



# Implementing the Ozone Standard

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# Discussion Topics

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- How ozone data is collected and used
- How an area is identified as meeting the standard
- What happens when an area doesn't meet the standard



# Current Ozone Standard

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2008 Standard

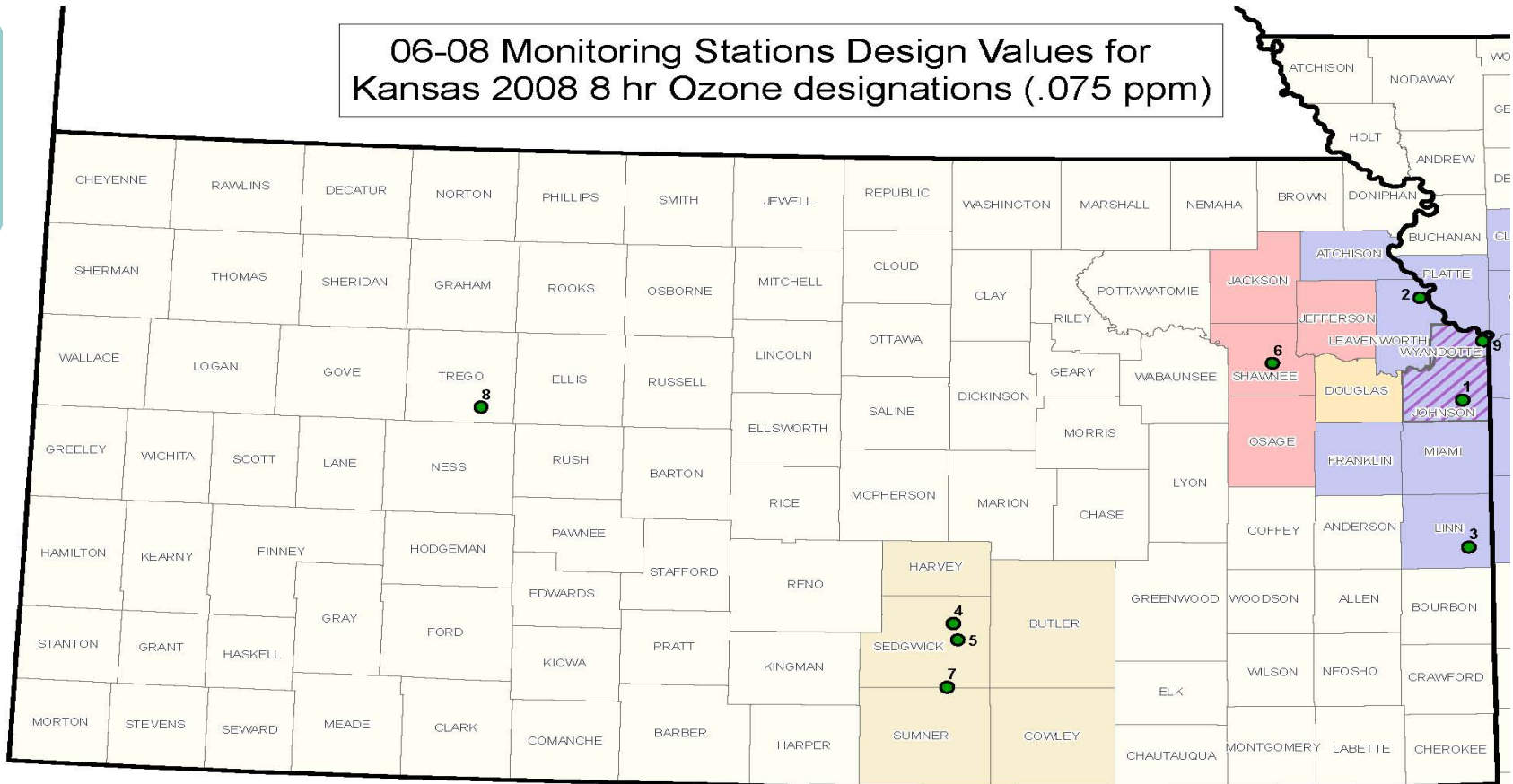
Parts per million (ppm)

