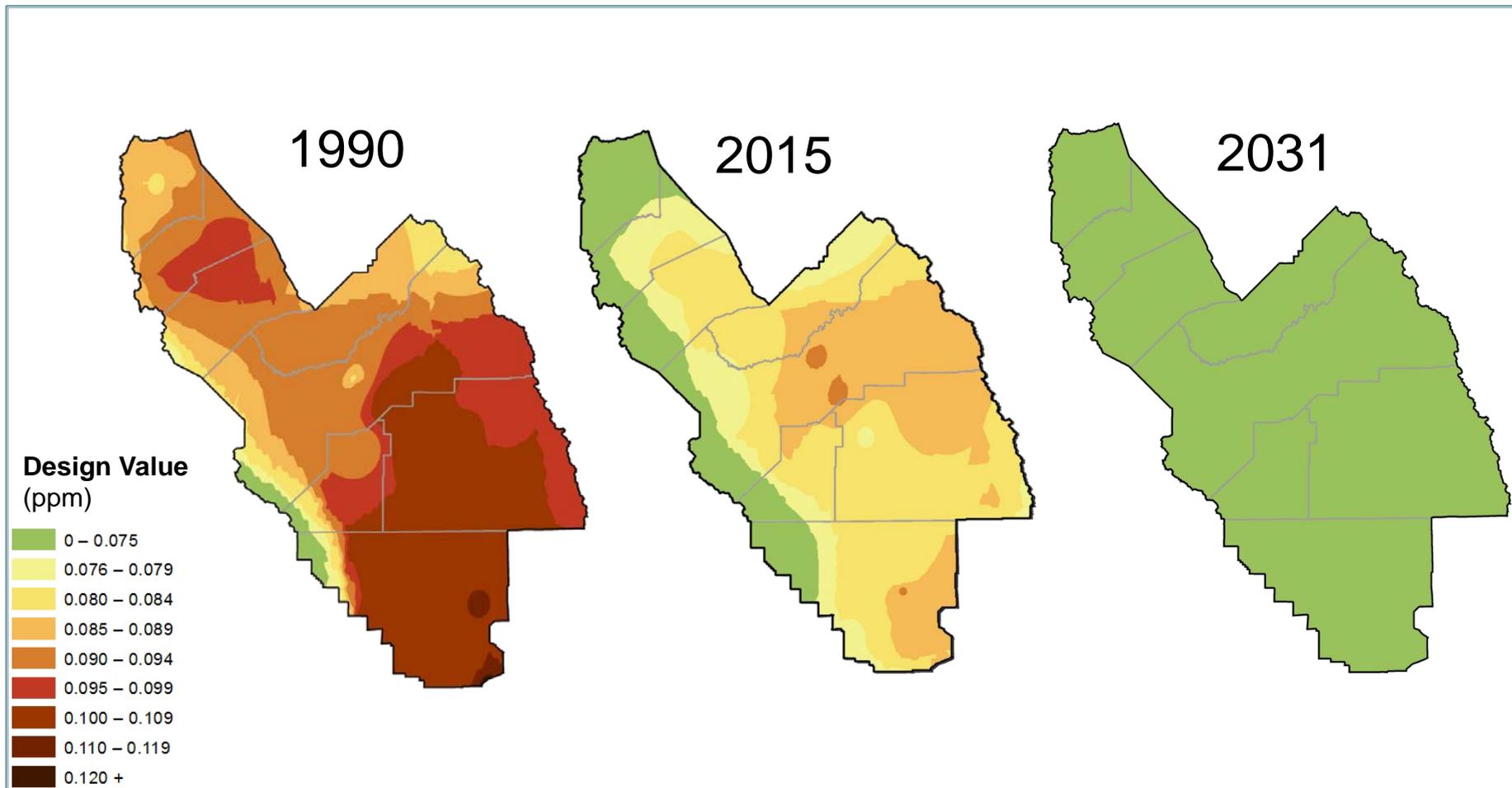
# Overview

- Review of 2016 Ozone SIP for the 75 ppb 8-hour ozone standard
- Preview Valley's upcoming PM<sub>2.5</sub> challenges and planning activities

