# **OZONE NONATTAINMENT**

WTS September 7, 2023



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# THE BOTTOM LINE



The MAG region has been designated Moderate and is on a path to being recategorized as Serious nonattainment for ozone.



Ozone endangers public health and negatively impacts economic growth.



Roadway and transit investments included in the **Prop 400 extension plan are critical components of our region's air quality attainment plan**.



Need meaningful areawide ozone emission reduction measures and federal engagement to avoid **federal intervention and sanctions**.



#### WHO DOES WHAT?

**U.S. EPA** Sets standards, approves plan and enforces

State of

Arizona

Develops state rules, enforces, and adopts MAG Plan

#### MAG

Develops Air Quality Plan with emission control measures

#### Maricopa and Pinal County

Sets local rules and enforces



Sets regulatory law

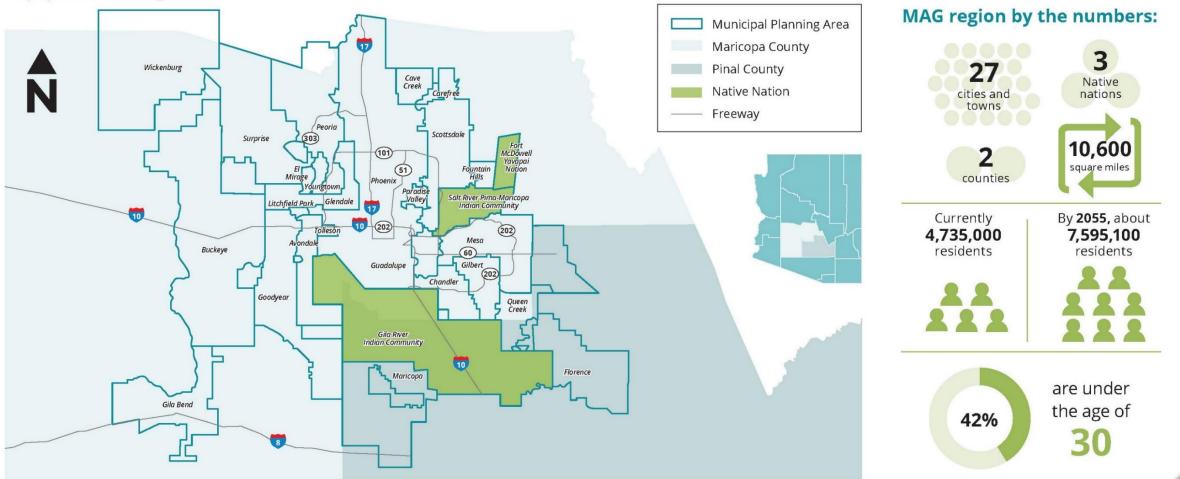


# BACKGROUND

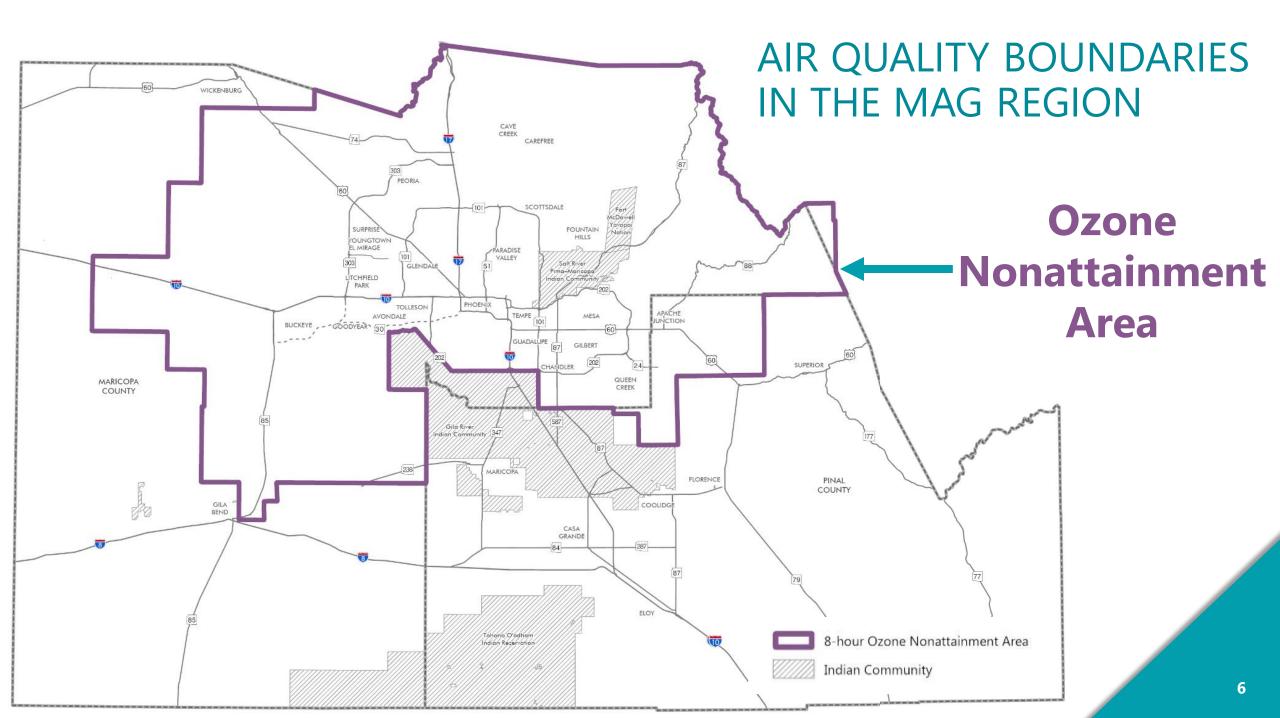


#### THE MAG REGION

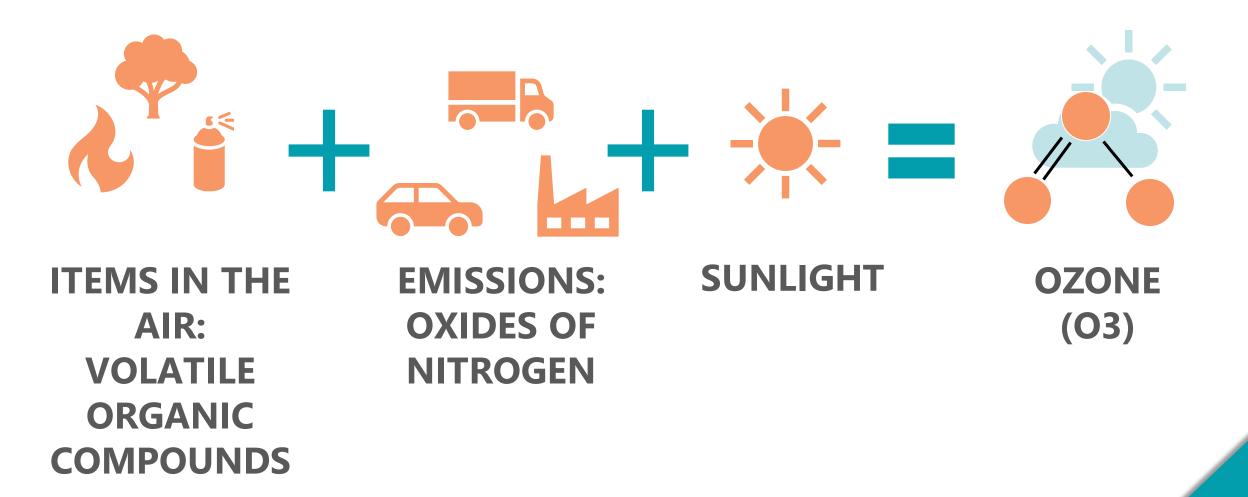
Map of MAG Member Agencies





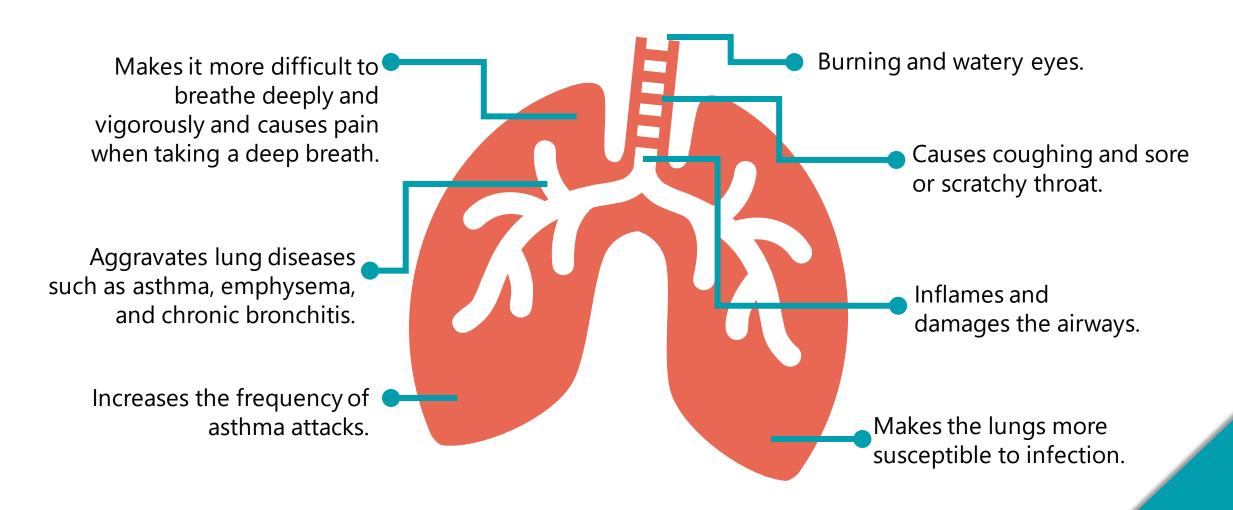


#### HOW OZONE IS FORMED



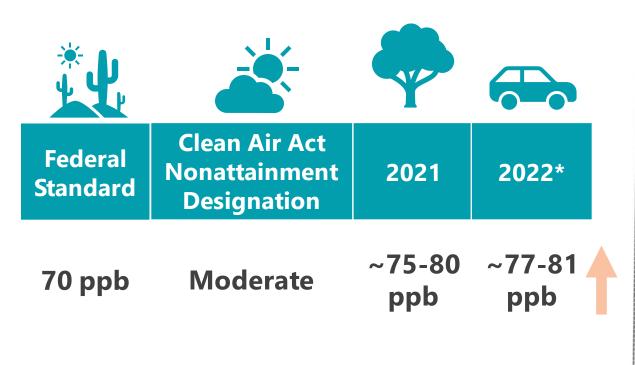


## PUBLIC HEALTH IMPACTS OF OZONE

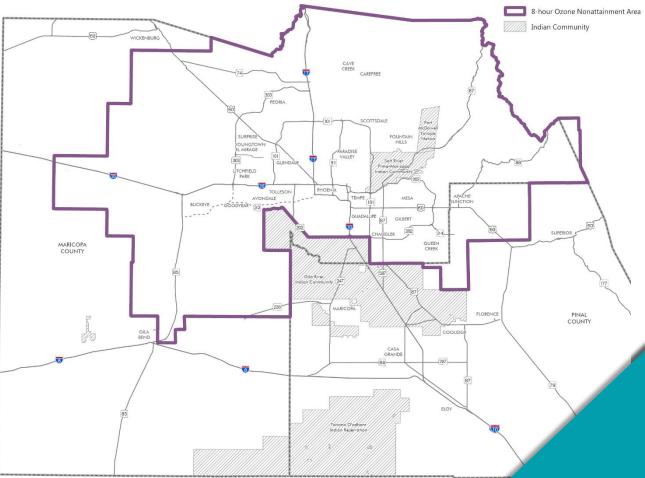




### CURRENT OZONE NONATTAINMENT STATUS



\*2022 ozone season wildfire influence still under analysis



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## OZONE NONATTAINMENT REQUIREMENTS

