Ozone Transport Commission Fall Meeting

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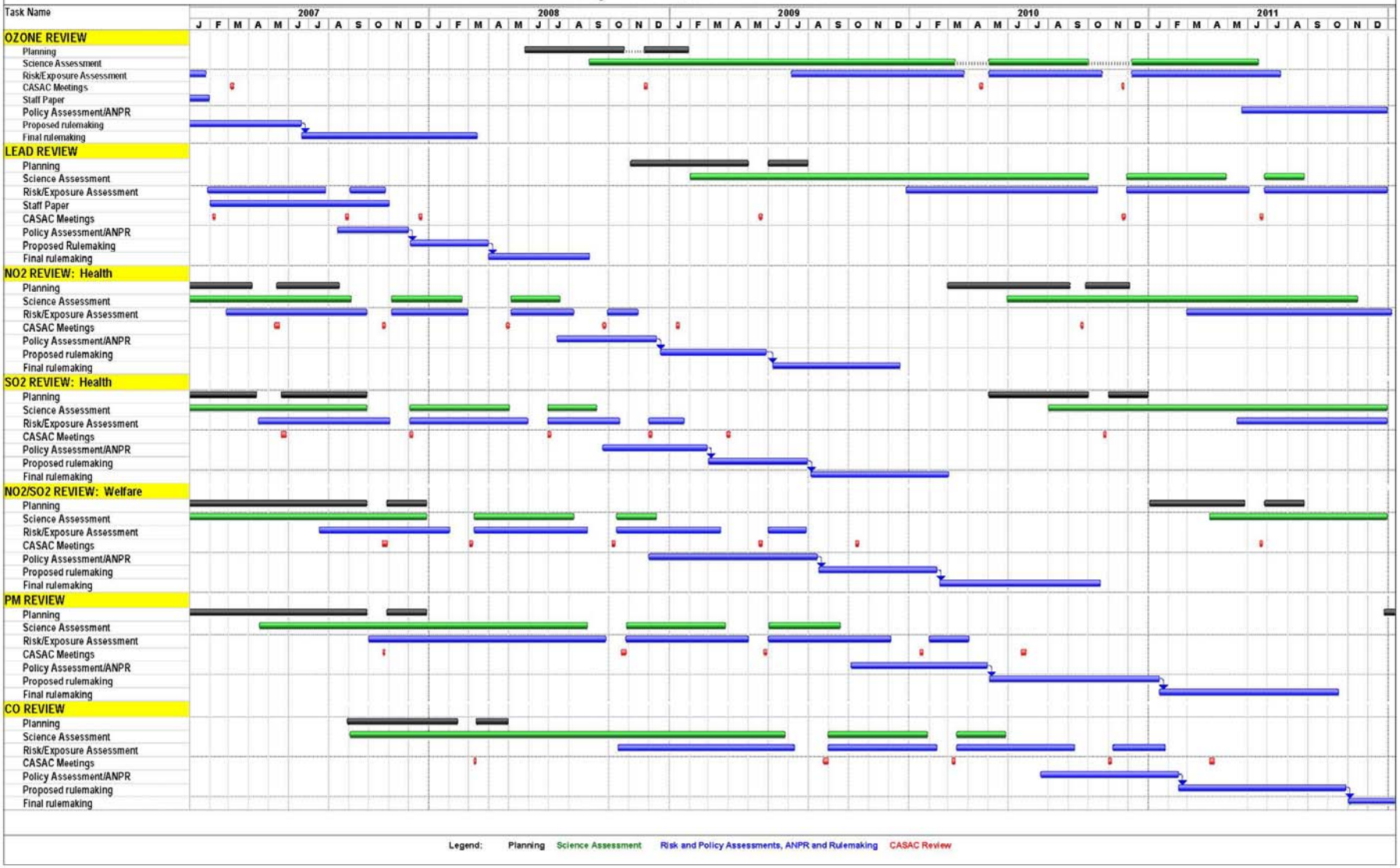
NAAQS

