IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF FLORIDA TALLAHASSEE DIVISION

FLORIDA WILDLIFE FEDERATION, INC. et al.,

Plaintiffs,

v. CONSOLIDATED CASE NO. 4:08cv324-RH/WCS

LISA P. JACKSON, etc., et al.,

Defendants.
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THE FLORIDA WATER ENVIRONMENTAL ASSOCIATION UTILITY COUNCIL, INC.,

v. CASE NO. 4:09cv428-RH/WCS

LISA P. JACKSON, etc., et al.,

Defendants.

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THE FLORIDA ELECTRIC POWER COORDINATING GROUP, INC.,

Plaintiff,

v. CASE NO. 4:09cv436-RH/WCS

LISA P. JACKSON, etc., et al.,

Defendants.

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FLORIDA WILDLIFE FEDERATION, INC., et al.,

Plaintiffs,

v. CASE NO. 4:10cv511-RH/WCS

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY et al.,

Defendants.

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THE FERTILIZER INSTITUTE et al.,

Plaintiffs,

v. CASE NO. 4:11cv51-RH/WCS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,

Defendant.

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GULF RESTORATION NETWORK et al.,

Plaintiffs,

v. CASE NO. 4:11cv142-RH/WCS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY et al.,

Defendants.

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THE FLORIDA CATTLEMEN'S ASSOCIATION et al.,

Plaintiffs,

v. CASE NO. 4:11cv177-RH/WCS

LISA P. JACKSON et al.,

Defendants.

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STATE OF FLORIDA, etc., et al.,

Plaintiffs,

v. CONSOLIDATED CASE NO. 4:11cv61-RH/WCS

LISA P. JACKSON, etc., et al.,

Defendants.

FORMER CASES NO. 3:10cv503-RV/MD; 3:10cv506-RV/EMT; 3:10cv513-MCR/MD; 3:10cv532-MCR/EMT; 3:11cv11-MCR/MD; and 3:11cv47-MCR/EMT

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ORDER ON THE MERITS

The Administrator of the Environmental Protection Agency has adopted numeric criteria for nutrients—primarily nitrogen and phosphorous—in Florida lakes, springs, and streams (including rivers). These cases, which have been consolidated for case-management purposes, present a series of challenges to the Administrator's actions. Some parties assert the Administrator did too much; some assert she did too little. This order upholds the Administrator's determination that numeric nutrient criteria are necessary for Florida waters to meet the Clean Water Act's requirements, upholds the Administrator's lake and spring criteria, invalidates the stream criteria, upholds the decision to adopt downstream-protection criteria, upholds some but not all of the downstream-protection criteria, and upholds the Administrator's decision to allow—and the procedures for adopting—site-specific alternative criteria.

This order begins with a summary of the ruling (section I). The order then sets out the background, addressing the most relevant Clean Water Act requirements (section II), the designated uses of Florida waters under the Clean Water Act (section III), the problem at issue—nutrient pollution (section IV), Florida's existing *narrative* criterion for nutrients (section V), EPA's call for *numeric* nutrient criteria (section VI), the Florida Department of Environmental Protection's work on numeric nutrient criteria (section VII), the Administrator's

2009 determination that Florida's narrative nutrient criterion is inadequate and that numeric nutrient criteria are necessary to meet the Clean Water Act's requirements (section VIII), and the Administrator's adoption of a rule setting numeric criteria (section IX). The order then summarizes the litigation (section X), the substantive issues (section XI), and the standard of review (section XII), before turning to the merits (section XIII).

I. Summary of the Ruling

The grounds for the decision include these. The Clean Water Act requires a state—or if it fails to act, EPA—to adopt water-quality "criteria" to protect a state's designated "uses" of its waters. The criteria must be based on sound science. The Florida Department of Environmental Protection adopted long ago a narrative criterion for nutrients: "nutrient concentrations of a body of water [must not] be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." Fla. Admin. Code r. 62-302.530(47)(b).

The narrative criterion has proved insufficient to control Florida's widespread nutrient pollution. The Administrator recognized at least as early as 1998 that the narrative criterion is insufficient and that numeric criteria should be adopted. The Florida Department of Environmental Protection agreed at least as early as 2003. In the ensuing years, neither has wavered from that view. FDEP worked toward the adoption of numeric criteria for many years but repeatedly

moved back the projected completion date. In 2009 the Administrator made an explicit "determination" under Clean Water Act § 303(c)(4), 33 U.S.C. § 1313(c)(4), that new criteria—numeric criteria—are necessary to meet the Act's requirements. The determination imposed on the Administrator an explicit statutory duty to promptly propose and adopt new criteria unless Florida did so first. *Id*. Florida did not.

