MAG 2013 Carbon Monoxide Maintenance Plan for the Maricopa County Area

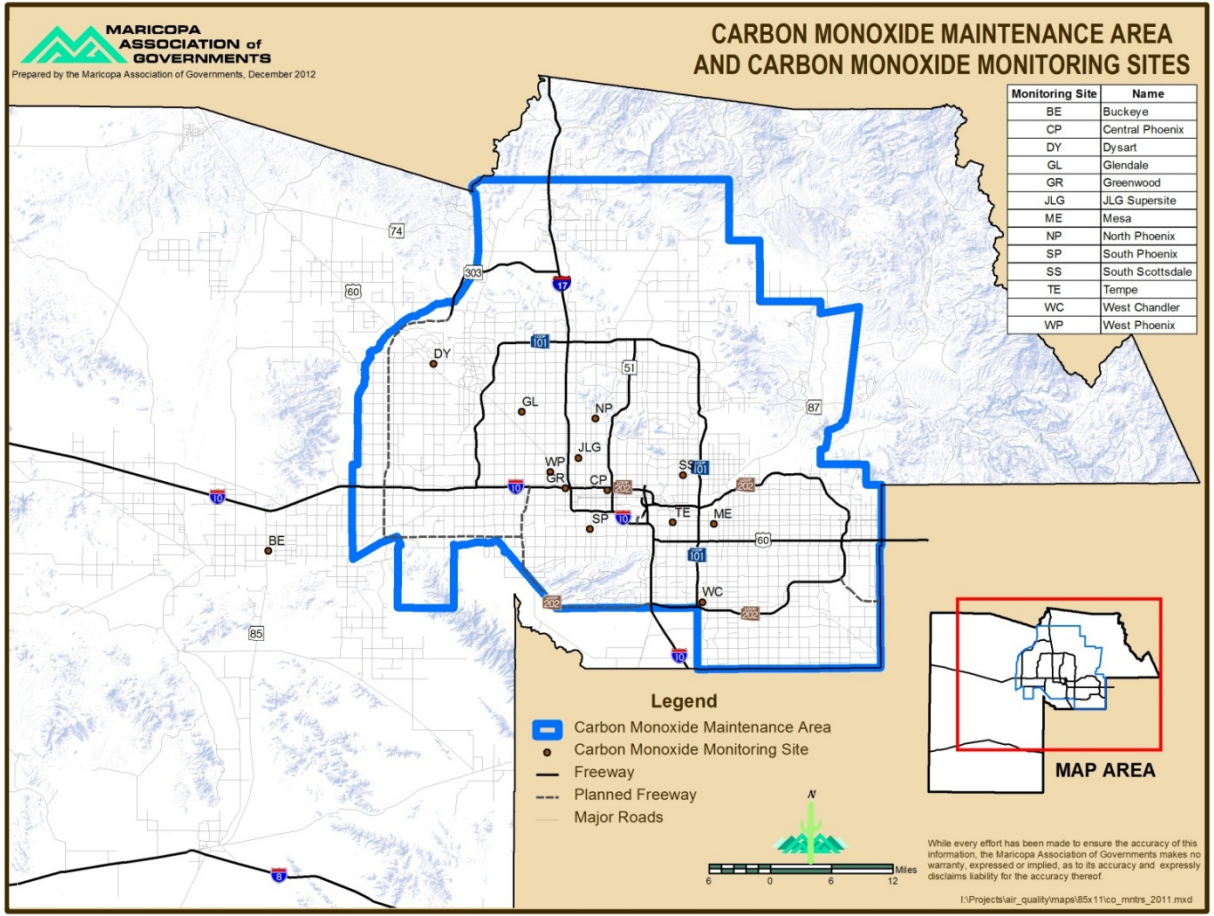
MAG Air Quality Technical Advisory Committee
February 28, 2013

