



Nonattainment Review and Update

Air Improvement Resources
Technical Committee

July 8, 2010



Nonattainment Review and Update

- A. Current Monitored Status: Ozone and Particulate Matter Update
- B. Designation
 - a. Timeline
- C. Boundaries
 - a. Current Guidance
 - b. Process under the Early Action Compact
- D. Control Strategies
 - a. Nonattainment New Source Review, Transportation Conformity
 - b. Prospective
- E. Interagency Partnerships
 - a. Local/State/Federal
 - b. Emissions Banking & Trading



Current Monitored Status

Current Ozone Readings

| Monitoring Site | Fourth Highest | | | 2008-2010 Current 3-Year Average * |
|---------------------------|----------------|------|------|------------------------------------|
| | 2008 | 2009 | 2010 | |
| San Antonio Northwest C23 | 78 | 75 | 62 | 71 |
| Camp Bullis C58 | 74 | 73 | 68 | 71 |
| Calaveras Lake C59 | 73 | 62 | 59 | 64 |

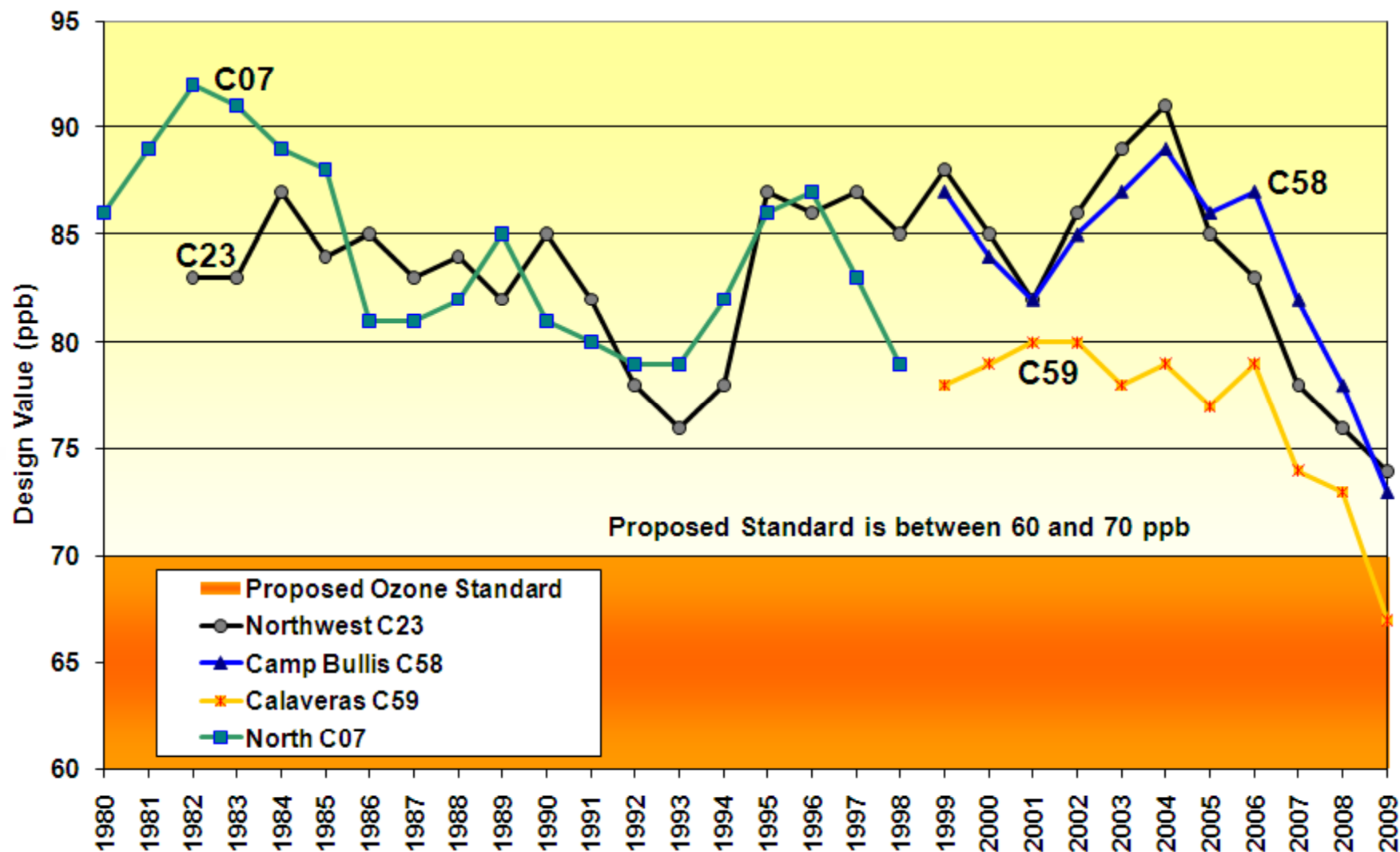
| | | | | |
|-----------------------------|----|----|----|-----------|
| Heritage Middle School C622 | 72 | 63 | 60 | 65 |
| CPS Pecan Valley C678 | 75 | 68 | 60 | 67 |

* As of 1:15 pm CDT 7/6/2010

| Monitoring Site | 2007 | 2008 | 2009 | 2007-2009 Average |
|---------------------------|------|------|------|-------------------|
| San Antonio Northwest C23 | 71 | 78 | 75 | 74 |
| Camp Bullis C58 | 74 | 74 | 73 | 73 |
| Calaveras Lake C59 | 67 | 73 | 62 | 67 |

