

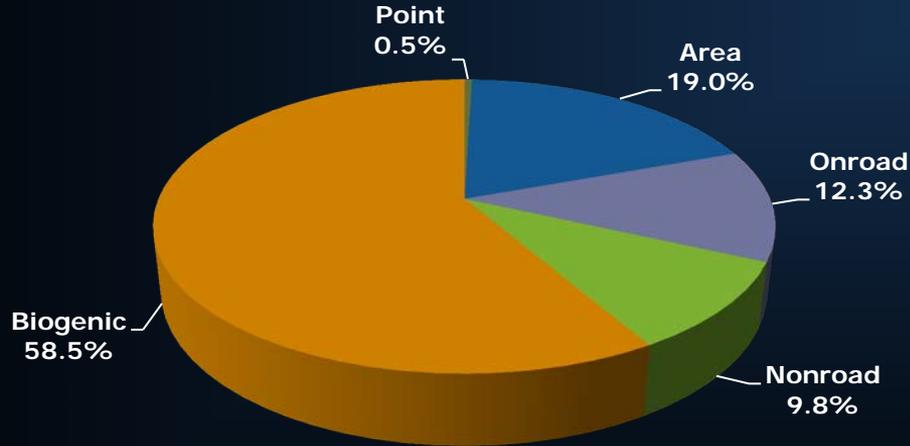
New Strengthened 2015 Ozone Standard



MAG Air Quality Technical Advisory Committee
October 22, 2015

Draft 2011 Ozone Season-Day VOC Emissions in the Maricopa Nonattainment Area

Volatile Organic Compounds (VOC) Emissions = 599.87 tons/day



Sources

Point: Industrial, manufacturing and electrical power generating facilities

Area: Solvents and coatings use, fuel storage and transport, waste treatment and disposal, industrial/chemical processes, residential/industrial fuel combustion, open burning and wildfires

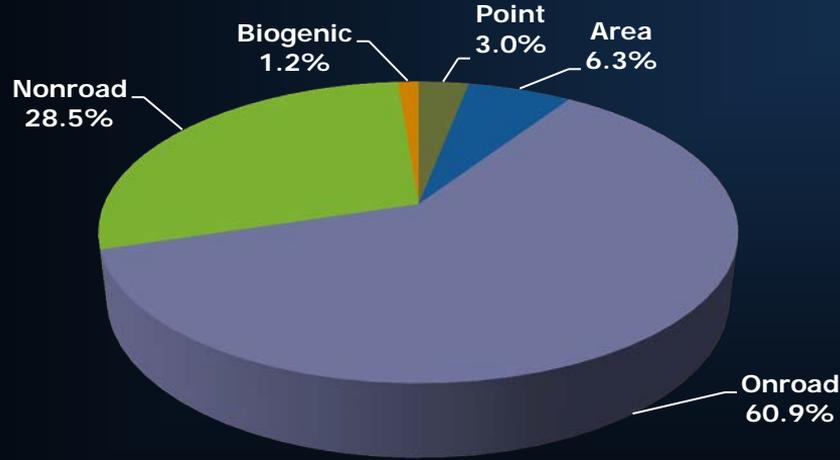
Onroad: Cars and trucks

Nonroad: Commercial, industrial, construction, mining, lawn and garden, farm and recreational equipment, aircraft and locomotives

Biogenic: Natural vegetation

Draft 2011 Ozone Season-Day NO_x Emissions in the Maricopa Nonattainment Area

Nitrogen Oxides (NO_x) Emissions = 253.86 tons/day



Sources

Point: Industrial, manufacturing and electrical power generating facilities

Area: Waste treatment and disposal, industrial/chemical processes, residential/industrial fuel combustion, open burning and wildfires

Onroad: Cars and trucks

Nonroad: Commercial, industrial, construction, mining, lawn and garden, farm and recreational equipment, aircraft and locomotives

