
Georgia Department of Natural Resources

Environmental Protection Division, Air Protection Branch

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MEMORANDUM

TO: Ron Methier

FROM: Jeff Carter

SUBJECT: Non-attainment Area Designations for the 8-hour Ozone Standard

FACTORS CONSIDERED

The Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards lists the following factors that should be addressed should a State wish to propose larger or smaller non-attainment area boundaries than the MSA:

- a) Emissions and air quality in adjacent areas
- b) Population density and degree of urbanization
- c) Monitoring data representing ozone concentrations in local areas and larger areas
- d) Location of emission sources
- e) Traffic and commuting patterns
- f) Expected growth
- g) Meteorology
- h) Geography/topography
- i) Jurisdictional boundaries
- j) Level of control of emission sources
- k) Regional emission reductions

Georgia's review of the data included consideration of the following factors:

- 1) Whether the county contained a monitor showing a violation of the 8-hour Std.
- 2) Population Density (1998 and 2007 Projected)
- 3) Vehicles commuting into counties with monitored violations or core counties
- 4) Percent Urbanization
- 5) Percent Population Growth (from 1980 to 1990; from 1990 to 2000)
- 6) 2007 Emissions Density (VOC & NOx)
- 7) Vehicular Miles Traveled
- 8) Registered Vehicles

These factors are in fact a consideration of EPA factors a-f, and j. Concerning factor g, meteorology should play an insignificant role in the assessment of non-attainment areas since, in Georgia, the wind can and does blow from any direction. Concerning factor h, there is no limiting geography or topography. Concerning factor i, jurisdiction was considered in our consultation with the border states of Alabama, South Carolina and Tennessee.

RECOMMENDATION CRITERIA

If a county met Factor 1) it is automatically designated non-attainment.

A county is recommended for non-attainment designation if it meets 5 of the 7 remaining criteria (thresholds for factors 2-8)

The following thresholds determined whether a county met the criteria:

- 1 Population Density – 270 people per square mile – [Derived from the lowest projected 2000 population density of any county currently with a monitored violation]
- 2 In Commutes – At least 10,200 vehicles commuting into a core county or a county with a monitored violation. The in-commute into core counties was considered only for those counties outside any current non-attainment area, to prevent double-counting.
- 3 Percent Urbanization – 35% (minimum percent urbanization considered by U.S. Census Bureau)
- 4 Percent Population Growth – 20% (minimum percent urbanization considered by U.S. Census Bureau)
- 5 2007 Emissions Density –
 - VOC – 10 tpy/sq mi [Derived from the lowest projected 2000 VOC emission density of any county currently with a monitored violation]
 - NOx – 13 tpy/sq mi [Derived from the lowest projected 2000 NOx emission density of any county currently with a monitored violation]
- 6 Vehicle Registration – 68,000 vehicles
- 7 Vehicular Miles Traveled in the county – 1,300,000 miles