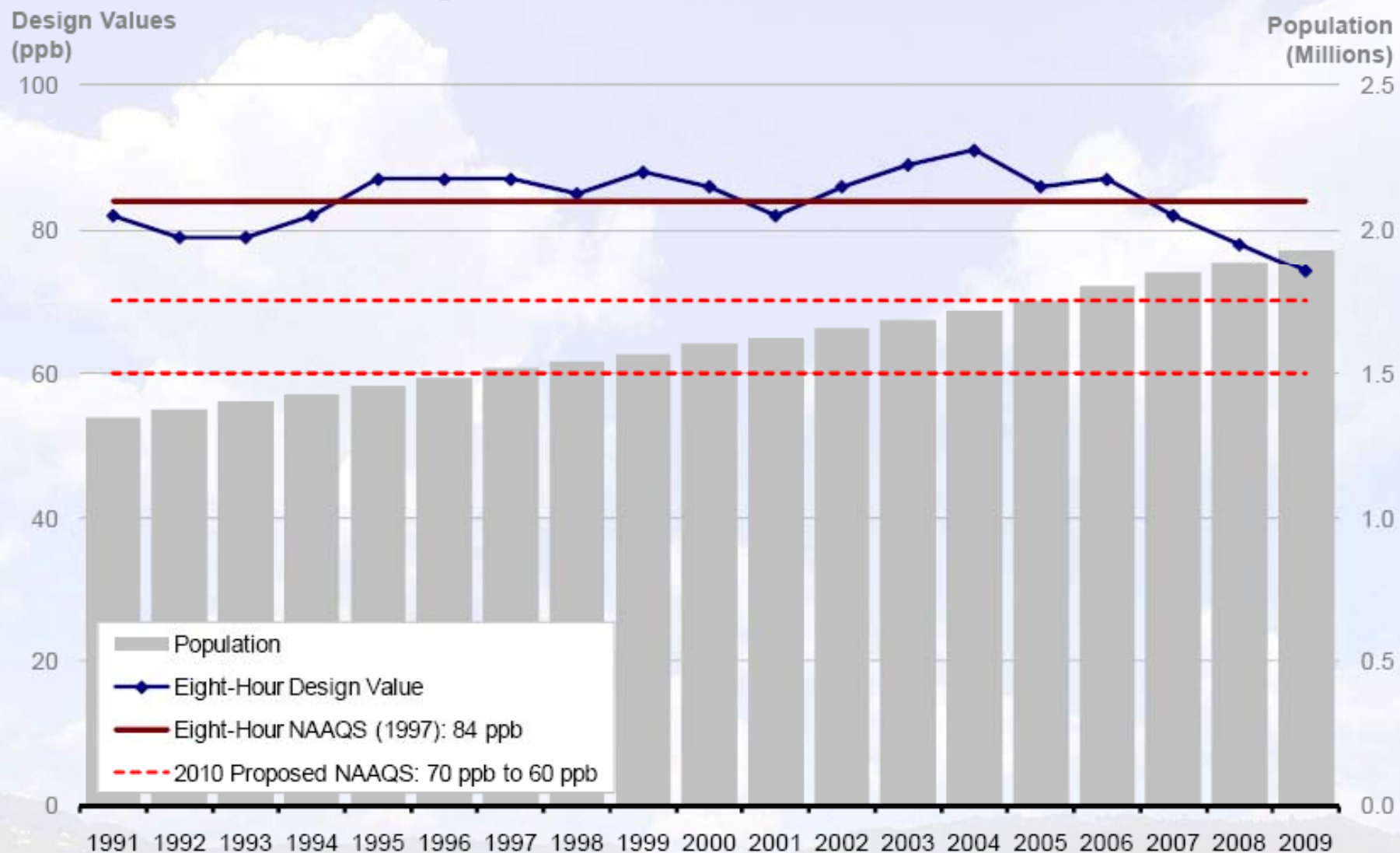
| | | | | |
|-----------------------------|----|----|----|-----------|
| Heritage Middle School C622 | 66 | 72 | 63 | 67 |
| CPS Pecan Valley C678 | 65 | 75 | 68 | 69 |

Ozone Trend, AACOG Region





San Antonio Area Ozone and Population 1991-2009



*Source: Ozone -- EPA's AQS database.

Population -- U.S. Census Bureau, Population Division



Designation Process

Accelerated Schedule

| Milestone | Standard Schedule | Accelerated Schedule |
|---|--------------------------|-----------------------------|
| 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 |

2010 Ozone Standard Key Dates

| Milestone | Date |
|---|---|
| EPA proposed revision to the ozone standards | January 6, 2010 |
| TCEQ Public Meetings (San Antonio: June 9) | June – July 2010 |
| EPA signature of revised ozone standards final rule | August 31, 2010 |
| Period for Public Comments solicited during TCEQ Public Meetings ends | September 3, 2010 |
| Executive director recommendation developed and reviewed | September/October 2010 |
| Tentative date for TCEQ work session for designation recommendation | November 19, 2010 (backup by November 9) |
| Designation recommendation due from governor to EPA | January 7, 2011 |
| EPA intending to have letters to states on recommended designations | March 1, 2011 |
| EPA intending an informal proposal of recommendation of designations | Spring 2011 |
| Final ozone nonattainment designations by the EPA effective | August 31, 2011 |
| State Implementation Plan (SIP) revisions due to the EPA | December 31, 2013 |
| Attainment deadlines | August 2014-August 2031 |

Source: TCEQ Public Meetings/Work Sessions in San Antonio, June 2010



Design Value Calculation

- 8-hour ozone standard revisions proposed from 0.060 ppm to 0.070 ppm
 - Find the fourth highest eight-hour daily peak at each monitor.
 - Average those fourth highest values from the most recent three years for each monitor. Max is regional design value.
 - 75% valid data required for DV calculation.