- Primary Standard = 0.075 ppm
- Secondary Standard = 0.075 ppm

**What does this mean?**

# Ozone Monitoring Network

06-08 Monitoring Stations Design Values for Kansas 2008 8 hr Ozone designations (.075 ppm)



# - Site Name (ppb)

- |                          |                     |                        |
|--------------------------|---------------------|------------------------|
| 1 - Heritage Park (69)   | 4 - Park City (61)  | 7 - PECK Comm Ctr (72) |
| 2 - US Penitentiary (72) | 5 - Wichita HD (66) | 8 - Cedar Bluff (69)   |
| 3 - Mine Creek (70)      | 6 - Topeka (*)      | 9 - JFK Core (72)      |

\*: Includes data for 2007 & 2008 only - Cannot determine a Design Value until 2009 Data is available.

- KS Monitoring Sites
- KC\_CSA
- Lawrence CBSA
- Topeka CBSA
- Wichita CBSA
- KS Recommendation

Sources:

CBSA, CSA:  
U.S. Census Bu

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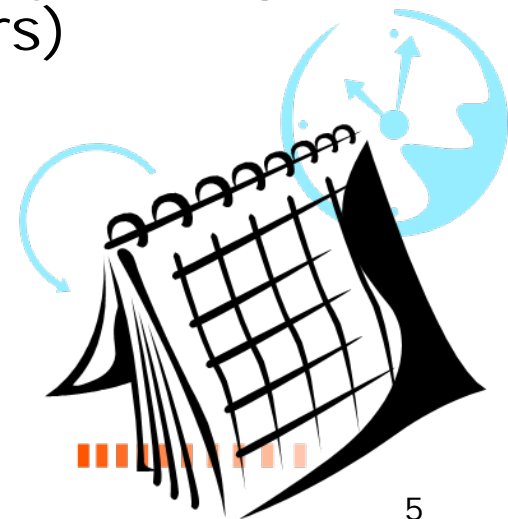
FDA does not warrant the accuracy, completeness



# How Design Values Are Calculated

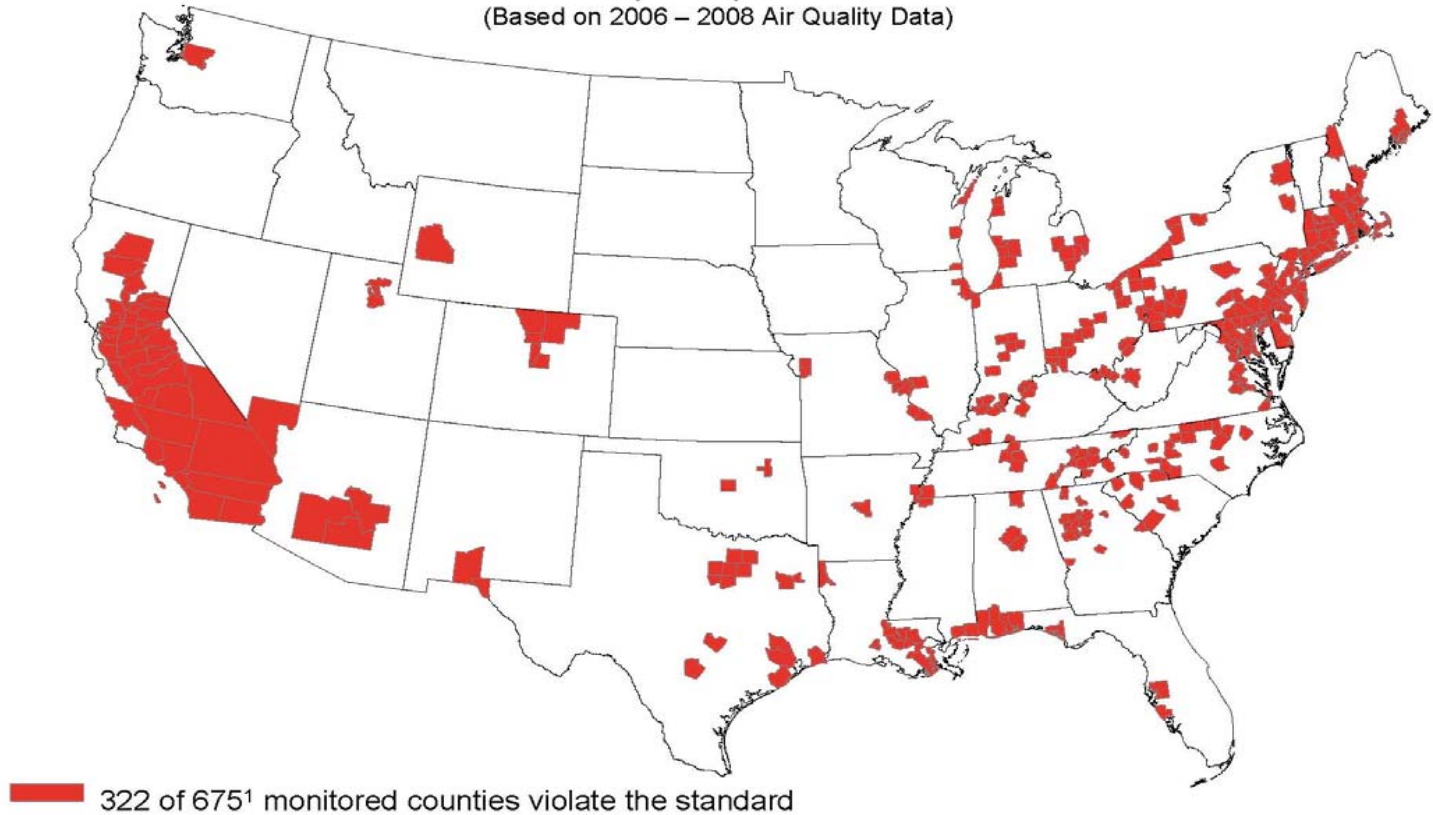
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- Hourly ozone concentrations averaged over 8-hour period
- Daily maximum ozone concentration is the highest of the 24 possible 8-hr averages
- Determine the 4<sup>th</sup> highest 8-hr daily average for each ozone season (for three years)
- Design Value is the three year average of the 4<sup>th</sup> highest concentration
  - To meet the standard, the value must be less than or equal to the standard



