## Air Quality Division

### Timothy Franquist, AQD Director

#### Gatekeeper Regulatory Roundup March 22, 2018



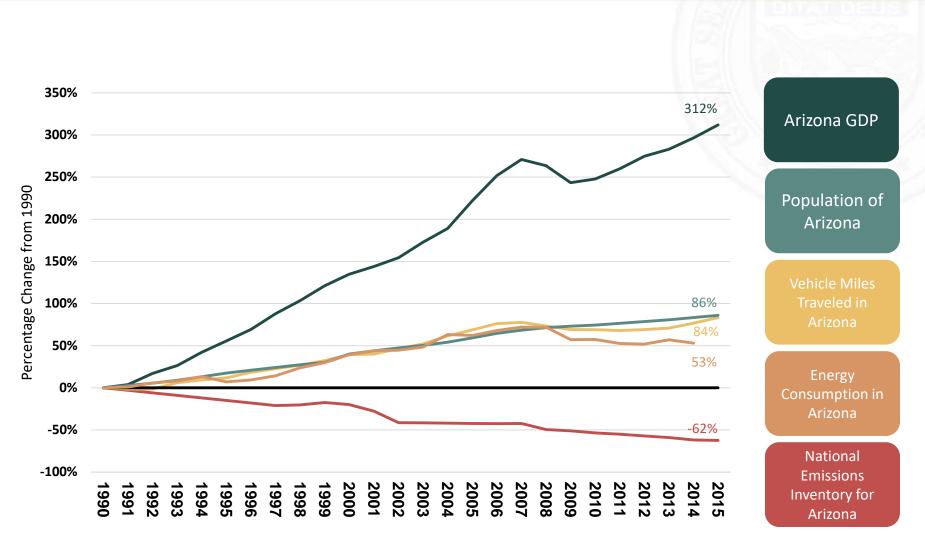
# Air Quality Division

#### **Our Mission**

To protect and enhance public health and the environment by ensuring that ambient air is healthy to breathe, visibility in national parks and forests is pristine, and air quality does not negatively impact environmental systems. AQD accomplishes that mission by controlling current and future sources of air pollution.

#### Arizona Growth Factors & Emission Trends (1990-2015)





#### Sources

Gross Domestic Product for Arizona: U.S. Bureau of Economic Analysis

Vehicle Miles Traveled in Arizona: Arizona Department of Transportation

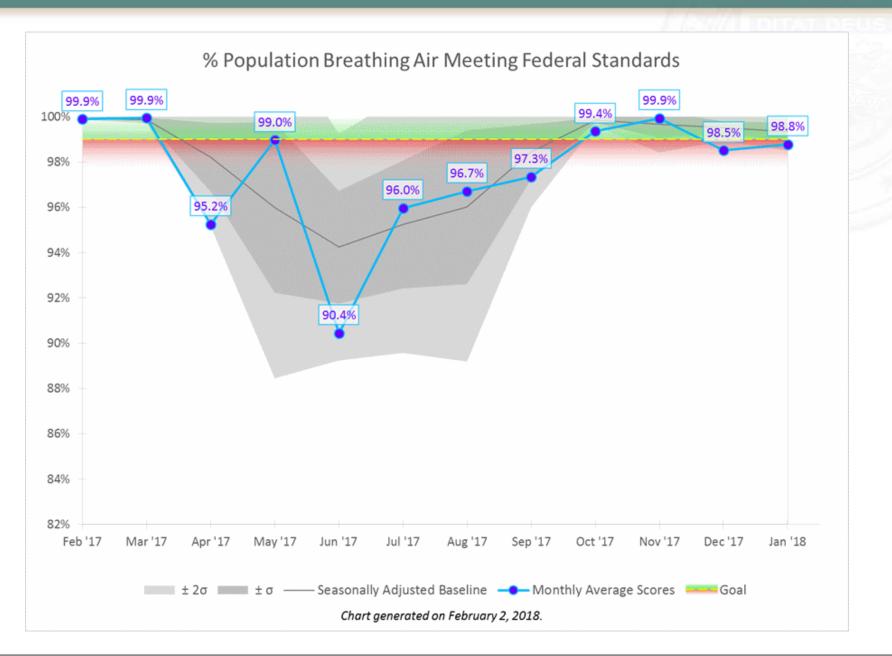
Population of Arizona: U.S. Census Bureau

