

# Upcoming State Implementation Plan (SIP) Requirements

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# What is a SIP?

## Multiple Choice

A nice neat report



A large file of information



Filing cabinets full of documentation

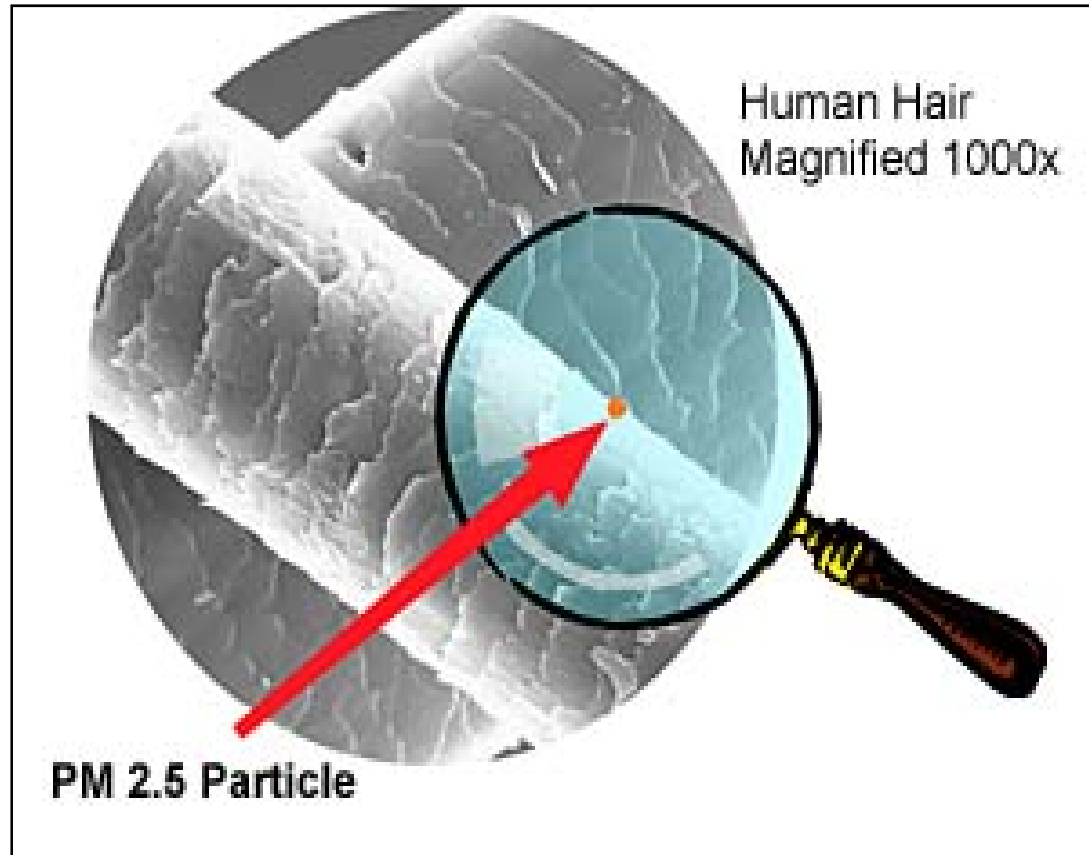


All of the above

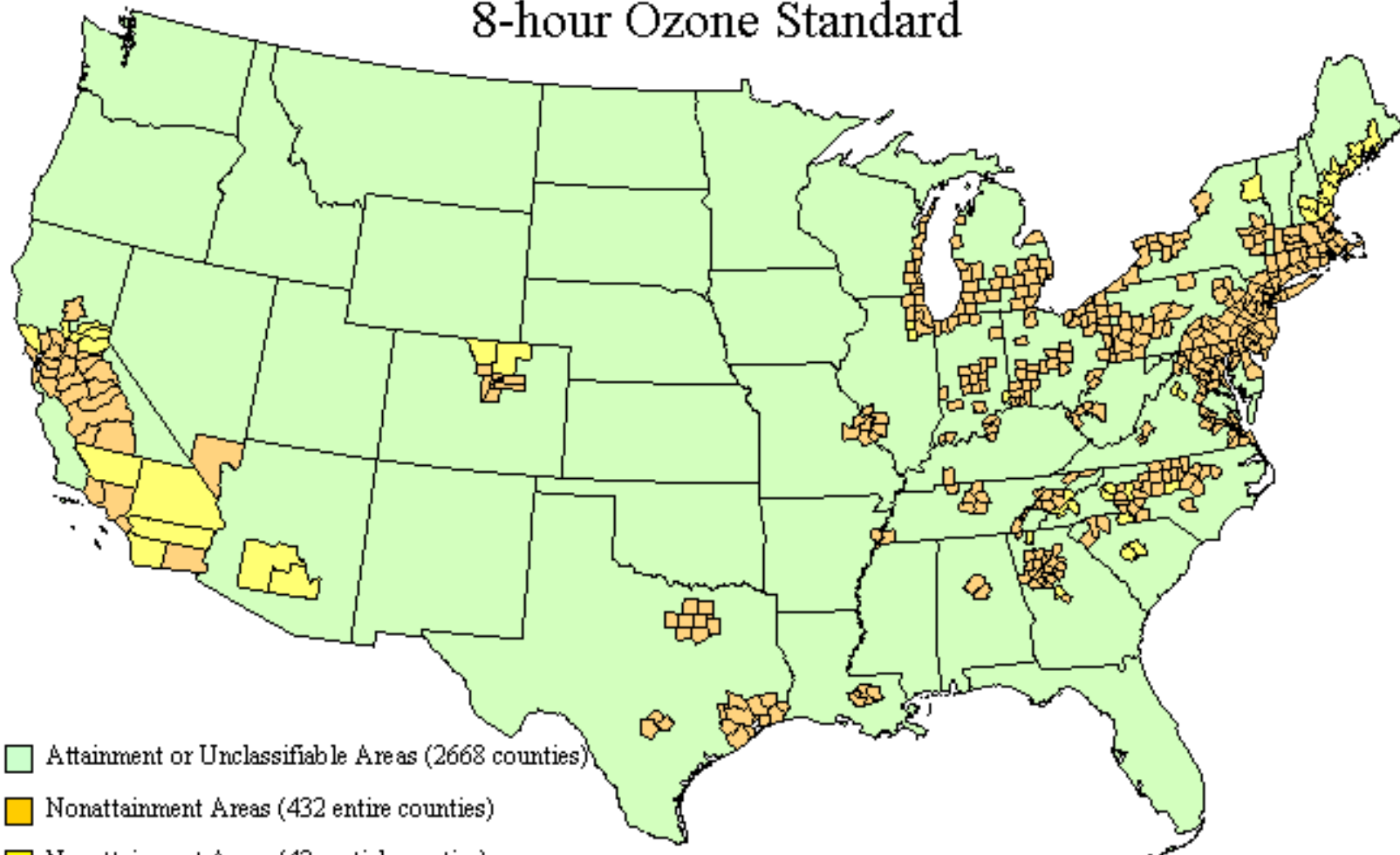
# 2004 – A Transition Period

- Ozone
  - 1-hour standard still in place
  - Planning for the 8-hour standard must be initiated
- Fine Particulate Matter (PM fine or PM 2.5)
  - Slightly behind the 8-hour ozone standard, but planning process begins this year
- Regional Haze
  - Clearly linked to PM fine, but with slightly different planning requirements
- Other SIP pollutants
  - Nitrogen Oxide, Sulfur Dioxide, Carbon Monoxide, Lead