The Administrator's determination was not "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). This is the standard under which a court reviews an administrative decision of this kind. For convenience, this opinion uses "arbitrary or capricious" as shorthand for the entire standard.

The Administrator adopted lake and spring criteria based on modeling and field studies designed to determine the level at which an increase in nutrients ordinarily causes harmful effects. The criteria are based on sound science and are not arbitrary or capricious.

The Administrator was unable to develop acceptable stream criteria based on modeling and field studies and so adopted stream criteria using a different approach. She identified a representative sample of minimally-disturbed streams for which nutrient data were available, calculated annual geometric means for each stream and in turn for the sample set of streams, and set the criteria at the 90th

percentile. The Administrator apparently concluded only that an increase above this level ordinarily causes a change in flora and fauna—not that it causes a *harmful* change. If there is a basis in sound science for disapproving a nutrient increase that causes *any* increase in flora and fauna, not just a harmful increase, the Administrator did not cite it. And even if the Administrator's conclusion was that an increase in nutrients to a level above the 90th percentile ordinarily causes a *harmful* change in flora and fauna, the Administrator again did not cite a sound-science basis for the conclusion. Without a further explanation, the stream criteria are arbitrary or capricious.

The Administrator adopted downstream-protection criteria that she referred to as "downstream protection values" or "DPVs." The goal was to protect a water body—in this case, a lake—from nutrient pollution introduced through upstream waters. The decision to adopt DPVs was not arbitrary or capricious. The Administrator allowed DPVs to be set through modeling or, in the absence of modeling, at one of two "default" levels. For a lake not in compliance with the lake criteria—an impaired lake—the default DPVs are the same as the lake criteria. Neither the provision for DPVs based on modeling nor the default DPVs for an impaired lake are arbitrary or capricious. But the default DPVs for a lake that *is* in compliance with the lake criteria—an unimpaired lake—suffer from a flaw analogous to that in the stream criteria. The default DPVs for an unimpaired lake

are the ambient conditions at the "pour point"—the point at which the stream enters the lake. The Administrator's theory apparently is that any increase from ambient conditions ordinarily causes a change in flora and fauna—not that it causes a *harmful* change. Here, as with the stream criteria, the Administrator has cited no basis in sound science for disapproving *any* nutrient increase, not just a nutrient increase that causes a *harmful* increase in flora or fauna.

The Administrator authorized—and established a procedure for adopting—site-specific alternative criteria ("SSACs") that take the place of the otherwise-applicable criteria for a specific water body or set of water bodies (such as a watershed). SSACs must be based on sound science and must protect designated uses. The decision to authorize SSACs—and to establish this procedure for adopting them—was not arbitrary or capricious. Some parties assert that the regulation would allow SSACs for a set of water bodies so extensive that, under the governing law, the SSACs could properly be adopted only through rulemaking, not through the more-abbreviated SSAC procedures. The assertion is not ripe for judicial review at this time, because no such SSAC has been proposed or adopted, and there is no reason to believe one ever will be.

Finally, some parties challenge the Administrator's actions on other grounds, asserting that Congress unconstitutionally delegated authority to the Administrator, that the Administrator unconstitutionally discriminated against Florida and Florida

residents, and that the Administrator violated the Regulatory Flexibility Act. These assertions are incorrect.

II. The Clean Water Act

Congress adopted the Clean Water Act in 1972. The objective was "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The Act recognizes the primary responsibility of the states to prevent or reduce pollution. *Id.* § 1251(b). The Act thus allows a state to adopt its own water-quality standards, subject to the EPA Administrator's approval.