- **Ozone review**
  - Public hearings completed
  - Comment period closes October 9th
  - Final decision by March 12, 2008
- **Lead Review**
  - Final Staff Paper by November 1st
  - ANPR by November 30th
  - Proposal – March 2008
  - Final – September 2008
- **SO_2**
  - Review to be completed in 2010
- **CO**
  - ANPR : February 2011
  - Proposal : October 2011
  - Final: July 2012
- **PM2.5 (*1997 standards)***
  - State plans due April 2008

EPA United States Environmental Protection Agency

September 6, 2007

Projected NAAQS Review Schedules



Ozone Phase I – U.S. Court of Appeals for the District of Columbia Circuit

Summary:

- On anti-backsliding, the Court reaffirmed that EPA improperly determined that areas would no longer be subject to 1-hour NSR, section 185 fees, and contingency measures for failure to attain or make reasonable further progress toward attainment of the 1-hour ozone NAAQS.

- Upheld the portions of the Phase 1 Rule relating to EPA's classification system under subpart 2.

- Urged EPA to promulgate a revised rule promptly to implement the 8-hour ozone NAAQS for unresolved issues to ensure continued protection of public health.

Phase I Ozone – EPA Response

- On June 15, 2007, EPA issued a memo to provide a summary of the court's opinion and implications for the 6/15/07 due date for SIP submission (and stated that EPA would not make findings of failure to submit before August 15, 2007).

- Areas that were classified as "subpart 1" are not currently subject to the June 15, 2007 SIP submission date.

- EPA is developing options to determine how to proceed on subpart 1 area classifications and the anti-backsliding provisions. States with subpart 1 areas should continue their efforts toward improving local air quality.

Phase I Ozone – EPA Response cont.

Rulemaking:

- EPA is developing three rules in response to the June 8, 2007 decision by the U.S. Court of Appeals for the District of Columbia Circuit.
- Early 2008 – Possible "Clean Up" rule revising the Phase 1 Rule to remove the elements that the court vacated, i.e., subpart 1 classifications and the waiver of 1-hour NSR requirements, imposition of section 185 fees, and the need for contingency measures for failure to attain or make reasonable progress of the 1-hour NAAQS for purposes of antibacksliding.
- Summer 2008 –Issue proposal to address: 1) the reclassification of subpart 1 areas and 2) 1-hour NSR requirements for purposes of antibacksliding.
- Summer 2008 – Issue a proposal to address what is required of 1-hour nonattainment areas for purposes of anti-backsliding for section 185 fees and contingency measures.

Litigation on Phase 2 Rule

- **Major Issues**
  - 15% Rate of Progress (ROP)
  - provisions Clean Data Policy RACT applicability
  - NOx SIP Call=RACT
  - CAIR=RACT for NOx
  - Allowance of emissions reduction credits from pre 2002 shutdowns for offsets
  - Waiver of NSR requirements for some source categories
  - RFG anti-backsliding provision

Litigation on Phase 2 (cont.)

- Issues that EPA reconsidered (6/8/07):
  - CAIR=RACT for NOx
  - Allowance of emissions reduction credits from pre-2002 shutdowns for offsets
  - Waiver of NSR requirements for some source categories
- **Oral argument was postponed (not yet scheduled) due to the reconsolidation of the above 3 issues with the other 5 issues.**