MARICOPA ASSOCIATION of GOVERNMENTS

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


MARICOPA ASSOCIATION of GOVERNMENTS
Prepared by the Maricopa Association of Governments, December 2012
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
74
303
60
17
101
51
87
DY
GL
NP
JLG
WP
GR
CP
SS
SP
TE
ME
BE
WC
10
202
85
Legend
Carbon Monoxide Maintenance Area
Carbon Monoxide Monitoring Site
Freeway
Planned Freeway
Major Roads
N
6 0 6 12
Miles
MAP AREA
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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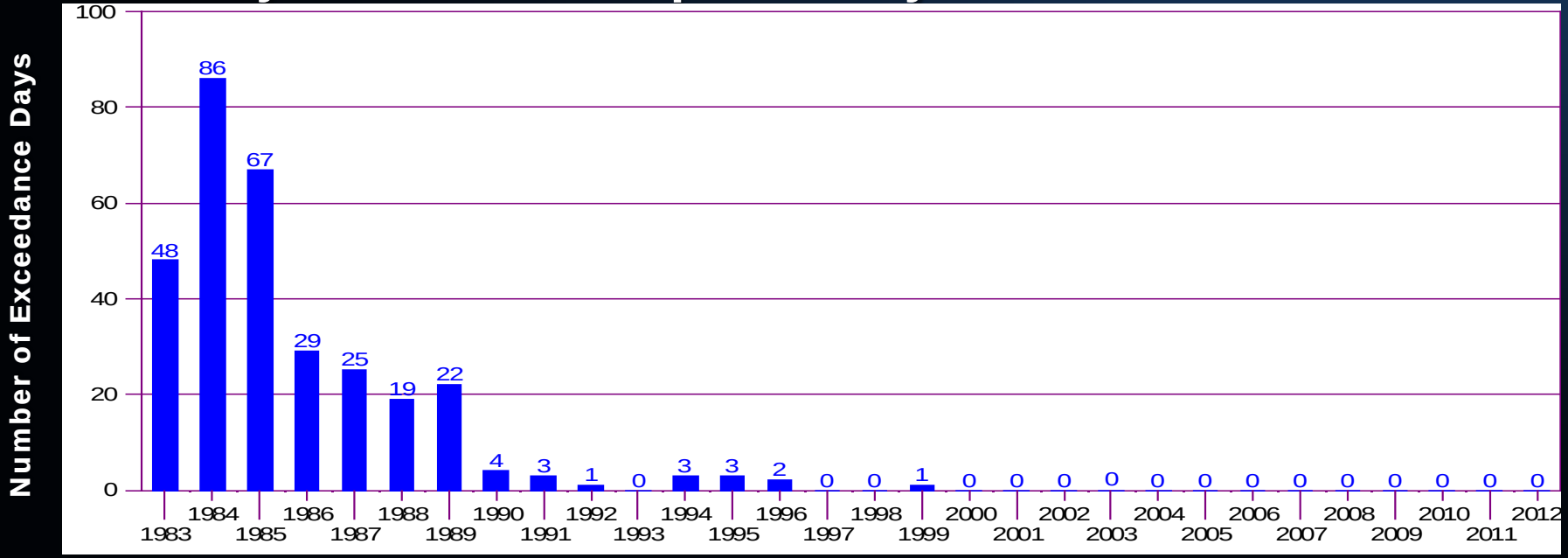
Carbon Monoxide Monitoring Data

