



IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Bill Northey, Secretary of Agriculture

December 29, 2011

Diane Smith  
Environmental Protection Specialist  
Water Quality Protection Division  
Environmental Protection Agency Region 6  
1445 Ross Ave.  
Dallas, TX 75202-2733

RE: Docket No. 2011-30848 – EPA Identification of Louisiana Water Quality Limited Segments

Dear Ms. Smith:

At the request of EPA, Iowa and many other states have been pursuing strategies for establishing numeric water quality standards or strategies to reduce nutrients in surface water. While Iowa had been making progress towards that goal, EPA, in its March 16, 2011 “Stoner memo,” outlined a new path for local-state-federal partnerships to address nutrients. Iowa is pursuing development of a state nutrient strategy consistent with the Stoner memo. However, the EPA proposal to disapprove Louisiana's decisions not to list three waterbodies for low dissolved oxygen jeopardizes upstream states' efforts to address these and other Gulf state concerns. These three waterbodies were proposed for addition by EPA because the applicable numeric water quality standards marine criterion for dissolved oxygen was not attained in these segments. I ask that the EPA not disapprove Louisiana's decision to not list three waterbodies, and allow states like Louisiana and Iowa to pursue more workable frameworks for addressing nutrients in surfaces waters. The proposed listing by EPA will only undercut a variety of ongoing efforts.

Here's why. In the Stoner memo, *Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions*, the agency said that states, EPA and stakeholders, working in partnership, must make greater progress in accelerating the reduction of nitrogen and phosphorus loadings to our nation's waters that can lead to local issues like low dissolved oxygen in some waters. While EPA has a number of regulatory tools at its disposal, its resources can best be employed by catalyzing and supporting action by states that want to protect their waters from nitrogen, phosphorus and other impairments such as low dissolved oxygen.

“Where states are willing to step forward, [the EPA] most effectively encourages progress through on-the-ground technical assistance and dialogue with state officials and stakeholders, coupled with cooperative efforts with agencies like USDA with expertise and financial resources to spur improvement in best practices by agriculture and other important sectors,” EPA said in the memo. “States need room to innovate and respond to local water quality needs, so a one-size-fits-all solution to nitrogen and phosphorus pollution is neither desirable nor necessary.”

EPA points states toward the memo as a framework of key elements that their programs should incorporate to maximize progress. Thus, the Office of Water provided recommended elements of a state nutrient framework (part of the memo) as a tool to guide ongoing collaboration between EPA regions and states in their joint effort to make progress on reducing nitrogen, phosphorus and associated issues such as low dissolved oxygen. EPA has already asked that each regional EPA administrator use this framework as the basis for discussions with states like Iowa.

These decisions have already taken place between the Region 7 Administrator Karl Brooks, Iowa Department of Natural Resources (DNR) Director Roger Lande, and myself. The outcome of the discussion was agreement that the Iowa DNR is working with municipalities and industry to focus on point source aspects of the strategy and the Iowa Department of Agriculture and Land Stewardship (IDALS) is working with agriculture and other nonpoint sources.

The goal of these discussions has been to tailor a workable, realistic, cost-effective state nutrient strategy specific to Iowa’s circumstances, weather and technology, taking into account existing tools and innovative approaches, available resources, and the need to engage all sectors and parties in order to achieve effective and sustained progress. This is the preferred approach by states like Iowa. EPA subsequently supplanting a state’s rights to decide their approach, or the listing of specific waters as impaired, or not, seems to fly in the face of these other ongoing efforts.

### **EPA Administrator’s Support**

The nutrient strategy approach is also supported by Administrator Lisa Jackson during her April 2011 visit to Iowa. During the visit, Jackson said that the EPA is not targeting agriculture and that EPA has not decided to apply its model for reducing pollution in the Chesapeake Bay to the Upper Mississippi River Basin. Instead, Jackson indicated the EPA might look at ways to quantify how voluntary conservation methods in the Mississippi River basin are helping reduce hypoxia in the Gulf of Mexico. Further, Jackson “ruled-out” the need to move directly to a regulatory approach when states are working to apply more conservation measures on the ground.

This recent proposal by EPA to list waters for low dissolved oxygen seems to be in conflict with these previous collaborative statements and jeopardizes the agency’s already tenuous credibility with Iowa farmers.

