

# Valley Faces Unique Air Quality Challenges

- Surrounding mountains and meteorology help create and trap air pollution
- High poverty, unemployment
- High rate of population growth
- I-5 and Hwy 99 (major transportation arteries) run through Valley
- Summer challenge: Ozone
- Winter challenge: Fine Particulates



# Clean Air Efforts in the San Joaquin Valley

- **Toughest air regulations on businesses (including ag), cars and trucks, consumer products, and Valley residents**
- **Reduction of health risk from existing and new businesses through District's permitting and air toxics hot spots programs**
- **\$40 billion spent by industry and ag on clean air**
- **Grant programs: \$2.1 billion public/private investment**
  - **Nearly \$1 billion for ag clean air projects**
- **Air quality throughout the Valley has improved significantly**
- **Clean air efforts must continue - Valley's new PM2.5 Plan establishes a range of new measures to further reduce air pollution from businesses, mobile sources, and residents**

# Ag's Clean Air Efforts in the San Joaquin Valley

- **Toughest ag air quality regulations in the nation**
  - **Confined Animal Facilities (dairies, feedlots, poultry, swine)**
  - **Conservation Management Practices (on-field practices)**
  - **Irrigation engines, composting, ag product processing, etc.**
- **Most effective agricultural clean air grant funding program**
  - **Ag-ICE Program partnership - District, NRCS, utilities, and Ag community**
    - **More than 2,000 irrigation engines electrified**
  - **Ag Equipment Replacement (District and NRCS):**
    - **\$400 million, 8,153 tractors replaced**
    - **New PM2.5 Plan target: 12,000 additional replacements**
  - **Ag Heavy Duty Trucks: \$50.7 million, 1,076 trucks replaced to date**
    - **New PM2.5 Plan target: 33,000 additional replacements (all sectors)**

# Ag's Clean Air Efforts in the San Joaquin Valley (cont'd)

- **Dairy Feed Mixing Electrification: \$5.6 million, 4 dairies to date**
- **Renewal Natural Gas Development**
  - Latest digesters aimed at producing pipeline and mobile fuel RNG (rather than on-farm power)
  - CDFA grants over two years: \$100 million, 57 digester/RNG projects
- **Near-zero emissions now available from heavy duty natural gas engine technology – critical to meeting new 33,000 truck turnover commitment in 2018 PM2.5 Plan**
  - 0.02 g/bhp-hr NO<sub>x</sub>, 90% cleaner than 2010 diesel truck
  - Dairy methane lowest carbon impact of any RNG
  - District will fund RNG heavy duty trucks and fueling infrastructure