Biogenic: Natural vegetation

New Strengthened Ozone Standard

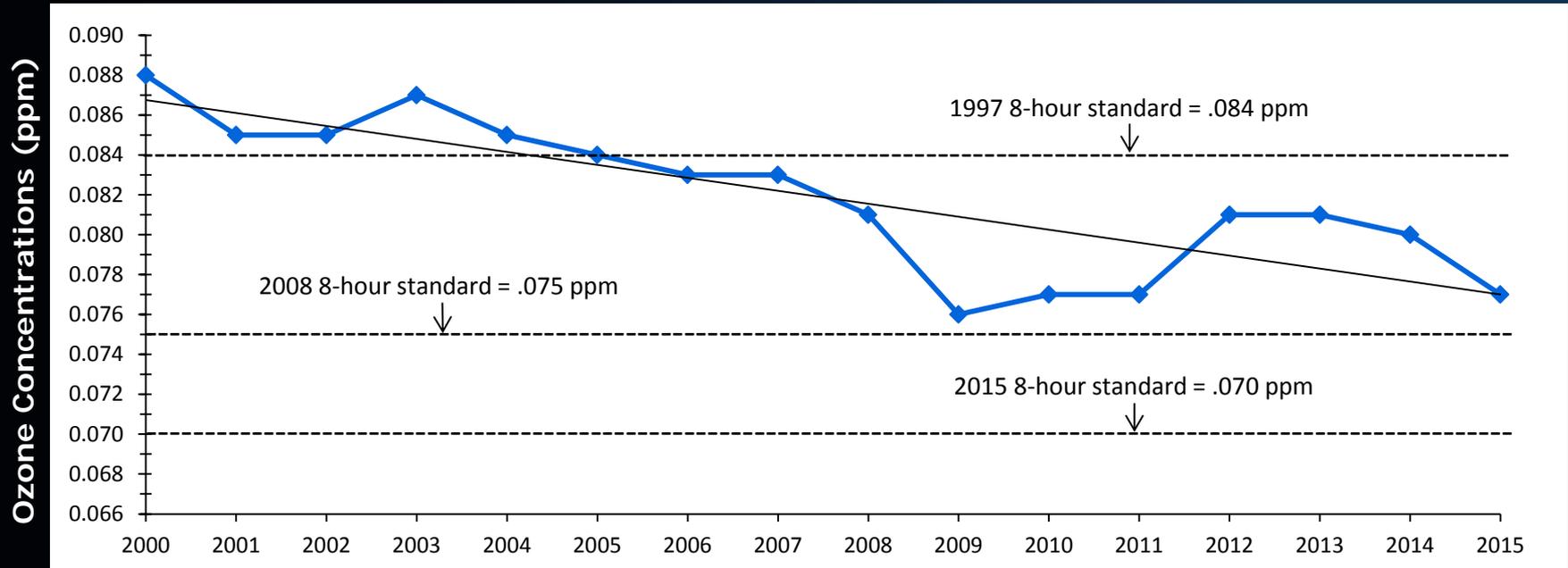
ENVIRONMENTAL PROGRAMS



- **October 1, 2015-EPA signed a final notice to strengthen the eight-hour ozone standard from 0.075 to 0.070 parts per million.**
- **October 1, 2016-states submit designation recommendations for attainment/nonattainment to EPA.**
- **October 1, 2017-EPA finalizes the designations, classifications, and attainment dates based upon 2014-2016 ozone monitoring data.**
- **Attainment dates-2020 to late 2037 based upon ozone levels in the area (Marginal-Extreme).**