Calculating the 2008 Primary Ozone Design Value: An Example

1. Monitor A has three years of complete data:

| | 2007 | 2008 | 2009 |
|-----------------------------------|------|------|------|
| Maximum Peak Eight-Hour Ozone | 87 | 85 | 86 |
| 2nd Highest Peak Eight-Hour Ozone | 85 | 83 | 80 |
| 3rd Highest Peak Eight-Hour Ozone | 70 | 78 | 75 |
| 4th Highest Peak Eight-Hour Ozone | 69 | 73 | 73 |

2. Take the 4th highest peak hour ozone from each year, and find the average:

$$\frac{69 + 73 + 73}{3} = 71.667$$

3. Now **TRUNCATE** your average so there are no decimal places and you have your design value:

$$71.\overline{667} = 71$$



Proposed 2010 Primary Ozone Design Value Calculation: Example

1. Monitor A has three years of complete data:

| | 2007 | 2008 | 2009 |
|-----------------------------------|------|------|------|
| Maximum Peak Eight-Hour Ozone | 87 | 85 | 86 |
| 2nd Highest Peak Eight-Hour Ozone | 85 | 83 | 80 |
| 3rd Highest Peak Eight-Hour Ozone | 70 | 78 | 75 |
| 4th Highest Peak Eight-Hour Ozone | 69 | 73 | 73 |

2. Take the 4th highest peak hour ozone from each year, and find the average:

$$\frac{69 + 73 + 73}{3} = 71.667$$

3. Now **ROUND** your average so there are no decimal places and you have your design value:

$$71.\overline{667} = 72$$





Draft Implementation Plan

- Anticipated for release ~August 31, 2010
- Focus here: **Nonattainment Classifications**
- Keep in mind: San Antonio area's design value for 2007-2009 was 74 ppb at CAMS 23... the lowest design value ever recorded in the region.

SIP Requirements for 8-Hour Ozone Nonattainment Areas

| Classification (Yrs. to Attain) | Requirements |
|---------------------------------|--|
| Extreme (20 years) | Clean Fuels and Controls for Boilers |
| Severe (15 – 17 years) | Offset VMT Growth Major Source Fee if Area Fails to Attain |
| Serious (9 years) | Stage II Gasoline Vapor Recovery Enhanced Monitoring and Enhanced Vehicle I/M Demonstration of Required Emission Reductions |
| Moderate (6 years) | Basic Vehicle Inspection and Maintenance Reasonably Available Control Technology & Measures Reasonable Further Progress Emissions Reductions Attainment Demonstration, Contingency Measures |
| Marginal (3 years) | Emissions Inventory & Emissions Statements New Source Review/Emission Offsets (NSR) |

Classification Options Considerations

- Balance to be struck
 - Lower classification:
 - Fewer control strategies, Less time to reach attainment
 - Higher classification:
 - More control strategies, More time to reach attainment
- “Choice of classification method and resulting classifications will determine the mandatory planning and control requirements that an area must implement.”



Classification Options

- OPTION 1: Modify the CAA's classification table using the same method used to develop 8-hour classification table for 1997 standard--the "Percent-Above-Standard" method.
 - A key rationale in defending the 1997 classification table was that the scheme provided reasonable attainment deadlines based on EPA's future-year modeling projections.
 - Of particular interest is the likelihood that Marginal areas will attain within 3 years
- OPTION 2: Modify the CAA's classification table using a new method—the "Ratio Of Threshold To Range Of Thresholds Method"
 - Places more areas in the higher classifications, which would provide many areas with 3-6 additional years for attainment.
 - Higher classifications involve more mandatory requirements (e.g., I/M, RFG, Stage II vapor recovery, lower RACT & NSR thresholds).



Option 1 – Percent-Above-Standard Classification Method

- Translate classification thresholds from 1-hour DVs (Table 1 of section 181) to 8-hour DVs based on the percentage by which each classification threshold exceeds the 1-hour ozone NAAQS.
- The upper thresholds are precise percentages above the level of the standard, namely 15.0, 33.3, 50.0, 58.3 and 133.3 percent.
- No extreme areas projected.
- Match between projected worst case attainment year and maximum date allowed for marginal areas yields “success rate” of approximately 45% for 0.070 ppm and 30% for 0.065 ppm.



Option 2 - Ratio of Threshold Classification Method

- Establishes extreme classification threshold using highest projected 2010 ozone design value of the data set (0.119 ppm for Los Angeles).
 - This results in one extreme area.
- This method achieves better match between projected worse case attainment year and the maximum date allowed for each classification than the “percent-above-standard” method (i.e., better “success rate”)
- Estimate success rate for Marginal areas at approximately 65% for 0.070 ppm and 50% for 0.065 ppm.

Comparison of Classification Thresholds at 0.070 ppm Example NAAQS

| Area class | CAA Design Value Thresholds 1-hour ozone (0.120 ppm) | Percent above 1-hour ozone NAAQS | Thresholds for 1997 8-hr O3 NAAQS (0.08 ppm) ("Percent-Above-Std" Method) | OPTION 1 "Percent-Above-Std" Method: Thresholds for a hypothetical 0.070 ppm O3 NAAQS | OPTION 2A "Ratio of Thresholds" Method: Thresholds for a hypothetical 0.070 ppm O3 NAAQS |
|------------|--|----------------------------------|---|---|--|
| Marginal | 0.121—0.137 | NA | 0.085—0.091 | 0.071 to <0.081 | 0.071 to <0.076 |
| Moderate | 0.138—0.159 | 15 | 0.092—0.106 | 0.081 to <0.093 | 0.076 to <0.083 |
| Serious | 0.160—0.179 | 33.333 | 0.107—0.119 | 0.093 to <0.105 | 0.083 to <0.089 |
| Severe-15 | 0.180—0.189 | 50 | 0.120-0.126 | 0.105 to <0.111 | 0.089 to <0.092 |
| Severe-17 | 0.190—0.279 | 58.333 | 0.127—0.186 | 0.111 to <0.163 | 0.092 to <0.119 |
| Extreme | 0.280 and greater | 133.333 | 0.187 and greater | 0.163 and greater | 0.119 and greater |

