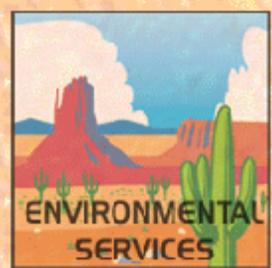


AIR QUALITY MODELING APPROACH FOR THE FIVE PERCENT PLAN FOR PM-10

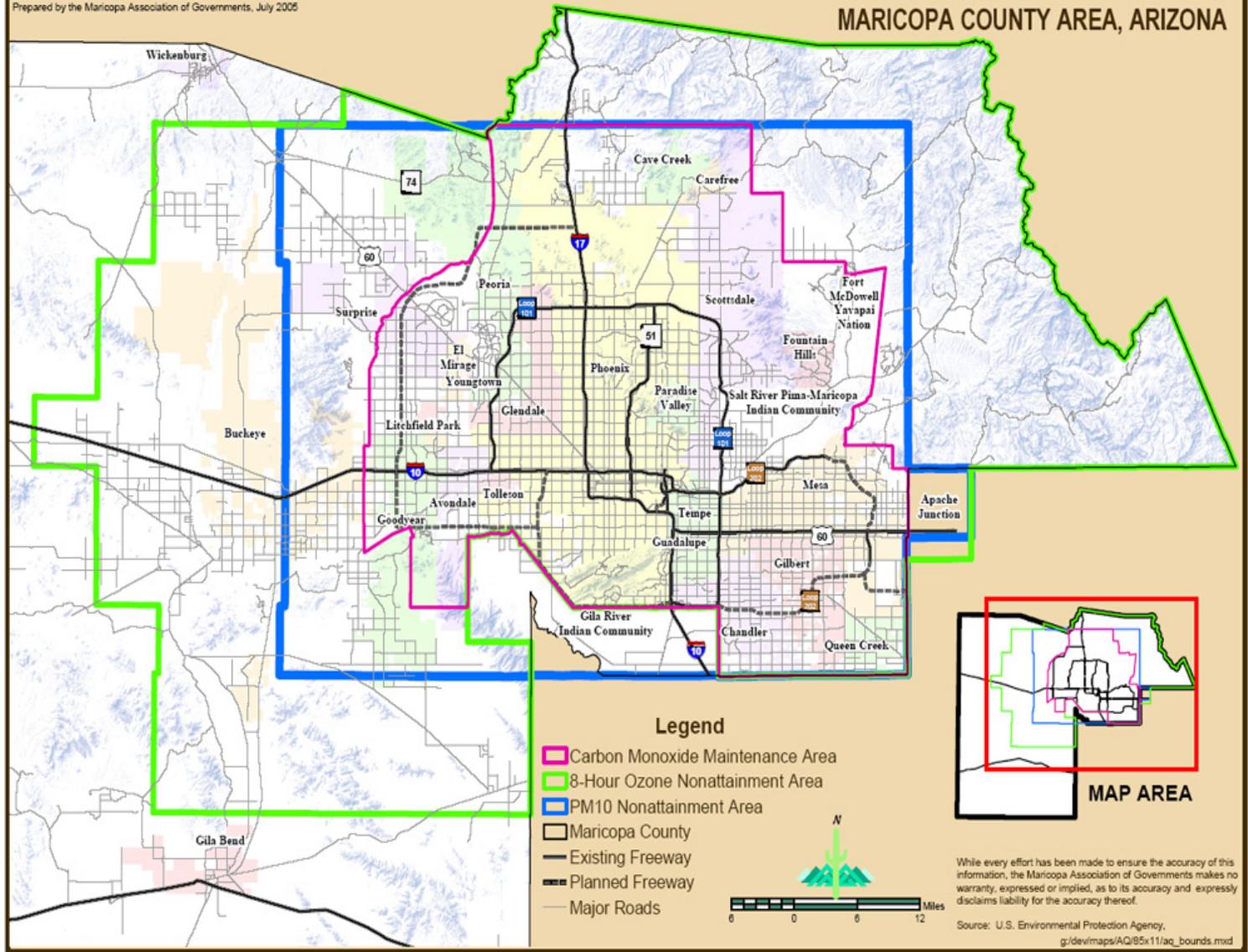
Air Quality Technical Advisory Committee