In setting out the roles of the states and the Administrator, the Act employs three terms of art: "uses," "criteria," and "standards." *Id.* § 1313(c)(2)(A). A state designates the "uses" for its navigable waters and sets "water quality criteria" for the waters "based upon such uses." *Id.* A "standard" consists of the uses and corresponding criteria. *Id.* The standard must "protect the public health or welfare, enhance the quality of water and serve the purposes of" the Act. *Id.* And the standard must "be established taking into consideration [the waters'] use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration [the waters'] use and value for navigation." *Id.*

If a state standard is not "consistent with" the Act's requirements, or if the Administrator "determines that a revised or new standard is necessary" to meet the Act's requirements, the Administrator must "promptly prepare and publish proposed regulations setting forth a revised or new" standard. *Id.* § 1313(c)(4). The Administrator must adopt the revised or new standard within 90 days after publication, unless by that time the state has adopted a revised or new standard that is approved by the Administrator. *Id*. Whether the 90-day limit is judicially enforceable is less than clear. *See Miss. Comm'n on Natural Res. v. Costle*, 625 F.2d 1269, 1278 (5th Cir. 1980).

III. The Designated Uses of Florida Waters

These cases involve waters that Florida has designated as "class I" or "class III." The numbers run from most protected (class I) to least protected (class V). The designated uses of class III waters are "Fish Consumption; Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife," and they incorporate the additional uses of waters of a lower class: "Agricultural Water Supplies" and "Navigation, Utility and Industrial Use." Fla. Admin. Code r. 62-302.400(1); *see also id.* at r. 62-302.400(6). The designated uses of class I waters incorporate all these uses and add "Potable Water Supplies." *Id.* at r. 62-302.400(1); *see also id.* at r. 62-302.400(6).

IV. The Problem: Nutrient Pollution

Nutrients occur naturally in surface waters. But nutrient levels often increase, sometimes dramatically, as a result of human activity. Among the industries that may contribute to increases in nutrient levels—and whose trade associations are participating in this litigation—are wastewater treatment, power generation, and cattle ranching.

A nutrient increase ordinarily affects a water body's flora and fauna, that is, aquatic plants and animals. Among the vivid examples are algal blooms. At some point the effects of a nutrient increase become harmful. The effects can include significant changes in the ecosystem, in the health of plants and animals, in the recreational value of waters, and in the safety of drinking water.

The Clean Water Act requires each state to assess its waters at least every three years. In its 2008 report, FDEP recognized, as it had done in earlier reports, that nutrient pollution in Florida waters was widespread. FDEP concluded that nutrient impairment extended to 1,049 miles of rivers and streams, to 349,248 acres of lakes, and to 902 square miles of estuaries. Div. of Envtl. Assessment & Restoration, Fla. Dep't of Envtl. Prot., *Integrated Water Quality Assessment for Florida: 2008 305(b) Report and 303(d) List Update* ("2008 FDEP Report") 67

(Oct. 2008) (AR005821).[1] This was 5% of the state's assessed river and stream miles, 23% of the state's assessed lake acreage, and 24% of the assessed estuary surface. Water Quality Standards for the State of Florida's Lakes and Flowing Waters, 75 Fed. Reg. 75,762, 75,769 (Dec. 6, 2010) (AR086773).

Nutrient pollution thus was a major problem in Florida's waters. And it was not getting better. FDEP noted that scientists had documented increasing nutrient levels in surface waters since the 1970s. FDEP said the trend was continuing in Florida:

> Freshwater harmful algal blooms (HABs) are increasing in frequency, duration, and magnitude and therefore may be a significant threat to surface drinking water resources and recreational areas. Abundant populations of blue-green algae, some of them potentially toxigenic, have been found statewide in numerous lakes and rivers. In addition, measured concentrations of cyanotoxins—a few of them of above the suggested guideline levels—have been reported in finished water from some drinking water facilities.

2008 FDEP Report at 37 (AR005791). FDEP noted—contrary to the assertion of some parties in this litigation—that phosphorous levels, like other nutrient levels, were increasing. *Id.* at ix (AR005749).

V. The Florida *Narrative* Nutrient Criterion

Water-quality criteria can be numeric or narrative. Some of the parties have suggested a useful analogy: a state could adopt a numeric speed limit—70 miles

[1] Citations to pages in the administrative record are in this form: ("AR[page number]").

per hour—or a narrative standard—don't drive too fast. Or a state could adopt a combination of both—don't drive over 70, and don't drive too fast for conditions.