# SIP Process Works in the Valley

- EPA determined SJV met 1-hour ozone standard
- On track to meet 80 ppb standard in 2023
- Today's plan for 75 ppb standard provides for attainment by 2031 based on already adopted measures
- Proposed SIP Mobile Source Strategy provides additional air quality benefits and reductions to meet new 70 ppb standard by 2037
  - Board consideration in September

# Current Programs Provide for Attainment



# Clean Air Act: Basis for Success

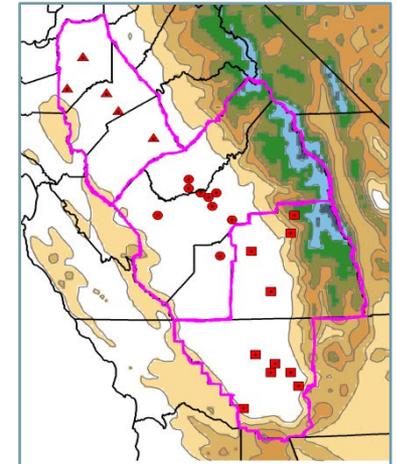
- Provides science-based framework for comprehensive air quality planning
- Enables effective control strategy development based on clear deadlines and technical/cost feasibility
- Requires minimum control levels and rate of progress
- Allows for adjustments to control strategy and timing

# Scientific Foundation for SIP

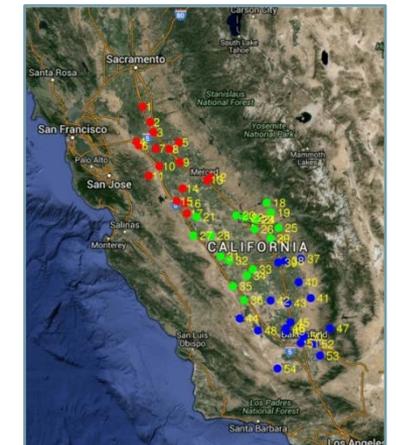
- Comprehensive field studies
  - Central California Ozone Study (2000)
  - CalNex 2010
- Most ozone formed from emissions within the Valley
- NO<sub>x</sub> reductions most effective for reducing ozone