January 11, 2007





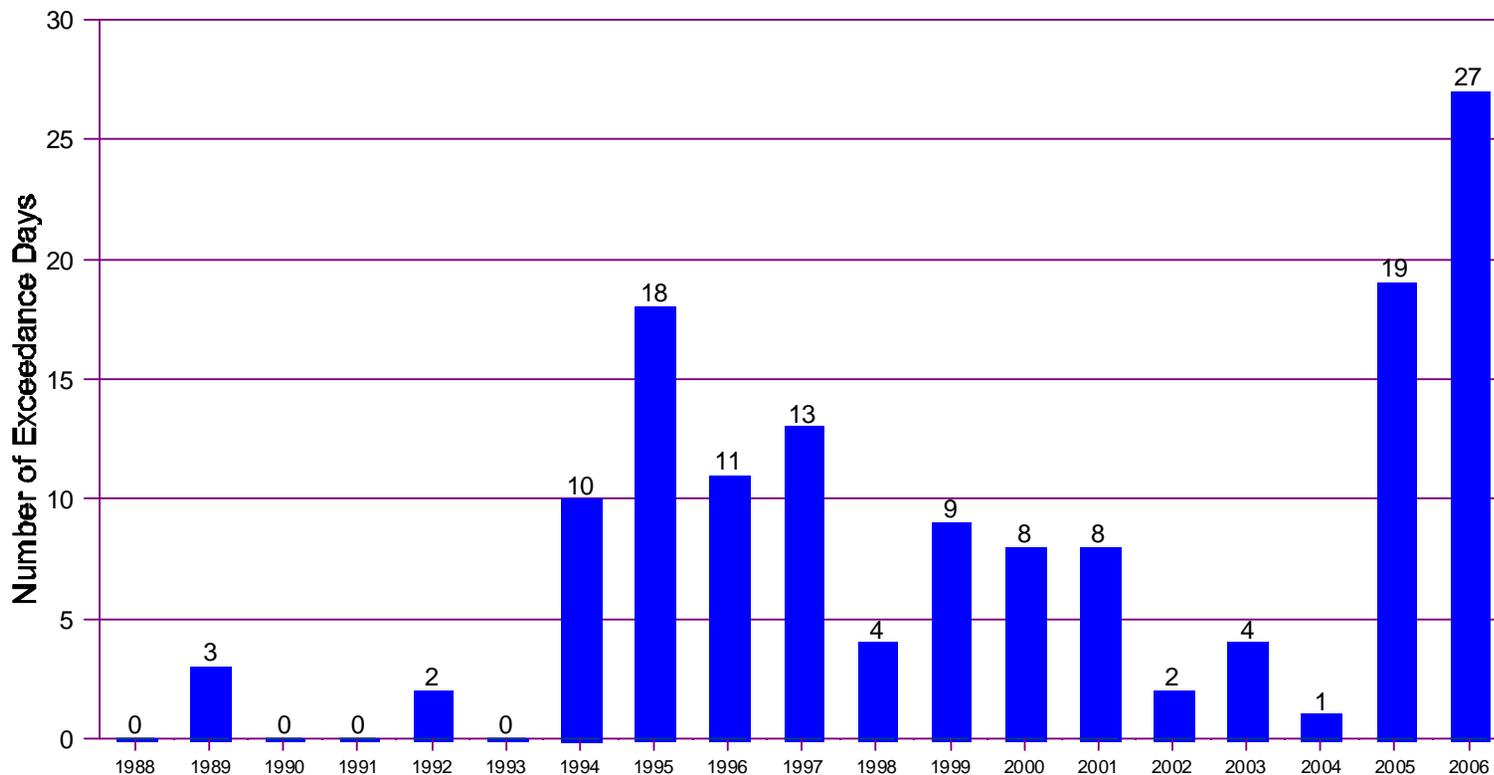
AIR QUALITY NONATTAINMENT AND MAINTENANCE AREAS FOR THE MARICOPA COUNTY AREA, ARIZONA