Florida's longstanding criterion for nutrients is *narrative*: "In no case shall nutrient concentrations of a body of water be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." Fla. Admin. Code r. 62-302.530(47)(b). With limited exceptions, Florida does not have *numeric* nutrient criteria.[2]

VI. EPA's Call for *Numeric* Nutrient Criteria

Florida is not the only state with narrative, not numeric, nutrient criteria. By 1998 there were good grounds to conclude that narrative nutrient criteria were not working—not in Florida, and not in other states. The EPA Administrator and the Secretary of the United States Department of Agriculture reported that about 40%

[2] In an earlier appeal in this case, two parties apparently challenged this statement. *See Fla. Wildlife Fed'n, Inc. v. S. Fla. Water Mgmt. Dist.*, 647 F.3d 1296, 1309 (11th Cir. 2011) (Wilson, J., dissenting). FDEP *does* set numeric nutrient limits for a specific water body when FDEP establishes a total maximum daily load for the water body. Recall, though, that under the Clean Water Act, "criteria" is a term of art. So are "standards" and "uses." Standards consist of the designated uses of a state's waters and the applicable criteria based on the uses. 33 U.S.C. § 1313(c)(2)(A). Criteria are set in advance for all waters, impaired and unimpaired. One goal is to prevent a water body from becoming impaired in the first place. A TMDL is established for an impaired water body *after* it becomes impaired. A TMDL thus seeks to bring a water body back into compliance with the Act. A TMDL is not a "standard" or "criterion" and is not a substitute for one. Leaving aside the Everglades—for which numeric criteria are in place and will not be affected by this litigation—and a nitrate criterion for class I waters, *see* Fla. Admin. Code r. 62-302.530(45), Florida has only a *narrative* nutrient criterion; it does not have—and has never had—*numeric* criteria.

of assessed waters nationwide did not meet water-quality goals. Letter from Carol Browner, Adm'r, U.S. Envtl. Prot. Agency and Dan Glickman, Sec'y, U.S. Dep't of Agric., to Albert Gore, Jr., Vice President of the United States (Feb. 14, 1998) (AR000069). The Administrator and the Secretary adopted a Clean Water Action Plan intended to improve the situation. *See* U.S. Dep't of Envtl. Prot. & U.S. Dep't of Agric., *Clean Water Action Plan: Restoring and Protecting America's Waters* 58-59 (1998) (AR000142-43).

Later in 1998, as part of the effort to implement the Clean Water Action Plan, the Administrator issued a report entitled, "National Strategy for the Development of Regional Nutrient Criteria" (AR000001). The report recognized that excessive nutrients were a substantial part of the nation's water-quality problem and that narrative criteria were not the solution. The report said that the Administrator expected all states "to adopt and implement *numerical* nutrient criteria" by December 31, 2003. *Id.* at 9 (emphasis added) (AR000015). This gave the states more than five years to adopt numeric criteria.

VII. FDEP's Work on Numeric Nutrient Criteria

By 2001, if not earlier, FDEP was at work developing numeric nutrient criteria. Acting in conjunction with the state's water-management districts, FDEP conducted detailed studies and held meetings. FDEP compiled massive amounts

of data. It spent millions of dollars. But projected completion dates came and went without the adoption of statewide numeric nutrient criteria.

Thus, for example, on December 30, 2003, FDEP submitted its first plan for developing numeric nutrient criteria. *See* Water Quality Standards & Special Projects Program & Watershed Assessment Section, Fla. Dep't of Envtl. Prot., *State of Florida Numeric Nutrient Criteria Development Plan* (Dec. 2003) (AR000767). The plan called for numeric-criteria rulemaking to begin in October 2004 and for a draft rule to be submitted to the Environmental Regulation Commission—the state body responsible for approving water-quality criteria—in October 2005. *Id.* at 9-10 (AR000776-77). FDEP said it anticipated that ERC activities could be completed in 12 months, barring major dissent. *Id*. at 4 (AR000771). But FDEP said it had limited control over ERC's schedule, making it difficult for FDEP to establish a firm completion date. *Id*.