Status of Moderate Ozone Attainment Demonstration SIPs

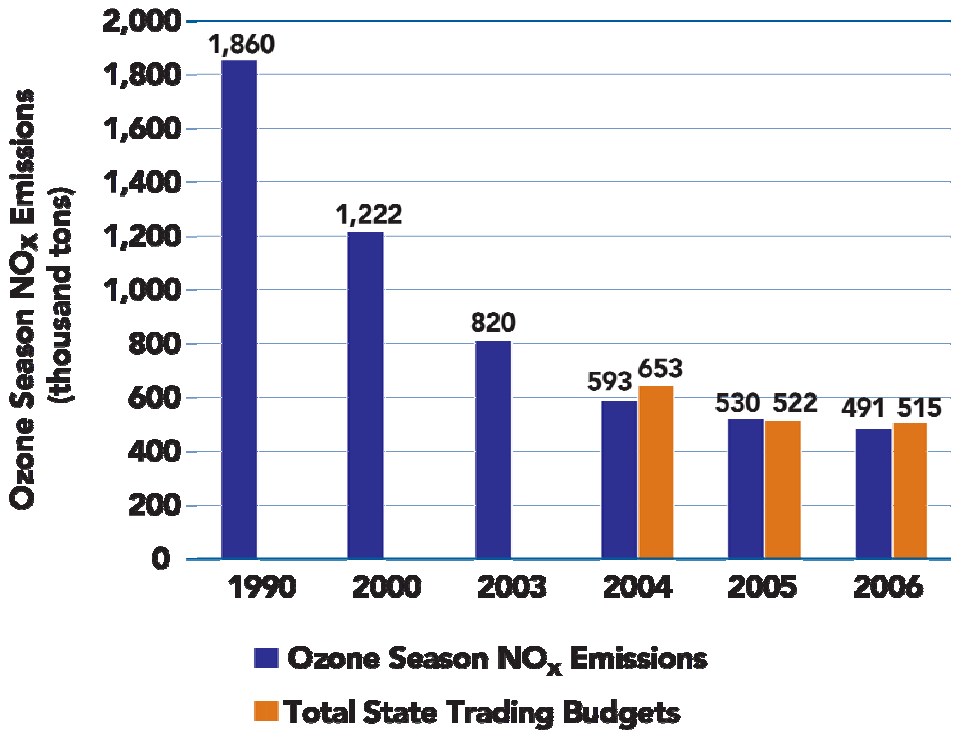
- Due: June 15, 2007
- Attainment date June 15, 2010 (i.e., 2009 ozone season)
- Expecting 33 plans from 23 moderate NA areas
  - 17 plans are from OTC region
  - 7 submitted, 9 drafts, 1 no submission

Ozone Season NOx Emissions Have Declined across the Region

Total NBP NOx emissions in 2006 were 491 thousand tons

NBP states reduced ozone season (May - September) NO_X emissions by approximately

- 74% from 1990 (before implementation of the Clean Air Act Amendments)
- 60% from 2000 (before implementation of the NBP)
- 7% from 2005



Note: EPA Title IV NO_X program and state actions produced reductions from 1990 to 2003.

Implementing CAIR, CAVR & CAMR

CAIR

- Builds on NOx SIP Call and Acid Rain Program
- Federal Plan put in full effect in June 2006.
- Power industry showing firm commitments
  - Installing install close to 55 GWs of new scrubbers & 25 GWs of SCR by 2010.
- All states plan to join CAIR trading programs for SO_2 and NO_x.
  - Majority have submitted CAIR plans for entire program, or to make NO_x allocations.
- EPA action on all “submitted” CAIR plans by end of the year

CAVR

- SIPs for CAVR due December 2007

CAIR, CAVR & CAMR, cont.

