

National Ambient Air Quality Standards National Tribal Air Association January 19, 2017



# Today's webinar: National Ambient Air Quality Standards (NAAQS)

#### **Future webinars:**

NAAQS Designations – February 13, 2017 NAAQS Implementation – March 20, 2017



Congress designed the Clean Air Act to protect public health and welfare from different types of air pollution caused by diverse sources. Dense, visible smog in many of the nation's cities and industrial centers helped prompt passage of the 1970 legislation.

Subsequent revisions in 1977 and 1990 were designed to improve the Act's effectiveness and to target newly recognized air pollution problems.

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# EPA has set air quality standards for six common "criteria pollutants."

particulate matter ozone sulfur dioxide nitrogen dioxide carbon monoxide lead

These have numerous and diverse sources and can reasonably be anticipated to endanger public health and welfare.



#### EPA is required to establish NAAQS for certain common and widespread pollutants based on the latest science.



Primary Standards: Health-based

 Considers populations that may be at increased risk

Secondary Standards: Welfare-based

- Includes effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility and climate
- CAA does not permit consideration of cost of implementation in setting the NAAQS
- CAA requires the EPA to receive input from an independent scientific review committee (Clean Air Scientific Advisory Committee) and the public

#### Science is the foundation of the NAAQS

Integrated Science Assessment (ISA) provides a comprehensive evaluation of the body of scientific evidence for health and welfare effects related to ambient air pollution.

- Integrates evidence across disciplines
  - Atmospheric chemistry
  - Studies evaluating health effects
  - Studies evaluating welfare effects



The scientific evidence is the basis for informing judgments about the impacts of air pollution on public health and welfare and informing policy decisions on adequacy of the current standards.

#### Health effects of air pollution

The Clean Air Act requires the EPA to set primary standards that, in the "judgment of the Administrator" are "requisite" to protect public health with an "adequate margin of safety"

Includes consideration of populations that may have increased risks for health effects. For example: children, older adults, people with pre-existing disease, etc.



Examples of health effects that may be related to exposure to criteria air pollutants:

- Respiratory effects: respiratory symptoms, changes in lung function
- Cardiovascular effects: atherosclerosis, heart attacks
- Reproductive/developmental effects: low birth weight, preterm labor
- Cancer
- Mortality: all-cause and cause specific

# Welfare effects of air pollution

The Clean Air Act requires the EPA to set secondary standards to "protect the public welfare from any known or anticipated adverse effects." Welfare effects include . . . "effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility and climate . . ."

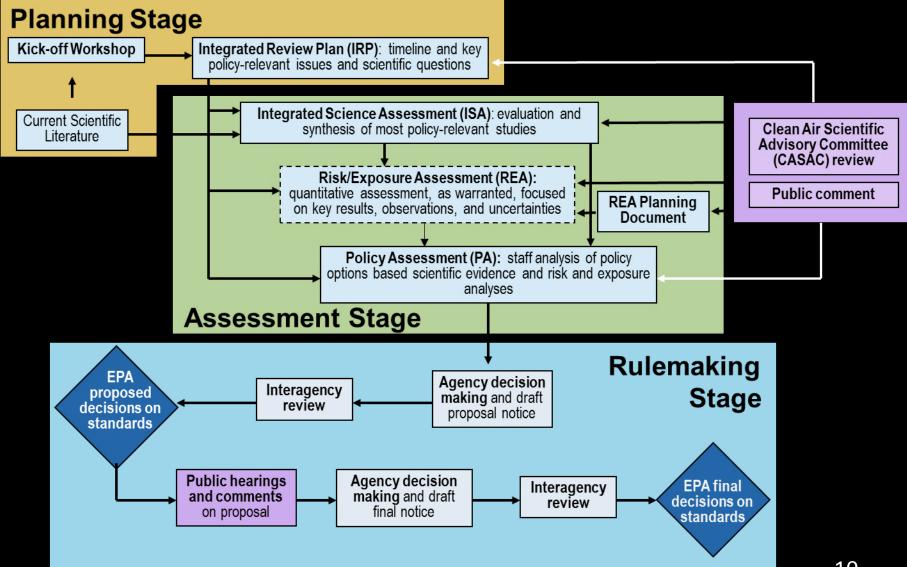
Examples of effects that can impact public welfare include:

- Decreased visibility
- Direct vegetative effects
- Deposition-related ecological effects
- Deposition-related materials damage

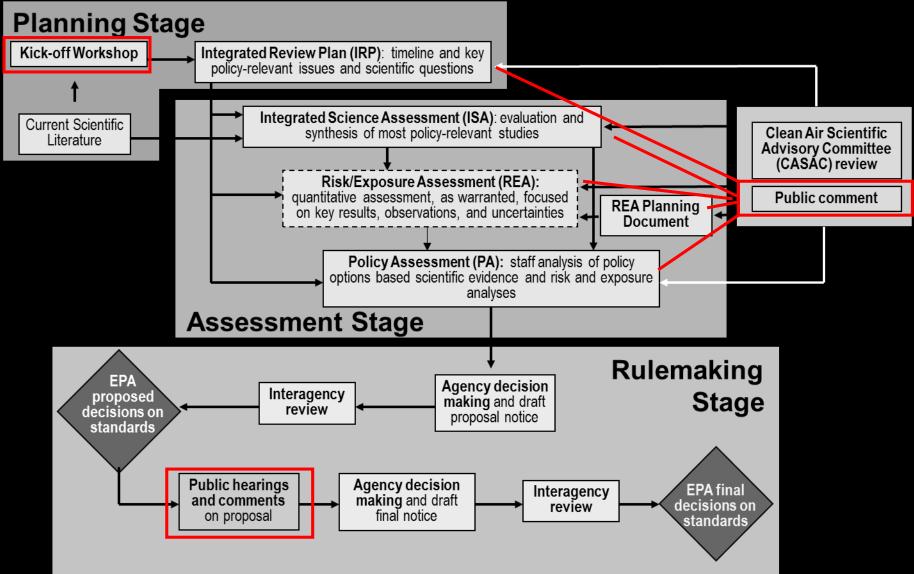




#### **Overview of NAAQS Process**



#### **Opportunities for Input**



#### **Air Quality Management Partnership**

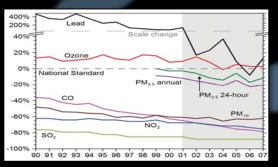


EPA reviews/revises NAAQS and monitoring requirements

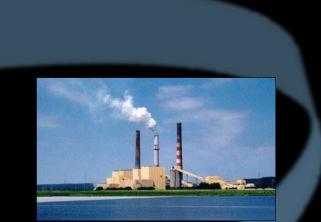


EPA designates nonattainment areas

> Scientific Research



Ongoing evaluation by EPA and air agency: air quality monitoring, tracking emissions, and implementation of control programs



Air agency assesses expected improvement from federal measures, and develops additional control strategies to attain standards



Air agency submits plan to EPA and implements control strategies through regulatory and non-regulatory approaches

# **Tribal Consultation and Participation in the Public Input Process**

- EPA will engage with tribes through outreach at various stages of the NAAQS process to keep tribes apprised of opportunities to participate (i.e., monthly NTAA/EPA Air Policy calls).
- EPA offers consultation when the proposed rule is published in the Federal Register. Regional offices send consultation letters to tribal leaders inviting them to consult.
- When providing input during the public comment period for a proposed NAAQS rulemaking, tribes are encouraged to submit comments as well as any relevant data and information that could be helpful to the NAAQS review.

# What's ahead...

Pollutant	Stage
Particulate matter	Final IRP released December 2016 Draft ISA in preparation
SO <sub>2</sub> Primary	2 <sup>nd</sup> draft ISA released December 2016 REA Planning Document anticipated February 2017 Public meeting for CASAC review of both documents March 2017
NO <sub>2</sub> Primary	Final PA anticipated Spring 2017 Proposed rulemaking anticipated Fall 2017
NO <sub>x</sub> /SO <sub>x</sub> Secondary	Final IRP anticipated end of January 2017 Draft ISA anticipated February 2017 Public meeting for CASAC review of draft ISA May 2017
Ozone	Final rule signed October 2015
Lead	Final rule signed September 2016
Carbon Monoxide	Final rule signed August 2011