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

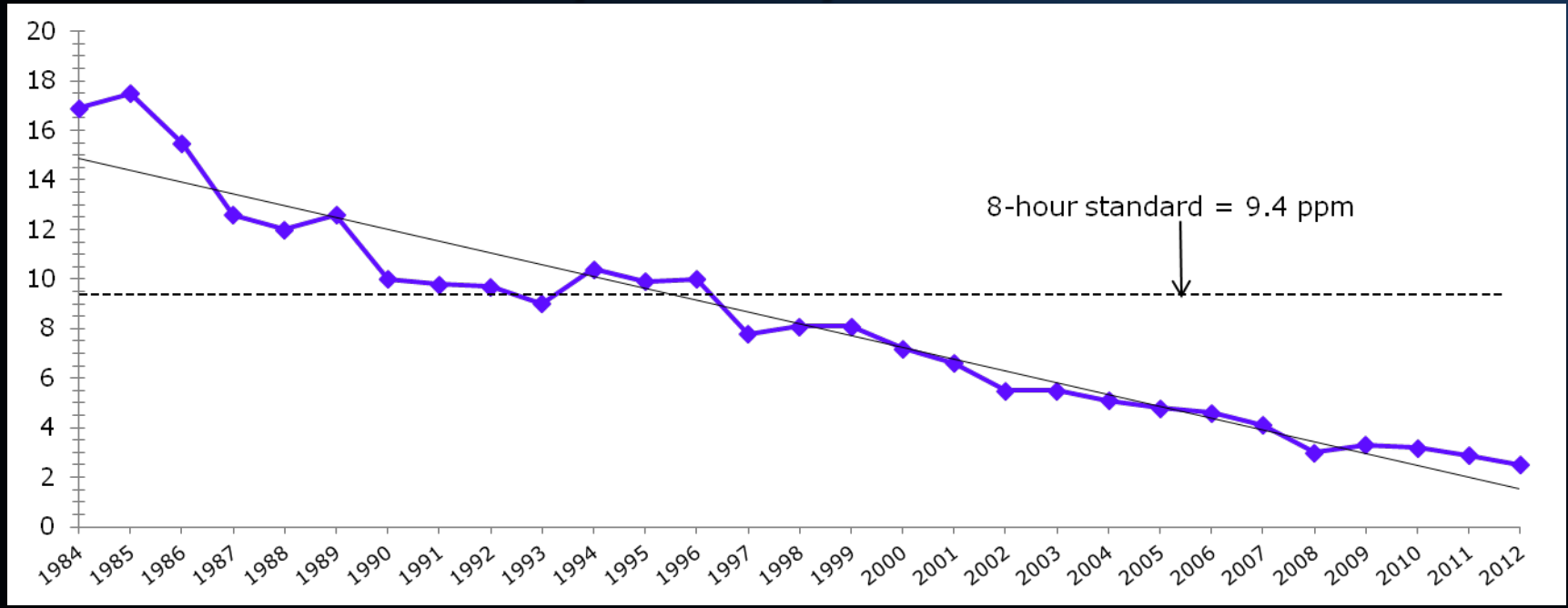


Notes:

- 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

2nd Highest Eight-Hour Carbon Monoxide Concentrations in the Maricopa County Maintenance Area



Notes:

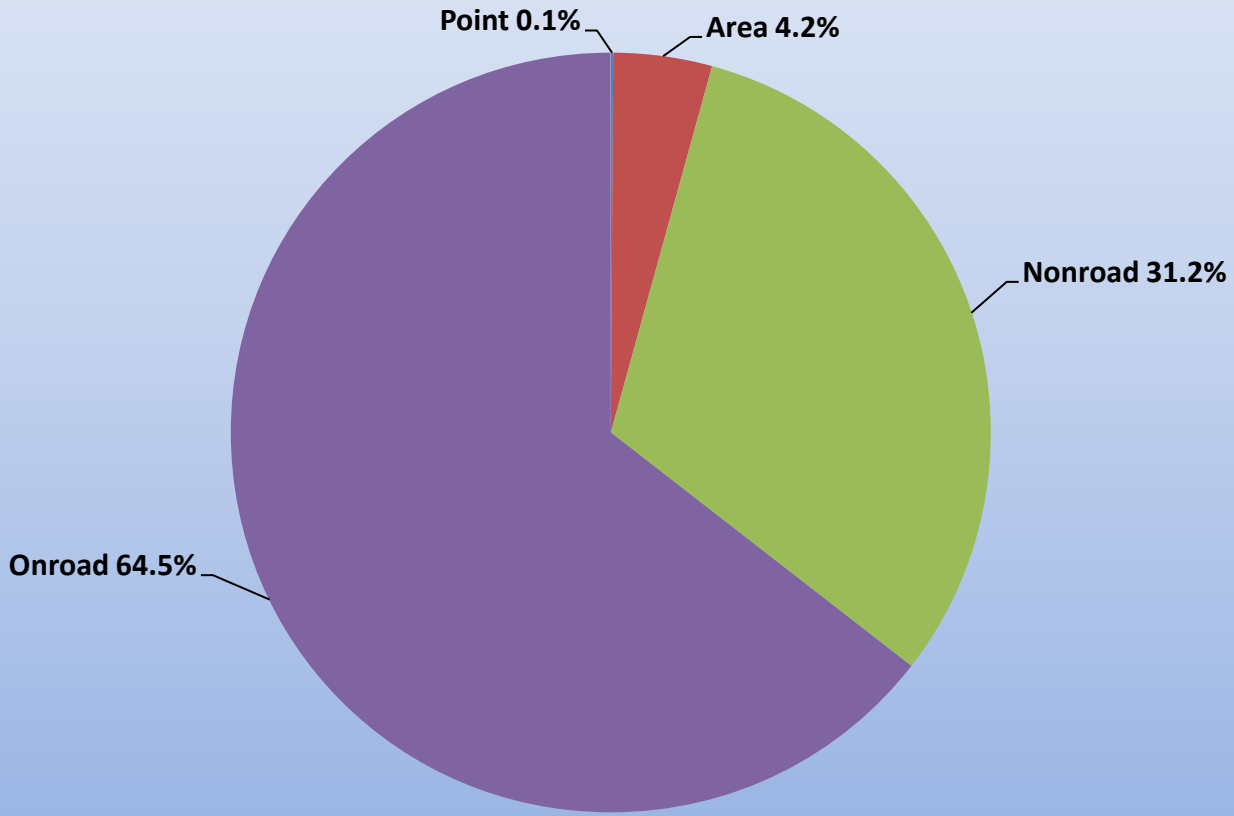
- The eight-hour carbon monoxide standard allows no more than one exceedance of the 9 ppm standard at the same monitor per year.
- Due to mathematical rounding, values greater than or equal to 9.5 ppm are necessary to exceed the standard.
- Data for 2012 is preliminary.
- Sources: EPA Air Quality System;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