CAMR

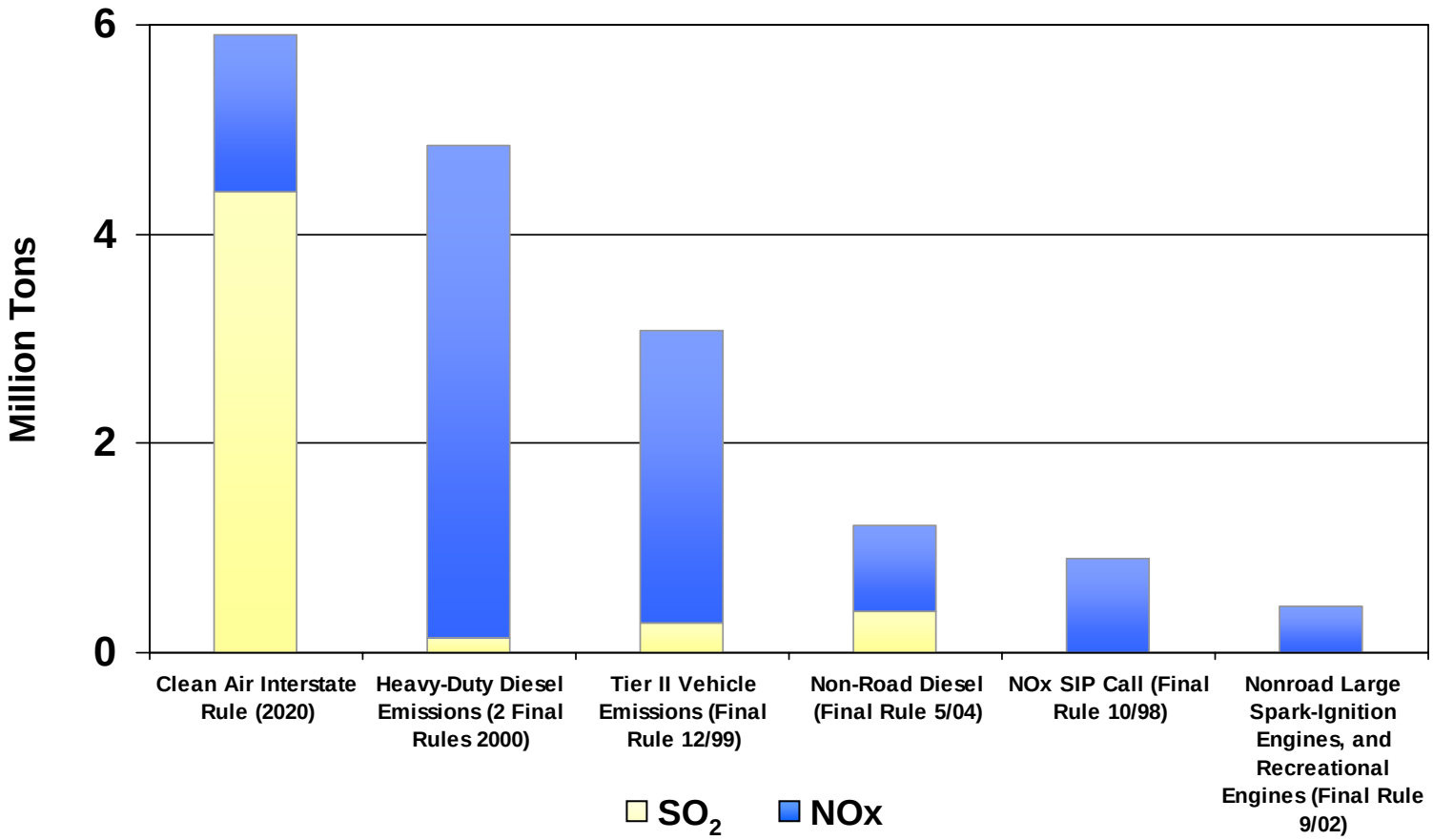
- 60% of states have formally submitted CAMR plans; others expected in Fall.
- 37 states (including 2 tribes) appear interested in having trading programs, some with direct controls that provide a "hybrid" approach (10 states)
  - About 12 states want direct controls
  - The remaining three states and DC have no coal-fired units
  - EPA expects viable trading market backed by sound monitoring to emerge.
- EPA finalizing federal backstop by end of the year
  - Will ensure that national mercury monitoring begins January 2009
  - Controls will go into effect for all covered coal-fired generation in January 2010.
- Holding implementation workshops for states and sources to ensure smooth start up.
- Will act on all "submitted" CAMR plans by early winter 2008

