

## **Agricultural Aquatic Discharge – Breakout #4**

- **Be more specific with recommendations. Start with a simple, understandable, declarative statement.**
- **Use a watershed focus where possible because it unites research and regulation/remediation**
- **Getting better data for N use and fluxes is critical--- consider a bottom up approach (farm nutrient balances required for participation in farm programs) to supplement the current top down (federal govt agency as data collector). If bottom up, needs an aggregator by watershed, region, etc.**
- **Need stronger linkages among Nr, C, and water within context of climate change and remediation/regulation**
- **Need greater clarity on uncertainty/variability about Nr loads, fluxes, and projections; How to convey uncertainties to policymakers, public. What is proper role of models?**

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- **How to incentivize fertilizer companies to be more efficient in use of their product; to become service profit centers as well as commodity dealers.**
- **Policies on crop subsidies affect farmer decisions about what crops to grow and cropping system, which in turn has large impact on fertilizer use and fate.**
- **There is a crying out loud need for a lead govt agency to coordinate and implement Nr policy, regulations, and research**

- **General issues and comments: initial framing concepts**
  - **Define intensification as applied to agriculture\**
    - **increased food production per unit area/time**
    - **a process that is not specific to a particular type of cropping system;**
    - **research must use a systems approach to study it**
  - **Discuss carrying capacity, biophysical limits, climate change and linkage of CC with Nr, time frame for analysis and recommendations**
  - **Discuss spatial focus of the report; although it must consider global megatrends, it's purpose is to inform EPA policy; options and recommendations must focus on appropriate scale (watershed, ecoregion, ?)**
  - **Need more prominent emphasis on role of hydrology and concept of adaptive management: how to get from current situation to desired state.**
  - **Don't assume linear trajectory of current economic trends, there will be feedback loops with regard to consumption patterns**