

## EPA Publishes Final Numeric Nutrient Criteria for Florida's Flowing Waters

On December 6, 2010, the US Environmental Protection Agency (EPA or Agency) published its final rule, setting numeric nutrient criteria for Florida's lakes and flowing waters.<sup>1</sup> The final rule sets numeric limits for nitrogen and phosphorous in lakes and streams and for nitrate plus nitrite in springs. EPA promulgated the rule pursuant to the terms of a consent decree approved by the court in *Florida Wildlife Federation v. Jackson*, 08-0324 (N.D. Fla.), in which environmentalists sued the Agency for allegedly violating a duty under the Federal Water Pollution Control Act (Clean Water Act or Act)<sup>2</sup> to set the numeric criteria. The rule has generated intense interest, in part because of the effect that the limits could have throughout Florida on agriculture, industry, municipalities, and many land uses or restoration projects. The rule has also generated significant attention because (i) EPA's analytical approach to the criteria has been controversial, (ii) the relationship between nutrients and potential adverse impacts on waterbodies remains a subject of considerable scientific debate, and (iii) the rule is perceived as a harbinger of what EPA and others may seek to impose throughout the US.

### Overview

When it goes into effect, the final rule will replace Florida's current narrative criteria<sup>3</sup> with specific numeric concentration limits. The rule sets two different criteria for streams: (i) an "instream protective value" (IPV) for each "Nutrient Watershed Region,"<sup>4</sup> derived using a statistical analysis of nutrients found in streams that are considered by EPA to be "healthy," and (ii) a "downstream protective value" (DPV) that would further restrict the nutrient contribution of streams to downstream lakes so that the latter can achieve compliance with applicable criteria. The final rule divides lakes in Florida according to alkalinity and color, and sets nutrient concentration and chlorophyll-a limits for each category (without allowance for regional differences in hydrology, geology, or geochemistry). Whereas the

<sup>1</sup> 75 Fed. Reg. 75,762 (Dec. 6, 2010).

<sup>2</sup> 33 U.S.C. §§ 1251-1387.

<sup>3</sup> "[I]n no case shall nutrient concentrations of body of water be altered so as to cause an imbalance in natural populations of flora or fauna." Fla. Admin. Code Ann. R. 62-302.530.

<sup>4</sup> These regions exclude south Florida. EPA announced in June that it was delaying proposing criteria for south Florida canals and streams until November 2011.

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criteria for streams rely on statistical analyses of nutrient concentrations without a proxy for or a validation of biological impairment, the lakes' criteria use chlorophyll-*a* as an indicator of lake health. The rule also sets a limit on nitrate plus nitrite for all springs in Florida.

For all waters subject to the rule, the annual geometric mean of the concentrations of the nutrients should not exceed the criteria more than once in a three-year period. The rule allows the EPA to approve scientifically supported, "site-specific alternative criteria" (SSAC) proposed by any party, public or private,<sup>5</sup> that "may be more or less stringent than the otherwise applicable Federal numeric criteria."<sup>6</sup> The state may comment on each proposed SSAC, and EPA must submit them for public notice and comment procedures before they can go into effect.

### Changes from EPA's Proposed Rule

The final rule departs from EPA's January 2010 proposal<sup>7</sup> in several ways. EPA delayed the promulgation of criteria for canals in south Florida and for DPVs to protect estuaries until November 2011, when it will also set numeric nutrient criteria for estuaries and coastal waters in the second phase of the rulemaking pursuant to the consent decree. The final rule also eliminates the proposal to give Florida the option to promulgate "restoration water-quality standards" (RWQS) that are applicable to waters that cannot meet the new standards. RWQS would have allowed a long-term, phased implementation of the criteria for particular waterbodies.

Although the basic regulatory framework remains the same as the proposed rule, the final rule proposes different maximum concentration levels for some of the nutrients. Stream IPVs in the West Central region (the "Bone Valley" region in the proposed rule) are nearly a third lower for total phosphorous (0.739 mg/L in the proposed rule, 0.49 mg/L in the final rule) and are also significantly lower for total

nitrogen (1.798 mg/L in the proposed rule and 1.65 mg/L in the final rule). Also, a change in the alkalinity threshold for dividing high alkalinity from low alkalinity in the clear lake category led to slight changes in nutrient criteria for lakes. The criteria will be used, *inter alia*, as the basis for EPA's list of impaired waters for Florida, and will, once effective, be applied through National Pollutant Discharge Elimination System and other discharge permit renewals.

Another significant difference between the proposed and final rule is the effective date of the rule itself. Under the proposed rule, all criteria were to have gone into effect 60 days from final publication. In response to comments raising numerous implementation concerns, EPA decided to delay the effective date of the criteria until 15 months after publication. EPA announced that, in the interim, it will undertake a series of implementation steps in Florida, including an "education and outreach rollout," training meetings, and the development of guidance materials to coincide with the expected comment period on proposed SSACs.<sup>8</sup>

### Observations

The rule represents a significant departure from EPA's historic deference to states on nutrient water-quality criteria. While EPA has previously set numeric criteria for toxic pollutants on a statewide basis,<sup>9</sup> and it has promulgated numeric nutrient criteria for particular waters such as certain stream segments in Arizona,<sup>10</sup> the Agency has never replaced statewide narrative criteria for nutrients with specific numeric criteria. By far, the more common approach has been for states to set their own water-quality criteria, which EPA reviews for conformity with the Act's requirements. The Act puts states front and center in the regulatory process. This rule departs from that paradigm.