# PM Fine

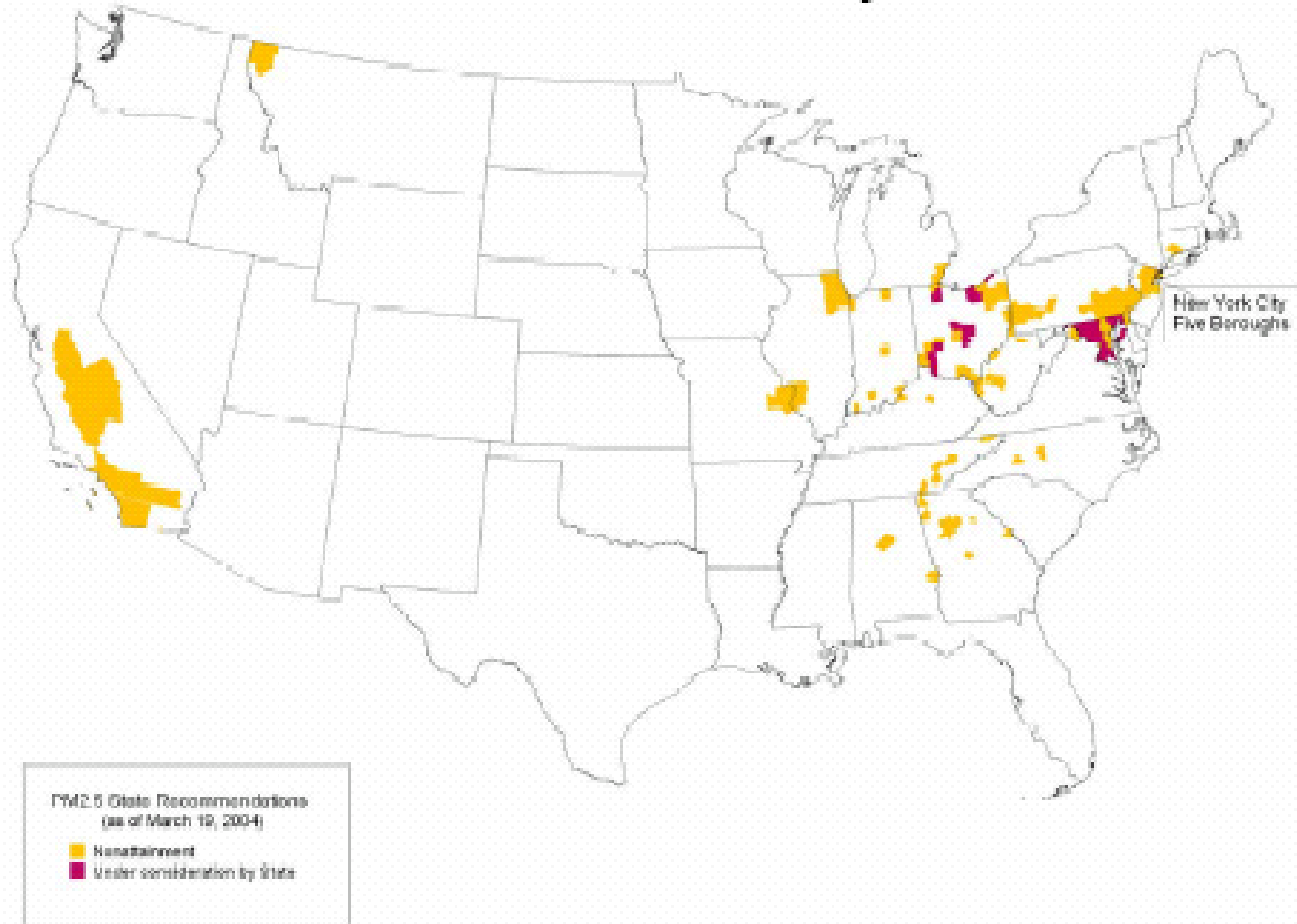


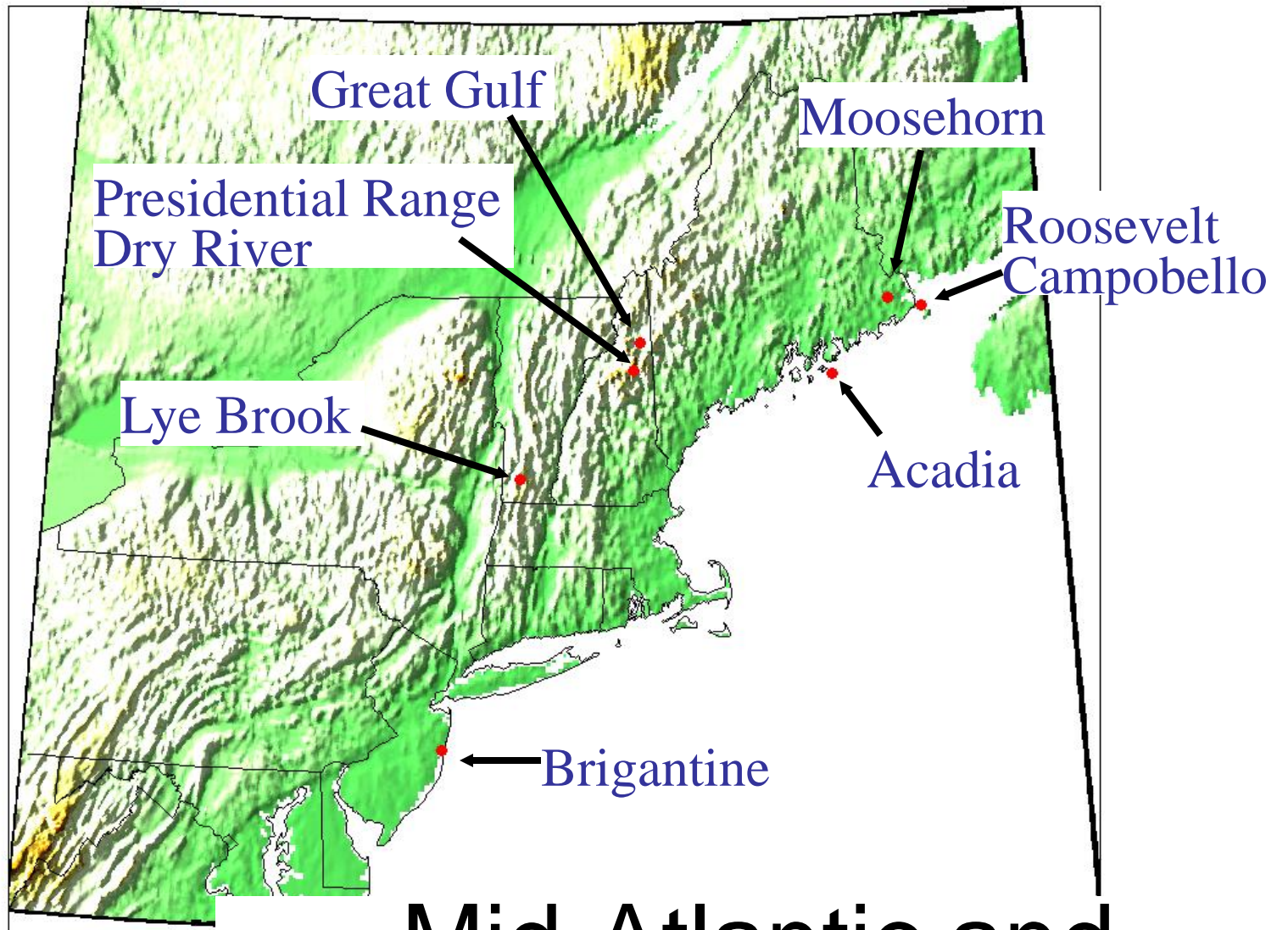
# Attainment and Nonattainment Areas in the U.S. 8-hour Ozone Standard



