

# The Basics of State Implementation Plans



# Overview

- National ambient air quality standards (NAAQS)
- Air quality management process
- What is a State Implementation Plan (SIP)?
- The process for revising a SIP
- Air quality management responsibilities for the Federal and State governments

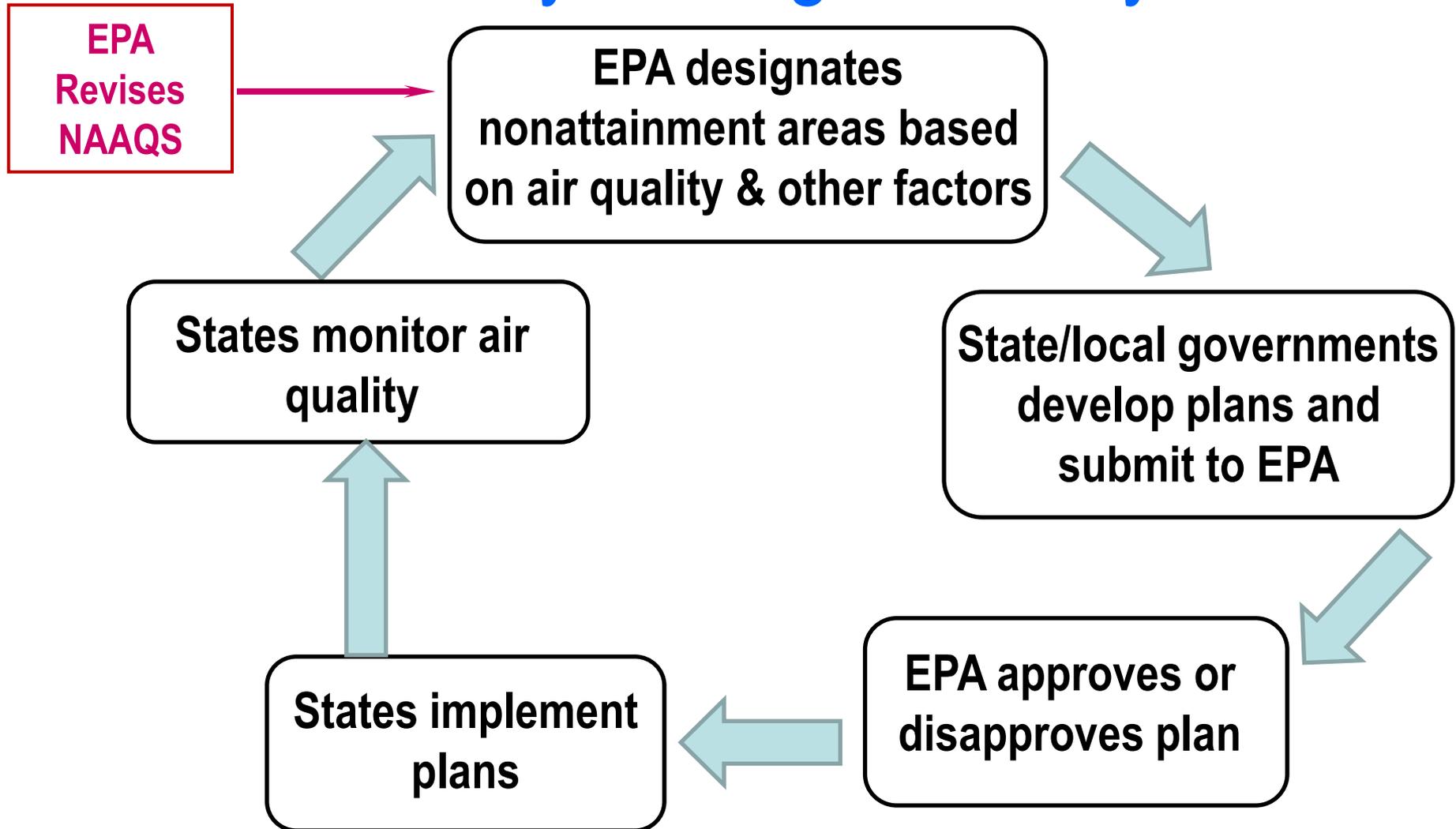
# National Ambient Air Quality Standards