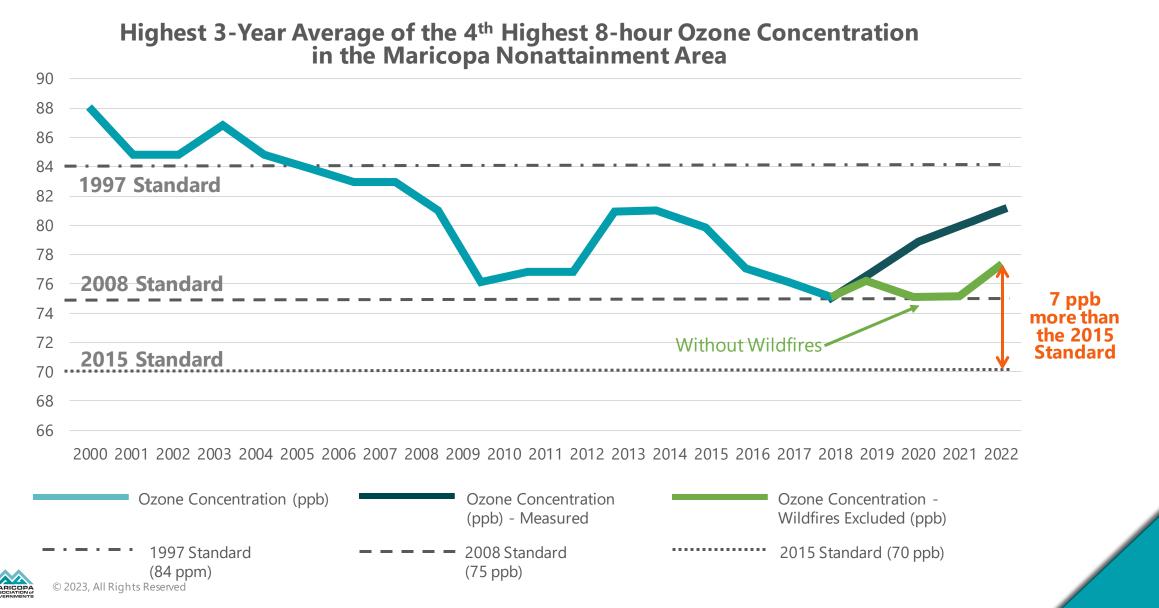
#### **CLEAN AIR ACT – ESCALATING OZONE NONATTAINMENT CLASSIFICATIONS**

				(2033) +5 YEARS
		(2024) +3 YEARS	(2027) +6 YEARS	<b>EXTREME</b> • Traffic Controls
(2018) + 3 YEARS	(2021) +3 YEARS		<ul> <li>SEVERE</li> <li>Penalty Fee Program For Major Sources</li> </ul>	<ul><li>During Congestion</li><li>Clean Fuels Req For Boilers</li></ul>
MARGINAL	<ul> <li>MODERATE</li> <li>Motor Vehicle Emissions Budget</li> </ul>	<ul><li>TCMS If Needed</li><li>Enhanced Vehicle Emission Testing</li></ul>	<ul> <li>VMT Growth Offset</li> <li>Low VOC Reformulated Gas</li> </ul>	
<ul> <li>Transportation Conformity Required</li> <li>More Stringent Permits for Large New and Existing</li> </ul>	<ul> <li>15% Emission Reduction Over Six Years</li> <li>Vehicle Emissions Testing Program</li> <li>Contingency Measures</li> </ul>	<ul> <li>Program</li> <li>Clean Fuels Prog. (If Applicable)</li> <li>Modeled Demo of Attainment</li> </ul>	NOTE: Classification Program Requirements Are Cumulative	
<ul> <li>Business</li> <li>Emission Offsets</li> <li>Emissions Statement</li> <li>Periodic Emissions Inventory Updates</li> </ul>	<ul> <li>For Failure To Attain</li> <li>Areawide Emission Controls Measures</li> <li>Ozone Precursor Reduction Rules For</li> </ul>	<ul> <li>3% Annual Ozone Reductions Until Attainment</li> <li>Milestone Contingency Measures For RFP</li> <li>Enhanced Manitering</li> </ul>		
	Industrial Sources	<ul> <li>Enhanced Monitoring</li> </ul>		