Eight-Hour Ozone Monitoring Data

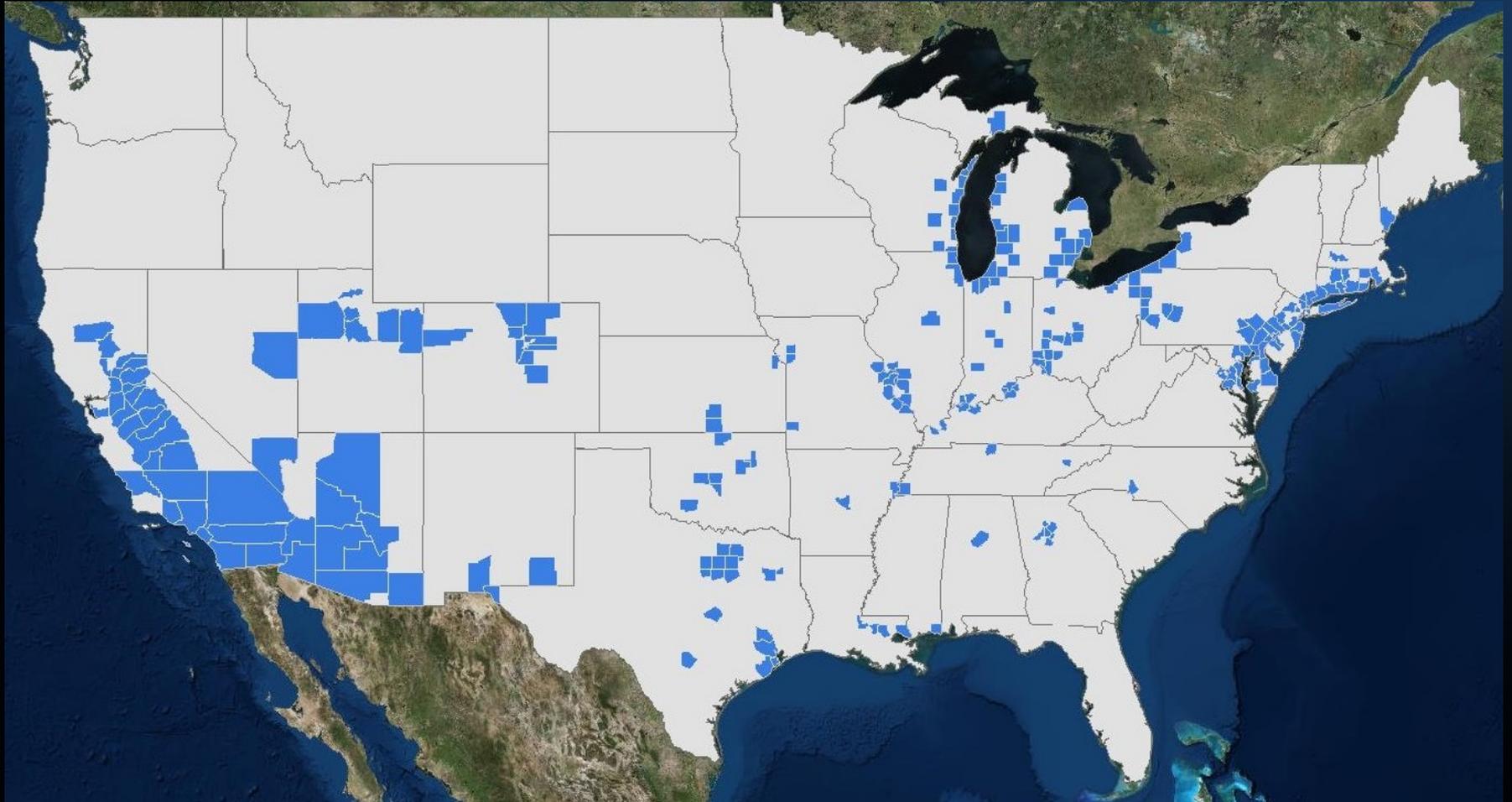
Highest 3-Year Average of the 4th Highest 8-Hour Ozone Concentration in the Maricopa Nonattainment Area



Notes:

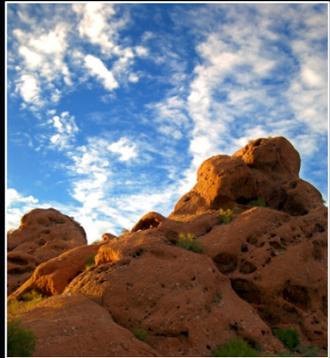
- Data for 2015 is preliminary and excludes values from a potential exceptional event that occurred on June 20, 2015.
- To attain the eight-hour ozone standard, the 3 year average of the 4th highest daily maximum 8-hour concentration at each monitor per year must not exceed the standard.
- Due to mathematical rounding, values greater than or equal to .085 ppm are necessary to exceed the .08 ppm eight-hour ozone standard.
- Sources: 2000-2008: MAG Eight-Hour Ozone Redesignation Request and Maintenance Plan for the Maricopa Nonattainment Area, February 2009; 2009-2014: EPA Air Quality System; 2015: Maricopa County, Pinal County, Arizona Department of Environmental Quality.

Counties Measuring Ozone Above the New Ozone Standard in 2015



Existing and Proposed Federal Rules That Will Assist in Attaining the Ozone Standard

ENVIRONMENTAL PROGRAMS



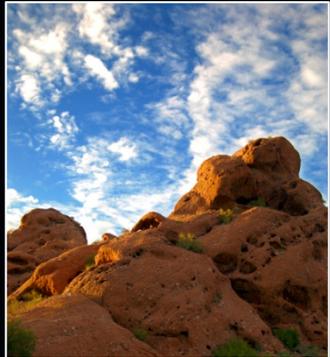
- **Requirements to Reduce Interstate Transport of Air Pollution.**
- **Regional Haze Regulations.**
- **Mercury and Air Toxics Standards.**
- **Clean Power Plan.**
- **Tier 3 Vehicle Emissions and Fuel Standards.**
- **Light-Duty Vehicle Tier 2 Rule.**
- **Mobile Source Air Toxics Rule.**
- **Light-Duty Greenhouse Gas/Corporate Average Fuel Efficiency Standards.**

Existing and Proposed Federal Rules That Will Assist in Attaining the Ozone Standard (continued)

ENVIRONMENTAL PROGRAMS

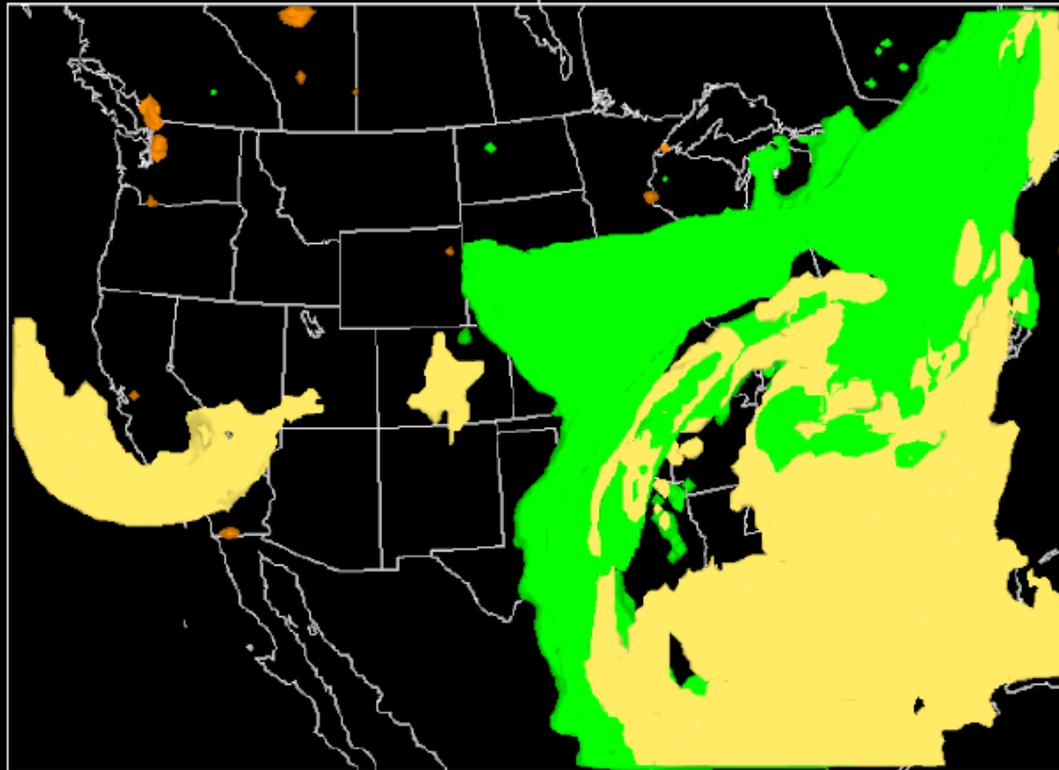
- Heavy-Duty /Vehicle Greenhouse Gas Rule.
- Reciprocating Internal Combustion Engines NESHAP.
- Industrial/Commercial/Institutional Boilers and Process Heaters MACT and amendments.