CAIR Health and Environmental Benefits 25 Times Greater than Costs

- **By 2015, CAIR will result in $85-100 billion in health benefits each year, preventing:**
  - **17,000 premature deaths**
  - **22,000 non-fatal heart attacks**
  - **12,300 hospital admissions**
  - **1.7 million lost work days**
  - **500,000 lost school days.**
- **Almost $2 billion in improved visibility benefits each year.**

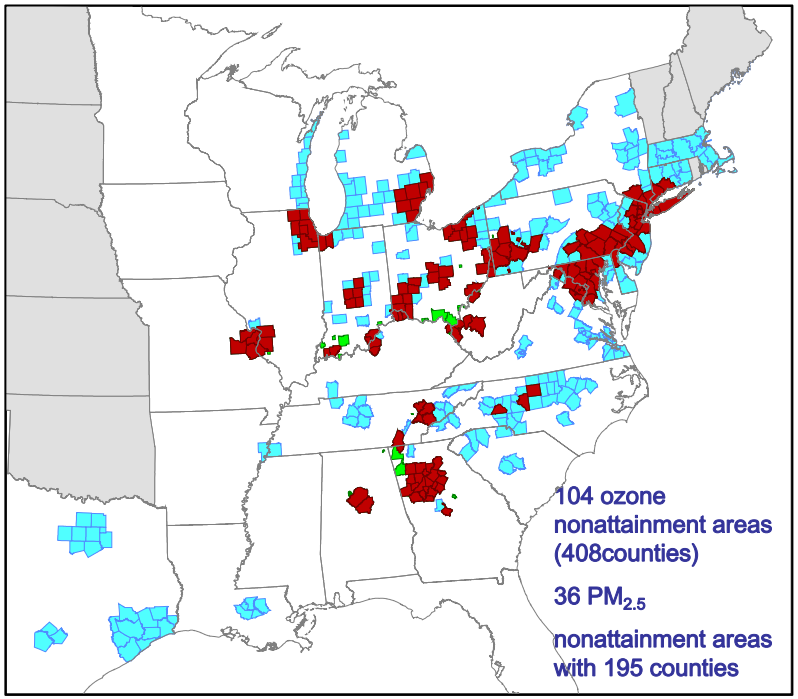
- Other non-monetized benefits – reductions of mercury emissions, acid rain, nitrification, eutrophication, and more.
- In 2015, CAIR will cost about $3.6 billion a year. Implementation beyond 2015 leads to higher annual benefits and costs.

CAIR and Other Major Air Pollution Rules: Annual Emission Reductions at Full Implementation

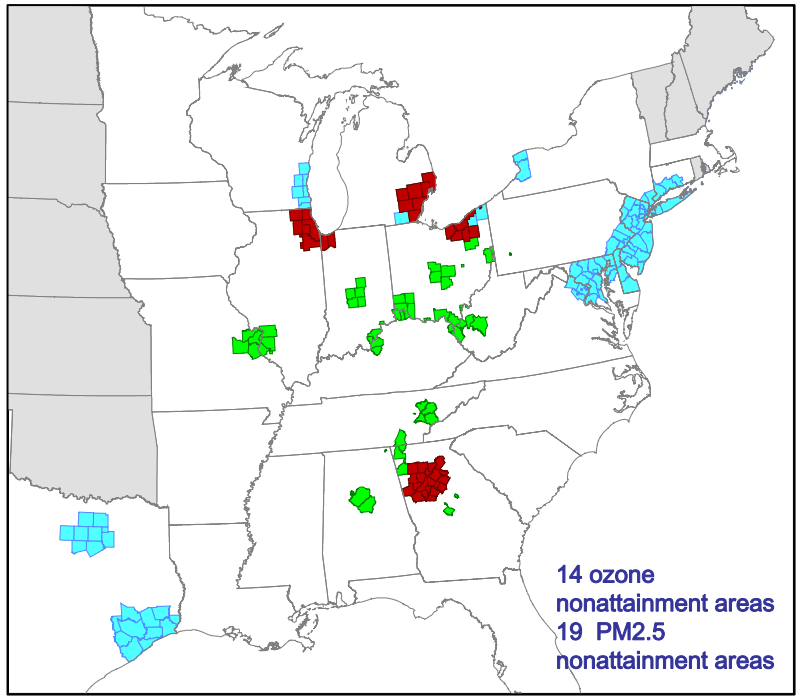


Full implementation for mobile source rules is 2030. Full implementation for the CAIR is between 2020 and 2025.

