The Fertilizer Institute

Nourish, Replenish, Grow

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JOINT STATEMENT OF CONCERNS AND PRINCIPLES ON PROPOSED NUTRIENT STANDARDS FOR FLORIDA

On January 26, 2010, the U.S. Environmental Protection Agency (EPA) published a notice of proposed rulemaking (NPRM) to establish water quality standards for Florida's lakes and flowing waters. 75 *Fed. Reg.* 4174 (Jan. 26, 2010). The NPRM represents the first time EPA has attempted to displace a state's efforts to manage nutrient impacts by establishing federal numeric nutrient criteria. However, EPA has already asserted that it may establish such criteria for the Chesapeake Bay, and may seek to take similar action in other watersheds. Accordingly, EPA's NPRM may establish a precedent that has national significance. The undersigned entities and/or their members – some of whom operate regulated activities in Florida, and some of whom are located in other states around the country – will all be affected by EPA's action, either directly or by the precedents that it sets. These entities have agreed on this joint statement, which presents shared concerns about the Florida proposal and recommended principles for how EPA and states should move forward in making decisions about development of nutrient water quality criteria and standards.

CONCERNS REGARDING PROPOSED FLORIDA CRITERIA

In the NPRM, EPA is proposing numeric nutrient criteria for Florida lakes, streams, springs and clear streams, and canals. Key concerns regarding these criteria are as follows:

A. Criteria for Lakes

For lakes, EPA is proposing chlorophyll *a*, total nitrogen (TN), and total phosphorus (TP) criteria based on the stressor-response approach. EPA's proposed criteria are based on chlorophyll *a* production (the biological response) related to TN and TP levels (the stressors) in Florida for three categories of lakes: colored, clear and alkaline, and clear and acidic. In practice, these EPA's proposed standards are too broad and, by failing to take into account the biology and diversity of conditions present in Florida's lakes, are often disconnected from designated uses for these lakes. Waters that fail to meet any one of EPA's three proposed criteria would be considered impaired, even if the waters are biologically healthy. As a result, EPA's proposed criteria for lakes are not based on the levels of nutrients needed to protect designated uses.

B. Criteria for Rivers and Streams

Neither EPA nor the state of Florida could establish a cause and effect relationship between nutrients and algal growth in Florida rivers and streams. This weakness should lead EPA to the conclusion that it is not possible to establish scientifically defensible regional criteria which means narrative standards are appropriate, in accordance with 40 C.F.R. 131.11(b). Instead,

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EPA is proposing criteria based on the reference approach (identifying unimpaired waters and establishing nutrient criteria based on the levels found in those waters). By establishing criteria for rivers and streams without any consideration of cause- and-effect or consideration of an impairment threshold, EPA has proposed criteria that are not necessary to protect designated uses.

C. Downstream Protection Values for Lakes

EPA also is proposing to lower its proposed criteria for streams that discharge into downstream lakes. These downstream protective values (DPVs) are not based on data showing that receiving lakes are impaired. Instead, EPA used the Vollenweider model (which was developed to evaluate deep lakes with long retention times) to calculate the acceptable DPV. Using conservative assumptions, this model projects that even unimpacted streams would be a threat to downstream lakes. As a result, EPA's proposed established criteria would greatly increase the number of Florida waterbodies considered to be impaired. However, EPA's conclusions and its criteria are not scientifically defensible because the model used is simply not appropriate for many shallow Florida lakes.

D. Criteria for Springs and Clear Streams

For springs and clear streams, EPA is proposing a nitrate-nitrite criterion that EPA asserts is based on experimental laboratory data and field evaluations that show algal growth in response to nitrate-nitrite concentrations. Again, EPA did not establish a defined impairment level or demonstrate a cause and effect relationship between the stressor and the response. Thus, EPA cannot demonstrate that its proposed criterion for springs is necessary to protect designated uses. EPA even suggests that it may apply nitrate-nitrite criterion to all waters in Florida to assist assessment and management and to "identify increasing trends." 75 *Fed. Reg*. at 4211. Under the Clean Water Act, water quality standards are established for the purpose of protecting designated uses, not to assist in assessment and management or to identify trends. EPA has no legal basis for establishing a nitrate-nitrite criterion for all Florida waters.

E. Criteria for Canals

For canals in south Florida, EPA is proposing chlorophyll *a*, TN, and TP criteria that EPA asserts are based on levels found in canals that are meeting designated uses with respect to nutrients. The proposed numeric criteria for canals, as with those for streams, are not based on a defined relationship between nutrient levels and use impairment. As a result, it is inevitable that some canals will "fail" the new criteria even though uses are fully supported.