EPA analysis indicates that these rules will help the vast majority of the counties in the U.S. to meet the standard by 2025 without additional actions.



Transport Issues

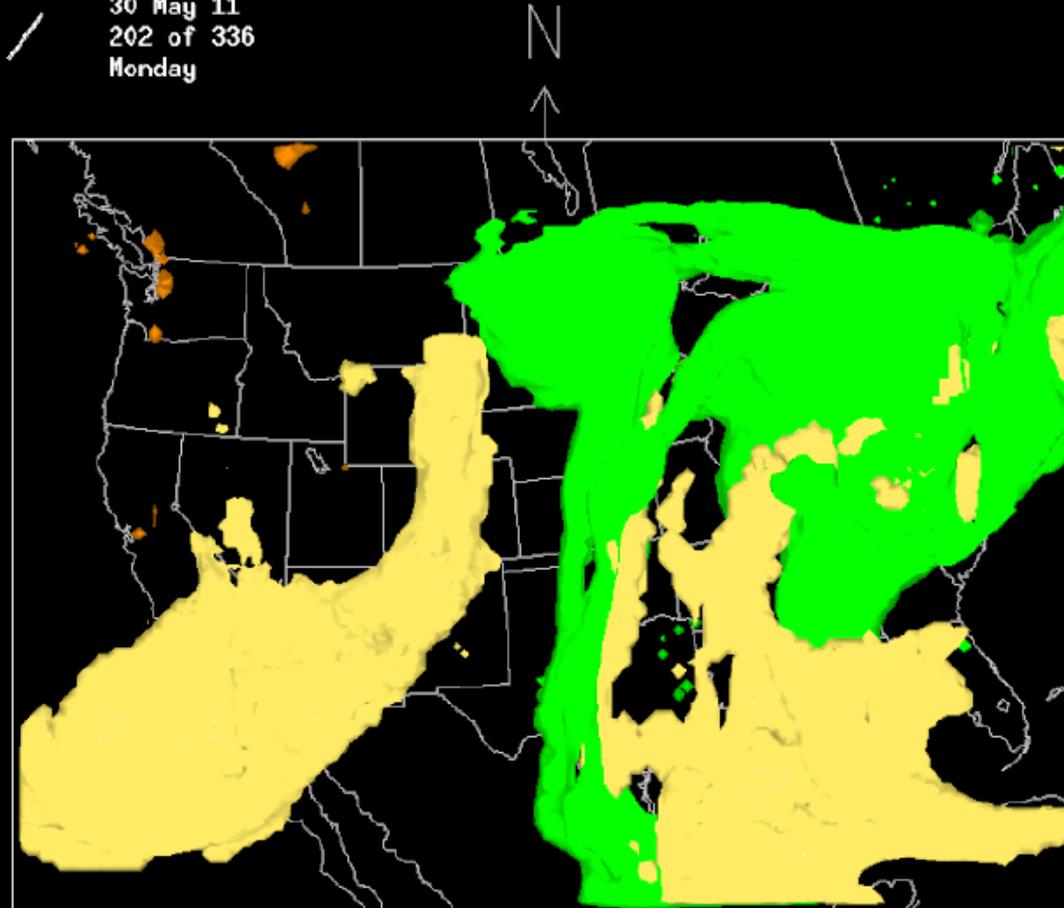
