Overview

• Valley at a critical juncture in meeting federal Clean Air Act mandates
• New federal air quality standards approach background concentrations
• Meeting the new standards requires enormous reductions in emissions
• Valley may have no viable option in avoiding costly federal sanctions and Federal Implementation Plan
San Joaquin Valley NOx Emissions

- Stationary and Area Sources
- Other Off-Road, including Trains
- Off-Road Equipment
- Farm Equipment
- Passenger Cars
- Heavy Duty Trucks

2013

- Mobile Sources

2019

Tons Per Day

- Attainment of 1997 8-hour ozone standard
- Attainment of 2008 8-hour ozone standard
- Attainment of New PM2.5 and 8-hour ozone standards

Healthy Air Living: Live a Healthy Air Life!
We Have Left No Stone Unturned

- Toughest air regulations on businesses and industries large and small
- Toughest air regulations on farms and dairies
- $40 billion spent by businesses on clean air
- Over $1 billion dollars of public/private investment on incentive-based reductions
- Toughest regulations on cars and trucks
- Toughest regulations on consumer products and what people can do inside their homes
- Reduced emissions by over 80% - but need another 90% reduction to meet new standards
The Conundrum We Face

• District may have no other option to reach attainment
  – Shutting down all stationary sources not sufficient to reach attainment of federal standards
  – Shutting down all agriculture not sufficient to reach attainment of federal standards
  – Eliminating all passenger vehicle use not sufficient to reach attainment of federal standards
  – Eliminating all heavy duty trucks not sufficient to reach attainment of federal standards

• If cannot show attainment, plans will surely be unapprovable by EPA

• Can lead to costly federal sanctions (includes loss of highway funds)
EPA Inaction on 2015 PM2.5 Plan

- EPA failed to act by the July 1\textsuperscript{st} deadline after having the Plan for over a year
- EPA inaction sets attainment deadline at December 2015, which has already passed
- EPA inaction unexplainable
  - District worked closely with EPA for over a year before submittal to address concerns/requirements
  - EPA formally proposed approval of plan in January 2016
  - EPA did not provide explanation for inaction other than citing comments received by single commenter
    - Nothing new in the comments received
  - EPA did not give District advance notice to address any perceived deficiency (even though EPA had comment letter since March 2016)
PM2.5 Deadlines and Mandates

• 1997 Standard 24-hr (65 µg/m³) and annual (15 µg/m³)
  – District misled into thinking attainment deadline would be extended to 2020
  – Serious Attainment Deadline: 2015
  – 5% Plan due December 31, 2016 (not enough time to develop)

• 2006 Standard 24-hr (35 µg/m³)
  – Serious Attainment Deadline: 2019 – plan due August 2017
  – Attainment by deadline appears impossible at this time
    • Attainment demonstration requires clean data finding for 3 consecutive years 2017-2019 (must reach attainment by 2017)
    • Physically impossible given ARB truck/bus and off-road engine regulations not fully implemented until 2023
  – 5 year extension available; unlikely with EPA’s recent inaction
PM2.5 Deadlines and Mandates (cont’d)

• 2012 Standard annual (12 µg/m³)
  – Moderate Attainment Deadline: 2021
  – Plan due October 2016
  – District is allowed to bump up to Serious classification with attainment deadline of 2025
    • Requires attainment impracticability demonstration
    • Must continue to meet Moderate classification requirements
  – Serious Plan due 4 years after EPA reclassification
  – 5 year extension to 2030 available; unlikely with EPA’s recent inaction
  – Attaining standard by 2030 is highly unlikely even if EPA granted a five-year extension (need zero/near-zero emissions technology across all sources)
Attainment Impossible Without Enormous Mobile Source Reductions

- San Joaquin Valley Air District’s Governing Board adopted guiding principles in August 2016 to address federal PM2.5 mandates
- Attainment not possible without enormous reductions in mobile source emissions under federal jurisdiction
  - Incentive-based measures must be included in plan
  - EPA must accept responsibility (financial, regulatory) for sources under their jurisdiction
  - Securing additional state funding is essential
  - District will provide funding from local sources
- District and other stakeholders including SCAQMD need time to pursue all avenues including legislation aimed at securing necessary federal funding
- EPA needs time to take action on District’s petition requesting tailpipe standards for trucks and locomotives
  - Pursue other remedies to compel EPA to do so
District Partnership with NRCS, ARB, & EPA

- 2010 MOU (EPA, ARB, NRCS & the District) set stage to receive creditable emission reductions from voluntary incentive programs
- District Rule 9610 provides mechanism to receive creditable emission reductions (1st of its kind in the nation)
- Creditable reductions very important because District’s 2007 SIP commitment required 5-10 tpd of NOx from mobile ag equipment (Ag Tractors) by 2017
- 2016 Annual Demonstration Report for District Rule 9610 recently submitted in August 2016 to EPA
  - Currently 12.49 tpd of NOx creditable emission reductions achieved
Ag Tractor Funding

• District
  – Started funding in 2009
  – Total project cost ($246 million)
    • District invested ($105 million)
    • Farmers cost-share ($141 million)
  – 4.42 tpd NOx emissions reduced
  – District providing $25 million annually into the program

• NRCS
  – Started funding in 2009
  – Total project cost ($176 million)
    • NRCS invested ($100 million)
    • Farmers cost-share ($76 million)
  – 8.08 tpd NOx emissions reduced
  – NRCS providing $17 million annually into the program
Ag Programs

- Ag Pump Replacement
  - 3,900 Diesel to Diesel ($57.5m – 29,900 tons reduced)
  - 2,500 Diesel to Electric ($55.5m – 19,400 tons reduced)
  - 271 New Electric ($2.9m)
  - Natural Gas to Electric (Coming Soon)
- Equipment Repowers (Graders, Dozers, etc.)
- Forklifts (New Electric)
- Heavy-Duty Trucks
  - Truck Voucher Program
  - Up to $50,000 per truck
Future Ag Programs

• Ag Tractor Trade Up Program
  – Current pilot program
  – $500,000 grant from ARB for first 20 transactions
  – ARB looking to offer $3 million to the District to expand program next year

• Electrifying Dairy Feed Mixers
  – One project funded through District’s Technology Advancement Program
  – Data from that project will be used to start new program