July 2

Key ecosystem recommendations from the NAS report:

"Strive to take an "airshed" - based approach ..." Air pollution impacts to ecosystems are *regional* problems (e.g, acidification, eutrophication, visibility, forest soils/nitrogen saturation, cation leaching) "Strive to emphasize results over process, create accountability for the results, and dynamically adjust and correct the system as data on progress are assessed.

"Enhance protection of ecosystems and other aspects of public welfare. Recommended actions include better tracking of ecosystem effects and building an improved basis for implementing secondary or alternative standards to protect ecosystems."

Questions:

Has the Clean Air Act been effective in protecting ecosystems? Can the Agency do a better job? Are there alternative approaches that would better integrate ecosystem protection with human health protection?

How can alternative approaches be formalized?

NAS Study stated that the Agency needs to do a better job at protecting ecosystems affected by air pollution. The report also seemed open for EPA to consider alternative ways of protecting ecosystems and ensuring ecological values are considered in all aspects of policy processes: policy development, implementation, policy/program evaluation

Consider ecosystem status and response to pollution controls in the "front end" of the following processes:

- in developing an emission reduction goal of national or regional scale federal programs
- in developing an RIA
- in program implementation to ensure ongoing monitoring and integrated assessment of ecosystems (ongoing program accountability)

Consider ecosystem status and response to pollution controls in the "back end" ensuring accountability

- Have we achieved the intended results? Are ecosystems adequately protected?
- Are further reductions necessary? - input to refining national/regional emission reduction goals and developing State and/or RPO efforts to address residual adverse ecological
 - effects.

• by developing ecosystem-based air goals as a benchmark for measuring progress and efficacy of emission control programs.