09:00:00
29 May 11
178 of 336
Sunday



Ozone
VOC
NOx

Transport Issues

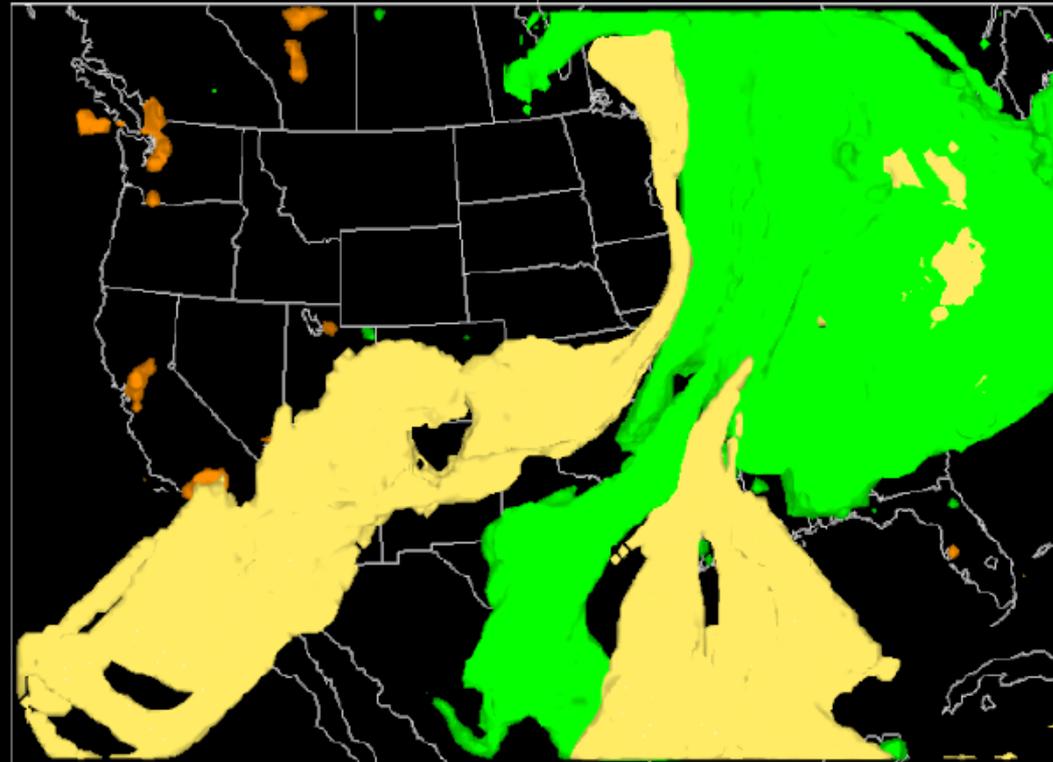
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30 May 11
202 of 336
Monday