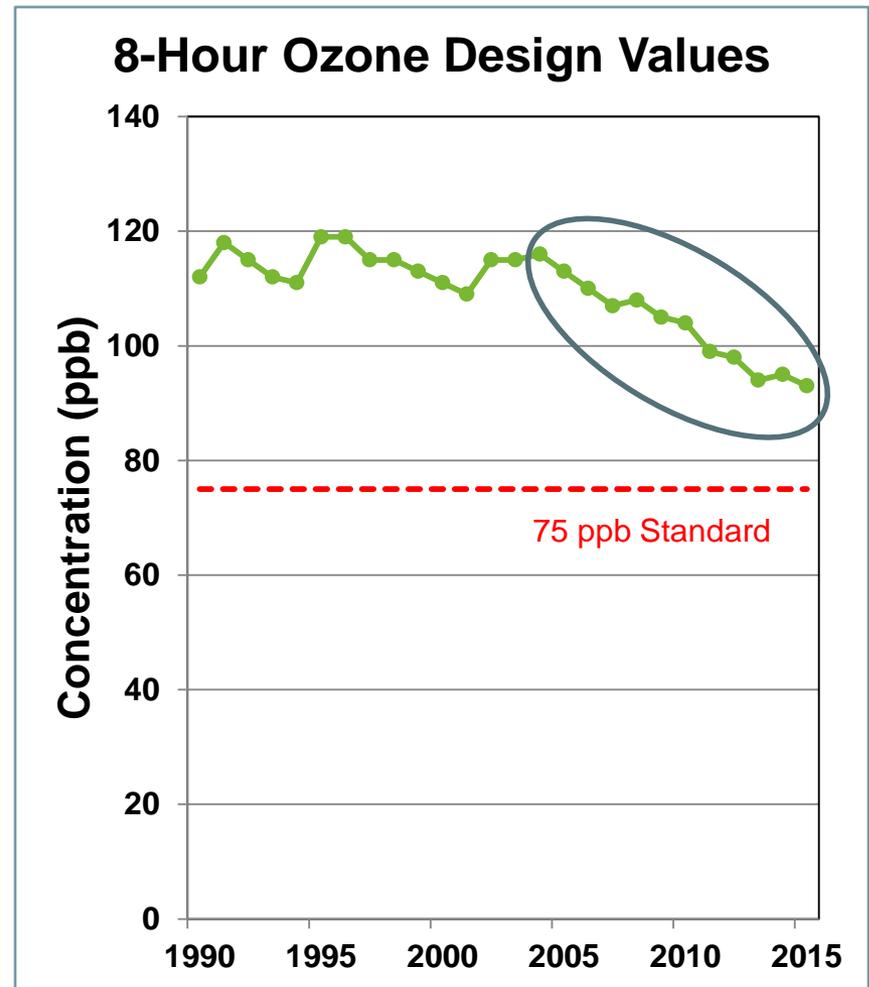
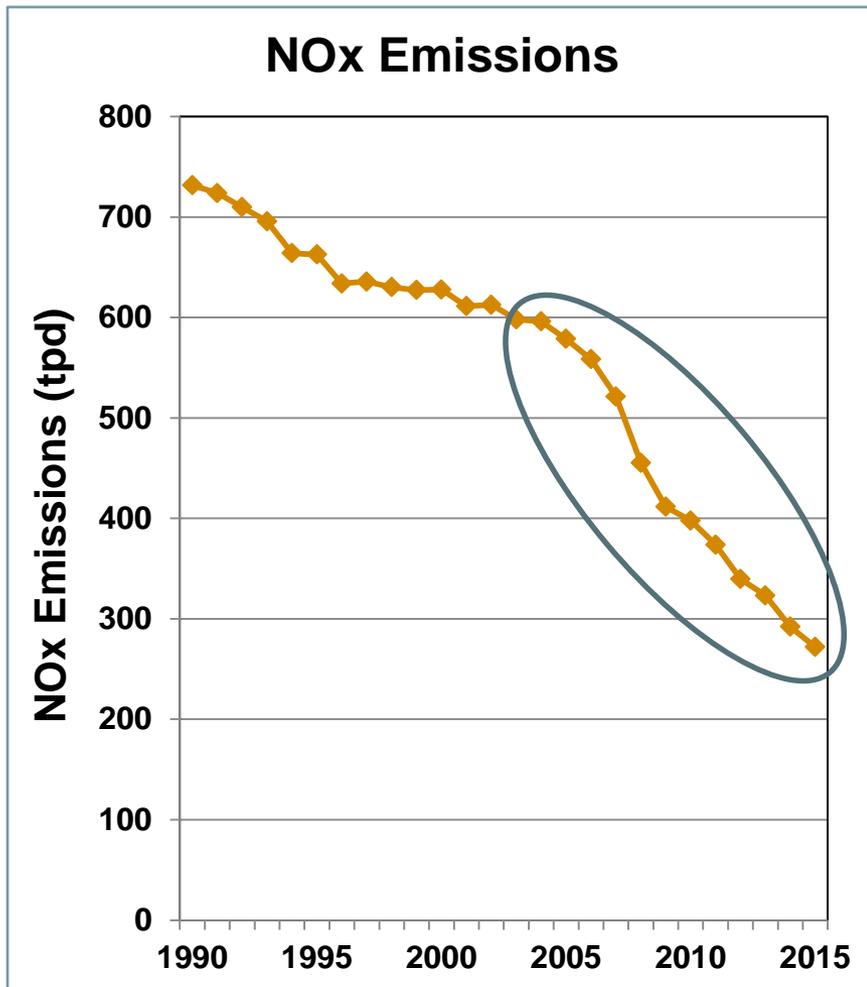
Air Quality Monitoring Sites



