

# MAG 2013 Carbon Monoxide Maintenance Plan for the Maricopa County Area

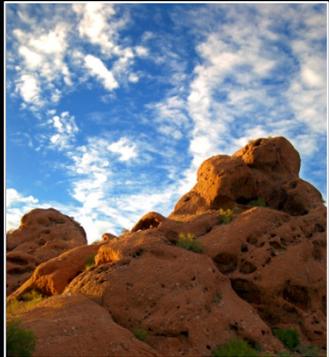


**MAG Management Committee**  
**March 13, 2013**

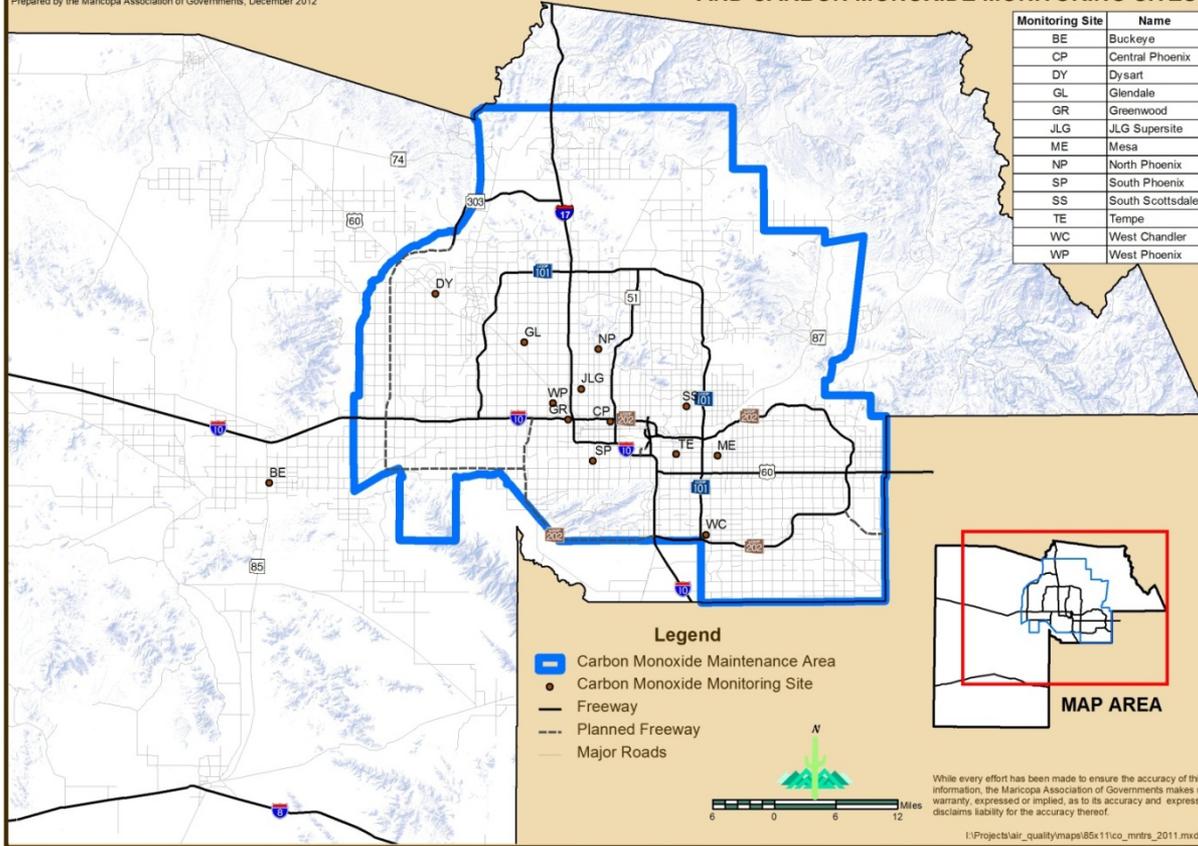
## ENVIRONMENTAL PROGRAMS

# Overview

- **Effective April 8, 2005, EPA approved the:**
  - **Revised MAG 1999 Serious Area Carbon Monoxide Plan**
  - **MAG 2003 Carbon Monoxide Redesignation Request and Maintenance Plan**
  - **Redesignation of the Maricopa County Nonattainment Area to attainment status**
- **There have been no violations of the 1-hour standard since 1984 and 8-hour standard since 1996**

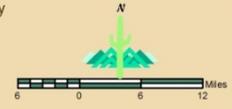
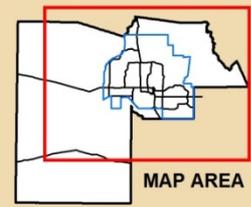