# Counties Violating Current Standard

Counties With Monitors Violating the March 2008 Ground-Level Ozone Standards  
0.075 parts per million  
(Based on 2006 – 2008 Air Quality Data)



**Notes:**

1. Counties with at least one monitor with complete data for 2006 – 2008
2. To determine compliance with the March 2008 ozone standards, the 3-year average is truncated to three decimal places.

# A New Target: Proposed Ozone Standard

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On January 6, 2010, EPA proposed to revise the ozone standard:

- Primary Standard: proposed a range of 0.060-0.070 parts per million (ppm)
- Secondary Standard: proposed to establish a separate cumulative secondary standard within a range of 7-15 ppm-hours





# Why Revise the Ozone Standard?

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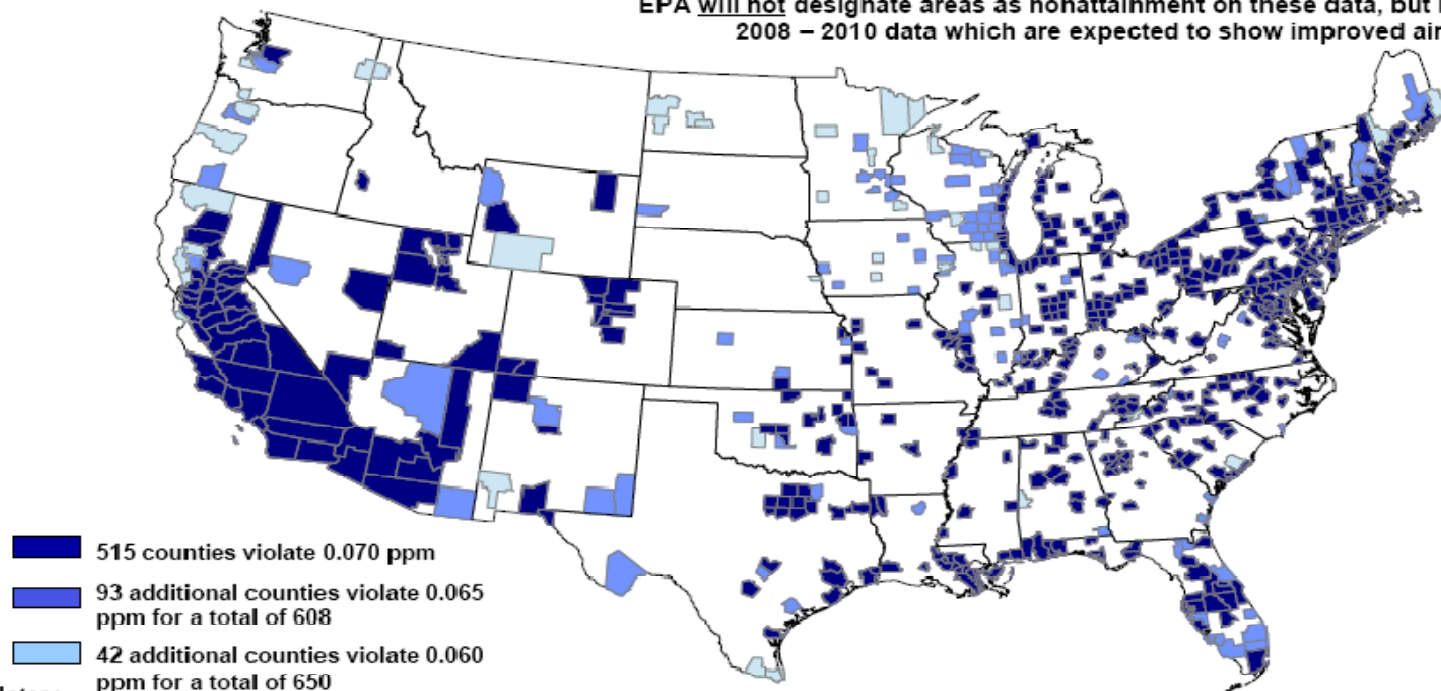
- Response to concerns that 2008 ozone NAAQS is not protective of public health and environment
- To ensure the current ozone standard is scientifically sound and protective of human health

# Potential Violating Counties: Primary Standard

## Counties With Monitors Violating Proposed Primary 8-hour Ground-level Ozone Standards of 0.060 - 0.070 parts per million

(Based on 2006 – 2008 Air Quality Data)

EPA will not designate areas as nonattainment on these data, but likely on 2008 – 2010 data which are expected to show improved air quality.



**Notes:**

1. No monitored counties outside the continental U.S. violate.
2. EPA is proposing to determine compliance with a revised primary ozone standard by rounding the 3-year average to three decimal places.