Ozone and Fine Particle Nonattainment Areas (April 2005)



Projected Nonattainment Areas in 2010 after Reductions from CAIR and Existing Clean Air Act Programs



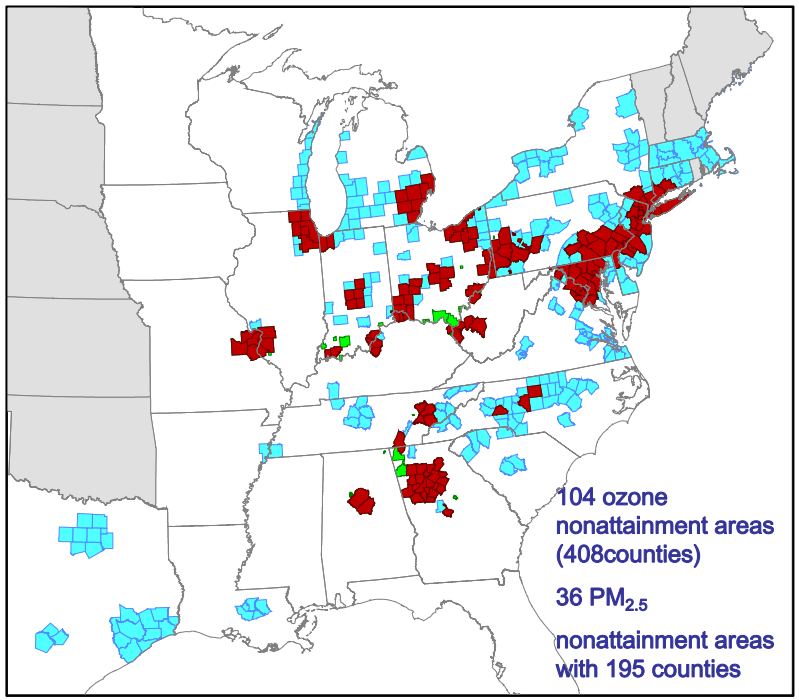
Nonattainment areas for 8-hour ozone pollution only

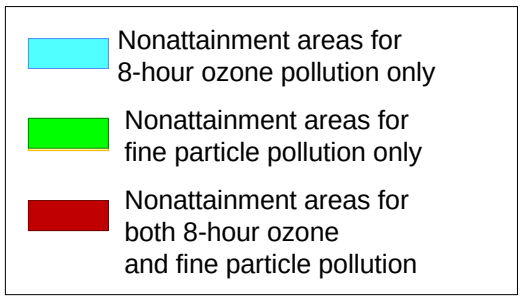
Nonattainment areas for fine particle pollution only .