## CARBON MONOXIDE MAINTENANCE AREA AND CARBON MONOXIDE MONITORING SITES



Monitoring Site	Name
BE	Buckeye
CP	Central Phoenix
DY	Dysart
GL	Glendale
GR	Greenwood
JLG	JLG Supersite
ME	Mesa
NP	North Phoenix
SP	South Phoenix
SS	South Scottsdale
TE	Tempe
WC	West Chandler
WP	West Phoenix

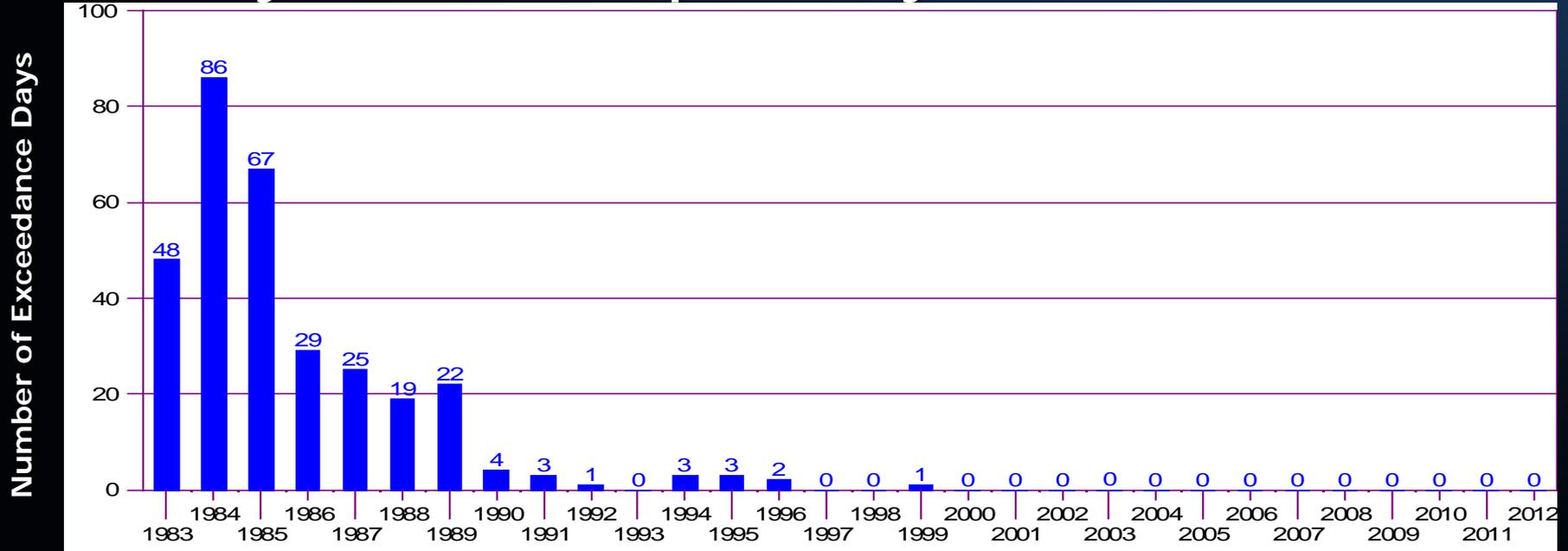
- Legend**
- Carbon Monoxide Maintenance Area
  - Carbon Monoxide Monitoring Site
  - Freeway
  - Planned Freeway
  - Major Roads



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.