Energy Consumption in Arizona: U.S. Energy Information Administration

National Emissions Inventory for Arizona: U.S. Environmental Protection Agency

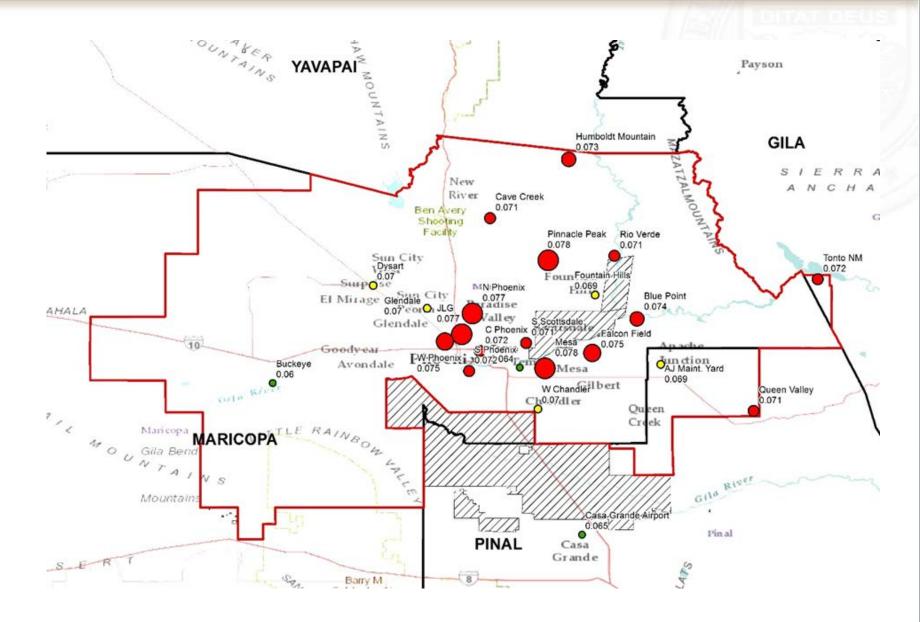
## Air Quality Metric





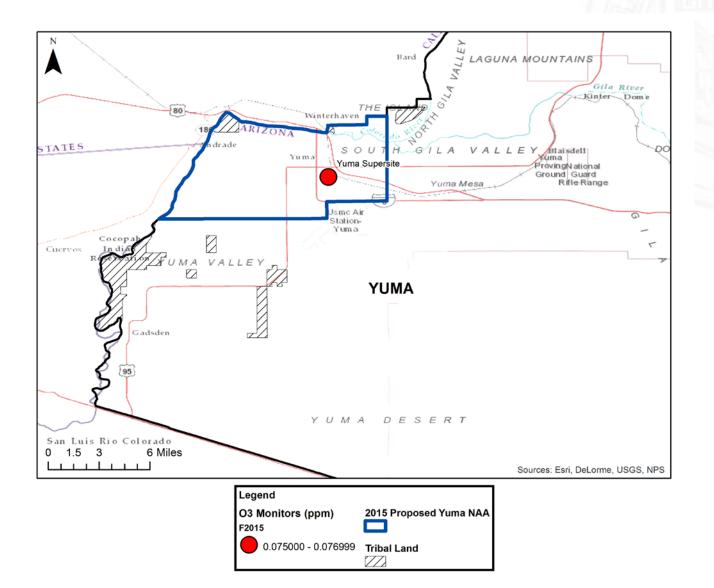
#### EPA Proposed Ozone Nonattainment Area





#### EPA Proposed Yuma Nonattainment Area

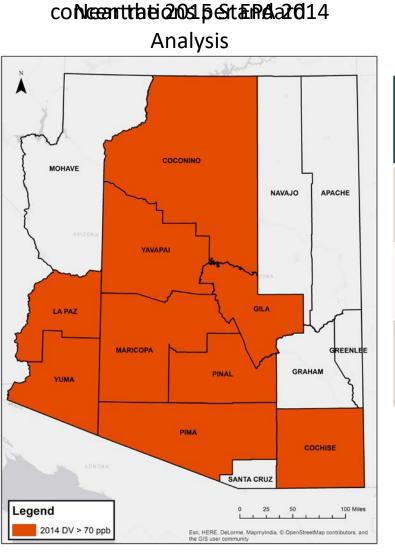




#### Clean Air Act Ozone Non-attainment Classifications



#### No Gottation evit Actes sated Groundies



Classification	Major Source Threshold (tpy)	Major Modification Threshold (tpy)	Offset Ratio	Impact to Existing Sources	No. of Major Sources*	No. of Employees <sup>*</sup>
Marginal	100	40	1.10:1	None	30	12,456
Moderate**	100	40	1.15:1	RACT on Major Sources	30	12,456
Serious**	50	25	1.20:1	RACT on additional source categories	45	16,221

