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NATURAL RESOURCES DEFENSE COUNCIL

March 5, 2004

Benjamin Grumbles
Acting Assistant Administrator
Environmental Protection Agency
Ariel Rios Building 4101M
1200 Pennsylvania Avenue, N. W.
Washington, DC 20460

Ben
Dear ~~Mr. Grumbles~~,

We are concerned that the nationwide effort to establish state water quality standards for nutrient pollution is off track. Many states are far behind schedule, others are not planning to develop standards for nitrogen, and many do not even have any plans to develop nutrient water quality standards. In addition, a large number of states are failing to implement steps to control nutrient pollution in the interim period although these steps are legally required. Finally, many municipalities and local governments are making large scale but unwise investments that will leave publicly owned treatment works (POTWs) unable to treat wastewater to remove nutrients to the extent necessary to satisfy the nutrient water quality standards that the states will eventually adopt.

Background

As you are aware, nutrient pollution is a major national problem. In the Nutrient Criteria, Technical Guidance Manual, Rivers and Streams, EPA -822-B-00-002 (July 2000) ("Nutrient Criteria Guidance"), EPA explained that excess levels of nitrogen and phosphorus are responsible for impairing a huge list of waters in nearly every state. Nutrient pollution causes numerous adverse effects to human health and aquatic life and to the economic, aesthetic and recreational value of our rivers, lakes, and streams. Nutrient pollution is responsible for unwanted algal blooms and other nuisance aquatic plant growth and causes or contributes to low dissolved oxygen levels in many areas (including the Gulf of Mexico "Dead Zone"). Human health effects have also been traced to nutrients, particularly as they are involved indirectly in the creation of trihalomenthanes, which are produced as an unwanted side effect during the treatment process for making water with high algal levels drinkable. Nutrient Criteria Guidance at 4-5.

There is a clear need to better control nutrient pollution. Most states, however, have no general water quality standards for phosphorus in rivers or streams or for nitrogen in any waters. Further, most states do not even try to limit nutrient discharges in NPDES permits, except to limit the discharge of phosphorus directly upstream of a lake. Nutrients get into the water from fertilizer, sewerage treatment plants, CAFOs and other sources. Due to natural growth, suburban sprawl,

new CAFOs and other developments, new major loadings of nutrients to the nations waters are being permitted on an ongoing basis.

Between 1998 and 2003 EPA developed and finalized a series of nutrient criteria documents to assist the states in adopting nutrient standards, including standards for nitrogen, phosphorus and a few other parameters. Unlike most water quality standards, the U.S. EPA nutrient criteria were not based on finding cause and effect relations between nutrient levels and adverse water conditions. Instead, the EPA nutrient criteria were based on identifying a number of "ecoregions" around the country. For each ecoregion and waterbody type (such as stream, lake, or wetland), EPA identified two methods of establishing nutrient criteria designed to reflect reference conditions. One method is to choose the 75th percentile (the upper 25th percentile in nutrient concentrations) of a set of reference waters (i.e. waters with levels of nutrients not affected significantly by man-made inputs) for each waterbody type and ecoregion. The second method is to determine the lower (or best) 25th percentile of all of the waters for each waterbody type and ecoregion. The second method is based on the assumption that the cleanest 25th percentile of all waters would approximate reference conditions.

EPA initially stated that the states were to adopt nutrient standards by 2004. The implication was that if a state failed to adopt nutrient standards by that time, EPA would establish standards based on its criteria documents. Without allowing public input or making any formal public decision, EPA decided sometime in 2002 or 2003 to give the states until 2008 to develop nutrient standards.

We understand that many states do not plan to develop standards based on the EPA criteria. Instead, many states are attempting to scientifically establish cause and effect relations between nutrient concentrations and adverse water quality results (such as low dissolved oxygen levels, nuisance blooms of algae or other aquatic plant life). States are doing this even though EPA decided that it would be very difficult to establish nutrient standards in this manner when EPA set its criteria.

State Progress in Development of Nutrient Standards is Not Satisfactory.

While we are not fully informed about the progress that the states have made in developing nutrient standards, it appears that many states are seriously behind schedule. Further, it does not appear that EPA appreciates the practical consequences of the decision by many states (perhaps almost all states) to essentially ignore the EPA ecoregion-based nutrient criteria for lakes and rivers and start from scratch to develop cause and effect-based criteria.