Meteorology Monitoring Sites



# Ozone Responding to Accelerated NO<sub>x</sub> Reductions

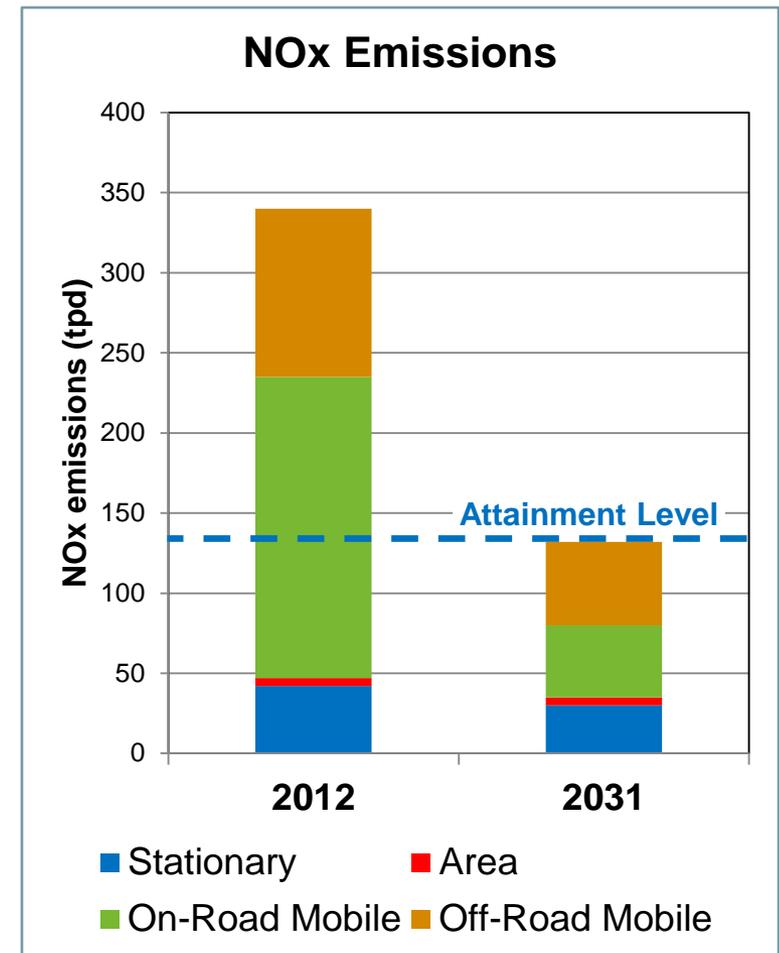


# Major NOx Reduction Programs

- Truck and Bus regulation
- LEV and Advanced Clean Cars regulations
- Off-Road Equipment regulation
- Smog Check program
- Agriculture equipment replacement incentives

# Current Programs Continue Pace of NOx Reductions

- ARB mobile source control program will reduce NOx emissions by 196 tpd
- District stationary source control program will reduce NOx emissions by 12 tpd



# SIP Complies with Clean Air Act

- ✓ Attainment demonstration
- ✓ Emission inventory
- ✓ Reasonably available control measures
- ✓ Reasonable further progress
- ✓ Contingency measures
- ✓ Transportation conformity budgets
- ✓ Vehicle miles travelled offset demonstration