# Carbon Monoxide Monitoring Data

## Number of Eight-Hour Carbon Monoxide Exceedance Days in the Maricopa County Maintenance Area



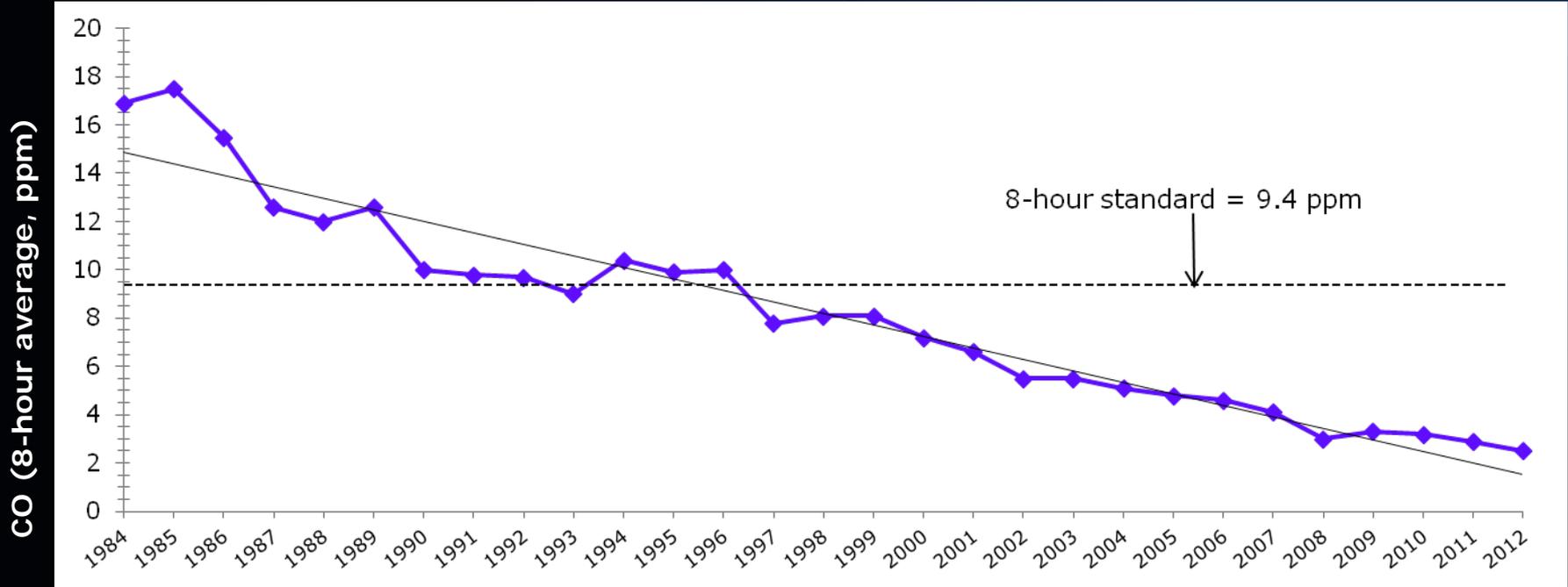
### Notes:

•Data for 2012 is preliminary.

•Sources: 1983-1998: Revised MAG 1999 Serious Area Carbon Monoxide Plan for the Maricopa County Nonattainment Area, March 2001;  
1999-2012: EPA Air Quality System; ADEQ Air Quality Forecasts (December 2012 data).

# Carbon Monoxide Monitoring Data

## 2<sup>nd</sup> Highest Eight-Hour Carbon Monoxide Concentrations in the Maricopa County Maintenance Area



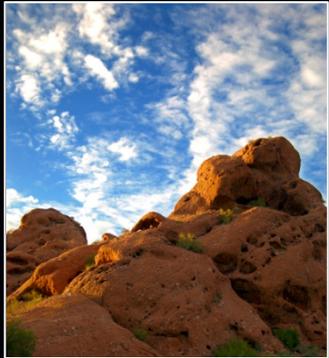
### Notes:

- The eight-hour carbon monoxide standard allows no more than one exceedance of the 9 ppm standard at the same monitor per year.
- Due to mathematical rounding, values greater than or equal to 9.5 ppm are necessary to exceed the standard.
- Data for 2012 is preliminary.
- Sources: EPA Air Quality System; ADEQ Air Quality Forecasts (December 2012 data).