PM-10 Monitoring Data



DAYS EXCEEDING THE 24-HOUR PM-10 STANDARD IN THE MARICOPA COUNTY NONATTAINMENT AREA



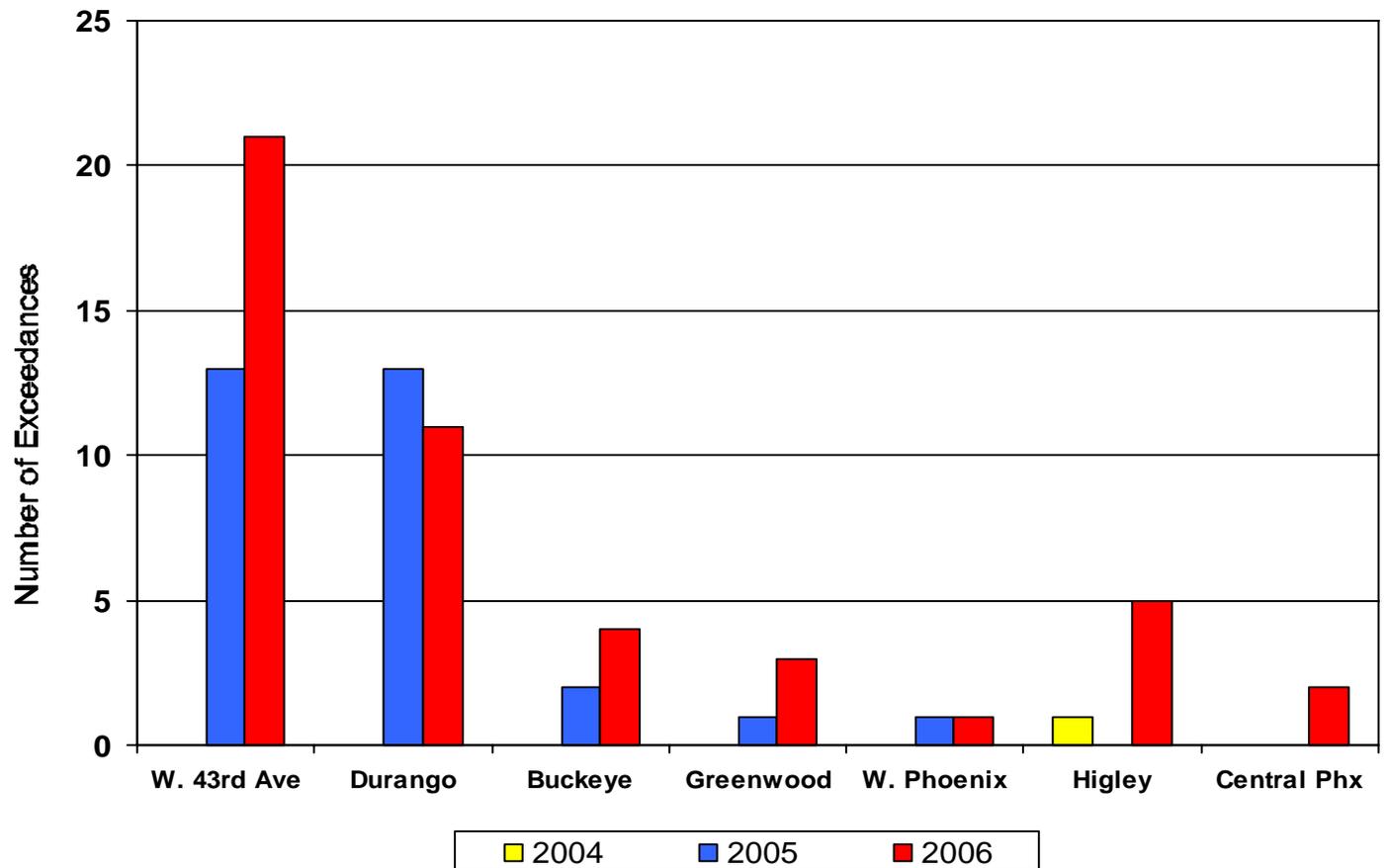
Notes:

1. The 2006 data have not been validated by the Maricopa County Air Quality Department and, therefore, is preliminary and subject to change.
2. Five of the 2006 exceedance days may be classified by EPA as "natural events".



PM-10 Monitoring Data

EXCEEDANCES OF THE 24-HR PM-10 STANDARD BY MONITOR IN THE MARICOPA COUNTY NONATTAINMENT AREA



Notes:

1. The 2006 data have not been validated by the Maricopa County Air Quality Department and, therefore, is preliminary and subject to change.
2. Some of the 2006 exceedances may be classified by EPA as "natural events".