Comparison of Classification Thresholds at 0.065 ppm Example NAAQS

| Area class | CAA Design Value Thresholds 1-hour ozone (0.120 ppm) | Percent above 1-hour ozone NAAQS | Thresholds for 1997 8-hr O ₃ NAAQS (0.08 ppm) ("Percent- Above-Std" Method) | OPTION 1 "Percent-Above- Std" Method: Thresholds for a hypothetical 0.065 ppm O ₃ NAAQS | OPTION 2A "Ratio of Thresholds" Method: Thresholds for a hypothetical 0.065 ppm O ₃ NAAQS |
|------------|--|---|--|--|---|
| Marginal | 0.121—0.137 | NA | 0.085—0.091 | 0.066 to <0.075 | 0.066 to <0.072 |
| Moderate | 0.138—0.159 | 15 | 0.092—0.106 | 0.075 to <0.087 | 0.072 to <0.079 |
| Serious | 0.160—0.179 | 33.333 | 0.107—0.119 | 0.087 to <0.098 | 0.079 to <0.086 |
| Severe-15 | 0.180—0.189 | 50 | 0.120—0.126 | 0.098 to <0.103 | 0.086 to <0.089 |
| Severe-17 | 0.190—0.279 | 58.333 | 0.127—0.186 | 0.103 to <0.152 | 0.089 to <0.119 |
| Extreme | 0.280 and greater | 133.333 | 0.187 and greater | 0.152 and greater | 0.119 and greater |

Hypothetical Severe & Above Areas Classification Option 1 (“Percent-Above-Standard”)

Based on 2006-2008 data

| Extreme | | | | | | | |
|---|--------------------------------------|----------------|--|----------------|--|--|--|
| Severe-17 | | | | | | | |
| Severe-15 | | | | | | | |
| Serious & Above Areas added with tighter std--Percent-Above-Standard Classification Method | | | | | | | |
| 0.070 ppm std. | | 0.065 ppm std. | | 0.060 ppm std. | | | |
| Extreme | [none] | Extreme | [none] | Extreme | [none] | | |
| Severe | Los Angeles-Long Beach-Riverside, CA | Severe | Los Angeles-Long Beach-Riverside, CA | Severe | Los Angeles-Long Beach-Riverside, CA | | |
| | Bakersfield, CA | | Bakersfield, CA | | Bakersfield, CA | | |
| | | | Visalia-Porterville, CA | | Visalia-Porterville, CA | | |
| | | | Fresno-Madera, CA | | Fresno-Madera, CA | | |
| | | | Sacramento--Arden-Arcade--Truckee, CA-NV | | Sacramento--Arden-Arcade--Truckee, CA-NV | | |
| | | | | | Atlanta-Sandy Springs-Gainesville, GA | | |
| | | | | | Charlotte-Gastonia-Salisbury, NC-SC | | |
| | | | | | Merced, CA | | |

Note: Since 2009 ozone levels were very low in the East, there are likely to be fewer Severe areas when actual 2010 design values are used for designations.



Hypothetical Severe & Above Areas Classification Option 2A -- (“Ratio of Thresholds”)

| Extreme | | Based on 2006-2008 data | |
|---|--|-------------------------|---|
| Severe-17 | | | |
| Severe-15 | | | |
| Serious & Above Areas added with tighter std--Ratio-Of-Thresholds Classification Method | | | |
| 0.070 ppm std. | | 0.065 ppm std. | |
| Extreme | Los Angeles-Long Beach-Riverside, CA | Extreme | Los Angeles-Long Beach-Riverside, CA |
| Severe | Bakersfield, CA | Severe | Bakersfield, CA |
| | Visalia-Porterville, CA | | Visalia-Porterville, CA |
| | Fresno-Madera, CA | | Fresno-Madera, CA |
| | Sacramento--Arden-Arcade--Truckee, CA-NV | | Sacramento--Arden-Arcade--Truckee, CA-NV |
| | Atlanta-Sandy Springs-Gainesville, GA | | Atlanta-Sandy Springs-Gainesville, GA |
| | Charlotte-Gastonia-Salisbury, NC-SC | | Charlotte-Gastonia-Salisbury, NC-SC |
| | Merced, CA | | Merced, CA |
| | Houston-Baytown-Huntsville, TX | | Houston-Baytown-Huntsville, TX |
| | San Diego-Carlsbad-San Marcos, CA | | San Diego-Carlsbad-San Marcos, CA |
| | Modesto, CA | | Modesto, CA |
| | | | Philadelphia-Camden-Vineland, PA-NJ-DE-MD |
| | | | Dallas-Fort Worth, TX |
| | | | Washington-Baltimore-Northern Virginia, DC-MD-VA-WV |
| | | | Hanford-Corcoran, CA |
| | | | New York-Newark-Bridgeport, NY-NJ-CT-PA |
| | | | Calaveras, CA COUNTY |
| | | | Hartford-West Hartford-Willimantic, CT |
| | | | Mariposa, CA COUNTY |
| | | | Phoenix Lake-Cedar Ridge, CA |
| | | | Springfield, MA |
| | | | Stockton, CA |
| | | | Denver-Aurora-Boulder, CO |
| | | | Knoxville-Sevierville-La Follette, TN |
| | | | Grand Rapids-Muskegon-Holland, MI |
| | | | Amador, CA COUNTY |

Note: Since 2009 ozone levels were very low in the East, there are likely to be fewer Severe areas when actual 2010 design values are used for designations.





Modified Version of Option 2 Classification Method

- EPA developed a modified version of Option 2 (2B) in which lower design values serve as the threshold for the extreme classification; which in turn results in lowering the thresholds for the other classifications.
 - Depending on how low these extreme thresholds are, the classification method can result in greater percentage of areas projected to attain by their attainment dates.
- An example of Option 2B sets the extreme classification threshold at the second highest ozone design value of the data set.
 - This results in two extreme areas - Los Angeles & Bakersfield.
- Estimate success rate for Marginal areas at approximately 70% for 0.070 ppm and 60% for 0.065 ppm.