LEAST

DESIRABLE

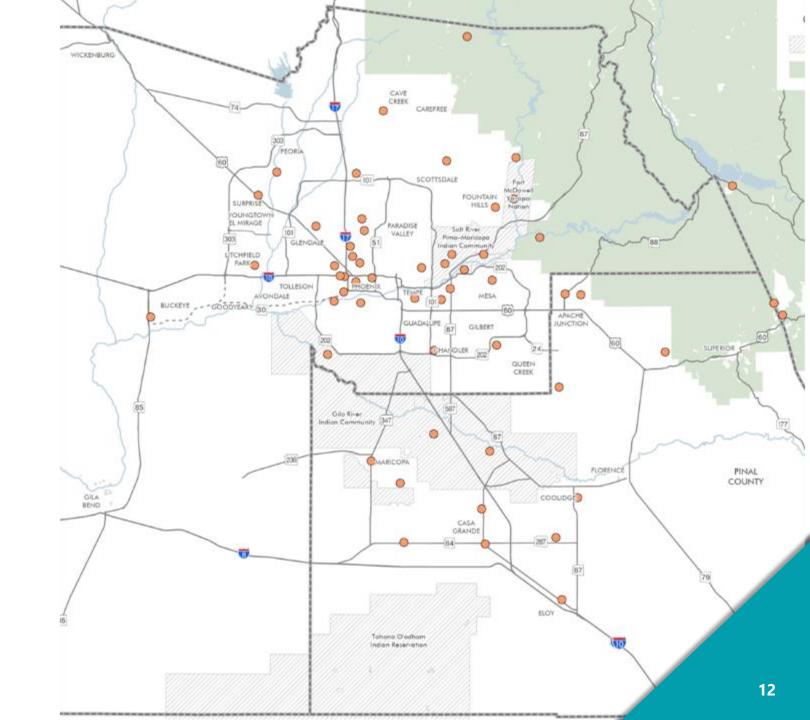
#### 8-HOUR OZONE CONCENTRATION



#### REGIONAL AIR QUALITY MONITORS



Regionwide air quality measurements collected





#### **REGIONAL OZONE AIR QUALITY MEASURES**



#### CURRENT OZONE ATTAINMENT DEADLINES



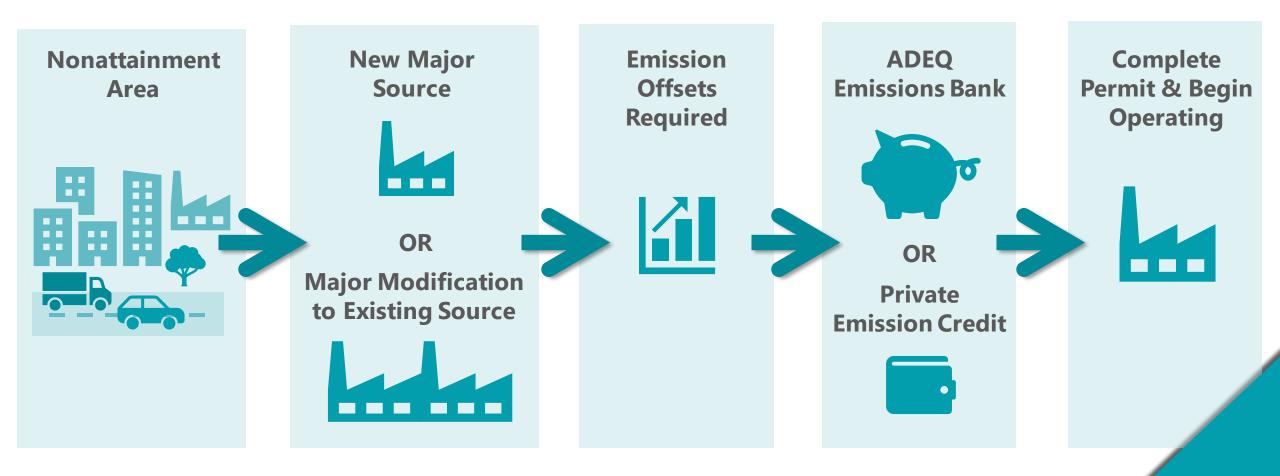
Threshold of significant air quality permit changes likely to disrupt new and existing business growth