Stakeholder reaction to the rule has been very strong, in part because EPA's criteria reflect the lack of scientific consensus or certainty about the relationship between

<sup>5</sup> The proposed rule would have required the State to propose each SSAC.

<sup>6</sup> 75 Fed. Reg. at 75,791.

<sup>7</sup> An earlier client advisory discussed the proposed rule. See Client Advisory, EPA Proposes Numeric Nutrient Criteria for Florida's Surface Waters (Jan. 2010), available at: [http://www.arnoldporter.com/public\\_document.cfm?u=EPAProposesNumericNutrientCriteriaforFloridasSurfaceWaters&id=15214&key=21E2](http://www.arnoldporter.com/public_document.cfm?u=EPAProposesNumericNutrientCriteriaforFloridasSurfaceWaters&id=15214&key=21E2).

<sup>8</sup> 75 Fed. Reg. at 75,788.

<sup>9</sup> See National Toxics Rule, 57 Fed. Reg. 60,848 (Dec. 22, 1992).

<sup>10</sup> EPA promulgated these criteria in 1976 and withdrew them after Arizona promulgated criteria that met EPA's approval. See US EPA, Withdrawal of Nutrient Standards for the State of Arizona, available at: <http://water.epa.gov/lawsregs/guidance/cwa/azfinalfacts.cfm>.

nutrient levels and the biological health or impairment of particular waterbodies. Unlike regulatory limits set for other substances in other media, EPA's nutrient criteria for streams are not based on a documented biological relationship between a stressor variable, such as the concentration of nutrients in a waterbody, and a response variable, such as the presence of chlorophyll-*a* or an indicator of the overall ecological health of a waterbody. EPA acknowledged that it could not document a cause-and-effect relationship between nutrients and biological impacts, at any specific level of nutrients for any specific waterbody, and that multiple local environmental conditions or factors affect the relationship between nutrient levels and biological health.<sup>11</sup> Thus, instead of developing criteria based on a dose-response relationship, EPA developed stream criteria by identifying a population of streams it deemed to be biologically healthy, and then setting nutrient criteria using percentile cut-offs of nutrient values associated with these healthy streams (75th percentile for the West Central region; 90th percentile for all other regions). Under this approach, EPA neither demonstrated that streams with nutrient levels above its prescribed values would necessarily be unhealthy, nor that streams with nutrient levels below these values would necessarily be healthy. Moreover, EPA rejected Florida's proposal to use a biological validation to demonstrate that a waterbody is, in fact, biologically unhealthy before applying the criteria. As a result, many contend that there is enormous uncertainty as to whether the significant costs involved in moving from the current narrative criteria to these much more stringent numeric criteria will produce concomitant environmental benefits.

Another important issue for interested parties is whether the Agency may consider promulgating similar criteria for other states. In 2004, EPA declined to promulgate numeric nutrient criteria for the Mississippi and Missouri rivers, despite an active litigation campaign seeking such a result.<sup>12</sup>

However, in the implementation of the terms of a consent decree settling a lawsuit over the Chesapeake Bay,<sup>13</sup> EPA developed a Total Maximum Daily Load, for that watershed, that sets total nitrogen and total phosphorous limits for basins in five states and the District of Columbia.<sup>14</sup> Those limits are not water-quality criteria *per se*, but they effectively have much of the same impact. In its Chesapeake Bay Initiative documentation issued earlier this year, the Agency advanced the proposition that "[t]he greatest pollution threats to the Bay are from nutrients (nitrogen and phosphorus) and sediment."<sup>15</sup> A focus on nutrients thus appears central to EPA's current regulatory vision under the Clean Water Act. The effectiveness of, and fallout from, the nutrient rule in Florida will undoubtedly impact and inform future initiatives on nutrients.

## Going Forward

The rule is already the subject of litigation and more is sure to follow; on December 7, Florida and the Florida Commissioner of Agriculture filed suit challenging the Rule.<sup>16</sup> A number of other parties, including one represented by our Firm, have also filed complaints. The outcome of this litigation is not likely to be known for several months. In the interim, as noted above, EPA plans to reach out to stakeholders on implementation and other issues. In addition, in the preamble to the rule, EPA indicates that it will withdraw the federal criteria if the state adopts criteria of its own that the EPA finds are in accord with the Clean Water Act. That withdrawal would itself require a rulemaking process.<sup>17</sup> Currently, the state's numeric criteria action appears to be on hold.

Additional information on the final rule is *available at*: <http://www.epa.gov/waterscience/standards/rules/florida/>. The rulemaking docket, which includes public comments,

11 See 75 Fed. Reg. 4,174, 4,194, 4,196 (Jan. 26, 2010).

12 EPA Response to Sierra Club Petition Regarding Defined Portions of the Mississippi and Missouri Rivers (June 2004), *available at*: <http://water.epa.gov/scitech/swguidance/waterquality/standards/SierraClub.cfm>.

13 *Fowler v. EPA*, 09-00005 (D.D.C.).

14 See US EPA, Chesapeake Bay TMDL, *available at*: <http://www.epa.gov/chesapeakebaytmdl/>.

15 See US EPA, Chesapeake Bay Enforcement and Compliance Strategy (May 2010), *available at*: <http://www.epa.gov/oecaerth/civil/initiatives/chesapeake-strategy-enforcement.pdf>.

16 *State of Florida v. Jackson*, 10-00503 (N.D. Fla.).

17 75 Fed. Reg. at 75,788.

all the versions of the rule, and various technical support documents, is *available at*: <http://www.regulations.gov/> (search for docket ID EPA-HQ-OW-2009-0596).

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*We hope that you have found this client advisory useful. If you have additional questions, please contact your Arnold & Porter attorney or:*

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