Classification Thresholds for each Option at 0.070 ppm Example NAAQS

| Area class | OPTION 1 "Percent-Above-Std" Method: Thresholds for a hypothetical 0.070 ppm O3 NAAQS | OPTION 2A "Ratio of Thresholds" Method: Thresholds for a hypothetical 0.070 ppm O3 NAAQS | OPTION 2B "Modified Ratio of Thresholds" Method: Thresholds for a hypothetical 0.070 ppm O3 NAAQS |
|------------|--|---|--|
| Marginal | 0.071 to <0.081 | 0.071 to <0.076 | 0.071 to <0.075 |
| Moderate | 0.081 to <0.093 | 0.076 to <0.083 | 0.075 to <0.080 |
| Serious | 0.093 to <0.105 | 0.083 to <0.089 | 0.080 to <0.084 |
| Severe-15 | 0.105 to <0.111 | 0.089 to <0.092 | 0.084 to <0.086 |
| Severe-17 | 0.111 to <0.163 | 0.092 to <0.119 | 0.086 to <0.106 |
| Extreme | 0.163 and greater | 0.119 and greater | 0.106 and greater |

Classification Thresholds for each Option at 0.065 ppm Example NAAQS

| Area class | OPTION 1 "Percent-Above-Std" Method: Thresholds for a hypothetical 0.070 ppm O3 NAAQS | OPTION 2A "Ratio of Thresholds" Method: Thresholds for a hypothetical 0.065 ppm O3 NAAQS | OPTION 2B "Modified Ratio of Thresholds" Method: Thresholds for a hypothetical 0.065 ppm O3 NAAQS |
|-------------------|--|---|--|
| Marginal | 0.066 to <0.075 | 0.066 to <0.072 | 0.066 to <0.070 |
| Moderate | 0.075 to <0.087 | 0.072 to <0.079 | 0.070 to <0.076 |
| Serious | 0.087 to <0.098 | 0.079 to <0.086 | 0.076 to <0.081 |
| Severe-15 | 0.098 to <0.103 | 0.086 to <0.089 | 0.081 to <0.083 |
| Severe-17 | 0.103 to <0.152 | 0.089 to <0.119 | 0.083 to <0.106 |
| Extreme | 0.152 and greater | 0.119 and greater | 0.106 and greater |

Classification Option Comparison - Percent of Areas in Each Class at 0.070 ppm example NAAQS

| | Percent Above Standard | Ratio of Threshold (Option 2A-Extreme at 0.119 ppm) | Modified Ratio of Threshold (Option 2B Extreme at 0.106 ppm) |
|------------------|------------------------|---|--|
| Marginal | 79 | 49 | 42 |
| Moderate | 18 | 37 | 32 |
| Serious | 2 | 8 | 13 |
| Severe-15 | <1 | 3 | 3 |
| Severe-17 | <1 | 2 | 8 |
| Extreme | 0 | <1 | 1 |

Classification Option Comparison - Percent of Areas in Each Class at 0.065 ppm example NAAQS

| | Percent Above Standard | Ratio of Threshold (Option 2A-extreme at 0.119 ppm) | Modified Ratio of Threshold (Option 2B – extreme at 0.106 ppm) |
|------------------|------------------------|---|--|
| Marginal | 62 | 40 | 27 |
| Moderate | 32 | 41 | 40 |
| Serious | 4 | 13 | 20 |
| Severe-15 | 1 | 2 | 5 |
| Severe-17 | 1 | 4 | 9 |
| Extreme | 0 | < 1 | 1 |



Appendix

Topics Discussed in the 2010 Ozone
NAAQS Implementation NPRM



Topics Discussed in the 2010 Ozone NAAQS Implementation NPRM

- **Transition to 2010 ozone NAAQS**
- **Classifications**
- **Modeling and attainment demonstration SIPs**
- **Reasonable Further Progress**
 - Baseline year inventory
 - High Electric Demand Days (HEDD)
- **RACT and RACM**
- **Transportation Conformity**
- **General Conformity**
- **NSR**
- **Emission Inventory and Emission Statements**
- **Monitoring**
- **Attainment dates**
- **Timeframe for obtaining emissions reductions to ensure attainment by the attainment date**



Topics Discussed in the 2010 Ozone NAAQS Implementation NPRM (cont.)

- Long-range transport
- Transport of ground-level ozone and its precursors
 - Rural transport nonattainment areas
 - Multi-state nonattainment areas
 - International transport
- Contingency Measures
- Section 182(f) NO_x provisions
- Multi-pollutant approaches
- Tribes
- Ozone Transport Regions (OTRs)
- Enforcement and Compliance
- Emergency Episodes
- Clean Data Policy
- Flexible programs
- Section 185 penalty fee program
- SIP Credit for Energy Efficiency/Renewable Energy Programs
- Secondary ozone NAAQS

To Be Considered...

- Review draft Implementation Plan & comment
- Variability of designation remains great with both the final standard and final classification schemes unknown



Boundaries



EPA Default Boundary: Combined Statistical Areas or Core Based Statistical Area

- Atascosa, Bandera, Bexar, Comal, Guadalupe, Kendall, Medina, and Wilson Counties.
- “Metropolitan and micropolitan statistical areas (metro and micro areas) are geographic entities defined by the U.S. Office of Management and Budget ...The term ‘Core Based Statistical Area’ (CBSA) is a collective term for both metro and micro areas. A metro area contains a core urban area of 50,000 or more population, and a micro area contains an urban core of at least 10,000 (but less than 50,000) population.”