Threshold of an even more significant level of controls needed to attain standard

# OZONE NONATTAINMENT: WHAT DOES IT MEAN FOR BUSINESS?

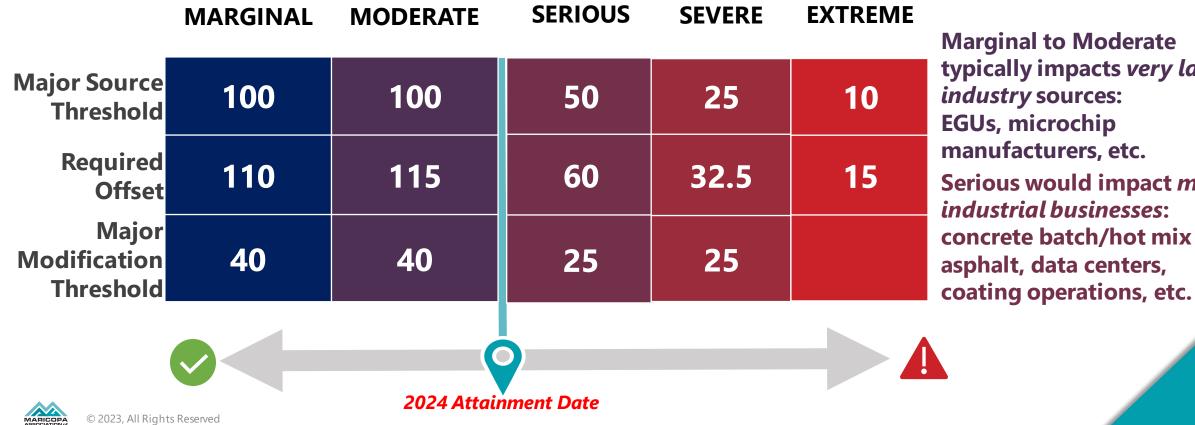


#### AIR QUALITY PERMITTING FOR BUSINESS





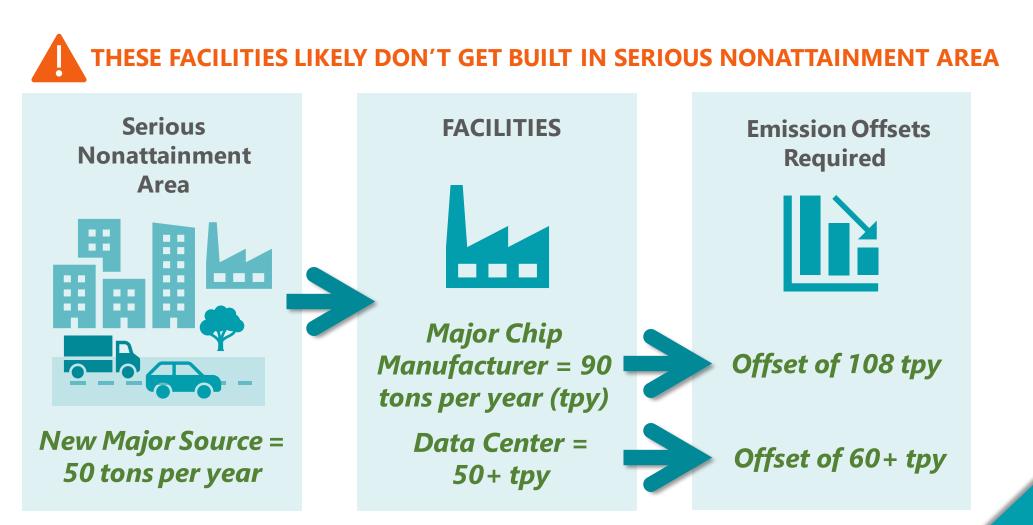
#### **EMISSION OFFSETS GET MORE DIFFICULT**



