

## Clean Air Act: Section II – Special Environmental Concerns, FOTG-Texas

### Criteria pollutants

- Concentrations of particulate matter and ozone adversely impacting human health.
- Contaminants in the atmosphere for which U.S. EPA used health-based criteria to establish National Ambient Air Quality Standards (NAAQS).
  - Maximum concentration of particular pollutant that will not adversely impact public health or welfare.
- Particulate matter and ozone – primary criteria pollutants of concern for agriculture.

Non-attainment areas or zones – concentrations of a criteria pollutant not in compliance with NAAQS. Such areas subject to greater regulatory scrutiny than those complying with NAAQS. Sources considered contributing to non-attainment status subject to control and permitting requirements. Requirements for non-attainment areas tailored to area's specific needs.

Typically, ozone forms in the atmosphere by chemical reactions. Emissions of oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOC) are regulated as precursors to ozone formation. Particulate matter may be either emitted directly, e.g., dust, smoke, or formed in the atmosphere from other pollutants, e.g., ammonia, NO<sub>x</sub>, VOCs, and sulfur dioxide (SO<sub>2</sub>). Agriculture does not produce significant amounts of SO<sub>2</sub>. Reducing emissions of directly-emitted particulate matter, NO<sub>x</sub>, ammonia, and VOC from agricultural sources will help mitigate agriculture's contribution to concentrations of particulate matter and ozone in the ambient air.

See *Agricultural Air Quality Conservation Measures Reference Guide for Cropping Systems and General Land Management* for information about NRCS conservation practices and other activities that can be used to address air resource concerns.

### Regional visibility degradation

- Excessive concentrations of particulate matter and other pollutants in the atmosphere cause regional visibility degradation in national parks and other *Class I areas*.

Reducing agricultural emissions contributing to increased concentrations of particulate matter and NO<sub>x</sub> in the air, especially from sources near a Class I area, will help mitigate agriculture's contribution to regional haze issues. These emissions include directly-emitted particulate matter and NO<sub>x</sub>. Additionally, emissions of ammonia and volatile organic compounds (VOC) can contribute to fine particulate matter formation. By reducing emissions of these pollutants, many common NRCS practices can address agriculture's contribution to regional visibility degradation.

Regional visibility degradation occurs when concentrations of particulate matter, oxides of nitrogen (NO<sub>x</sub>), and sulfur dioxide (SO<sub>2</sub>) in the atmosphere hinder the ability to view distant objects or vistas.

- For agriculture, primary visibility-degrading pollutants of concern are particulate matter and NO<sub>x</sub>.

Class I area – areas of national or regional natural, scenic, recreational, or historic value given special protection under the Clean Air Act, e.g., preservation of the visibility of scenic vistas. EPA developed the Regional Haze Rule directing states to establish goals for improving visibility in national parks and wilderness areas. States develop long-term strategies for reducing emissions of air pollutants that cause visibility impairment.

The goals and requirements vary by state and by Class I area.