In the CWA, Congress assigned EPA the job of developing criteria for the states because it was clear that the states generally did not have the needed scientific resources. Nevertheless, we now see the states attempting to develop standards in a manner that EPA determined was too difficult, and too science-intensive. The effect of nitrogen on the Gulf of Mexico and marine systems is well established, as is the fact that nitrogen coming from non-coastal states is appreciably adding to the loadings to marine systems. On the other hand, although there are freshwater systems that are nitrogen limited, the effect of nitrogen on freshwater systems is extremely complex. States without saltwater systems to study or protect are in an extremely poor position to develop

standards for nitrogen. The states do not have the scientific or political resources to develop standards that protect downstream waters. It is simply not realistic to expect that Illinois or Indiana will ever develop standards that are protective of the Gulf. Still further, the resources available to the states for developing nutrient standards are woefully inadequate, especially if they develop standards without using EPA's criteria.

EPA should commit to establish standards for states that do not have standards in place by 2008.

In short, while the 2008 time frame is more than ample if states follow the EPA criteria documents, the available resources are inadequate to get the job done given the approach many states are currently taking. Thus, there is good reason to believe that only a fraction of the necessary standards will be developed by the states by 2008. With no real standards with teeth in place, excess nutrients will continue to foul our waters. EPA must make clear that in 2008 the Agency will establish standards based on the EPA criteria documents for all parameters for which states have not established standards. Assuming EPA cannot find more money to help the states develop standards that are not based on the criteria documents, EPA must make clear that the states must allocate adequate resources if they intend to try to develop standards that are not based on the EPA criteria documents.

The states should comply with the CWA and regulations that require nutrient controls in NPDES permits.

Many states do not place limits on nutrient discharges in NPDES permits. Yet, it is a basic principle of NPDES permitting that permits may not be issued if they would allow discharges that may cause or contribute to violations of water quality standards. American Paper Institute v. U.S. Environmental Protection Agency, 996 F.2d 346, 350 (D.C. Cir. 1993)(permit "[l]imitations must control all pollutants or pollutant parameters either conventional, nonconventional or toxic pollutants which the Director determines are or may be discharged at a level which will cause, have a reasonable potential to cause, or contribute to an excursion above any State water quality standard, including state narrative criteria for water quality.") see also, 33 U.S.C. § 1311(b)(1)(A); 40 CFR § 122.44(d)(1)(i).

Many nutrient discharges are causing or contributing to violations of state narrative standards, which provide that water should be "free from" certain problems or prohibiting creation of "offensive conditions" or similarly named impairments. It is clear that nutrient pollution causes algal blooms, eutrophication and other conditions that are often prohibited by narrative criteria. Thus, discharges of nitrogen and phosphorus should be subject to water quality based effluent limitations irrespective of whether a numeric standard is in place. Through informal discussions, guidance, and exercise of EPA's authority to object to permits, EPA should act immediately to prevent delegated states from continuing to issue permits that fail to control nutrients.

Under antidegradation, lowering of water quality may only be allowed if it is necessary to accommodate important economic or social development. 40 C.F.R § 131.12. Anti-degradation must be invoked to prevent all new or increased loadings of nutrients that have not been demonstrated to be necessary to accommodate important economic or social development.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 24 2004

OFFICE OF
WATER

Nancy Stoner
Natural Resources Defense Council
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Suite 400
Washington, DC 20005

Dear Nancy Ms. Stoner:

Thank you for your letter dated March 4, 2004, describing your concerns about state progress in developing and adopting nutrient criteria into water quality standards and the efforts to control nutrient pollution in the interim. We share your concern regarding the impacts of excessive nutrients on our nation's waters. The Environmental Protection Agency (EPA) is committed to working with states and stakeholders to develop appropriate and protective nutrient criteria as well as to effectively implement water quality standards that will ensure waters are adequately protected as soon as possible.

In your letter, you raise some valid issues that we are currently working to resolve. We would be happy to meet with you to discuss these issues further. Geoff Grubbs, Director of the Office of Water's Office of Science and Technology, who oversees the National Water Quality Standards Program, has contacted your office and scheduled a meeting between EPA and NRDC on April 2, 2004, 10:00 am - 12:00pm. Until then, if you have any questions or concerns, please contact me at (202) 564-5700 or Geoff Grubbs at (202) 566-0430. We look forward to meeting with you.

Sincerely,

Benjamin H. Grumbles
Acting Assistant Administrator