EPA Default Boundary

Nine Factors in Recommending Boundaries

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

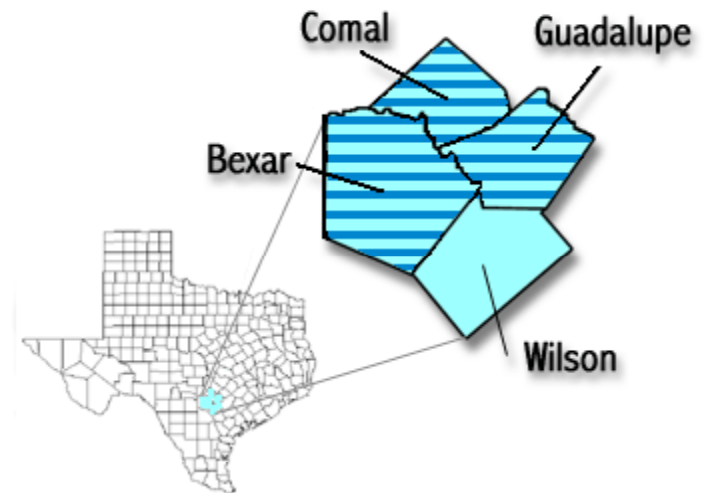
EPA's December 2008 Guidance

http://www.epa.gov/groundlevelozone/designations/2008standards/documents/2008-12/Area_Designations_for_the_2008_Revised_Ozone_NAAQS.pdf



Boundary Process under EAC

- EPA began with SA/MSA
- Governor Perry: Bexar County alone
- EPA eventually found Bexar, Comal and Guadalupe “nonattainment/deferred”
 - Wilson “attainment/unclassifiable”





Control Strategies



So What Will You Have to Do?

- Evaluate the Emission Sources in Your Area
- Take Into Account National Strategies
- Remember Required Control Strategies
- State and Local selected strategies
- Conformity

Guy Donaldson, Chief, Air Planning Section, EPA Region 6, “State Implementation Plans,” <http://blueskyways.org/meetings/webinar/june2.html>





Where Do Local Communities Fit In?

- A Local area develops their own approach to meeting a NAAQS
- Community agrees on controls for local emissions sources
 - Stakeholders invited/involved
- Implementation of controls and associated reductions can be sooner than would be required by CAA
 - Goal: Attainment designation

Guy Donaldson, Chief, Air Planning Section, EPA Region 6, “State Implementation Plans,” <http://blueskyways.org/meetings/webinar/june2.html>





Types of Strategies

- Industrial Controls
- Energy Efficiency Projects
- Mobile Source Controls
 - Fleet controls
 - Idling Reduction Programs
 - Diesel retrofits
 - Commute Solutions
- Outreach
 - Ozone Awareness Programs

Guy Donaldson, Chief, Air Planning Section, EPA Region 6, “State Implementation Plans,” <http://blueskyways.org/meetings/webinar/june2.html>



SIP Requirements for 8-Hour Ozone Nonattainment Areas

| Classification/Years to Attain | | Requirements |
|--------------------------------|--|--------------------------------------|
| Extreme (20 years) | | Clean Fuels and Controls for Boilers |
| Severe (15 – 17 years) | Offset VMT Growth Major Source Fee if Area Fails to Attain | |
| Serious (9 years) | Stage II Gasoline Vapor Recovery Enhanced Monitoring and Enhanced Vehicle I/M Demonstration of Required Emission Reductions | |
| Moderate (6 years) | Basic Vehicle Inspection and Maintenance Reasonably Available Control Technology & Measures Reasonable Further Progress Emissions Reductions Attainment Demonstration, Contingency Measures | |
| Marginal (3 years) | Emissions Inventory & Emissions Statements New Source Review/Emission Offsets (NSR) | |

Changes to Business: NA

- Currently under “Attainment” rules
- If nonattainment:
 - Existing Businesses face changes
 - New Businesses will have fresh considerations

Uncertainty at this point how Texas Air Permit issues will affect NA permitting



RACT/BACT/LAER

Under EPA's "New Source Review" (NSR) program, if a company is planning to build a new plant or modify an existing plant such that air pollution emissions will increase by a large amount, then the company must obtain an NSR permit.

- BACT, or Best Available Control Technology, is required on major new or modified sources in clean areas (i.e., attainment areas).
- RACT, or Reasonably Available Control Technology, is required on existing sources in areas that are not meeting national ambient air quality standards (i.e., non-attainment areas).
- LAER, or Lowest Achievable Emission Rate, is required on major new or modified sources in non-attainment areas.

Current Rules

- State Permits (30 TAC §116)
 - De Minimis conditions: no regist., author., or permit
 - cleaning and stripping solvents, 50 gallons per year // dyes, 1,000 pounds per year // water-based detergents, 2,500 gallons per year
 - Permit by Rule (PBR)
 - less than 250 tpy CO or NO_x; or less than 25 tpy of PM₁₀, SO₂, or total VOCs...
 - “Claim and Go:” no registration, no approval process
 - » §106.102 Comfort Heating
 - Some have PBR registration, emission calculations requirements, and approval process
 - » §106.436 Autobody shops

Current Rules

- State Permits (30 TAC §116)
 - Standard Permits; highly specific categories with distinct requirements for each
 - Oil and gas facilities, municipal solid waste landfills, concrete batch plants, electric generating units, hot mix asphalt plants, concrete batch plants w/ enhanced control.
 - New Source Review (NSR): site specific
 - Facilities that don't qualify for PBRs or Standard
 - Pre-construction req's; Public hearing req's
 - Tech review: emiss. quantificat., off-property health impacts, BACT determination, applic. of any source category based on other state/fed regs

Current Rules

- State Permits (30 TAC §116)
 - Flexible permits
 - Cap to entire group of emission source within facility; possibly more flexible/advantageous

Tiers of Permits under Current State Rules:

De Minimis

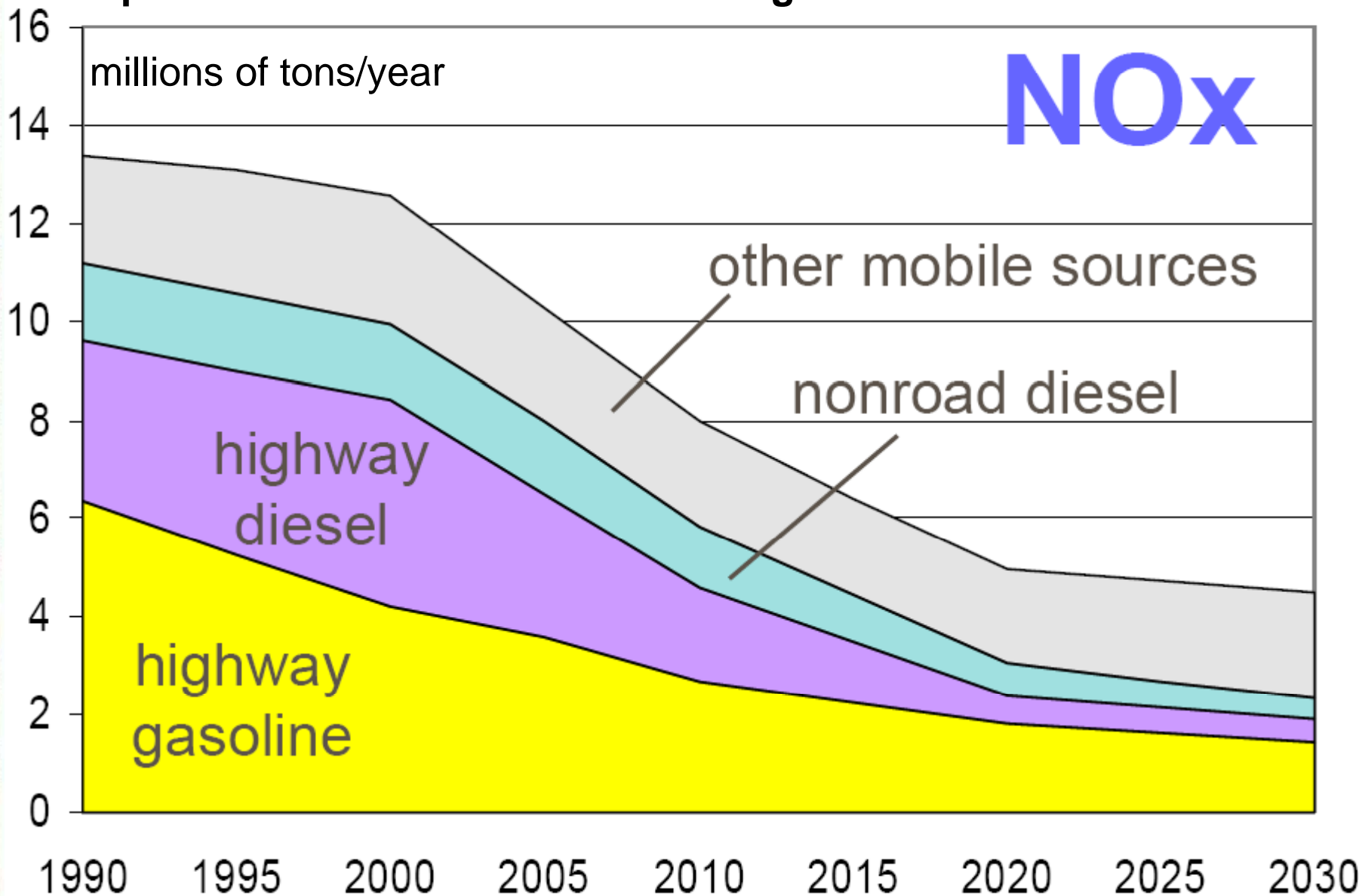
Permit by Rule

Standard // New Source Review // Flexible

Rule Changes Under NA

- If declared NA, changes will likely affect Standard, New Source Review, and Flexible permits
 - Lower thresholds
 - NSR Permitting:
 - LAER emission controls
 - Offset proposed emissions increases, and
 - Mandatory second public notice.

Impact of Federal Mobile Source Programs on NOx Emissions



Guy Donaldson, Chief, Air Planning Section, EPA Region 6, "State Implementation Plans," <http://blueskyways.org/meetings/webinar/june2.html>