Nonattainment areas for both 8-hour ozone and fine particle pollution

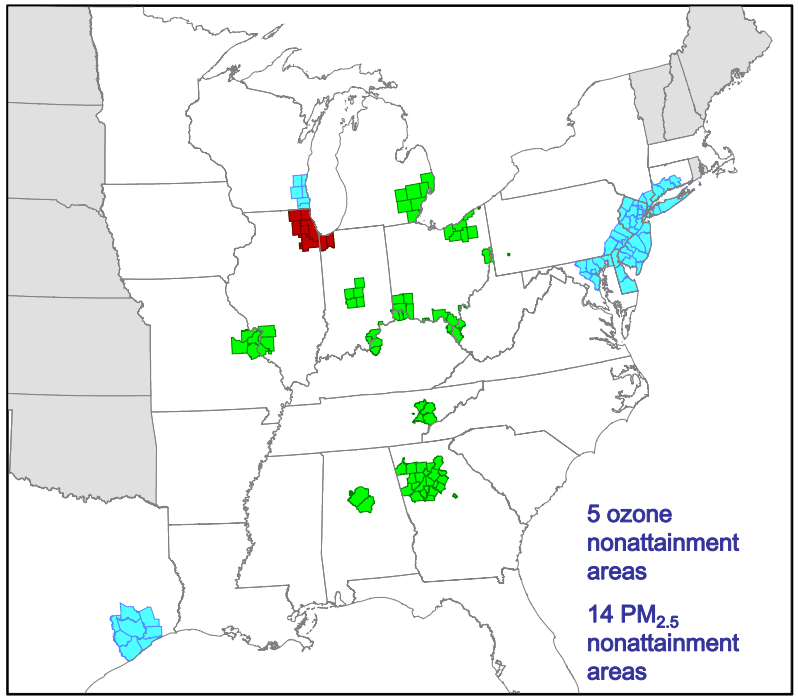
Projections concerning future levels of air pollution in specific geographic locations were estimated using the best scientific models available. They are estimations, however, and should be characterized as such in any description. Actual results may vary significantly if any of the factors that influence air quality differ from the assumed values used in the projections shown here.

Ozone and Fine Particle Nonattainment Areas (April 2005)





Projected Nonattainment Areas in 2015 after Reductions from CAIR and Existing Clean Air Act Programs



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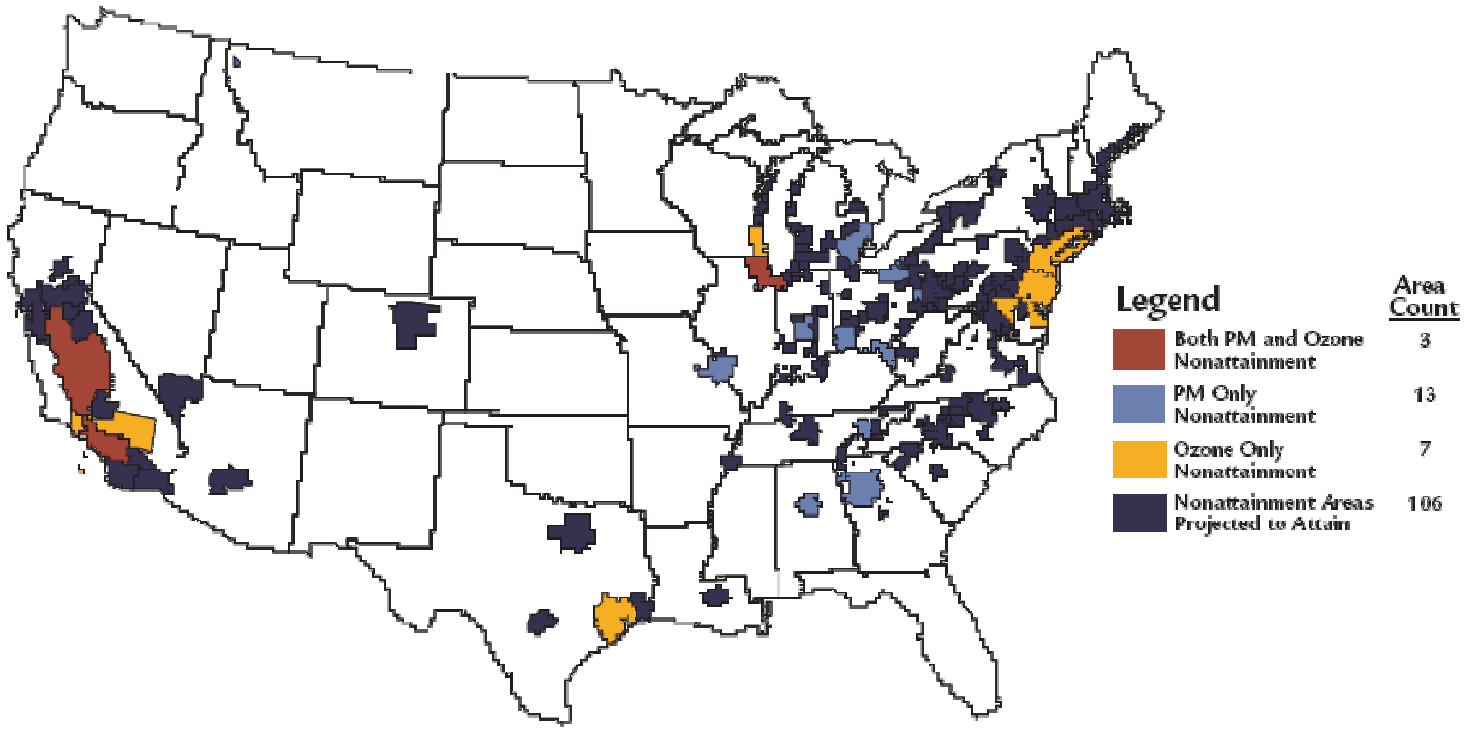
Projected Nonattainment Areas in 2020 for the Ozone and Annual Fine Particle NAAQS after Reductions from CAIR, CAVR and Clean Air Act Programs