Marginal to Moderate typically impacts very large *industry* sources: **EGUs**, microchip manufacturers, etc. Serious would impact *most* industrial businesses: **concrete batch/hot mix** asphalt, data centers,

17

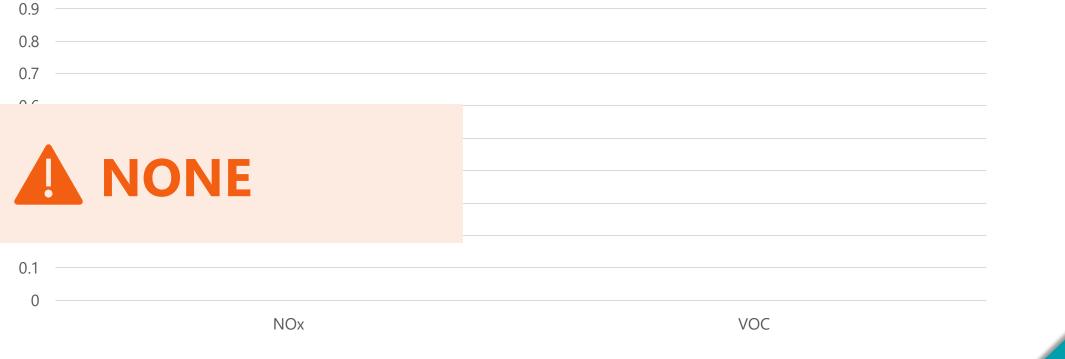
#### LOCAL EMISSIONS OFFSET EXAMPLES





#### AVAILABLE EMISSIONS OFFSETS IN REGION

**Regional Ozone Offsets Available for Permitting** 





#### WHAT ARE THE BUSINESS IMPACTS OF MOVING FROM MODERATE TO SERIOUS?

► Today, only very large businesses are impacted (100+ tpy).

Moving to Serious nonattainment will result in impacts to most industrial businesses (50+ tpy).

Emissions offsets requirements escalate.

► MAG region has **no emissions offsets in the bank**.

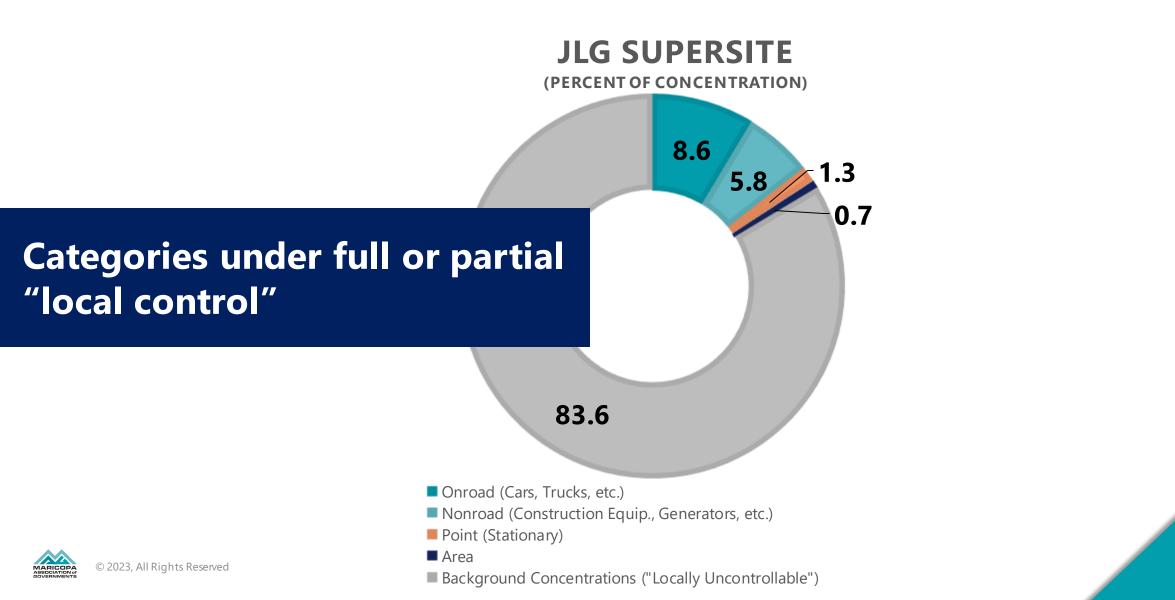
Implications will affect new business locates and business expansion.