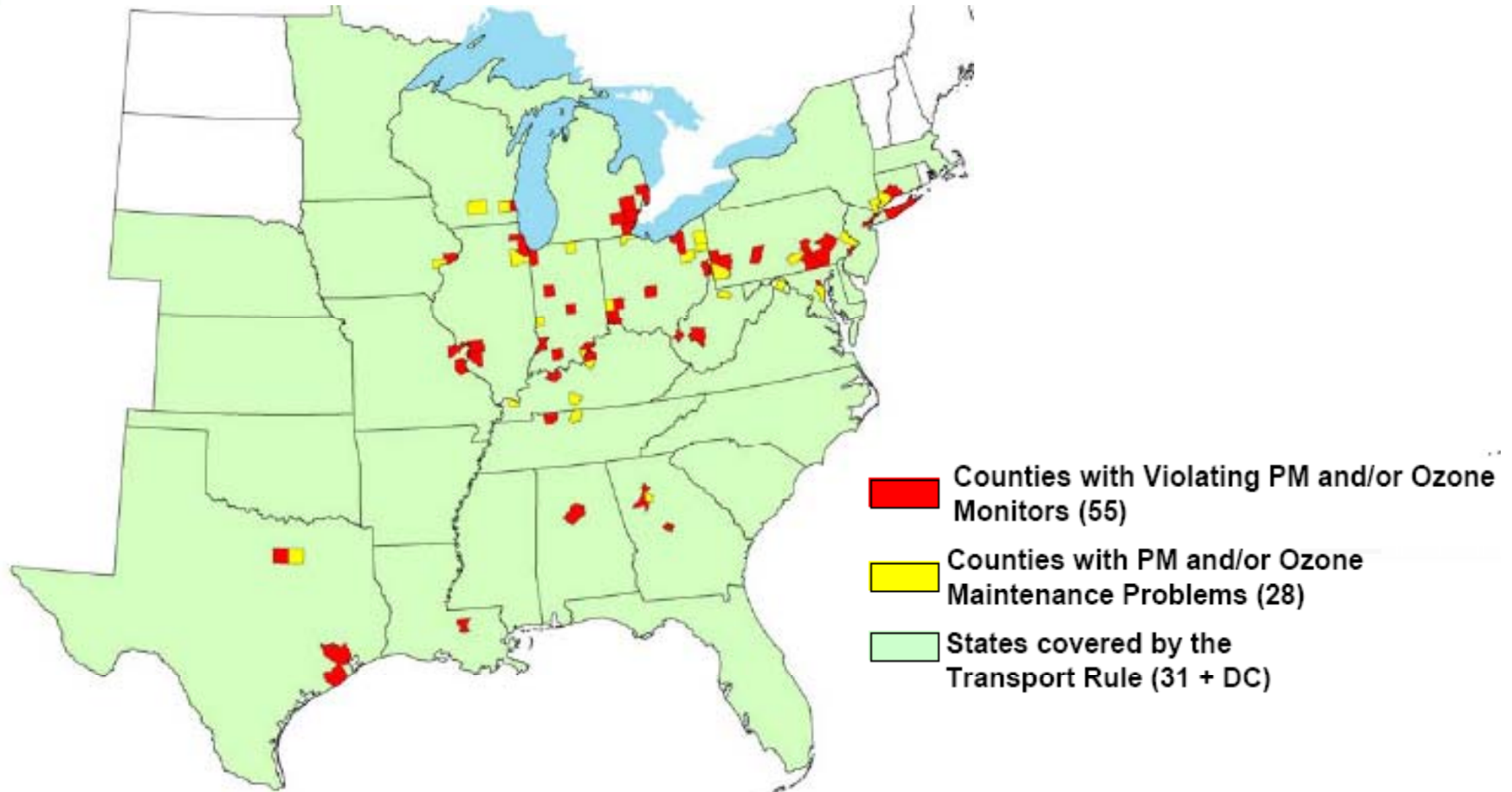




Transport Rule

- July 6, 2010 EPA Proposed Rule
 - Replaces 2005 Clean Air Interstate Rule
 - 31 states + DC: reduce power plant emissions that contribute to ozone and fine PM (NO_x , SO_2) in other states
 - By 2014, reduce power plant SO_2 emissions by 71 percent over 2005 levels, NO_x emissions down by 52 percent

Transport Rule



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



Transport Rule: Texas Counties

| County | Standards Violated by County in Baseline Analysis 2003 - 2007 | | | Projected County Status 2012 <u>Without</u> the Transport Rule | | | Projected County Status 2014 <u>Without</u> the Transport Rule | | | Projected County Status 2014 <u>With</u> the Transport Rule | | |
|------------|---|-------------|-------------|--|-------------|-------------|--|--------|-------------|---|--------|-------------|
| | 1997 Ozone | 1997 PM 2.5 | 2006 PM 2.5 | 1997 Ozone | 1997 PM 2.5 | 2006 PM 2.5 | 1997 Ozone | PM 2.5 | 2006 PM 2.5 | 1997 Ozone | PM 2.5 | 2006 PM 2.5 |
| Bexar | Violate | | | | | | | | | | | |
| Brazoria | Violate | | | Violate | | | Violate | | | Violate | | |
| Collin | Violate | | | | | | | | | | | |
| Dallas | Violate | | | Maintenance | | | | | | | | |
| Denton | Violate | | | | | | | | | | | |
| Galveston | Violate | | | | | | | | | | | |
| Gregg | Violate | | | | | | | | | | | |
| Harris | Violate | Violate | | Violate | Maintenance | | Violate | | | Violate | | |
| Jefferson | Violate | | | | | | | | | | | |
| Johnson | Violate | | | | | | | | | | | |
| Montgomery | Violate | | | | | | | | | | | |
| Parker | Violate | | | | | | | | | | | |
| Tarrant | Violate | | | | | | | | | | | |

Violate = monitored or projected violation of the standard(s)

Maintenance = projected to have problems maintaining the standard(s)





Request for Input

- Nonattainment designation:
 - Effective date of designations: August 2011
- Suggest beginning consideration of possible control strategies listed by TCEQ
- Will continue analysis of existing voluntary programs for SIP credit potential
- Will consider alt. programs, such as Clean screening




Interagency Partnerships




Emission Banking and Trading Programs

Courtesy of TCEQ: R. Danell Zawaski, P.E.
& Brandon Greulich



Cap, Bank, and Trade Programs

- Command and Control - regulations require each subject facility to meet a specific emission rate
- Cap and Trade - a mandatory emissions cap is set at a certain level within a site or region and emission allowances within the cap are banked and traded
- Bank and Trade - emission credits are generated through voluntary emission reductions, certified by the regulatory body, and banked and traded within a Command and Control or Cap and Trade program



Emission Banking and Trading Programs

- Emission Reduction Credits (ERCs) - criteria pollutants
- Discrete Emission Reduction Credits (DERCs) - criteria pollutants
- Mass Emissions Cap and Trade Program (MECT) - NOX
- Highly Reactive Volatile Organic Compounds Cap and Trade Program - HRVOCs
- Senate Bill 7 Allowance Banking and Trading - NOX and SO2
- Proposed Transport Rule - NOX and SO2

Basics

- If nonattainment, when new/expanding business applies to TCEQ for an air permit, first
 - Determination eligibility for Nonattainment New Source Review (NNSR)
 - Emissions rates low: NNSR not applicable
 - Beyond this, questions on permitting.
 - In general, guarantee of less pollution than permit allows => trade credit possible.

Next Steps

- AACOG will continue dialogue with state to determine timing, implementation of Emissions Banking and Trading.
- AACOG will continue process of evaluating ongoing voluntary programs for SIP creditability and EBT value.