

# **NUTRIENT MANAGEMENT AND WATER QUALITY**

Summary of SARL Breakout Session  
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## **Rich Budell**

Director, Office of Agricultural Water Policy  
Florida Department of Agricultural and Consumer Services

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Senior Economist, Resource, Environment and Science Policy Branch  
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## **Brent Paterson**

Executive Director  
Irrigation and Farm Water Division  
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*Representative Sid Miller, Moderator*

Mr. Budell noted that nutrient management is fast becoming a pressure point for agriculture, as regulators place increasing restrictions on agricultural operations in order to achieve improvements in water quality. This shift is taking a variety of forms, but it is often creating burdens on producers.

In Florida, an EPA-designed clean-up plan for the Everglades includes, among other features, extensive nutrient management to limit the amount of phosphorus and nitrogen that flows into the ecosystem. The state has countered with its own plan which achieves similar ends with less impact on agriculture and is going to court to suspend EPA action while it implements its own. The question in Florida is whether the EPA was justified in enforcing a nutrient management plan. The state contends the EPA is implementing the plan to settle a lawsuit, and that it has neither the mandate nor the justification.

Mr. Ribaud said that farmers tend to be very careful about nutrient application, because they don't want to increase input costs. Nonetheless, controlling nitrogen is a difficult issue for farmers because it is so important to have nitrogen available when it is needed that any change to current practice increases risk. When farmers were surveyed about their nutrient practices, however, only 35 were following best practices (as defined by NRCS) on application rate, type

and time. This provides ample room for improvement to reduce nitrogen loss.

The predominant policy for achieving higher compliance with BMPs is voluntary technical assistance, but this approach has its limitations. First and foremost is the need for farmers to think they have a nutrient problem and then seek assistance. A second problem is fiscal. In an environment of shrinking budgets, there is a question of how far available resources will go. Even with funding, the cost-share rates are inadequate for some producers and they would have to increase considerably to get more producers involved.

There are alternatives, however, including targeting priority watersheds (such as those with TMDLs in place); paying farmers for performance rather than practices (although this is more complicated because of a lack of quality metrics by which to measure improvements); trading programs with regulated point-source polluters; enhanced compliance models that make participation in other farm programs contingent on participation in nutrient management and other water quality measures; and, as a last resort, regulation.

Mr. Patterson added that in Alberta and in their relationships across the border, the water issues have changed from water supply to water quality. Evidence points to the source for excess nutrients in water as being roughly evenly split between rural and urban areas. Agriculture must participate in solutions both from a social license to operate perspective as well as from the opportunity to leverage this activity from a marketing perspective.

Alberta undertook a very deliberate approach to determining where nutrient runoff was originating and working with industry to identify solutions. Industry is most interested in solutions that can be applied and will be effective rather than a list of steps that are expected to be taken (but which are not linked to outcomes). In Alberta, the biggest issue is manure management, with fertilizer a lesser concern. Thus the focus has been on finding solutions for both intensive and extensive animal agriculture. The process will assess the solutions on a watershed scale to insure that they will have the impact that is desired. The approach tries to minimize regulation through education and linking improved practices to marketing advantages, with short-term incentives

Delegate Glassman of Maryland observed that while farmers in the Chesapeake Bay are about halfway toward meeting their nutrient management goals, urban areas are in some ways moving backwards, and it seems only a matter of fairness that urban areas step up their efforts before agriculture is asked to do more. Mr. Budell responded that this was in part the case because the costs involved in improvements in urban areas are prohibitive compared to agricultural solutions, compounded with the perceived economic benefits that can accrue through improved nutrient management.

The question is not whether nutrients flow off the farm, but how much is acceptable is more the issue. A vast majority of farmers in Florida have voluntarily adopted best management practices, sometimes with financial incentives. The real problem is that there will not be immediate benefit from either regulatory or incentive practices, which makes sustained efforts both more difficult and more important.