Environmental and Land Development ADVISORY

November 15, 2010

EPA Issues First Ever Numeric Nutrient Water Quality Criteria and Standards for Florida Lakes and Rivers

On November 15, 2010, EPA announced that it had issued final numeric nutrient water quality criteria for lakes, rivers, streams and springs in Florida, marking the first time that EPA has set numerical nutrient standards for a state. The final rule was signed by the Administrator on November 14, 2010, to meet a Consent Decree deadline.

EPA's rationale for these standards is that excess loads of nitrogen and phosphorus, the most common nutrients found in water bodies, are one of the most prevalent causes of water quality impairment in the United States and that it is a "widespread, persistent, and growing problem." The new standards will be codified at 40 CFR § 131.43 as part of 40 CFR Part 131, Subpart D, known as Federally Promulgated Water Quality Standards.

EPA's November 15, 2010, press release said that EPA was acting to reduce "water pollution that causes harmful algae blooms—the thick, green muck that fouls clear water—which can produce toxins harmful to humans, animals and ecosystems across the state of Florida. The blooms are caused by phosphorous and nitrogen pollution from excess fertilizer, stormwater and wastewater that flows off land into waterways." Currently, more than 1,900 rivers and streams, 375,000 acres of lakes and 500 square miles of estuaries are known to be impaired by nutrients in Florida.

In a change from the proposed rule, EPA extended the effective date of the final rule from 60 days to 15 months from publication to allow "cities, towns, businesses, other stakeholders and the state of Florida a full opportunity to review the standards and develop strategies for implementation while Florida continues to recover from the current economic crisis."

The nutrient standards establish nutrient criteria for lakes and streams by requiring that total nitrogen (TN) and total phosphorus (TP) be no higher than set levels for five different watershed regions and three different classes of lakes. For lakes, EPA also set criteria for chlorophyll *a*. For streams, the TP criteria range is from .06 mg/l to .49 mg/l, and for TN, the range is .67 mg/l to 1.87 mg/l. The annual geometric mean of these concentrations cannot be exceeded more than once in a three-year period.

EPA identified 193 point municipal and industrial dischargers that are potentially affected by the rule. For municipal entities, current annual average permit limits are 3.0 mg/l for TN and .1 mg/l for TP. EPA expects that municipalities will need to employ advanced biological nutrient removal (BNR) to meet the lower levels in the rule. EPA's annual cost estimates to implement the rule are between

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\$135 and \$206 million. EPA states that the average homeowner will pay an estimated \$40 to \$71 annually in increased utility bills.

Many believe that the promulgation of these standards for Florida marks the beginning of a national effort by EPA to eventually promulgate nutrient standards in every state in the country that does not issue such standards. EPA has already targeted establishment of numerical nutrient standards for the major watershed states in the Mississippi River that cause impacts on the northern portion of the Gulf of Mexico, the Chesapeake Bay, Long Island Sound and Lake Champlain. Moreover, environmental groups are suing EPA to get nutrient standards imposed in several states.

The background for these specific standards is a January 14, 2009, EPA letter to the Florida Department of Environmental Protection (FDEP), in which EPA determined that Florida needed to propose new water quality standards for nutrients and their failure to do so would require EPA to promulgate the same. When Florida was unable to get the rules promulgated in time to satisfy EPA, EPA was sued and eventually used the Consent Decree to set the schedule for the forthcoming rules. Although EPA signed the Consent Decree on August 19, 2009, with the Florida Wildlife Federation, Sierra Club, Conservancy of Southwest Florida, Environmental Confederation of Southwest Florida and the St. Johns Riverkeeper, it was not entered until December 30, 2009, by the U.S. District Court for the Northern District of Florida (No. 4:08cv00324), after a review of objections by a number of parties. EPA's schedule to promulgate the first stage of standards for lakes and flowing waters was October 15, 2010, later extended to November 15, 2010.

In the Consent Decree, EPA also agreed to promulgate nutrient water quality standards for Florida Estuarine and Coastal waters by an original deadline of January 14, 2011; that deadline was extended in June 2010 to November 14, 2011, for the proposal date with the final rule being due August 15, 2012.

The seminal reason for EPA's action is their decision on June 25, 1998, to issue the National Strategy for the Development of Regional Nutrient Criteria (63 Fed. Reg. 34648) stating that "[n]utrient pollution is the leading cause of impairment in lakes and coastal waters and the second leading cause of impairment of rivers and streams The consequence of not having numeric standards is that nutrient over enrichment problems are underestimated and the response authorities of the Clean Water Act and other laws are not fully engaged." At the time, EPA expected that all states would adopt and implement numerical nutrient criteria into their water quality standards by December 31, 2003. EPA was clear that if any state did not act, it would promulgate a standard for that state.

