EPA imposes strict numeric nutrient criteria in Florida: Background and implications

By Mohammad O. Jazil and David W. Childs

The State of Florida is the focal point of a national debate over the proper roles of federal and state governments in implementing the Clean Water Act (CWA). This debate is focused on EPA’s imposition of strict numeric criteria for Florida’s surface waters to curb nutrient pollution.

The CWA empowers the states with primary responsibility for establishing water quality standards. The U.S. Environmental Protection Agency (EPA) may promulgate its own standards but only when EPA determines that a new or revised standard is necessary (33 U.S.C. § 1313(c)(4)(B)). Such determinations are rare. Even EPA has noted that a determination is “symptomatic of something awry with the basic statutory scheme” (57 Fed. Reg. 60,848 (Dec. 22, 1992)).

**Background**

In 2008, environmental organizations sued EPA for failing to set numeric nutrient water quality criteria in Florida, which like most states implements a narrative nutrient water quality criterion. Relying on a 1998 national guidance document, the environmental organizations alleged that EPA had already determined numeric criteria were necessary and that EPA, therefore, had a nondiscretionary CWA duty to promulgate numeric criteria for Florida. EPA disputed this claim, but it determined in January 2009 that numeric nutrient criteria are in fact necessary for Florida to comply with the CWA.

In August 2009, EPA and the environmental litigants entered into a consent decree that required EPA to promulgate nutrient criteria for all of Florida’s surface waters in a two-phase rulemaking process. Consistent with this consent decree, EPA finalized numeric nutrient criteria for Florida’s rivers, lakes, and springs in December 2010 (75 Fed. Reg. 75,762 (Dec. 6, 2010)) (the Rule). These now-final criteria have an effective date of March 6, 2012. The consent decree requires EPA to finalize criteria for Florida’s estuaries, marine waters, and southern canals by August 15, 2012 (Florida Wildlife Fed’n v. Jackson, Case No. 08-00324 (N.D. Fla.)).

EPA’s Rule divides the state into five watershed regions. The Rule establishes phosphorus and nitrogen criteria for rivers and streams in each region. The Rule also divides Florida’s lakes into three groups based on color and alkalinity and establishes criteria for chlorophyll-a, phosphorus, and nitrogen. Rivers and streams that feed into lakes must comply with downstream protective values (DPVs). If a downstream lake meets applicable criteria, the DPV for waters upstream is the ambient nitrogen and phosphorus concentration at the point where water enters the lake. If a downstream lake does not meet applicable criteria, the DPV for waters upstream is identical to the lake’s nitrogen and phosphorus criteria. EPA intends to promulgate DPVs for estuaries during the second phase of its rulemaking process.

The Rule establishes a process whereby the state or an individual can petition EPA for site-specific alternative criteria on a “watershed, area-wide, or water-body specific basis.” If approved, the site-specific criteria would apply in lieu of the EPA criteria. Petitioners must provide a technical analysis to justify the proposed alternative site-specific nutrient criteria. It is unclear what level of technical analysis would suffice, although draft EPA guidance indicates that at least three consecutive years of data collection will be required.

Over thirty parties have filed legal challenges over the Rule. The State of Florida, local governments, utilities, agricultural interests, and private industry litigants claim that the Rule and its predicate—the January 2009 determination—are legally, scientifically, and factually indefensible. Environmental litigants allege that the Rule is too lax. Briefing in the case is expected to be complete by the end of 2011, and the district court has indicated that it will endeavor to issue a ruling prior to the Rule’s March 6, 2012, effective date.

While this litigation proceeds, the Florida Department of Environmental Protection (FDEP) has reinitiated its own nutrient criteria rulemaking and asked EPA to rescind its federal rulemaking effort. Also, the National Research Council has initiated an independent review of EPA’s economic analysis for the Rule. As explained below, these issues present significant national implications.

**The CWA and legal arguments**

The stated goal of the CWA is to “restore and maintain” the quality of the nation’s waters. Water quality criteria—like EPA’s numeric nutrient criteria—are set at levels necessary to meet a water’s designated uses, e.g., fishing and swimming. The criteria are reflected in national pollution discharge elimination (NPDES) permits that facilities discharging to surface waters must obtain. Where waters are not meeting water quality standards, states must establish—and EPA must approve—total maximum daily loads (TMDLs). TMDLs set the maximum quantity of a pollutant that may be added to a water body from all sources without exceeding the applicable water quality standard for that pollutant. Like water quality criteria, TMDLs must protect designated uses.

To date, Florida has adopted TMDLs for seventy-nine water bodies, and stakeholders have spent hundreds of millions of dollars implementing the TMDLs. The state, local governments, and other regulated entities challenging the Rule argue that Florida’s TMDL program as well as other state nutrient management programs are protecting and restoring Florida’s waters from nutrient pollution, and, thus, EPA’s January 2009 determination was unsupported by the facts. These entities also allege that a desire to settle the environmental litigants’ initial CWA citizen suit against EPA impermissibly prompted the agency to issue the January 2009 determination. As support for that allegation, the State of Florida cites an internal EPA memorandum addressed to the EPA Administrator. The state alleges that EPA’s consideration of such a non-environmental factor was not contemplated or authorized by Congress in crafting the CWA.