\*Maricopa County

\*\*Vehicles Inspection Program Required

RACT = Reasonably Available Control Technology



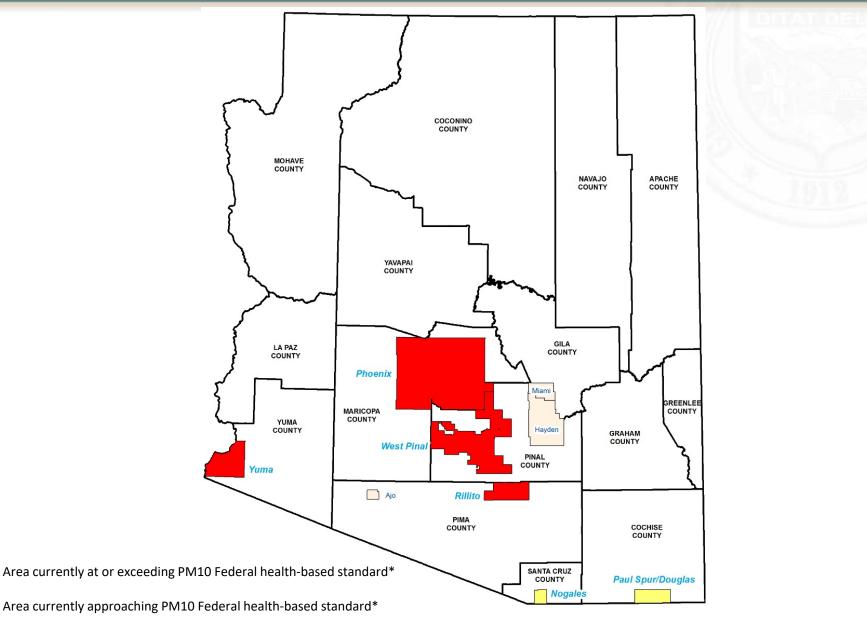
#### \$300,000,000.00 \$263,424,697.00 \$252,067,722.00 \$250,000,000.00 \$228,067,722.00 \$200,000,000.00 Marginal Moderate Serious \$150,000,000.00 \$107,994,515.00 \$100,000,000.00 \$50,000,000.00 \$7,933,509,00 \$550,000.00 \$0.00 NSR/Emission Offsets for Transportation Conformity 15% Reduction in 3% Annual Emission Enhanced Vehicle Transportation Control New Major Sources Emissions over 6 years/ Reduction/Contingency **Emissions Testing** Measures Reasonably Available Control Measures Control Measures; Basic Vehicle Emissions Testing ;Motor Vehicle Emissions Budget 1st Year Nonattainment 1st Year Nonattainment 3rd Year Nonattainment 6th Year Nonattainment 6th Year Nonattainment 6th Year Nonattainment —— Total Cumulative Annual Costs

Total Cumulative Annual Costs of OzoneNonattainment

(Source: Texas Commission of Environmental Quality and Scaled for Arizona Economy)

