

The Revised Ground-level Ozone Standard

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What I am Going to Cover

Clean Air Act and Ground-level Ozone

The Revised 8-Hour Ozone Standard

What are Air Quality Designations?

Process for Designating Areas

What Could a Nonattainment Designation Mean for an Area?



National Ambient Air Quality Standards

EPA sets National Air Quality Standards for commonly occurring air pollutants

Standards have been set for:

Ground-level Ozone (smog)

Particulate Matter

Carbon Monoxide

Sulfur Dioxide

Nitrogen Dioxide

Lead



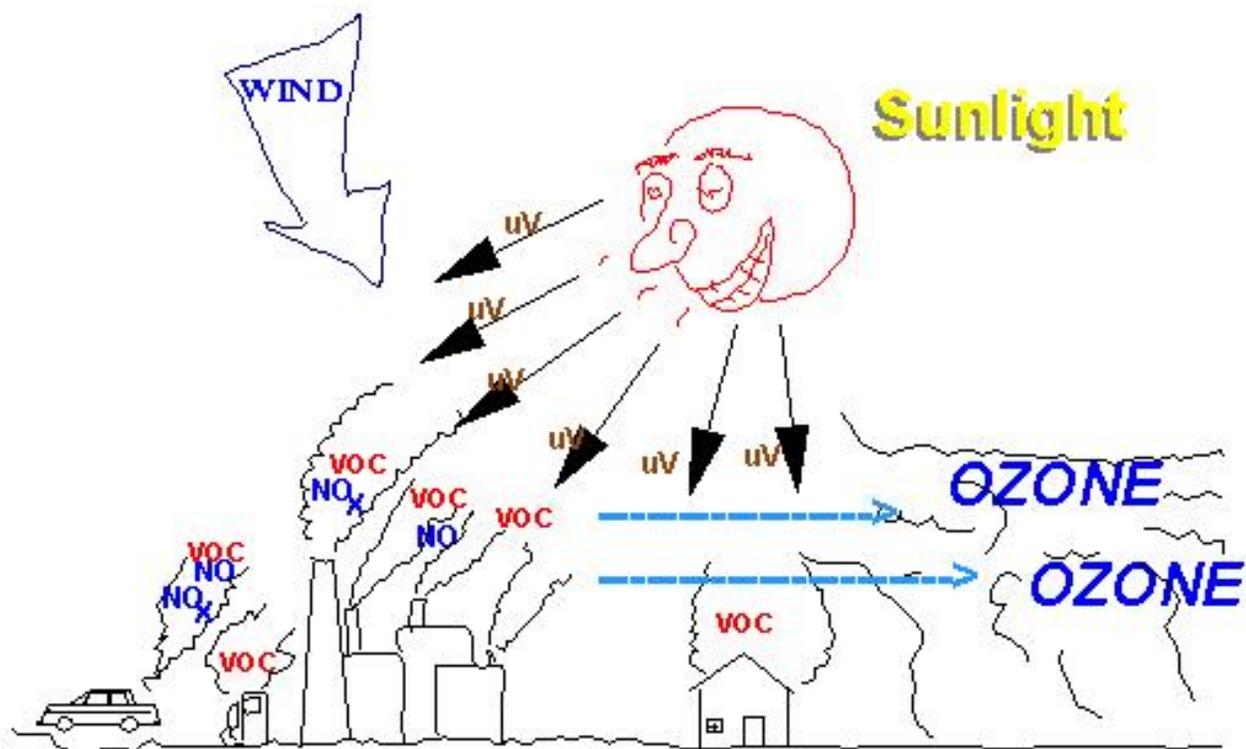
Why Ground-level Ozone?

- Susceptibility to Respiratory Infection
- Lung Inflammation
- Aggravates Respiratory Diseases such as Asthma



HOW VOCs AND NO_x FORM GROUNDLEVEL OZONE

VOC + NO_x + SUNLIGHT = OZONE



Sources of Air Emissions



1-Hour Ozone Standard

- 1-hour standard of 0.12 parts per million (ppm)
- Attainment - 124 parts per billion (ppb)



1997 8-Hour Ozone Standard

- 0.08 ppm (84 ppb)
- 3-year average of the annual fourth highest value at any specific monitor must not exceed the standard
- Designations and Classifications in 2004



Some Nonattainment Areas for the 1997 8-Hour Ozone Standard

- TX – Houston/Galveston, Dallas/Fort Worth, Beaumont/Port Arthur
- LA – Baton Rouge
- AR – Crittenden County (West Memphis)
- NM – None
- OK - None



Revised 8-Hour Ozone Standard

- March 2008, standard revised to 0.075 ppm (75 ppb)
- 3-year average of the annual fourth highest value at any specific monitor must not exceed the standard
- EPA required to designate geographic areas as attainment, unclassifiable or nontattainment



What are Air Quality Designations?

