

SAN JOAQUIN VALLEY 2015 PM2.5 SIP

May 21, 2015

California Environmental Protection Agency
 **Air Resources Board**

PM2.5 Planning Process

- U.S. EPA has set increasingly health protective PM2.5 standards
 - 1997: 24-hour of 65 $\mu\text{g}/\text{m}^3$ and annual of 15 $\mu\text{g}/\text{m}^3$
 - 2006: 24-hour of 35 $\mu\text{g}/\text{m}^3$
 - 2012: Annual of 12 $\mu\text{g}/\text{m}^3$
- SIP for 1997 standards adopted in 2008
- Today's SIP revision is for these standards in light of the drought
- SIPs for 2006 and 2012 standards due in 2016

Valley PM_{2.5} SIP Development

- Plan adopted in 2008 set control strategy to attain 65 $\mu\text{g}/\text{m}^3$ 24-hour and 15 $\mu\text{g}/\text{m}^3$ annual standards by 2015
- Strategy focused on reducing NO_x, SO_x, and directly emitted PM_{2.5}
- Key measures included
 - ARB truck and bus and off-road equipment regulations
 - District wood burning, agricultural burning, and glass melting furnaces rules

PM2.5 Air Quality Progress

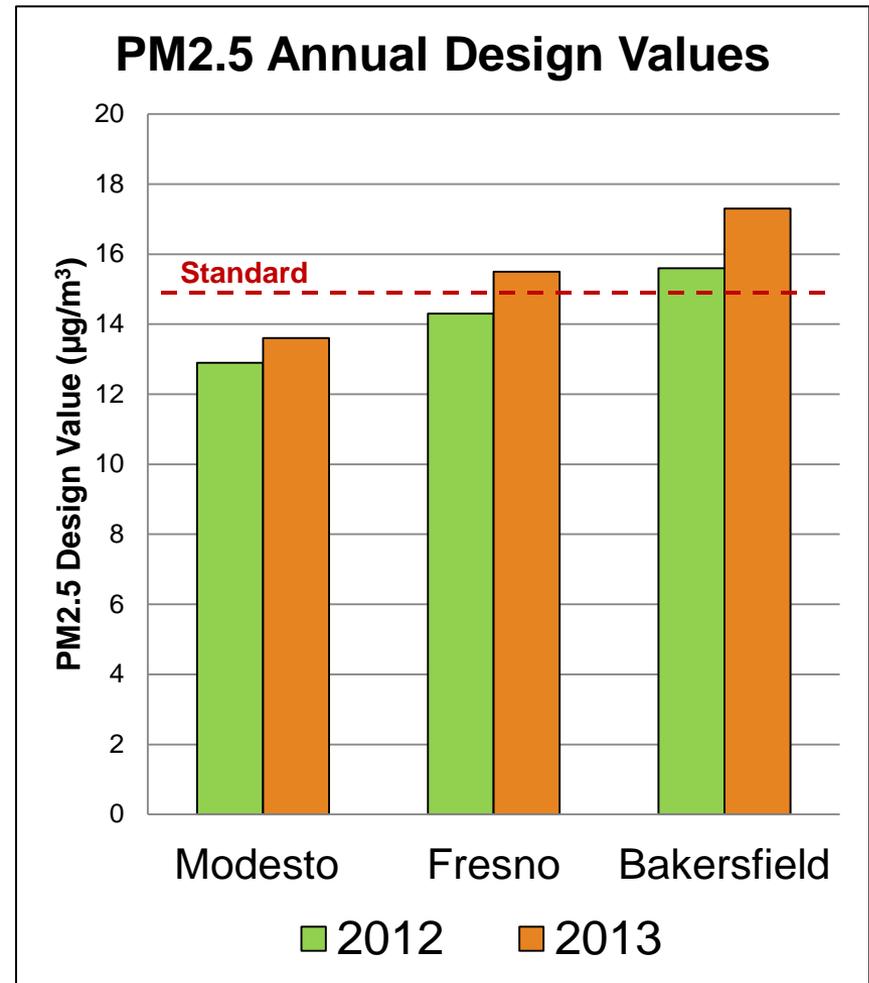
- Progress through 2012
 - Met 24-hour standard in 2010
 - Close to attainment of annual standard
- Weather conditions associated with drought increased PM2.5 levels in 2013
- Drought exacerbates existing challenges resulting from Valley's geography and weather

Drought Effects on PM2.5 Air Quality

- Weather conditions associated with drought conducive to high PM2.5 levels
- Long periods without weather fronts that remove particles
- Greater buildup of characteristic PM2.5 components
- Drier conditions also increase dust levels

2013 Drought Impacts

- Annual design values in central and southern Valley increased above standard
- 24-hour design values increased to level of standard
- Valley can no longer attain by 2015



New Plan to Address Drought Impacts

- Demonstrates attainment under potential that drought conditions continue in the future
- Requires attainment date extension request
 - 2018 for 24-hour standard
 - 2020 for annual standard
- Relies on future emission reductions from current control program
- Identifies further actions in light of extension request

Attainment Control Strategy

- Existing control programs provide majority of needed reductions
- 120 tpd of NO_x by 2020 from ARB mobile source control program
- 2 tpd of directly emitted PM_{2.5} by 2020 from District wood burning program and commitment to enhance commercial cooking rule

Additional District Actions

- Provide targeted incentive funding
 - Heavy-duty truck replacement
 - High-polluting wood burning device change out
- Evaluate potential for further emission reductions
 - Flares
 - Conservation management practices
 - Warm mix asphalt

Additional ARB Actions

- Develop strategies to ensure truck durability and in-use performance
- Increase flexibility to certify advanced truck engines and vehicle systems
- Incentive funding to support transition to clean combustion

Other Clean Air Act Requirements

- Best available/most stringent control measures
- Commitments in 2008 PM_{2.5} Plan
- Precursors
- Emission inventory
- Reasonable further progress
- Quantitative milestones
- Contingency measure reductions
- Transportation conformity budgets

Recommendation

- 2015 SIP revision provides for attainment and is foundation for development of new SIPs due in 2016
- Staff recommends the Board approve the 2015 SIP along with the ARB Staff Report as revision to the California State Implementation Plan