On July 7, 2004, EPA responded to FDEP's 2003 plan, reiterating that nutrient over-enrichment was a "serious problem," acknowledging that determining appropriate numeric criteria was "very complex," and concluding that the 2003 FDEP plan described a "reasonable process." Letter from James D. Giattina, Dir., Water Mgmt. Div., U.S. Envtl. Prot. Agency, to Mimi Drew, Dir., Div. of Water Res. Mgmt., Fla. Dep't of Envtl. Prot. 1 (July 7, 2004) (AR000784). EPA said that completing the process "by the target dates indicated in the Plan"

would increase the protection of state waters from nutrient over-enrichment. *Id*. EPA also said that failure to meet these milestones might lead to a formal determination under the Clean Water Act that new or revised standards were necessary—a determination that would require the Administrator to promptly propose and adopt new or revised standards, unless the state did so first. EPA said:

> If the State has not met the milestones as scheduled in the plan, EPA will evaluate whether a federal promulgation would be appropriate. At that time, the Administrator may determine that new or revised standards are necessary to meet the Clean Water Act (CWA), and choose to promulgate water quality criteria for nutrients applicable to surface waters within Florida in accordance with Section 303 of the CWA.

Id. at 1-2 (AR000784-85).

FDEP missed the October 2004 milestone for initiating rulemaking. In December 2004, FDEP moved the schedule back 18 months, now projecting that rulemaking would begin in April 2006 and that FDEP would submit a draft rule to ERC in April 2007. *See* Letter from Jerry Brooks, Deputy Dir., Div. of Water Res. Mgmt., Fla. Dep't of Envtl. Prot., to Andrew Bartlett, Water Mgmt. Div., U.S. Envtl. Prot. Agency (Dec. 14, 2004) (AR000788). FDEP continued to compile data and hold meetings. But still nothing came of the efforts.

FDEP missed the April 2006 revised milestone, too. More than a year later, in September 2007, FDEP submitted a revised plan with yet another revised schedule. *See* Water Quality Standards & Special Projects Program, Water Res.

Div., Fla. Dep't of Envtl. Prot., *State of Florida Numeric Nutrient Criteria Development Plan* (Sept. 2007) (AR012228). FDEP now projected that rulemaking would begin in January 2010—more than five years later than originally projected—and that FDEP would submit a draft rule to ERC between January 2010 and January 2011. *Id.* at 16 (AR012243). FDEP again said it anticipated that ERC activities could be completed in 12 months, barring major dissent. *Id.* at 6 (AR012233). But FDEP also reiterated that it had limited control over ERC's schedule, making it difficult for FDEP to establish a firm completion date. *Id.*

On September 28, 2007, EPA responded to FDEP's 2007 revised plan, concluding once more than the plan described a "reasonable process." Letter from James D. Giattina, Dir., Water Mgmt. Div., U.S. Envtl. Prot. Agency, to Jerry Brooks, Dir., Div. of Envtl. Assessment & Restoration, Fla. Dep't of Envtl. Prot. 1 (Sept. 28, 2007) (AR000817). EPA also said—again—that a failure to meet the milestones might lead EPA to make a formal determination that new or revised standards were necessary. *Id.* at 2 (AR000818).

On December 31, 2008, FDEP submitted to EPA yet another revised plan. Bureau of Assessment & Restoration Support, Div. of Envtl. Assessment & Restoration, Fla. Dep't of Envtl. Prot., *State of Florida Numeric Nutrient Criteria Development Plan* (Dec. 2008) (AR128698). FDEP no longer projected that

rulemaking would start by January 2010. Instead, the 2008 plan projected that rulemaking would start in the period from January 2010 to January 2011. *Id*. at 43 (AR128741). The 2008 plan gave no reason to believe that it would take less time than projected in earlier plans for FDEP to move from the start of rulemaking to a proposed rule; the earlier plans had projected this would take a year. And the 2008 plan gave no reason to believe the ERC process would take less time than earlier projected; the earlier plans had projected that the ERC process could be completed in a year, barring major dissent. The 2008 plan added another qualification: the ERC process could be completed in a year, "barring major dissent *or administrative challenge*." *Id*. at 4 (emphasis added) (AR128702). And the 2008 plan added this open-ended qualification, missing from earlier plans: "In the event there is an administrative challenge to the proposed criteria, the administrative hearing process would likely take at least another year." *Id*. If rulemaking started in January 2011 and it took a year to propose a rule, another year for ERC to act, and another year for an administrative challenge, a rule would be in place by January 2014—more than 15 years after EPA first said narrative criteria were not working, and more than 10 years after the December 2003 deadline by which EPA initially said it expected numeric criteria to be in place.