## **Petition for Federal Rules Denied**

Further, the EPA denied a petition July 29 from environmental organizations in 13 Mississippi River basin states that submitted a petition for rule-making seeking federally-established water quality standards and a basinwide watershed plan to address nutrients. EPA denied the petition because it believes "...that the most effective and sustainable way to address widespread nitrogen and phosphorus pollution in the Mississippi-Atchafalaya River Basin is to build on existing efforts, including providing technical assistance and collaborating with states to achieve near-term reductions, supporting states on development and implementation of numeric criteria, and working cooperatively with states and tribes to strengthen management programs."

Specifically, the 2008 petition from the Minnesota Center for Environmental Advocacy asked the EPA to develop numeric water quality standards for nutrients (i.e., nitrogen, phosphorus, chlorophyll a and turbidity) for all navigable waters in all states where such criteria do not already exist, or alternatively, promulgate such criteria for the Mississippi River basin and the northern Gulf of Mexico (some 31 states), but at a minimum promulgate numeric water quality standards for nutrients for the 10 states along the mainstem of the Mississippi River and the northern Gulf of Mexico.

The petition also asked EPA establish total maximum daily loads (TMDLs) for nitrogen (N) and phosphorus (P) for the mainstem and tributaries of the Mississippi River that do not meet the criteria EPA establishes for N or P, the portion of the contiguous zone within the Gulf of Mexico, and the portion of the ocean that is within the coverage of the Clean Water Act (CWA) in the Gulf of Mexico.

Additionally, EPA said another reason for its denial of the petition was that it continues to co-chair the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, which consists of five federal agencies, 12 state agencies and the tribes within the Mississippi/Atchafalaya River Basin working in partnership to reduce pollution, and it wants to put its limited resources and efforts into making this collaborative effort successful.

This entire petition was denied by the federal agency. So why is EPA now acting contrarily to this previous decision?

The listing of these waters by EPA will do nothing but add fuel to the debate on how to establish the appropriate nutrient criteria for protecting these designated stream and lake uses. Unlike most pollutants which currently have criteria established, no single criterion value appears to be appropriate for every water. Numerous site-specific factors could lead to individual criteria for every waterbody. Identifying those site-specific criteria could take several years to develop and be the subject of legal challenges. The result in Iowa would likely be a larger list of impaired waters and fewer resources to address the problems.

Some of the major problems with EPA forcing states to set nutrient standards in the traditional way that water quality standards are established (setting a standard, identifying impaired waters and developing Total Maximum Daily Loads, etc.) include:

- Weak relationships between “healthy” streams and their specific nutrient levels;
- A traditional water-quality based strategy is less effective in watersheds where there are more nonpoint source influences (vs. point sources);
- Uncertainty about the influence of factors such as light, water flow rates and substrate; and,
- Differing opinions between state and federal regulators on the best way of handling nutrients and water quality standards.

In fact, the EPA’s April 2010, Science Advisory’s Board’s review of nutrient criteria development approach recommended by the agency showed uncertainty associated with estimated stressor-response relationships that would be problematic if used as a “stand alone” method. Considerable unexplained variation can be encountered when attempting to use only the empirical stressor-response approach to develop nutrient criteria, the SAB said. Such unexplained variation presents significant problems in the use of this approach. Statistical associations may not be biologically relevant and do not prove cause and effect.

It would seem a better approach is to allow states to decide when they have properly developed, biologically relevant statistical associations can be useful arguments as part of a weight-of-evidence approach (further discussed in SAB report) to criteria derivation. EPA should be investing its limited resources in helping states develop the supporting analyses needed to improve the basis for conclusions that specific stressor-response associations can predict nutrient responses such as dissolved oxygen with an acceptable degree of uncertainty. Such predictive relationships can then be used with mechanistic or other approaches in a tiered weight-of-evidence assessment including cause and effect relationships to develop nutrient criteria.