- Nonattainment – area does not meet the standard or has sources that contribute to a nearby area not meeting the standard
- Attainment – area meets the standard and does not contribute to nearby nonattainment area
- Unclassifiable – area can not be classified based on available data



Timeline for 2008 Revised 8-Hour Ozone Standard

| Milestone | Date |
|---|---|
| Revised Standard | March 12, 2008 |
| State/Tribal Designation Recommendations | March 12, 2009 |
| State/Tribal notification of intended modifications and Public Comment Solicitation | November 2009 (120 days before designations) |
| States/Tribes submit additional information in response to EPA's intended modifications | No later than January 12, 2010 |
| Final Ozone Designations | No later than March 12, 2010 |



EPA Guidance on Designations

- Use most recent 3 years of certified data
- Nonattainment for any county with an ozone monitor showing a violation
- Presume the Metropolitan or Micropolitan Statistical Area (Core Based Statistical Area) as the designation boundary
- States/Tribes can recommend smaller areas but should justify



Factors for Area Specific Analysis

- Air quality data
- Emissions data (location of sources & contribution to ozone concentrations)
- Population density and degree of urbanization
- Traffic and commuting patterns
- Growth rates and patterns
- Meteorology (weather/transport)
- Geography/topography
- Jurisdictional boundaries
- Level of control of emissions



Ozone Classification Timelines

| Classification | Years to Attain (from Designation) |
|-----------------------|---|
| Marginal | 3 |
| Moderate | 6 |
| Serious | 9 |
| Severe | 15 – 17 |
| Extreme | 20 |



What Could a Nonattainment Designation Mean for an Area?

- **Revised State Implementation Plan (SIP)**
- **Controls for major sources of NO_x and VOC**
- **Emission offsets for new major sources or major source modification**
- **Conformity Process (General and Transportation)**



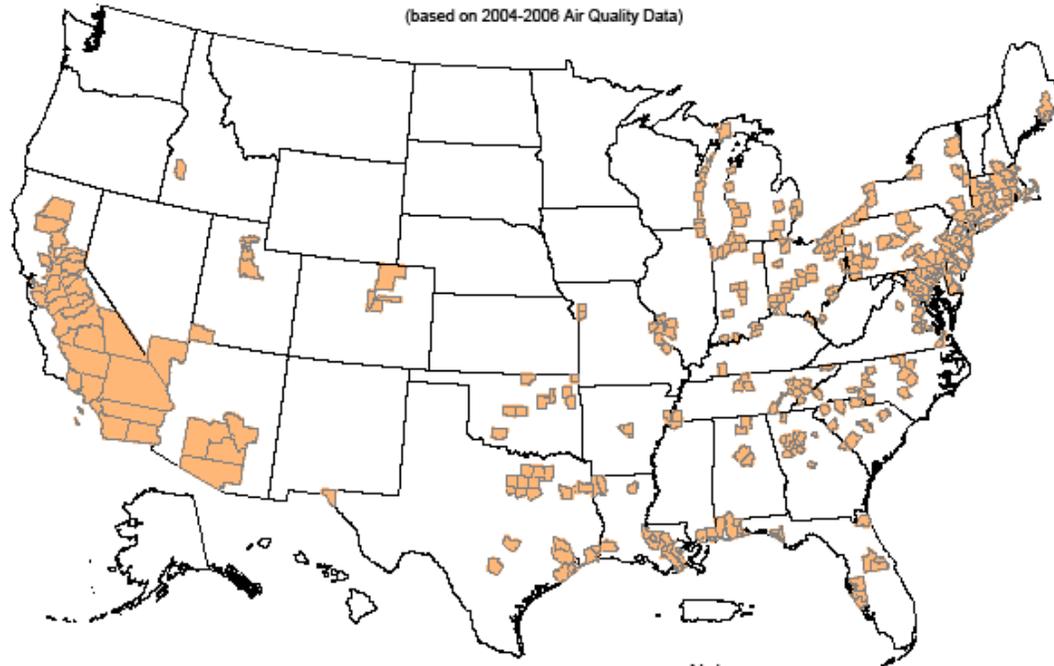
New Standard 2008 (2004 to 2006 Data)



Estimates are based on the most recent data (2004 – 2006). EPA will not designate areas as nonattainment on these data, but likely on data from 2006 – 2008 or later, which we expect to show improved air quality.