VIII. The 2009 Necessity Determination

On January 14, 2009, the Administrator did what she had been saying since 2004 she might do: she exercised her explicit statutory authority to determine that a new standard—a standard using *numeric* nutrient criteria—was necessary to meet the Clean Water Act's requirements. This order sometimes refers to this as the "2009 determination" or simply "the determination." The Administrator set out the basis for the determination in a ten-page letter.

The letter noted that the determination obligated the Administrator to promptly propose and adopt a new standard, unless Florida did so first. This was precisely what the Clean Water Act said. The letter set out the statutory basis for the determination, traced the FDEP's substantial efforts to control nutrient pollution and to develop numeric criteria, and continued:

> Water quality degradation due to nutrient over-enrichment is a significant environmental issue in Florida. Florida's Department of Environmental Protection has acknowledged and documented the magnitude of over-enrichment. According to Florida's 2008 Integrated Report, approximately 1,000 miles of rivers and streams, 350,000 acres of lakes, and 900 square miles of estuaries are impaired for nutrients in the State.
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> . . . With almost 800,000 nutrient-related data points [in an available database], Florida has substantially more data points than any other State or Territory to clearly characterize the magnitude of its nutrient challenges.
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> . . . .

An analysis of United States Geological Survey (USGS) monitoring data for nutrients in certain locations in Florida shows that levels of nutrient pollution have not significantly improved since 1980 despite strong efforts to control nutrient pollution. Concentrations of Total Phosphorus (TP) and Total Nitrogen (TN) have remained relatively constant at an average of 0.15mg/L and 1.4mg/L, respectively. Additionally, Florida's recurrent harmful algal blooms continue to pose threats to public drinking water supplies and recreational sites. Harmful algal blooms that occur inland and near shore are typically caused by excess nutrients.

Nutrient pollution in Florida has a predictable and widespread impact. The extent of this impact has been well documented and tracked for many years. According to Florida's most recent EPA-approved [list of impaired waters—a list the state must compile under Clean Water Act § 303(d), 33 U.S.C. § 1313(d)], of the 823 waters listed as impaired in Florida, over 60% (over 550 waters) are impaired for nutrients.

. . . .

Florida's natural physical factors, including flat topography and numerous wetlands, a warm and humid climate, nutrient-rich soils, hydrology, and erosion caused by tropical storms and hurricanes make controlling nutrient pollution particularly challenging because these conditions are especially conducive to nutrient overenrichment. In addition, human caused impacts such as hydrological modifications (i.e., canals), intensive agricultural production, population growth and associated urban and suburban development have had a broad and widespread effect. Effectively addressing current nutrient impairments in the State represents a significant challenge and is compounded by a projected population growth of almost 80 percent in Florida from 2000 to 2030. Further development and urbanization will likely result in increased nutrient runoff and pressure to utilize remaining agricultural lands more intensively.

Within the continental United States, Florida possesses unique and nationally valued aquatic ecosystems, including shallow coral reefs, freshwater and salt marshes, swamps, and mangroves. These

aquatic ecosystems are particularly sensitive to the effects of excessive nutrients which threaten the State's significant biological diversity. The number of species in Florida (3,500 native vascular plants and 1,500 vertebrates) is higher than in all but three other states. Further, Florida also has many endemic species (410 invertebrates, 258 plants and vertebrates) that are not found anywhere else on Earth. Florida has many water-filled caves and sinkholes that serve as hotspots of biological diversity and provide homes to many species of aquatic life, some unique to particular Florida locations. Additionally, Florida is the only state in the continental United States to have extensive shallow coral reef formations near its coasts (i.e. within five miles). A recent study initiated by the United Nations Food and Agriculture Organization found that the single richest concentration of marine life in the Atlantic Ocean lies some 10 miles off the tip of Southern Florida within the Florida Straits. This biological diversity relies on sufficient quality habitat and other natural resources, including clear, transparent waters low in phosphate and nitrogen nutrients. Especially in the case of coral reefs and flora and fauna in natural spring environments, clear water with plenty of light and oxygen available is critical to the protection of the species that inhabit these locations. Nutrient enriched water can have reduced transparency and low dissolved oxygen levels that are not protective of the natural biology in Florida. Effectively managing nutrient levels in Florida's lakes, flowing waters, estuaries and coastal waters through numeric nutrient criteria is important to maintaining the ecosystems in these waters and important ecosystems that are near shore.