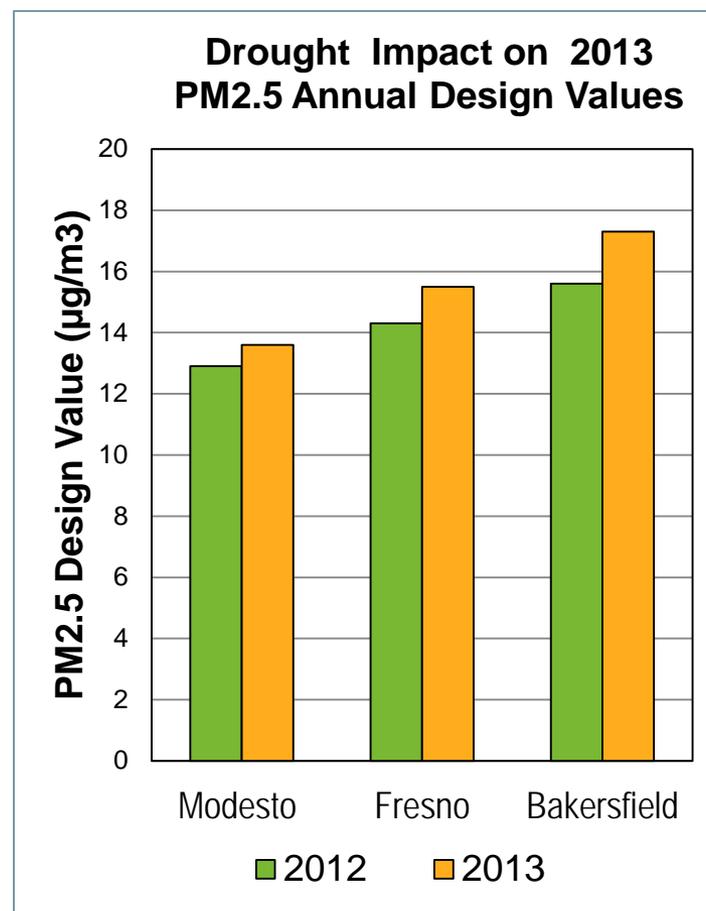
# Other Considerations

- District included small “black box” commitment to address attainment contingency
  - Reductions from Mobile Source Strategy will make “black box” commitment unnecessary
- Bakersfield area monitor
  - EPA approved Arvin-Di Giorgio as replacement site for Arvin-Bear Mountain
  - Identify Arvin-Di Giorgio as maximum ozone monitor in Bakersfield area to resolve monitoring network disapproval

# Upcoming PM2.5 Challenges and Planning Activities

# SJV PM2.5 Air Quality Challenge

- More challenging to meet PM2.5 than ozone standards
- Multiple PM2.5 components must be controlled
- Valley topography and weather conducive to PM2.5 formation and accumulation
- Drought held up progress toward attainment



# PM2.5 Planning Process

- Increasingly health protective PM2.5 standards
  - 15  $\mu\text{g}/\text{m}^3$  annual and 65  $\mu\text{g}/\text{m}^3$  24-hour
  - 12  $\mu\text{g}/\text{m}^3$  annual and 35  $\mu\text{g}/\text{m}^3$  24-hour
- Clean Air Act step-wise process for PM2.5 SIPs
  1. Initial “Moderate” SIP to assess feasibility of attainment within 6 years
  2. If infeasible, second “Serious” SIP for attainment within 10 years
  3. If attainment deadline missed, “5%” SIP requiring annual emission reductions

## All 3 Steps Currently Apply

- Initial “Moderate” SIP assessment for  $12 \mu\text{g}/\text{m}^3$  annual standard this fall
- Combined “Serious” attainment SIP for  $35 \mu\text{g}/\text{m}^3$  standard with “5%” SIP for  $15 \mu\text{g}/\text{m}^3/65 \mu\text{g}/\text{m}^3$  standards
- Meeting  $35 \mu\text{g}/\text{m}^3$  standard driver for overall attainment strategy

# Need Comprehensive Attainment Strategy

- Modeling shows need for both direct PM2.5 and NOx reductions
- District action on sources it regulates
- Strategic use of incentives to accelerate mobile source NOx reductions

# Recommendations

- Approve the SJV 2016 Ozone SIP and direct staff to submit to EPA
- Approve Arvin-Di Giorgio as the maximum ozone concentration monitor for the Bakersfield area