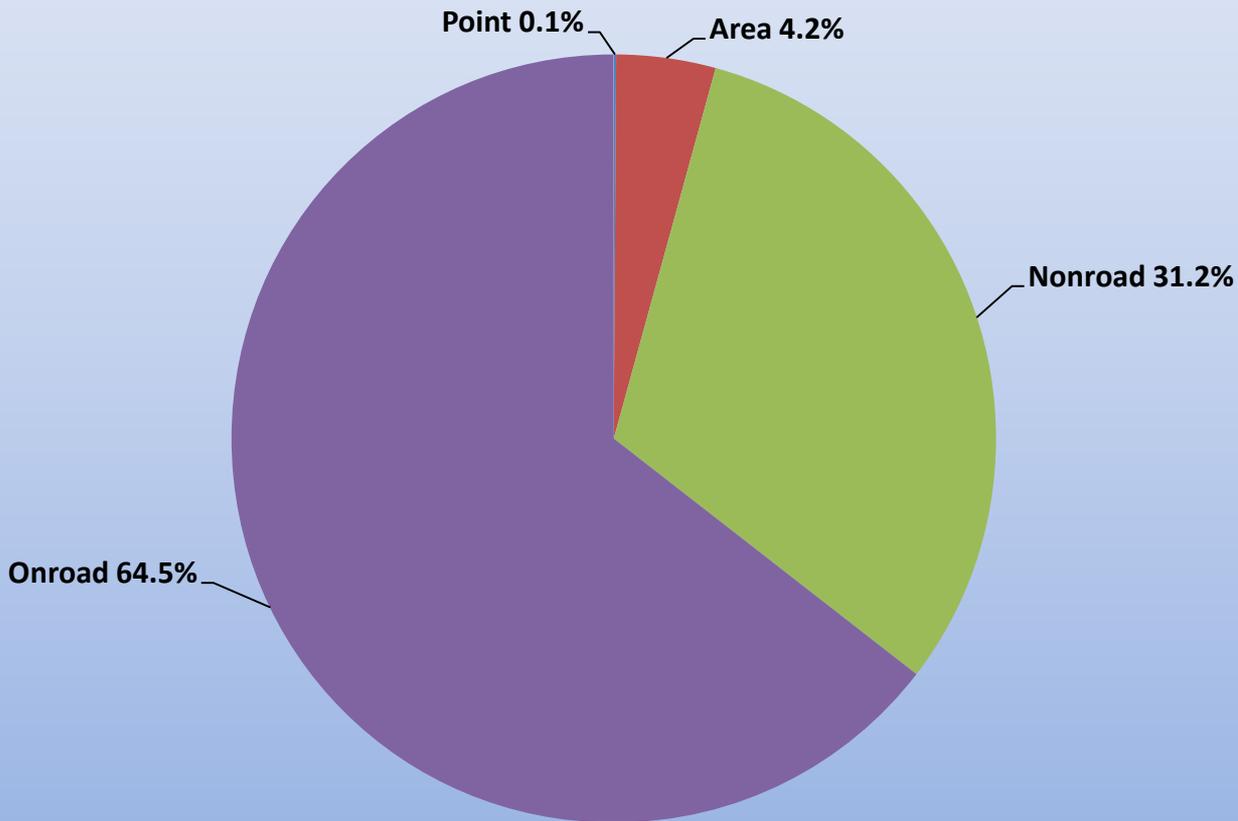
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# MAG 2013 Carbon Monoxide Maintenance Plan

- **Clean Air Act, Section 175A(b) requires an additional plan demonstrating maintenance of the standards 10 years beyond the initial 10 year period**
- **Maintenance plan is due 8 years after redesignation to attainment (April 8, 2013)**
- **Must demonstrate attainment 10 years after 2015 (through 2025)**

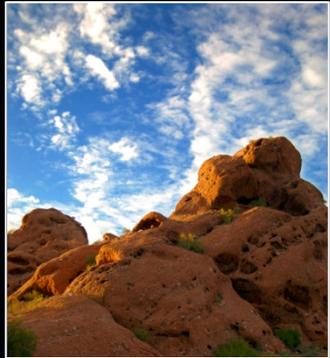


**2008 Average Weekday Carbon Monoxide Emissions  
During the Winter Season in the Carbon Monoxide Maintenance Area  
(901.6 metric tons/day)**



# MAG 2013 Carbon Monoxide Maintenance Plan Measures

## ENVIRONMENTAL PROGRAMS



1. California Phase 2 Reformulated Gasoline- 3.5 % Oxygen Content From Nov 1-March 31
2. Off-Road Vehicle and Engine Standards
3. Phased-In Emission Test Cutpoints
4. One-Time Waiver from Vehicle Emissions Test
5. Defer Emissions Associated with Government Activities
6. Coordinate Traffic Signal Systems
7. Develop Intelligent Transportation Systems
8. Tougher Enforcement of Vehicle Registration and Emissions Test Compliance
9. Clean Burning Fireplace Ordinances
10. Expansion of Area A Boundaries

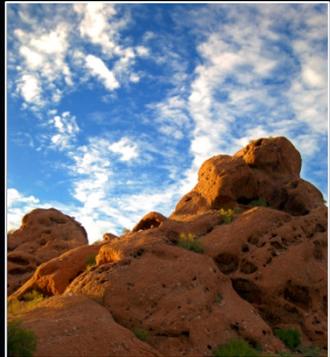
# MAG 2013 Carbon Monoxide Maintenance Plan Contingency Measures

1. Gross Polluter Option for I/M Program Waivers
2. Increased Waiver Repair Limit Options
3. Reinstatement of the VEI Program for Motorcycles