Counties with Monitors Violating the 2008 8-Hour Ozone Standard of 0.075 parts per million (ppm)

(based on 2004-2006 Air Quality Data)



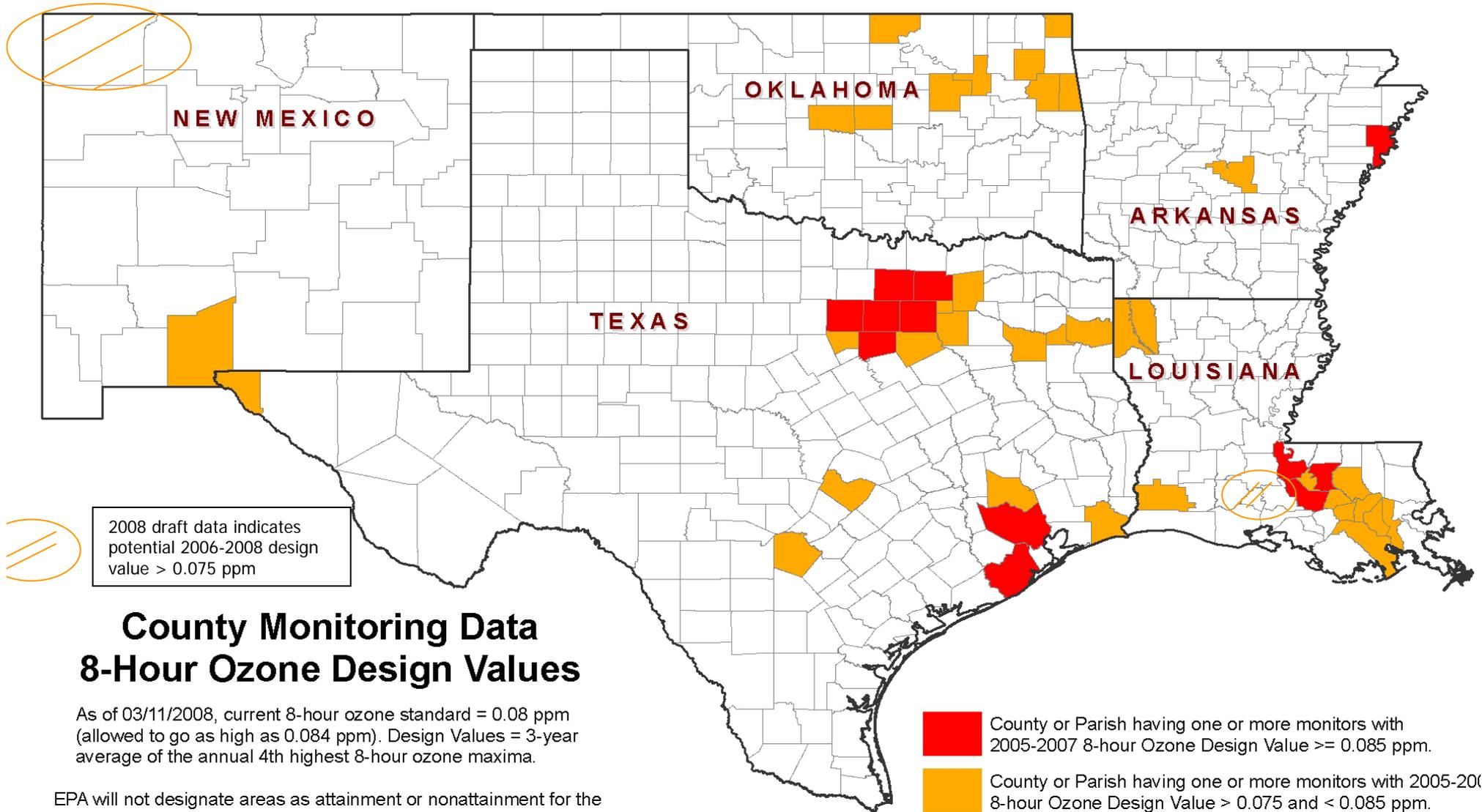
Notes:

¹ 345 monitored counties violate the 2008 8-hour ozone standard of 0.075 parts per million (ppm).

² Monitored air quality data can be obtained from the AQS system at <http://www.epa.gov/ttn/airsaqs/>



Ground Level Ozone



Sources:
US EPA AQS Dataset and State Agency Monitors.



For More Information

- www.epa.gov/groundlevelozone/
- www.epa.gov/ozonedesignations/
(see Myths and Facts)
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