The combined impacts of urban and agricultural activities along with Florida's physical features and important and unique aquatic ecosystems make it clear that the current use of the narrative nutrient criterion alone is insufficient to ensure protection of applicable designated uses. Numeric nutrient criteria will strengthen the foundation for identifying impaired waters, preparing TMDLs and developing NPDES permits, as well as support the State's ability to effectively partner to with point and nonpoint sources to control nutrients, thus providing the necessary protection for the State's designated uses.

. . . .

> Nutrient pollution in Florida remains a significant and growing challenge. Recognizing this, Florida has invested tens of millions of dollars in the collection of data to establish the cause and effect relationship between nutrients and biological conditions in order to be well positioned to establish what the State, itself, believes are much needed numeric nutrient water quality criteria. As discussed above, despite Florida's considerable data collection and analysis efforts and outreach with stakeholders to date, the State is relying on its narrative nutrient criterion, the application of which is resource intensive, time consuming, and less than effective in implementing programs to protect water quality and prevent impairments of designated uses due to nutrient overenrichment. The very substantial and widespread nature of nutrient challenges faced by the State and the barriers to effective implementation associated with narrative nutrient criteria in Florida, such as the need for numerous, highly technical site-specific analyses prior to the development of water quality-based effluent limitations in NPDES permits and TMDLs, strongly support the need in this case for numeric nutrient criteria to effectively protect designated uses and prevent impairments. In many circumstances, narrative criteria can be an effective tool for protecting designated uses, particularly when the scope and nature of the environmental problem is easily and clearly defined and derivation of appropriate control measures can be effectively and expeditiously accomplished (e.g., toxic pollutants and bioassessments). However, achieving faster and more effective progress in water quality protection with regard to nutrients is critical in Florida due to the significant and far-reaching impacts of nutrient pollution on the unique and highly valued aquatic ecosystems that exist in the State. In this case, numeric nutrient criteria are needed to protect Florida's designated uses.

Letter from Benjamin H. Grumbles, Assistant Adm'r, U.S. Envtl. Prot. Agency, to Michael Sole, Sec'y, Fla. Dep't of Envtl. Prot. ("2009 Determination Letter") 6-8 (Jan. 14, 2009) (footnotes omitted) (AR010962-64).

The letter included numerous citations to sources supporting its factual statements. The letter included a single error: after accurately setting out the large

quantity of Florida waters that were impaired by nutrients, the letter gave percentages that were incorrect or at least incorrectly described. There is no reason to believe that the error affected the analysis or that the letter's factual statements and analysis were incorrect in any other respect.

IX. The Rule Establishing Numeric Criteria

On January 14, 2010, the Administrator signed a notice of proposed rulemaking for numeric nutrient criteria for Florida's lakes and flowing waters—waters that this order refers to as lakes, springs, and streams. The notice was published in the Federal Register on January 26, 2010. Water Quality Standards for the State of Florida's Lakes and Flowing Waters, 75 Fed. Reg. 4,174 (proposed Jan. 26, 2010) (AR029960). On August 3, 2010, the Administrator published a supplemental notice and request for comment. The Administrator received some 22,000 comments and conducted 13 public meetings. *See* ECF No. 188.

On November 14, 2010, the Administrator signed the final rule. It was published in the Federal Register on December 6, 2010. *See* Water Quality Standards for the State of Florida's Lakes and Flowing Waters, 75 Fed. Reg. 75,762 (Dec. 6, 2010) (AR086766). The rule is scheduled to take effect on March 6, 2012, but the Administrator has said she may seek to delay the effective date until June. The rule applies to lakes and flowing waters statewide, with regional

differences for flowing waters, but the rule does not apply to flowing waters in the area designated as the South Florida region.

X. The Litigation

A. The Demand for a Determination

In July 2008, before the Administrator made the 2009 determination, five environmental organizations—collectively referred to in this order as the Florida Wildlife parties—filed the first of these cases, Case No. 4:08cv324.[3] They named as defendants EPA and its Administrator.[4] Over time, 13 entities—the Florida Department of Agriculture and Consumer Services,[5] the South Florida Water Management District, and 11 trade associations—intervened as additional defendants.[6]

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[3] The five organizations are The Florida Wildlife Federation, Inc.; Sierra Club, Inc.; Conservancy of Southwest Florida, Inc.; Environmental Confederation of Southwest Florida, Inc.; and St. Johns Riverkeeper, Inc.

