

Boyer Presentation Points, Integrated Nitrogen Committee meeting, October 29-31, 2007

1. N inputs to the nation have been increasing, largely due to human activities associated with food production and fossil fuel combustion.
2. Despite the obvious benefits of a plentiful supply of food & energy, the adverse consequences associated with the accumulation of N in the environment are large, with implications for human health and the environment.
3. The greater the inputs of N to the landscape, the greater the potential for negative effects, including greenhouse gas production, ground level ozone, acid rain, degradation of soils and vegetation, acidification of river, lakes & streams, and coastal hypoxia & eutrophication.
4. The adverse and intertwined consequences associated with N inputs to air, land, and water underscore the need for EPA to explore integrated strategies that minimize N inputs, maximize N use efficiency, and protect natural resources.
5. Substantial efforts are needed in order to mitigate or reverse the effects of N pollution across the country. Conservation of natural resources in their native state, improved motor vehicle efficiencies, improved use of fertilizers, better landscapes, creation of wetlands, reductions in airborne emissions, and advances in wastewater treatment may all be beneficial.
6. To achieve these goals will require an integrated, interdisciplinary approach with in the USEPA. Divisions such as OAQ (CAMD?), OSW, OGW, OWW, GCRP, and the various research centers should all be working together and sharing common resources toward: understanding N sources, transport, and transformations; understanding factors affecting N, quantifying ecosystem goods & services affected by N cycling; educating the public about this environmental issue; and to promoting regulatory & policy strategies to mitigate the adverse effects of N in the environment.
7. EPA should take a leading role among other federal agencies and university scientists in coordinating approaches to the nitrogen problem, and to maintaining a national nutrient information/accounting system.