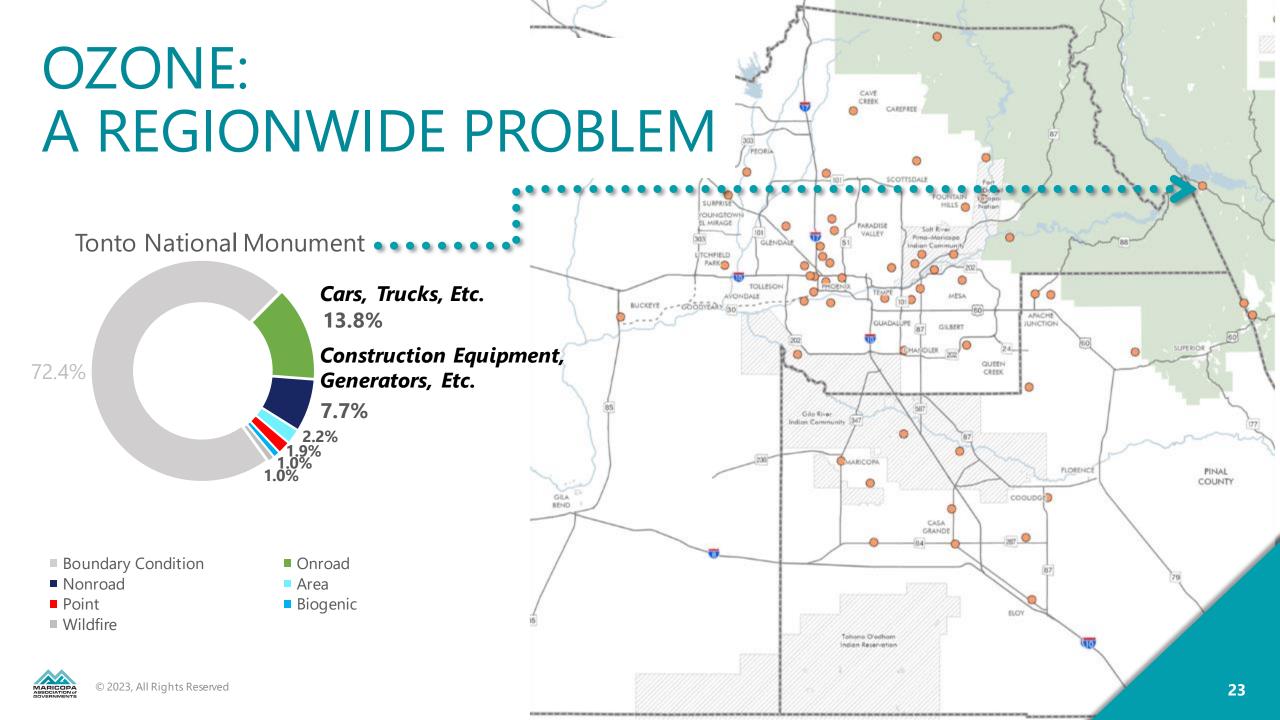


# ADDRESSING COMPLIANCE WITH THE OZONE STANDARD



## **REGIONAL OZONE AIR QUALITY SOURCES**





#### NEW CONTROL MEASURE CATEGORIES







# New regulatory requirements.

Investments/ enhancements to the regional transportation system.



#### NEW CONTROL MEASURE CATEGORIES







# New regulatory requirements.

New regulatory requirements.



#### **P400E Investment Plan: By the Numbers**

\$250,000,000

\$312,500,000

s 367 new freeway/ highway lane miles 186 new HOV lane miles **1,300** new or improved arterial lane miles



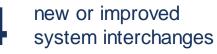




new DHOV or system interchange DHOV ramps

new or improved

traffic interchanges



miles of new 🕑 11.9 light rail miles of BRT **36.8** (bus rapid transit) miles of new streetcar