F. Implementation Procedures

In the NPRM, EPA admits that its proposed lake criteria do not account for natural lake variability other than that provided by color and alkalinity classification (75 *Fed. Reg*. at 4191), and that its proposed streams criteria "may be either more stringent than necessary or not stringent enough to protect designated uses" (75 *Fed. Reg*. at 4192). However, rather than admit the magnitude of these flaws for defensible and scientifically sound criteria, EPA attempts to

provide relief through variances, changes in designated uses, or the use of site specific alternative criteria. Alternatively, EPA suggests that dischargers may be able to delay meeting the new criteria through compliance schedules or new restoration standards. These tools would be difficult to implement and do not make flawed criteria more scientifically defensible.

PRINCIPLES FOR NUTRIENT CRITERIA DEVELOPMENT

EPA's Science Advisory Board (SAB) has reviewed EPA's *Empirical Approaches for Nutrient Criteria Derivation* (draft EPA 2009). In their review of that guidance, the SAB advised EPA that "[n]umeric nutrient criteria developed and implemented without consideration of system specific conditions (e.g., from a classification based on site types) can lead to management actions that may have negative social and economic and unintended environmental consequences without additional environmental protection." *See 1-8-10 Draft Science Advisory Board (SAB) Ecological Processes and Effects Committee Advisory Report* , at page 37.

To prevent these unintended consequences, EPA should adhere to the following principles when developing numeric nutrient criteria in Florida or elsewhere:

First, EPA must demonstrate why imposing federal numeric criteria state-wide would be more consistent with the Clean Water Act than allowing a state to continue to protect water quality through its water quality management program. If EPA cannot make this demonstration, the federal criteria cannot be considered necessary, which is the statutory predicate for promulgating federal standards under section 303(c)(4)(B) of the Clean Water Act.

Second, any federal criteria must meet the requirements of EPA's water quality standards regulations. This means the criteria must be set at a level that is necessary to protect designated uses (40 C.F.R. 131.2), must be based on a "sound scientific rationale," (40 C.F.R. 131.11(a)), and must be developed using "scientifically defensible methods" (40 C.F.R. 131.11(b)). Accordingly, for specific waterbodies, EPA must establish on a cause-and-effect relationship between the nutrient being controlled and the biological response that affects the designated use. In addition, for each waterbody, EPA must establish the threshold below which additional nutrient reductions will result in harm.

Third, EPA must not promulgate nutrient standards below natural background levels.

Fourth, EPA must not base its criteria on inappropriate models.

Fifth, criteria should apply only if the specific nutrient is affecting plant growth.

Sixth, criteria must set a level of protectiveness, not a load allocation. Specifically, federal criteria must not usurp site-specific determinations of what concentration or loading of nutrients is protective, including determinations made through the TMDL process.

Seventh, if EPA intends to apply its federal criteria in upstream states, it must fully engage those states in its rulemaking process.

Eighth, EPA must recognize that federal criteria will be directly incorporated into permits, and therefore EPA's cost estimate must fully account for the costs of implementing its proposed standards, to dischargers, to agriculture, to city storm sewer systems, and to the State as a whole. Because nutrients are critical for food production, EPA's economic analysis also must also include the adverse economic impacts from reduced food production resulting from reductions in fertilizer use implemented as a management practice.

Sincerely,

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The Undersigned Organizations Support These Comments
AbitibiBowater
Agricultural Retailers Association
American Coke and Coal Chemicals Institute
American Farm Bureau Federation
American Forest and Paper Association
American Iron and Steel Institute
CF Industries, Inc.
Federal Water Quality Coalition
Florida Engineering Society
Florida Fertilizer & Agrichemical Association
Florida Home Builders Association
Florida Land Council
Florida Minerals and Chemical Council
Florida Nursery, Growers and Landscape Association
Florida Pest Management Association
Florida Poultry Federation
Georgia Pacific
Glatfelter
Graphic Packaging International, Inc.
GROWMARK, Inc.
Illinois Fertilizer & Chemical Association
Indiana Plant Food & Agricultural Chemicals Association
Irrigation Association
Kansas Agribusiness Retailers Association
Manufacturers Association of Florida
MeadWestvaco Corp.
Mid America CropLife Association
Missouri Agribusiness Association
National Association of Wheat Growers

National Association of Homebuilders
National Cattlemen's Beef Association
National Corn Growers Association
National Mining Association
National Pork Producers Council
Nebraska Agri-Business Association
Newpage Corporation
Packaging Corporation of America
Ponderay Newsprint Company
Port Townsend Paper Corporation
Rayonier, Inc.
Sanitation Districts of Los Angeles County
Smurfit-Stone Container Corporation
Sonoco Products Company
South Dakota Agri-Business Association
Southern Crop Production Association
Sugar Cane Growers Cooperative
The Alabama Pulp & Paper Council
The Fertilizer Institute
The Georgia Paper and Forest Products Association
United Egg Producers
United States Steel Corporation
Virginia Agribusiness Council
White Springs Agricultural Chemicals, Inc. D/B/A Pcs Phosphate- White Springs
Wyoming Ag-Business Association
Wyoming Crop Improvement Association
Wyoming Wheat Growers Association