#### Preliminary PM10 Exceedance Analysis

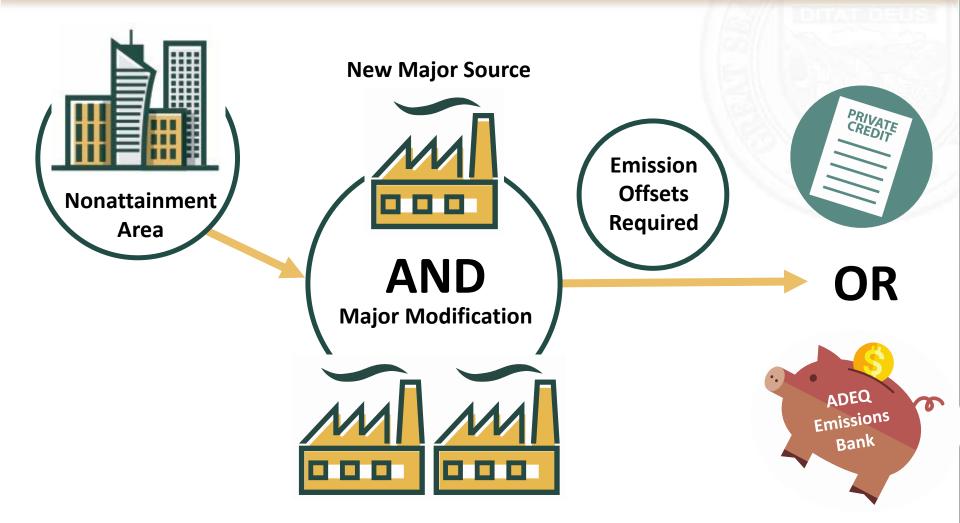




<sup>\*</sup>May include Exceptional Events

#### Nonattainment & Emission Offsets





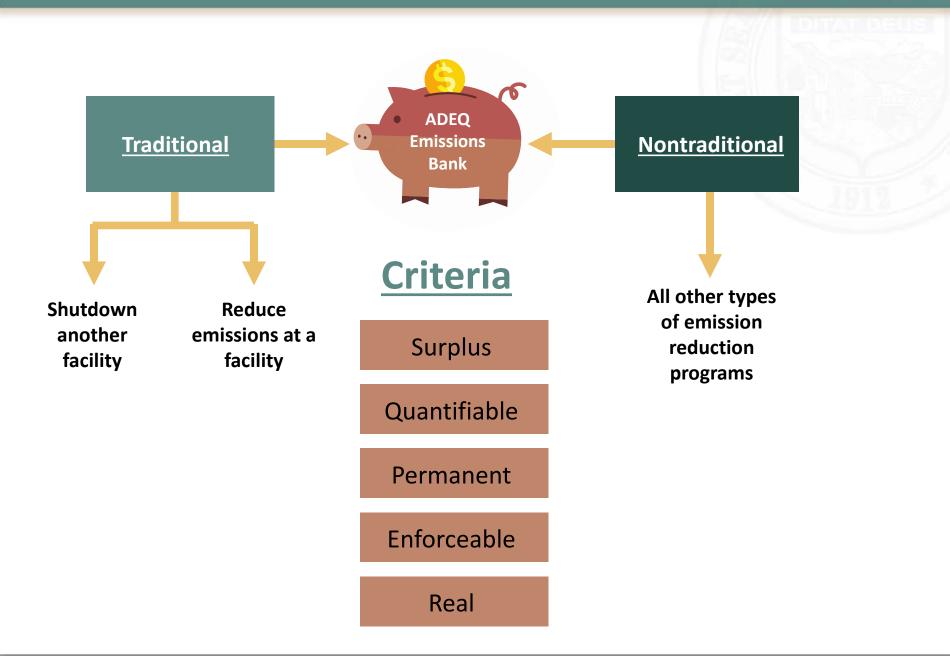
Major Source = 100 tons/yr of Criteria Pollutant

Major Modification = Significant Increase in pollutants defined in R18-2-101 Definition for "Significant"

Criteria Pollutant = CO, Ozone, Lead, SO2, NO2, Particulate Matter (10 & 2.5)