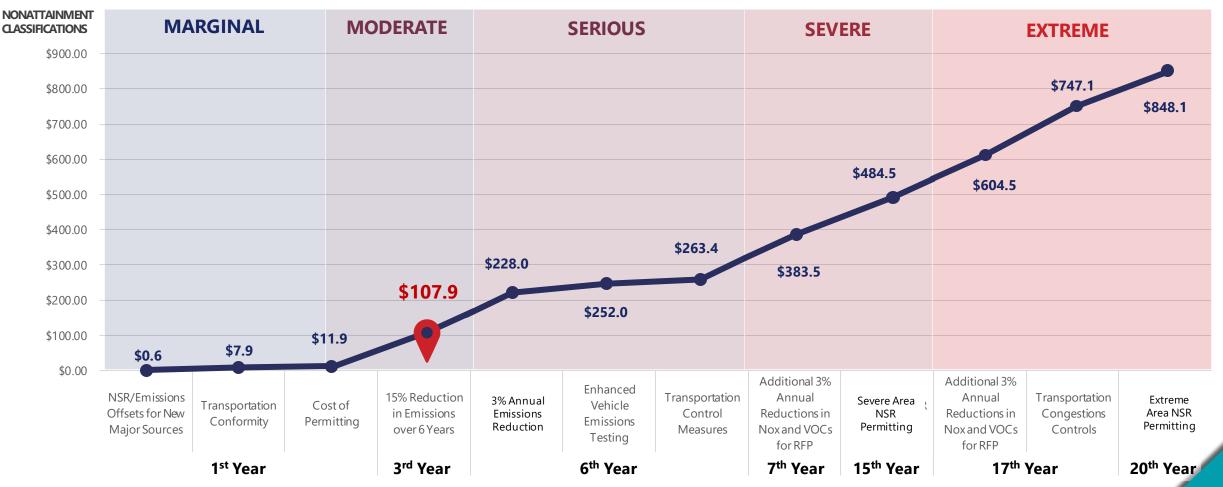
Program Investments
Active Transportation
Air Quality
Arterial Intersection
Arterial Rehabilitation
Arterial Widening
Emerging Tech
ITS
Safety
TDM Expansion

**Prop 400 extension invests in important** transportation infrastructure and services that will reduce congestion and lower emissions.

Arterials

#### OZONE NONATTAINMENT IS EXPENSIVE

**Total Cumulative Annual Costs of Ozone Nonattainment (Millions)** 



#### Sources:



"Potential Cost of Nonattainment in the San Antonio Metropolitan Area" - <u>https://www.aacog.com/Document/Center/View/41742/Contract 582-16-60180 Deliverable 5-2 Cost of Nonattainment Analysis Rev0?bidld = "The Potential Cost of an Ozone Nonattainment Designation to Central Texas" - <u>http://www.capcog.org/documents/airquality/reports/2015/Potential Costs of a Nonattainment Designation 09-17-15.pdf</u> "NSR 90-Day Review Background Paper" - <u>https://www.eagooy/sites/production/files/2015-08/documents/nsr-review.pdf</u> "Average Construction Cost for Selected Technology Types" - <u>https://www.eagooy.todavinenergy/detail.ohp?id=31912</u></u>

## OZONE NONATTAINMENT IS EXPENSIVE



#### Corpus Christi: \$600 million-\$1.7 billion each year

Texas A&M/South Texas Economic Center May 2022 study shows a failure to meet the EPA ozone standards would result in significant permitting and economic impacts.

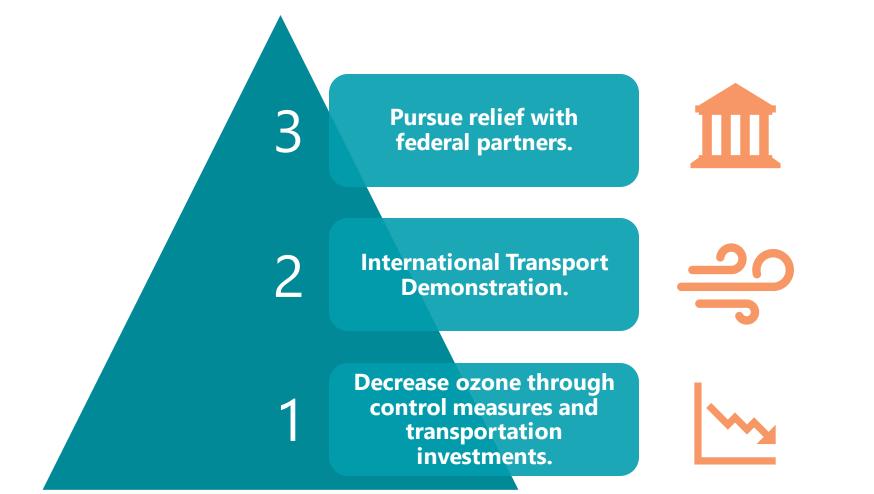
#### Oklahoma City – Shawnee Combined Statistical Area (CSA): \$9.6-\$15.2 billion over a 20- to 30-year period

Oklahoma City (ACOG) March 2022 study shows high cost for violation of federal air quality standards and ensuing federal regulatory requirements.

#### **COSTS INCLUDE:**

- Air quality permits & offsets.
- Increased unit cost per product or service.
- Stringent pollution controls.
- Impacted economic activity due to industrial and road construction delays.
- Missed business
   development opportunities.

#### MAG STRATEGY TO ADDRESS COMPLIANCE WITH OZONE STANDARD





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