# Secondary Standard

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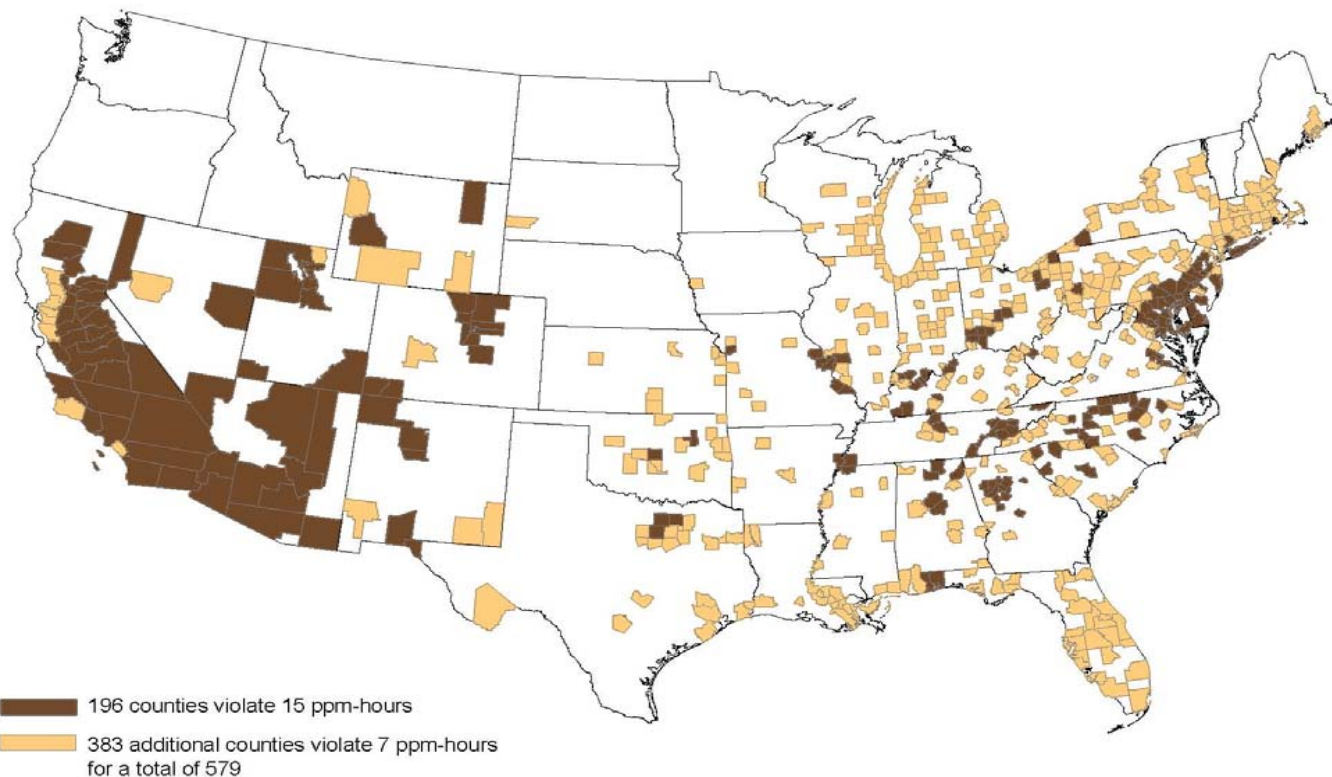
- Designed to account for the cumulative effects of repeated ozone exposure on sensitive vegetation during high ozone concentration days
- EPA HQ and R7 are gathering more data on stringency comparisons of primary versus secondary standard and additional data

# Potential Violating Counties: Secondary Standard

## Counties With Monitors Violating Proposed Secondary Seasonal Ground-Level Ozone Standards 7 – 15 parts per million - hours

(Based on 2006 – 2008 Air Quality Data)

EPA will not designate areas as nonattainment on these data, but likely on 2008 – 2010 data which are expected to show improved air quality.



No monitored counties outside the continental U.S. violate.



# Designations: The Next Step

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- The process in which an area is officially determined or 'designated' to meet the standard (attainment) or not meet the standard (nonattainment)
- Under limited circumstances due to insufficient data, areas may be designated unclassifiable temporarily