Ozone
VOC
NOx

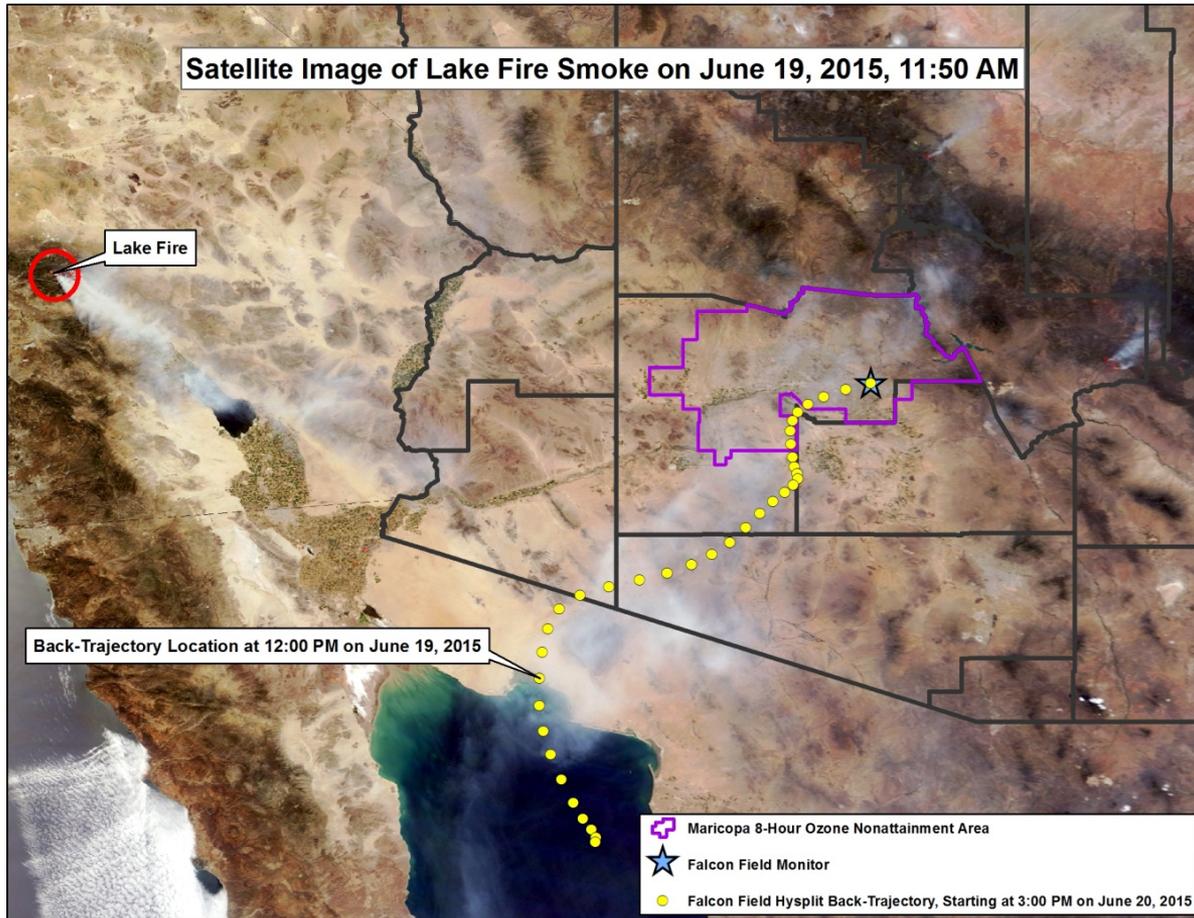
Transport Issues

09:00:00
31 May 11
226 of 336
Tuesday



Ozone
VOC
NOx

Exceptional Event Issues



ENVIRONMENTAL PROGRAMS

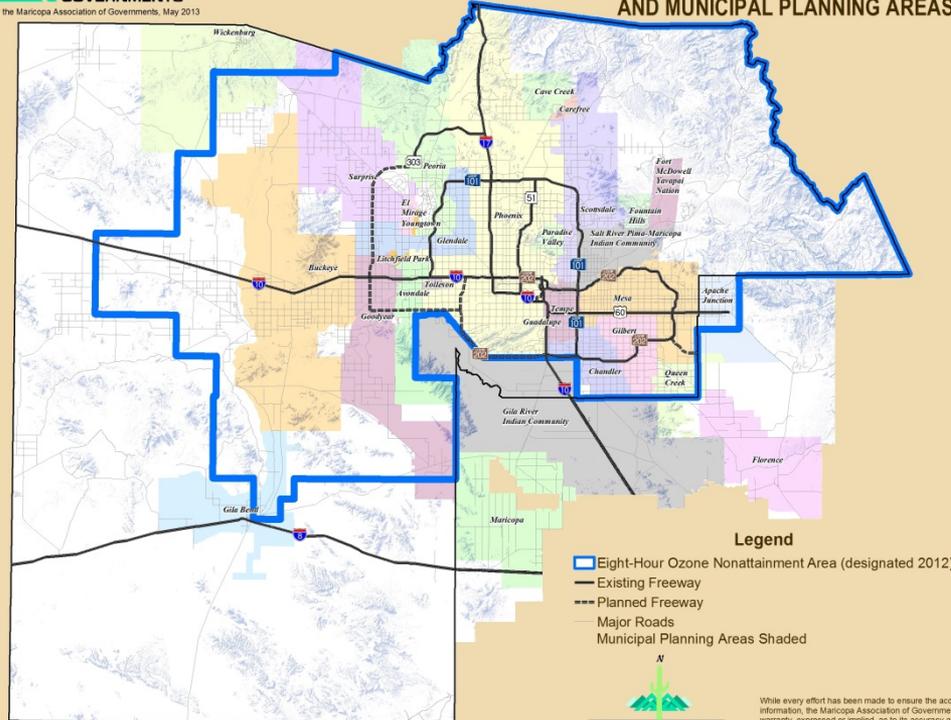
Maricopa Eight-Hour Ozone Nonattainment Area Boundary Issues



MARICOPA ASSOCIATION of GOVERNMENTS
Prepared by the Maricopa Association of Governments, May 2013

Figure 1

EIGHT-HOUR OZONE NONATTAINMENT AREA AND MUNICIPAL PLANNING AREAS



While every effort has been made to ensure the accuracy of this information, the Maricopa Association of Governments makes no warranty, expressed or implied, as to its accuracy and expressly disclaims liability for the accuracy thereof.

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ENVIRONMENTAL PROGRAMS

Clean Air Act Ozone Nonattainment Area Requirements by Classification



		NSR offset ratio	Major source threshold	
EXTREME (20 years to attain)	TRAFFIC CONGESTION CONTROLS (if appropriate)	1.5 : 1 Extreme	10	
	CLEAN FUELS REQUIREMENT FOR BOILERS			
SEVERE (15/17 years to attain)	PENALTY FEE PROGRAM FOR MAJOR SOURCES	1.3 : 1 Severe	25	