### **Mississippi River/Gulf of Mexico Watershed Nutrient Task Force**

Another reason for EPA not to interfere with Louisiana’s decision not to list these waters is that it, Iowa and other states are well-positioned to work through the federal-state Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, to document past success and make additional progress on nutrient reductions in surface water. The task force was established in the fall of 1997 to understand the causes and effects of eutrophication in the Gulf of Mexico; coordinate activities to reduce the size, severity, and duration; and ameliorate the effects of hypoxia. Activities include coordinating and supporting nutrient management activities from all sources, restoring habitats to trap and assimilate nutrients, and supporting other hypoxia related activities in the Mississippi River and Gulf of Mexico watersheds.

In 2001, the task force released the 2001 Action Plan, a national strategy to reduce Gulf hypoxia. While there was an initial federal commitment to funding state actions under the plan, none was ever received. And while Iowa has a variety of creative state actions (e.g., the Iowa Conservation Reserve Enhancement Program, the Upper Mississippi River Subbasin Hypoxia Nutrient Committee, various Iowa watershed protection projects, and the market-driven Iowa Wetland Landscape Systems Initiative) with very limited federal and state support, Iowa attempted to move forward anyway. While progress will be limited in the future without a significant federal resource commitment, Iowa is working to make progress with the resources currently available.

More recently, the task force embarked on a four-year reassessment of the science surrounding Gulf hypoxia since the release of the 2001 Action Plan to produce a revised Action Plan. The 2001 Action Plan has since been revised and expanded in its 2008 Action Plan. The 2008 Action Plan is currently being implemented by the member states and agencies, including Iowa and Louisiana. The revised action plan includes five annual operating plans, one for each year through the next reassessment, that are valuable tools that will provide short-term roadmaps to maintaining forward progress towards the goals of the Action Plan. The Iowa nutrient strategy needs to also be consistent with these previous, on-going regional basin plans.

In addition, as Iowa Secretary of Agriculture, I am the current state co-vice chair of the task force and am scheduled to move into the leadership role of state co-chair next year. The Iowa Department of Agriculture and Land Stewardship is the designated lead state agency for hypoxia issues and participation in the task force, its subcommittees and related working groups.

As the lead Iowa agency on the hypoxia task force, IDALS, with co-leadership of Iowa State University College of Agriculture & Life Sciences, is developing the technical assessments needed for the statewide strategy to reduce nutrients to streams and the Gulf of Mexico. The initial step is a scientific assessment of the practices needed to achieve the desired environmental goals.

Iowa is already voluntarily moving forward to complete the science assessment and strategy development using existing state funds, much of which is from fees paid by Iowa farm families. The Iowa State University College of Agriculture and Life Sciences and the IDALS are leading a science assessment and modeling process. The science assessment is based on the peer reviewed literature of in-field, edge-of-field and watershed practices and treatments to determine the potential reductions in total nitrogen and phosphorous leaving the agricultural landscape. A team of research and extension faculty from ISU, IDALS, USDA, and the Iowa DNR are working in two teams addressing N and P separately. The coefficient of potential nutrient reduction for each practice and treatment is based on peer reviewed literature and best professional judgment of the team.

The initial level of use of each practice is based on USDA CEAP data or values estimated by the team using published procedures. Scenarios of combinations of the practices and treatments will be developed to estimate the expected reduction in nutrients and the resulting cost. For each scenario, the coefficient of potential nutrient reduction is multiplied by adoption rate and potential acreage to determine the potential nutrient reduction for the practice. Next, the reductions from the practices are appropriately aggregated to a total potential reduction for the scenario. The cost in investment, operating expenses and lost product will also be tracked as will potential trade-offs with other environmental concerns, i.e., a practice that reduces nitrates in ground water may increase ammonia in surface water. The cost and supply impacts of each scenario will be used to also estimate the local and state economic impact and the effect on food prices.

For these reasons, I ask, on behalf of the following agricultural organizations and the citizens of Iowa, that you do not disapprove Louisiana's decision to not list the three waterbodies, and allow

states like Louisiana and Iowa to continue to pursue more workable frameworks for addressing nutrients and associated issues such as low dissolved oxygen in surface waters.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Northey". The signature is written in a cursive, flowing style.

Bill Northey  
Iowa Secretary of Agriculture

And for the following Iowa agricultural organizations:

Agribusiness Association of Iowa  
Iowa Corn Growers Association  
Iowa Drainage District Association  
Iowa Farm Bureau Federation  
Iowa Pork Producers Association  
Iowa Poultry Association  
Iowa Soybean Association