ENVIRONMENTAL PROGRAMS

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

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

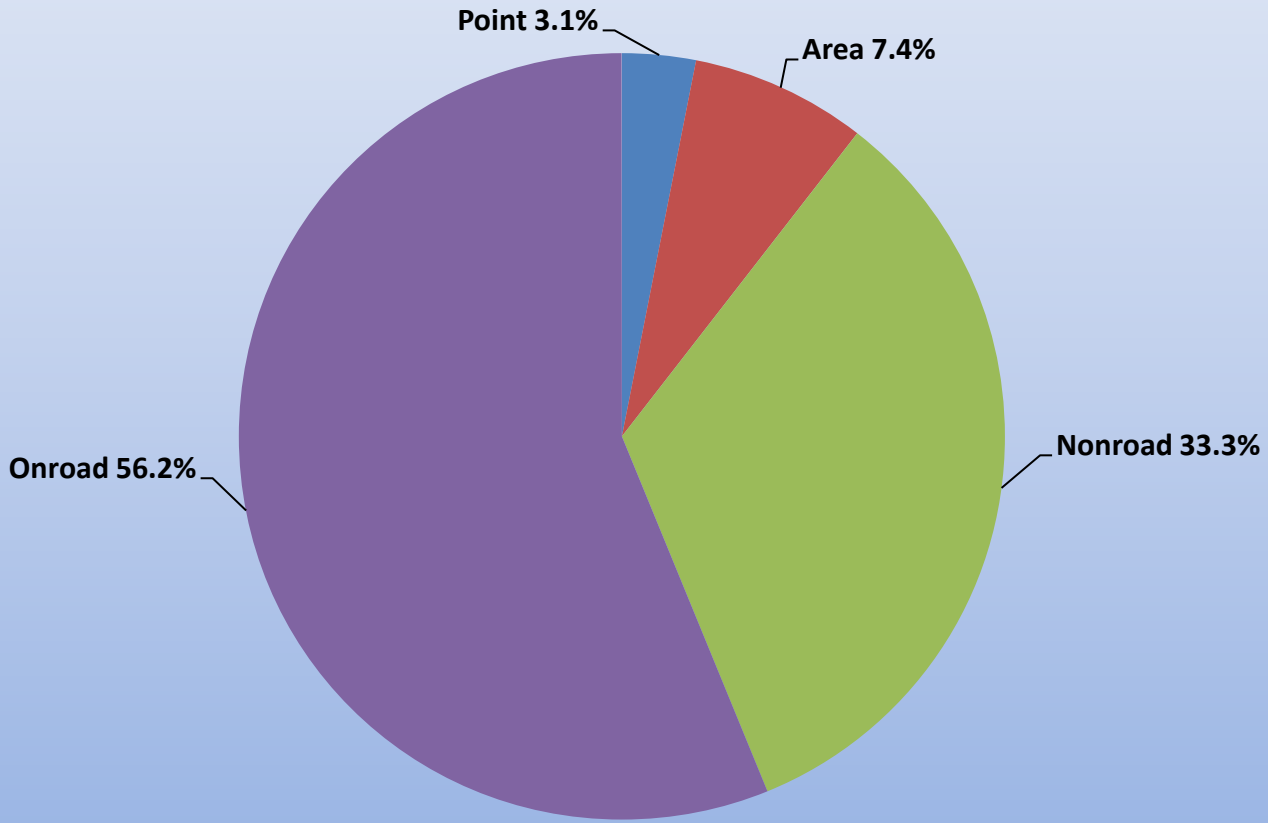
3. Reinstatement of the VEI Program for Motorcycles

ENVIRONMENTAL PROGRAMS

Maintenance Plan Analyses and Results

- Carbon Monoxide Standards
  - 2nd 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)



ENVIRONMENTAL PROGRAMS

Schedule for MAG 2013 Carbon Monoxide Maintenance Plan

- 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

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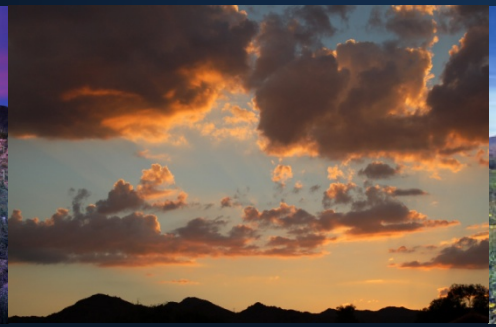

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