

# Nitrogen

- Role in ecosystem acidification – Northeast and Southeast
- Rocky Mtns. – alter species dynamics in alpine tundra
- Southern CA – high rates of dry dep., invasive species, alter fire regime
- Estuarine eutrophication – Chesapeake Bay, Pamlico Sound, LI Sound
- Ammonia emissions – CAFOs, Iowa, NC

# Linkages Across Multi-Pollutants

- S and N – acidification, Hg higher in acidified systems
- Hg Methylation – S increases, N decreases (emerging)
- Hg in fish – strongest correlate in ADKs is dissolved Al
- Linkages to C cycle and climate change – temp., hydrological regime, DOC and Hg

# Accountability

- Water chemistry – LTM, TIME much is ad-hoc USGS, NSF-sponsored, NPS
- Aquatic Biota – poor monitoring in US, chem. Data used as proxy
- Soil Chem – poor monitoring
- Deposition – NADP, CASTNET, MDN, no dry dep for Hg
- Hg water chem and biota – mostly ad-hoc
- Critical Loads – Canada but not US