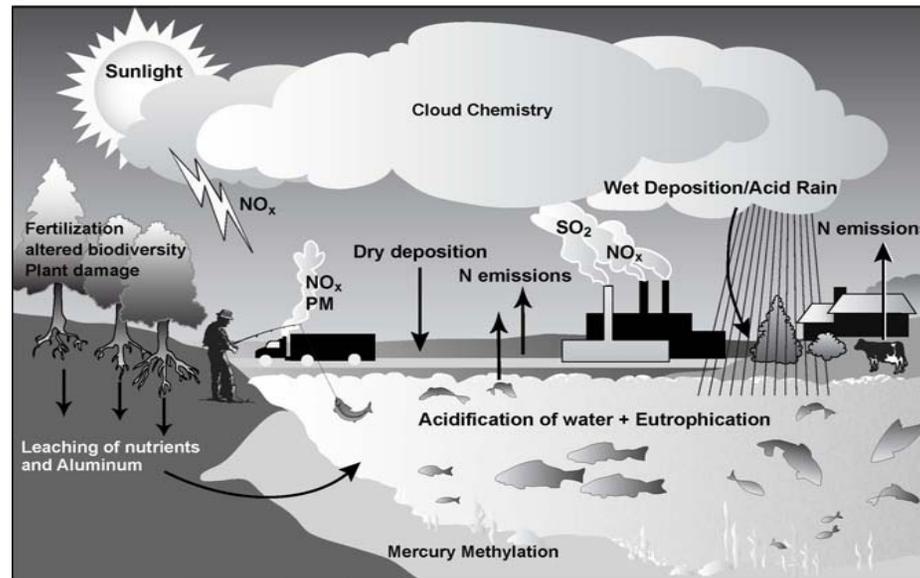


Background and History of the Review of the Secondary NO_2 and SO_2 NAAQS



Presentation to CASAC
April 2, 2008

National Center for Environmental Assessment, Office of Research and Development
Office of Air Quality Planning and Standards, Office of Air and Radiation

Schedule

- Planning:
 - Workshop on science policy issues – July 2007
 - CASAC consultation on draft Integrated Review Plan – Oct. 2007
 - Final Integrated Review Plan – Dec. 2007
- April 2-3, 2008 CASAC meeting:
 - Review of 1st draft Integrated Science Assessment (ISA) and
 - Consult on draft Scope and Methods Plan for Risk/Exposure Assessment (R/EA)
- Next steps:
 - 2nd draft ISA and 1st draft R/EA release in Aug. 2008 -- CASAC review Oct. 2008
 - Final ISA – Dec. 12, 2008
 - 2nd draft R/EA release in Mar. 2009 – CASAC review May 2009
 - Final R/EA – July 2009
 - Rulemaking:
 - ANPR in Aug. 2009 -- CASAC review Oct. 2009
 - Proposed rule – Feb. 12, 2010
 - Final rule – Oct. 19, 2010

Regulatory History of the Secondary NO₂ and SO₂ NAAQS

- NO₂ and SO₂ secondary standards set in 1971; only change has been revocation of annual secondary (but not primary) SO₂ standard. Current secondary standards include:
 - 0.053 ppm NO₂ annual arithmetic average, mean of 1-hr concentrations (same as primary); to protect against direct gas-phase effects to vegetation
 - 0.50 ppm SO₂, 3-hr average (different from primary); to protect against direct short-term effects on trees (foliar injury)
- Previous reviews have discussed the importance of broader environmental effects of NO_x and SO_x, but EPA decided not to revise the secondary NAAQS on the basis of such effects
- Numerous assessments, reviews, statutory/regulatory activities, and other initiatives have been undertaken over the last 3 decades, attesting to the complexity of the relevant science and policy issues (see Integrated Plan discussion)

In this review . . .

- Separate review of secondary standards from reviews of primary standards
- Take multi-pollutant approach, linking NO_x and SO_x as well as considering both oxidized and reduced forms of nitrogen
- Focus on environmental effects related to deposition of sulfur and reactive nitrogen into sensitive terrestrial and aquatic ecosystems
- Avoid unnecessary overlap across different NAAQS reviews
- Take a broad view of potential policy outcomes, after first evaluating relevant science and designing/conducting relevant assessments