	LOW VOC REFORMULATED GAS (as appropriate)			
	VMT GROWTH DEMONSTRATION (& TCMs if needed)			
SERIOUS (9 years to attain)	VMT DEMONSTRATION (& TCMs if needed)	1.2 : 1 Serious	50	
	NSR REQUIREMENTS FOR EXISTING SOURCE MODS			
	ENHANCED MONITORING PLAN			CLEAN FUELS PROGRAM (if applicable)
	MODELED DEMO OF ATTAINMENT			MILESTONE DEMONSTRATIONS and CONTINGENCY MEASURES FOR RFP
	3% ANNUAL RFP UNTIL ATTAINMENT			ENHANCED I/M for larger population areas
	CONTINGENCY MEASURES FOR FAILURE TO ATTAIN			
	Stage II Gasoline Vapor Recovery			BASIC VEHICLE I/M for larger population areas
MODERATE (6 years to attain)	15% VOC ROP or 15% VOC/NOx RFP (OVER 6 YEARS)	1.15 : 1 Moderate	100	
	VOC/NOx RACT for MAJOR/CTG SOURCES			ATTAINMENT DEMONSTRATION
	TRANSPORTATION CONFORMITY DEMONSTRATION (MVEBs)			
MARGINAL (3 years to attain)	NONATTAINMENT NEW SOURCE REVIEW PROGRAM	1.1 : 1 Marginal	100	
	MAJOR SOURCE EMISSION STATEMENTS			
	BASELINE EMISSION INVENTORY (EI)			PERIODIC EMISSION INVENTORY UPDATES



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