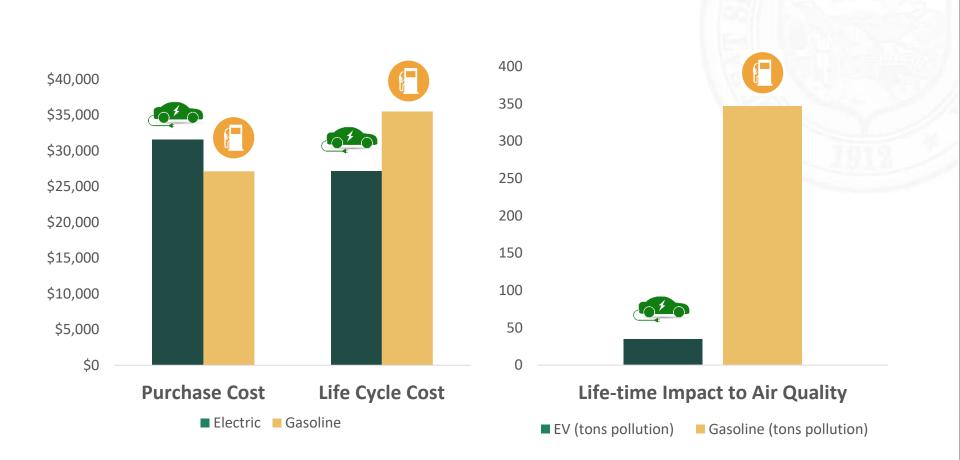
#### **Emission Reduction Credit Bank**





#### **EV Counter Measures**





Source: Mitropoulos, Lambros, and Prevedouros, Panos, and Kopelias, Pantelis. "Total cost of ownership and externalities of conventional, hybrid and electric vehicle" Transportation Research Procedia 24 (2017) 267-274 – University of Hawaii, Manoa HI USA & University of Thessaly, Volos Greece

## ADEQ Voluntary Measures



Program	Pollutant Impact	Results
Alternative OBP Emissions Test	Decrease Ozone	22,383 vehicles tested in 2017 24.6 tons of CO 3.50 tons of NO <sub>x</sub> 0.70 tons of VOCs
Voluntary Vehicle Retrofit and Repair Program	Decrease Ozone	23 vehicles repaired and passed emissions
Diesel Emission Reduction Act (2017 grant)	Decrease Ozone and PM2.5	<ul> <li>\$248,000 to replace 6 school buses and 5 heavy duty municipal vehicles</li> <li>8.66 tons of CO (projection)</li> <li>16.5 tons of NO<sub>x</sub> (projection)</li> <li>3.63 tons of VOCs (projection)</li> <li>2.34 tons of PM<sub>2.5</sub> (projection)</li> </ul>
Burn Clean/Burn Better	Decrease PM2.5	Emission Reductions Not Calculated
Air Quality Forecasts	Decrease Ozone, PM10 & 2.5, Lead	Maricopa County (PM10, PM2.5, & Ozone) Pima County (PM10, PM2.5, & Ozone) Yuma County (PM10, PM2.5, & Ozone) City of Nogales (PM10, PM2.5, & Ozone) City of Hayden (Lead)
Trip Reduction Planning	Decrease Ozone and CO	Allocated \$1.6 million to fund TRP programs in Maricopa, Pinal and Pima Counties to reduce Vehicle Miles Traveled (VMT)
I-10 Dust Stabilization	Decrease PM10	Stabilized two areas near Picacho Peak (\$120,000)
Pinal County Dust Stabilization (Smith Road)	Decrease PM10	Emission Reductions To Be Calculated
Agriculture Best Management Practices Grant	Decrease PM10	\$147,000 to Dept. of Agriculture to fund air pollution reduction outreach and training



Program	Pollutant Impact	Description
Voluntary Lawn and Garden equipment replacement program	Decrease Ozone & PM10	Vouchers for commercial and residential users to purchase lower emitting lawn and garden equipment
Electric Vehicle Programs	Decrease Ozone	Rebate for EV purchase; ACC to promote home charging stations; MOU with Intermountain West states on EV corridor
VW Settlement (OSPB & ADOA)	Decrease Ozone	\$57 million to offset illegal emissions; Environmental Mitigation plan under development

TIMOTHY FRANQUIST	
Air Quality Division Director	
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Timothy Franquist was appointed to ADEQ's Air Quality Division director May 2016 after serving as the program's deputy director since November 2014. His role as director involves the protection of public health and the environment by helping control present and future air pollution sources. In this position, he oversees the following Arizona air quality programs: the ambient monitoring network, pollution forecasting, compliance and enforcement, permitting, vehicle emissions inspections, and the development of state implementation plans and rules. Timothy Franquist has been with ADEQ for more than 13 years, 11 of which he served in air quality. He started in the Waste Program Division in January 2004, working as an environmental health specialist for almost two years. Then, he became an environmental program specialist in the Water Quality Division and again in the Air Quality Enforcement Unit.

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- Mr. Franquist took on the role of supervisor in April 2007 for the Air Quality Technical Services & Enforcement Unit before becoming Environmental Program Manager of the Air Quality Compliance Section. He served in this position for four years until acquiring the position of deputy director for the Air Quality Division, where he managed strategic program and budget planning, legislative and media relations, leadership development, and personnel actions.
- Mr. Franquist received his bachelor's degree in environmental science and policy from The University of Maryland and his master's in environmental management from Arizona State University in 2011.