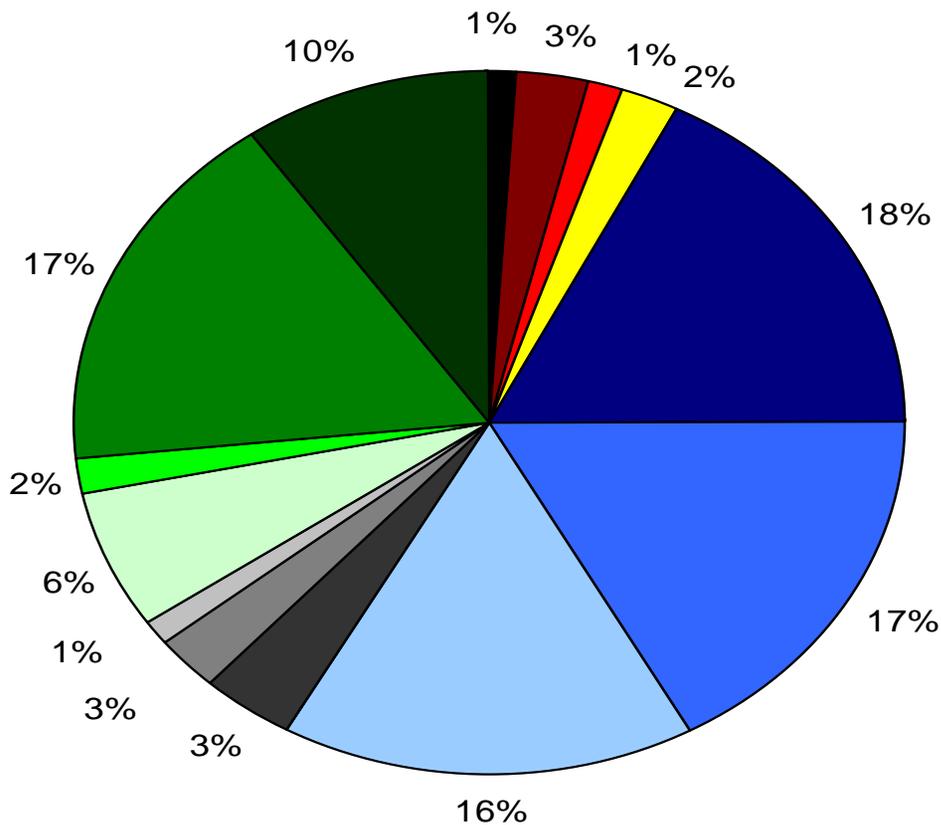


Five Percent Plan for PM-10

- Required by Clean Air Act Section 189(d)
- Plan due to EPA by December 31, 2007
- Plan must show 5 percent reduction in emissions per year until PM-10 standard is attained
 - Based upon most recent emissions inventory (2005)
- Plan must demonstrate attainment via modeling
- PM standard will be attained when there are no exceedances at any monitor in the nonattainment area for three consecutive years
 - Earliest possible attainment date: 2009
 - If more than 3 exceedances* occur at any monitor in 2007, earliest attainment date: 2010
 - No exceedances in the first nine days of 2007

*That are not classified as “natural events” by EPA

Preliminary 2007 PM-10 Emissions Without Windblown Dust in the PM-10 Nonattainment Area



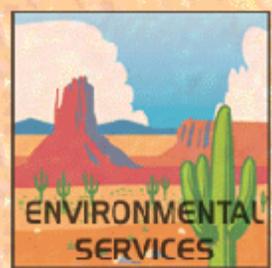
Total = 86,760 tpy

- Stationary point sources
- Industrial processes
- Fuel combustion & fires
- Agriculture
- Construction (residential)
- Construction (commercial)
- Construction (road)
- Travel on unpaved parking lots
- Offroad rec vehicles fugitive dust
- Leaf blowers fugitive dust
- Nonroad mobile sources
- Exhaust/tire wear/brake wear
- Paved road fugitive dust (including trackout)
- Unpaved road fugitive dust



PM-10 Modeling

- **AERMOD Dispersion Model**
 - Episode: December 11-13, 2005
 - Salt River Area monitors
 - Stagnant meteorological conditions
- **Proportional Rollback Model**
 - Episode: January 24, 2006
 - Higley monitor
 - High wind conditions
- Assistance from Sierra Research and T&B Systems on PM-10 modeling and assumptions
- Model attainment no later than 2009 (or 2010) with committed control measures
- Detailed MAG PM-10 modeling protocol available at <http://www.mag.maricopa.gov/detail.cms?item=6462>



Schedule - Five Percent Plan for PM-10

- Feb-Mar 2007 - Suggested List of Measures for consideration
- Mar 2007 - Model validation for 2005/2006 episodes
- Jun 2007 - Commitments to implement measures
- Aug 2007 - Committed measure modeling and evaluation process
- Sep 2007 - Documents available
- Oct 2007 - Public hearing
- Oct 2007 - AQ TAC recommendation
- Dec 2007- Regional Council action
- Dec 2007 - Submit to ADEQ/EPA
- Mar 2008 - EPA adequacy finding for conformity budget



For more information

Cathy Arthur, MAG (602) 254-6300

www.mag.maricopa.gov