EPA received over 22,000 public comments on the proposed rule, both in support and against the proposed rule for a wide array of reasons. EPA conducted 13 public hearing sessions in six cities in Florida and held a 90-day public comment period following publication of the proposed rule.

What do these new rules mean for industries and communities?

Two main concerns emerged in the commentary on the proposal. First, the science behind the proposal is not sound, and second, the costs are both too high and not proportionate to the environmental benefits that EPA is hoping to achieve.

The Florida Water Environment Association Utility Counsel (FWEA) submitted comments to EPA on behalf of their members, who are made up of local government and private utilities in Florida that own and operate wastewater treatment disposal reuse recycling facilities and treat wastewater produced by over seven million residents in Florida. They released a report on November 1, 2010, which said that treatment costs to meet the new standards are estimated to be "between \$4.2 and \$6.7 billion, and the annual debt service, including incremental operating and maintenance costs, is expected to range from \$430 million to \$620 million per year. Typical increases in customer charges are expected to range from \$570 to \$990 per year."

Similarly, the Florida Water Quality Coalition stated in a November 2010 report that the "costs of the proposed federal NNC regulations far exceed the EPA estimates. If EPA enforces 'end-of-pipe' criteria (requiring all discharger effluent levels to be at or below the NNC), the total annual costs could range from \$3.1 to \$8.4 billion."

The National Association of Clean Water Agencies (NACWA), writing on behalf of its members (which include all major municipalities in the country), was critical of EPA's effort, both in terms of the cost that would be borne by its members in Florida and in concluding that setting water quality goals that are technically and scientifically defensible and based on demonstrated cause/effect relationships are core principles that EPA sidestepped.

The FDEP, in its comments on EPA's proposal, noted that "EPA stream criteria for protection of downstream estuaries were not scientifically valid, that EPA's approach to the stream criteria is not appropriate, that some aspects of what EPA has done are not adequately protective of the environment, are not linked to biological response, and, (in particular for lakes) the EPA's approach was too simplistic." Florida also indicated that EPA's estimates of costs are inadequate, saying that EPA's "estimate of incremental costs was a gross under estimate, given how much lower the new standards were than what had been initially proposed by Florida at an earlier period in time."

EPA's response to all of these comments is found in the preamble supporting the final rule. As recently as 2008, over 1,000 miles of rivers and streams, over 350,000 acres of lakes and over 900 square miles of estuaries are impaired due to nutrients in Florida waters. Put another way, it means that five percent of the rivers and streams, 23 percent of the lakes and 24 percent of the estuaries were impaired. EPA also noted that Florida has had rapid population growth, which is a strong predictor of nutrient loadings. EPA believes that Florida, with the fourth largest population in the country (estimated at 18 million people), will continue to grow, resulting in an increase in urban development, home development and wastewater generation. EPA said that "Florida's flat topography causes water to move slowly which, in turn, allows nutrients to cause eutrophication in water bodies." Based upon waters assessed and reported in Florida's 2010 Integrated Water Quality Assessment, approximately 1,918 miles of rivers and streams, 378,435 acres of lakes and 569 square miles of estuaries are known to be impaired for nutrients in the state. This new data indicates that the problem is getting worse for the waters affected by the final rule.

What are the next steps?

The District Court will allow the parties to challenge the final rules now that they are issued, taking advantage of the court's invitation, in its order approving the Consent Decree. However, litigation over the court's approval of the Consent Decree is still ongoing. Not satisfied with the District Court's approval of the Consent Decree, the South Florida Water Management District and the FWEA filed appeals in the U.S. Court of Appeals for the 11th Circuit, where they are pending (Docket numbers 10-1086 and 10-11121).

Implementation of the standards will be the primary responsibility of the FDEP following normal approaches used by EPA when other new water quality standards are adopted. Approaches include site-specific permit limits, potential variances from the water quality standards and, most importantly, permit compliance schedules to allow the new water quality standards to be met after a reasonable period of time.

Concluding Thought:

This is, no doubt, one of the most significant acts that EPA has taken in the water quality standards field for quite some time, and even though the standards are being set for just one state, EPA has taken a giant step down the path to fully implement the 1998 National Strategy to its logical end. There will be a lot of litigation, political push-back and a lot of discussion about how these standards are going to be implemented, delaying the actual implementation for a period of time. The 15-month delay that EPA has established to allow implementation to be sorted out will likely prove to be insufficient.

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