- The Clean Air Act gives the Environmental Protection Agency (EPA) authority to establish national ambient air quality standards (NAAQS) and regulations to protect public health and the environment.
- National standards have been established for 6 pollutants
  - Ozone, PM (PM<sub>2.5</sub> and PM<sub>10</sub>), Carbon Monoxide (CO), Lead, Nitrogen Dioxide (NO<sub>2</sub>), Sulfur Dioxide (SO<sub>2</sub>)
- EPA is required to review the standards every 5 years
- Independent Clean Air Scientific Advisory Committee advises EPA in the standard development process

# National Ambient Air Quality Standards

- Primary standards
  - Health based
- Secondary standards
  - Welfare based
  - Effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility and climate
- In setting the standards:
  - EPA **may not consider cost** in setting standards
  - Costs are considered in developing control strategies to meet the standards (implementation phase)

# Air Quality Management Cycle



# Designation of Nonattainment Areas

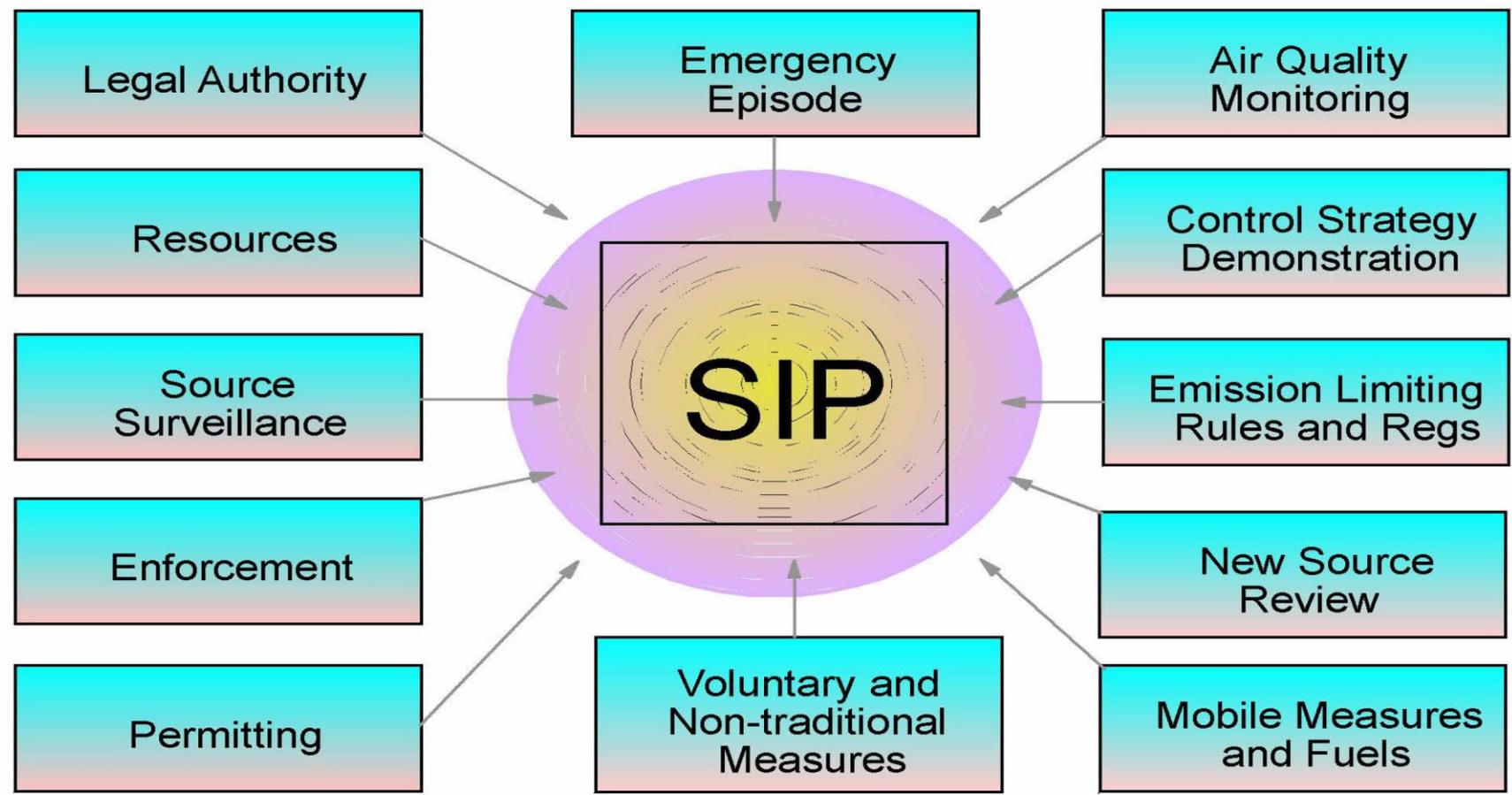
## After Air Quality Standards are revised:

- States submit recommendations to EPA regarding attainment, nonattainment or unclassifiable areas
- Areas are to be designated nonattainment if they either violate the standard or contribute to a violation in a nearby area
  - Size of area varies by pollutant
- EPA makes the final decision on appropriate designation of areas

# What is a State Implementation Plan (SIP)?

- It's a plan for "clean air!"
  - Clean Air Act requires a general plan to achieve the NAAQS in all areas of the country and a specific plan for each nonattainment area.
  - Each state is responsible for developing plans to demonstrate how standards will be achieved, maintained, and enforced.
  - These SIPs are developed by States, and in some cases, by local agencies.

# Components of a SIP



# The SIP -- a Living Document

- Revised by State as necessary.
- Addresses unique air pollution problems in State.
- Keeping SIP updated is a continuous process.
- Number of submittals vary by state.

## State Implementation Plans (SIPs) for Nonattainment Areas

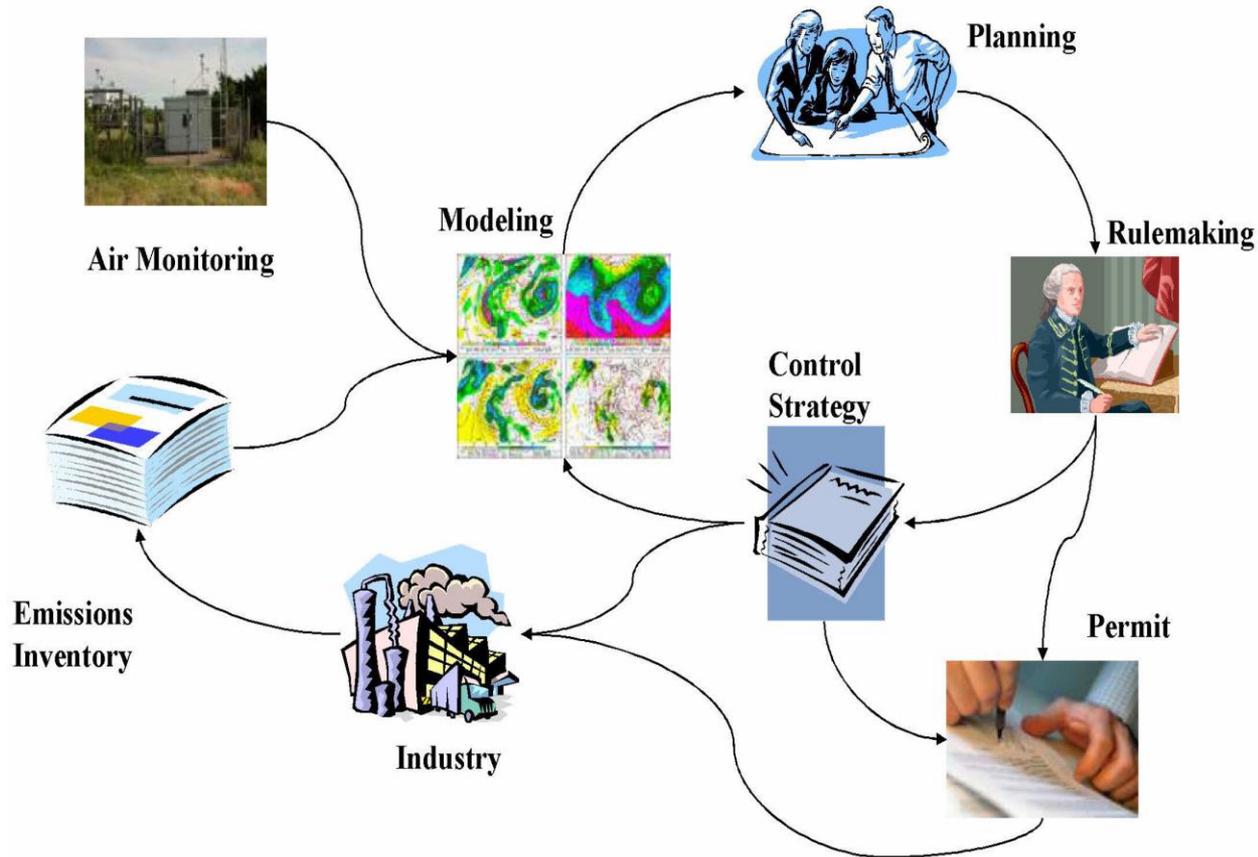
After nonattainment areas are designated:

- CAA requires States to submit an attainment plan **within 18-36 months** (varies by pollutant) of nonattainment area designation
- States must demonstrate attainment “as expeditiously as practicable”
  - Ozone (3-20 years); PM<sub>2.5</sub> (5-10 years)
- Take into account national and state emission reductions already in place
- Adopt regulations to require reasonable controls on sources in the state; and prevent significant contribution to other “downwind” states
- Provide public notice and opportunity for comment
- Submit to EPA for review and approval

# Elements of a Nonattainment Area Plan

- Develop detailed emission inventory
- Identify existing federal & state controls
- Evaluate technically and economically feasible new controls on sources in nonattainment area and state
- Conduct air quality modeling to evaluate air quality improvement from projected existing and new emission reductions
- Adopt enforceable regulations and control measures: emission limits, test methods, monitoring and reporting for specific sources
- Ensure reasonable progress toward attainment
- Adopt contingency measures to apply in the event the area fails to attain by its attainment date

# Air Quality Management Process



# Transportation Conformity

- Ensure that federal funding and approval are given to highway and transit projects that are consistent with ("conform to") the air quality goals established by a state air quality implementation plan (SIP)
- Conformity, for the purpose of the SIP, means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the national ambient air quality standards

## What Happens if a SIP Revision is Not Submitted or is Disapproved?

- New Source Review permitting sanctions:
  - After 18 months sanctions clock
  - 2 to 1 offset
- Highway funding sanctions:
  - After 24 months sanctions clock
- Federal Implementation Plan (FIP):
  - Within 24 month sanction clock
  - Not permanent

# ***Summary ...How the SIP process works***

**CAA or court case mandates plan submittal ,  
or State/Local decides to revise its own SIP**

**State/Local prepares and adopts plan after public hearing**

**State submits SIP to EPA Regional office**

**EPA reviews SIP for completeness ... if complete ... propose in FR**

**EPA approves/disapproves plan after considering public comments**

**After SIP approval, the plan becomes Federally enforceable**

**If SIP Federally mandated and disapproved ... then FIP promulgated**

# *Air Quality Management Responsibilities*

## Federal Government

- Sets air quality standards
- Designates areas as attainment, nonattainment, or unclassifiable
- Establishes national controls for certain source categories that states cannot regulate (e.g., mobile sources)
- Promulgates regulations to address interstate transport of pollution
- Develops guidance to interpret rules and Clean Air Act requirements
- Reviews pre-construction and operating permits
- Approves and enforces SIPs

## State Governments

- Recommend designation of areas
- Develop emission inventories
- Operate air quality monitoring networks
- Perform air quality modeling & identify emission control strategies needed to attain standards
- Adopt infrastructure for air quality program
- Adopt the necessary emission control measures into their SIPs
- Enforce regulations
- Issue pre-construction & operating permits

# Questions?