# Ozone Designations Timeline:

## An accelerated schedule

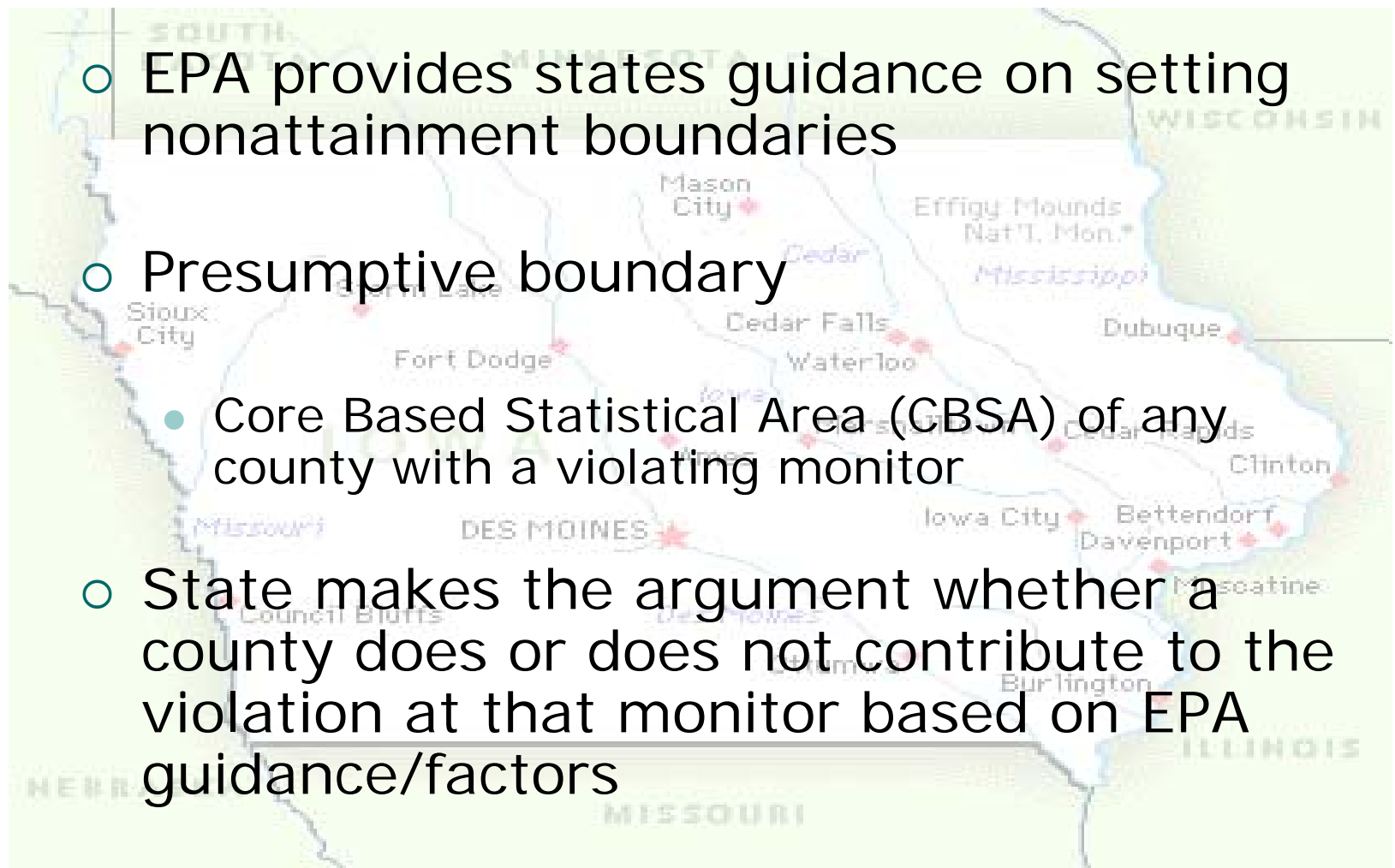
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<b>Milestone</b>	<b>Standard Schedule</b>	<b>Accelerated Schedule</b>
Proposed rule for revised standard	January 6, 2010	January 6, 2010
Final rule for revised standard	August 31, 2010	August 31, 2010
States/tribal designation recommendations to EPA	August 2011	January 2011
EPA notifies states/tribes concerning modifications to recommendations (120 day letter)	May 2012	March 2011
Effective date of designations	August 2012	August 2011
State Implementation Plans (SIPs) due	August 2015	December 2013

# Setting Boundaries

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- EPA provides states guidance on setting nonattainment boundaries
- Presumptive boundary
  - Core Based Statistical Area (CBSA) of any county with a violating monitor
- State makes the argument whether a county does or does not contribute to the violation at that monitor based on EPA guidance/factors



# Refining the Boundary

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## **9 factors for consideration**

- Air quality data
- Emissions data (location & contribution to violations)
- 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

# If Designated Nonattainment...

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EPA will:

- Make **classifications** according to the severity of pollution, feasibility of control measures
- Set an **attainment date** based on the classification

States will:

- Submit a **State Implementation Plan (SIP)** no later than three years after nonattainment designation

# Light at the end of the tunnel

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**Re-designation:** If states can show EPA that the area has attained the standard through *permanent* emissions reductions, and will continue to maintain compliance with the standard, they can request to be redesignated "attainment"

**Maintenance Plan:** a 10-year plan showing how the area will remain in attainment with the ambient air quality standard

# If Designated Attainment...

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- Opportunity to implement local initiatives to remain in attainment
- Develop a plan to reduce ozone precursor emissions (NO<sub>x</sub> and VOCs) prior to next round of designations



- Develop a comprehensive plan to address air quality concerns in conjunction with other local sustainability and climate efforts



# Contact Information

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General information on air quality:

<http://www.epa.gov/oar/oaqps/cleanair.html>

Information on revision to the ozone standard:

<http://www.epa.gov/groundlevelozone/>