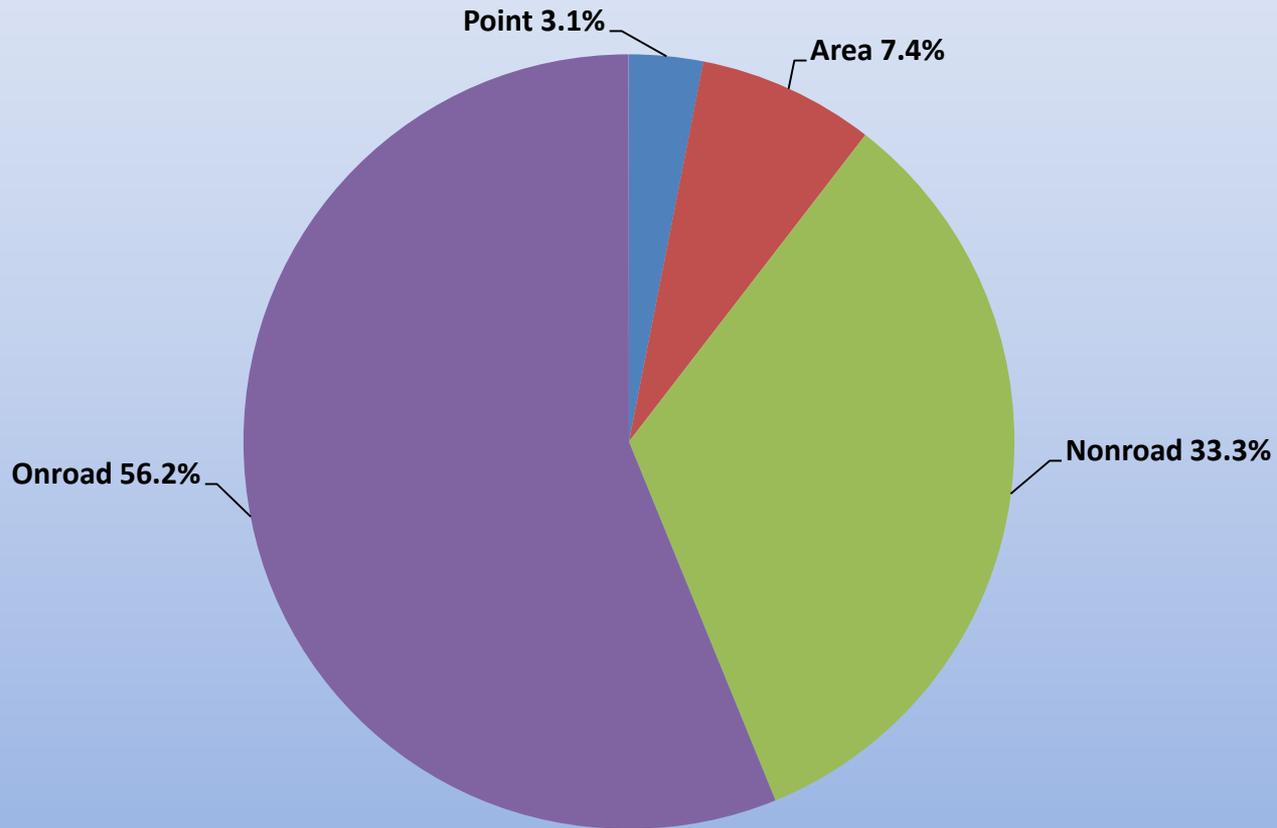
# Maintenance Plan Analyses and Results

## ENVIRONMENTAL PROGRAMS



- **Carbon Monoxide Standards**
  - 2<sup>nd</sup> highest monitored value each year should not exceed
    - 35 parts per million (ppm) for 1 hour
    - 9 ppm for an 8-hour average
- **3 Different Analyses**
  - Emissions Inventory Comparison, Scaling Maximum Concentrations, and Intersection Analysis
- **2 Weight of the Evidence Evaluations**
  - Actual Air Quality Trends and Meteorological Data
- **Results**
  - Maximum 2025 8-hour carbon monoxide concentration is 4.0 ppm

**2025 Average Weekday Carbon Monoxide Emissions  
During the Winter Season in the Carbon Monoxide Maintenance Area  
(639.6 metric tons/day)**



# Schedule for MAG 2013 Carbon Monoxide Maintenance Plan

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- **January 18, 2013–Draft plan available for public review**
- **February 19, 2013–Public hearing**
- **February 28, 2013–MAG Air Quality Technical Advisory Committee recommendation**
- **March 13, 2013–MAG Management Committee recommendation**
- **March 27, 2013-MAG Regional Council adoption of the plan**
- **March 29, 2013–MAG submission of the plan to ADEQ/EPA**
- **April 8, 2013–Plan due to EPA**



**MARICOPA  
ASSOCIATION of  
GOVERNMENTS**



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