The state, local governmental agencies, agricultural interests, and utilities also take issue with the substance of the Rule. In short, the coalition argues that EPA’s criteria
for rivers and streams are arbitrary and capricious because EPA (1) failed to establish a cause-and-effect relationship or account for relevant factors such as stream size, width and depth, canopy, and color when it grouped rivers and streams into geographic regions; (2) relied on too few reference sites and collected too few reference points in establishing the criteria; (3) established criteria that overprotect some streams and underprotect others and have a high error rate; (4) and generally failed to protect the designated uses of Florida’s rivers and streams. According to the coalition, the lake criteria are arbitrary and capricious because, among other things, EPA (1) failed to consider the uniqueness of lakes in Florida’s phosphorus-rich Bone Valley and (2) ignored its own conclusion that chlorophyll-a alone is an adequate measure of whether nutrients impair a lake. The coalition further alleges that the DPV provision is flawed because EPA (1) presumed all lakes need DPVs to protect their designated uses, and all waters upstream from a lake contribute to the lake’s impairment, if any, and (2) ignored factors (e.g., groundwater inflow, atmospheric deposition) that may contribute to a lake’s water quality.

Finally, the coalition argues that EPA erred in failing to exclude waters with existing nutrient TMDLs from the freshwater rule. As the coalition explains, existing nutrient TMDLs—like criteria established by the Rule—set numeric endpoints designed to ensure that the waters meet their designated uses. Unlike criteria established by the Rule, however, the TMDLs are specific to particular waters or segments of particular waters. Thus, the coalition concludes, endpoints established by TMDLs are preferable to those established by the Rule.

In contrast, environmental organizations such as the Sierra Club and Natural Resources Defense Council claim that the Rule is too lax. The environmental organizations contend that the alternative site-specific criteria should not be available on a watershed or areawide basis. Further, the environmental organizations state that EPA erred by including provisions that determine compliance with the criteria based on annual averages not to be exceeded once every three years, which they argue is not protective.

FDEP petition

In April 2011 FDEP filed a petition with EPA asking EPA to withdraw its January 2009 determination, repeal the Rule, and “discontinue proposing or promulgating further numeric nutrient criteria in Florida.” By comparing Florida’s efforts to manage nutrients against an eight-part framework outlined in a March 2011 EPA memorandum, FDEP concluded that Florida regulates nutrients from industry and agricultural sources, among others, more diligently and comprehensively than most other states, and EPA never should have interfered with Florida’s nutrient water quality standards program.

EPA responded to FDEP’s petition in June 2011. In its initial response, EPA did not expressly accept or deny FDEP’s petition; however, EPA indicated a willingness to seek modifications to the rulemaking schedule outlined in the 2009 consent decree so long as Florida continued towards state promulgation. Consistent with the CWA, EPA represented that it would repeal its federal Rule if Florida’s final nutrient criteria rules are satisfactory.

Despite EPA’s failure to accept the state petition, FDEP has initiated a state rule development process. The outcome of this state rulemaking is uncertain. FDEP publicly indicates that it has not decided whether it will propose its draft rules for adoption absent EPA’s acceptance of its petition.

National Research Council review

At U.S. Senator Bill Nelson’s request, the National Research Council has also initiated an independent review of the economic analysis of the Rule. EPA’s estimated compliance costs are over an order of magnitude lower than that produced by the State of Florida and private entities. For instance, EPA has estimated that domestic wastewater utilities will spend $22 to $38 million per year to comply with the Rule while FDEP and a statewide consortium of wastewater utilities have separately estimated it will cost over $400 million per year. The council has convened a fourteen-member panel of civil engineers, economists, and one lawyer to review EPA’s cost projections. The panel conducted its first public meeting in Orlando in July 2011 and intends to conclude its review prior to the Rule’s effective date.

National implications

Nutrients remain a national water quality issue. Indeed, thirteen organizations, including several environmental organizations, recently asked EPA to promulgate numeric nutrient criteria for navigable waters in all states where such criteria do not already exist. The petition emphasized the need to promulgate criteria for the Mississippi River water basin, which drains approximately 41 percent of the contiguous United States. EPA denied this request. (For a discussion of this topic see Ridgway Hall, EPA Denies Petition for Nutrient Criteria Rulemaking for the Mississippi River Basin, American College of Environmental Lawyers Blog (Sept. 7, 2011) or http://www.acelo.org/post/2011/09/07/EPA-Denies-Petition-for-Nutrient-Criteria-Rulemaking-for-the-Mississippi-River-Basin.aspx.) Should EPA’s Rule for Florida survive the legal challenges against it, it could prompt additional petitions in other states as well as serve as a template for future EPA nutrient criteria rulemakings.

Mohammad O. Jazil and David W. Childs practice environmental law with Hopping Green & Sams, P.A., where they may be contacted at mohammadj@hgslaw.com and davidc@hgslaw.com, respectively.