- Attainment or Unclassifiable Areas (2668 counties)
- Nonattainment Areas (432 entire counties)
- Nonattainment Areas (42 partial counties)

# State Recommendations for Fine Particle National Ambient Air Quality Standards





# Mid-Atlantic and Northeast Class I Areas

# Key Dates - Ozone

- April 2004
  - EPA finalizes designations for new 8-hour ozone nonattainment areas
  - Becomes effective on June 15, 2004
- April and August 2004 (?) – EPA issues regulatory guidance for implementing the new ozone standard
- June 2005 – 1-hour standard revoked
- June 2007 – SIPS due
  - Modeling, Demonstrations, Control Programs, more later
- June 2010 – Attainment date for moderate areas
  - Summer of 2009 becomes very important



# Key Dates – PM fine and Haze

- November/December 2004 – EPA finalizes designations for PM fine standard
- PM fine designations trigger Regional Haze planning requirements
- Early 2005(?) – EPA issues regulatory guidance for implementing new PM fine standard
- Early 2008 SIPS due
  - Modeling
  - Demonstrations
  - Control programs
- Early 2010 - Attainment date for PM fine nonattainment areas

# Technical Work

- Monitoring

- Monitoring for ozone, PM fine and regional haze
- Driven by regulatory requirements, but also plays an important role in public outreach efforts
- An area is designated nonattainment if it consistently measures air quality with concentrations of one of the criteria pollutants greater than the national standards
- Attainment of a standard is based on several years of monitored air quality measurements
- Primarily a state responsibility
- OTC, MARAMA and NESCAUM work with states on data analysis and special projects – especially for regional haze

# Technical Work

- Inventories

- For ozone, PM fine and Regional Haze
  - Direct and indirect/precursor emissions
- Used to quantify the sources and extent of emissions in an area
- Provide a baseline from which reductions may be measured
- Used in the modeling demonstration
  - Need inventories from other states
- Primarily a state responsibility
- OTC, MARAMA and NESCAUM provide assistance to states and conduct special projects

# Technical Work

- Air Quality Modeling
  - Ozone, PM fine and regional Haze
  - A number of air quality models are used to predict the air quality benefits resulting from emission reduction strategies
    - “Screening” models and regulatory models
  - “Grounded” with monitored data
  - Modeling “domains” now cover most of the U.S.
    - A very large regional process
  - Significant state involvement
  - OTC, MARAMA and NESCAUM provide critical coordination and technical assistance to the modeling effort

# Basic Requirements

- SIPS are due in 2007/2008
- Must include:
  - Control programs/regulations
  - An attainment demonstration
    - Modeling or other technical analysis that shows control programs will reduce emissions enough to meet standards in 2010
  - A Rate-of-Progress (ROP) demonstration
    - Demonstration that control programs will reduce emissions by specific increments (i.e. 3% per year) over time
  - Maintenance Plan
    - Once an area has demonstrated three years of air quality that meets a NAAQS, it is required to ensure that the area will continue to meet the standard into the future (allowing for growth)
  - Numerous other SIP elements

# Summary of 2004 Activities

- Designations become final for 8-hour ozone and fine particulate standards
- Monitoring and inventory work well under way
  - Significant coordination among states
- Modeling effort just shifting into high gear
  - Coordinated through modeling committees
- Control measures
  - Continued discussion today