Note: Figure 25 depicts 129 areas that, as of April 2006, were in nonattainment of the $PM_{2.5}$ or ozone NAAQS (or both). As indicated in the legend, 106 of those areas are projected to attain the applicable NAAQS by 2020 as a result of existing programs, such as Title IV of the Clean Air Act, the NO_x SIP Call, and some existing state rules, and the addition of CAIR and CAVR. Note that the 23 areas that are forecast to remain in nonattainment may need to adopt additional local or regional controls to attain the dates set pursuant to the CAA. These additional local or regional measures are not forecast in Figure 25, and therefore the figure overstates the extent of expected nonattainment in 2020.

Source: EPA, 2006

U.S.-Canada Air Quality Agreement – Basics

- **Goal: To address transboundary air pollution between the two countries**
- U.S. and Canada committed to:
  - Specific emission limitations or reductions and timetables/programs
  - Notification and consultation mechanism
  - Compliance monitoring
  - Prevention of air quality deterioration and visibility protection
  - Coordinate/cooperate on scientific and technical activities, economic research
  - Review, assess, and regularly report on progress (biennial progress report)
- Starting gov-gov discussions for a PM Annex to the Agreement later this month

Acid Rain Annex

- Original Agreement focused on Acid Rain
- Acid Rain Annex established specific emission reduction commitments (caps for SO_2), and detailed timetable for meeting commitments
  - U.S. emission reduction commitments:
    - For power generation, CAAA (Title IV) SO_2 reductions including cap of 8.9 million tons
    - National SO_2 cap of 5.6 million tons for industrial sources starting in 1995
    - Implement mobile source control program
  - Canada emission reduction commitments:
    - Cap SO_2 emissions in seven eastern provinces to 2.3 million tonnes by 1994, maintained through December 1999 and cap national SO_2 emissions at 3.2 million tonnes by 2000
    - By 1995, reduce stationary source emissions 100,000 tonnes below the forecast level and develop further annual national NO_X emissions reduction requirements to be achieved by 2000 and/or 2005
    - Implement NO_X control program for mobile sources

Ozone Annex

- Scope of AQA extended in 2000 to address ground-level ozone precursors through an Ozone Annex
- Established Pollutant Emission Management Area (PEMA) in transboundary region
- U.S. commitment: Cap on summertime utility and industrial boiler NOx emissions (NO_X SIP Call); mobile source controls; implement NSPS and MACT
  - Estimated U.S. transboundary region NOx reductions of 36% annual and 43% ozone season by 2010
- Canada commitment: Tier II engines and fuel regulations; annual NO_2 power plant cap by 2007 in transboundary region; industrial boiler and VOC measures
  - Estimated Canada transboundary region reductions from 1990: NOx 39% annual by 2010 and VOC 35% annual by 2010