[4] For convenience, this order usually refers only to the Administrator, without noting each time that EPA itself is also a defendant.

[5] As set out below, the head of the Department of Agriculture and Consumer Services—the Commissioner of Agriculture—later filed a separate lawsuit. For convenience, this order usually refers only to the Commissioner, without noting each time that the Department is also a party.

[6] The trade associations are Florida Pulp and Paper Association Environmental Affairs, Inc.; the Florida Farm Bureau Federation; Southeast Milk, Inc.; Florida Citrus Mutual, Inc.; Florida Fruit and Vegetable Association; American Farm Bureau Federation; Florida Stormwater Association, Inc.; Florida Cattleman's Association; Florida Engineering Society; the Florida Water

The Florida Wildlife parties sought relief under the Clean Water Act's citizen-suit provision. It allows a citizen to sue the Administrator to compel her to perform a duty that the Act makes nondiscretionary. 33 U.S.C. § 1365(a)(2). The Florida Wildlife parties asserted that the 1998 Clean Water Action Plan, or the 1998 National Strategy report, constituted a "determination" that Florida's narrative nutrient standard was inadequate and a new standard was necessary, thus imposing on the Administrator the nondiscretionary duty to "promptly" publish proposed new standards, and the further nondiscretionary duty to adopt new standards within 90 days after the publication. *See* 33 U.S.C. § 1313(c)(4). The Administrator and intervenors denied that the 1998 documents constituted a "determination."

B. The Consent Decree

The 2009 determination did not render moot the Florida Wildlife parties' claim based on the 1998 documents, because the publication of new standards could have been sufficiently prompt after the 2009 determination but not sufficiently prompt after a 1998 determination. The claim that the Administrator made a determination in 1998 thus could have entitled the Florida Wildlife parties to relief they could not have obtained based only on the 2009 determination.

Even so, the 2009 determination rendered the 1998 issue less important. The Florida Wildlife parties filed an amended complaint—denominated the "third amended supplemental complaint" because there had been two earlier amendments on other grounds—that added a claim for relief based on the 2009 determination. The Administrator did not deny—and could not plausibly have denied—her nondiscretionary duty to promptly publish revised or new standards based on the 2009 determination; that was the whole point of the determination. But at least some of the intervenors did deny the duty; they asserted that the 2009 determination was invalid.

On August 25, 2009, the Florida Wildlife parties and the Administrator moved for entry of a consent decree. The proposed decree required the Administrator to sign for publication—by January 14, 2010, one year after the 2009 determination—a proposed rule setting numeric nutrient criteria for Florida lakes and flowing waters. The proposed decree required the Administrator to *adopt* such a rule by October 15, 2010. These requirements would not apply, however, if by the same deadlines the state proposed its own numeric criteria and the Administrator approved them. The proposed decree imposed analogous deadlines one year later—on January 14, 2011, and October 15, 2011—for publication and adoption of numeric nutrient criteria for coastal and estuarine waters. The proposed decree allowed an extension of a deadline by agreement

between the Florida Wildlife parties and the Administrator, with notice to the court. The decree allowed an extension on the Administrator's motion, without the Florida Wildlife parties' consent, in the court's discretion.

All parties—including the intervening defendants—were allowed to file briefs, declarations, and other written evidence addressing the motion for entry of the consent decree. Three additional entities filed amicus briefs.[7] The parties presented extensive oral argument. The parties were fully heard.

On December 30, 2009, I entered the proposed consent decree. A separate order explained at some length that the decree met the standards governing consent decrees. And the order continued:

> One final point deserves mention. The consent decree obligates the Administrator to do nothing more than she could voluntarily choose to do anyway. The Administrator has already determined that the Florida narrative standard fails to meet the Clean Water Act's requirements. She could publish a revised or new standard for lakes and flowing waters by January 14, 2010, and for coastal or estuarine waters by January 14, 2011—and could do so earlier if she chose. She could adopt a revised or new standard as soon after publication as the administrative process would allow—and thus by October 15, 2010, or October 15, 2011. Any revised or new standard would have to comply with the governing procedural and substantive law and would be subject to judicial review—but the same is true under the consent decree. The intervenors challenge the underlying determination that Florida's narrative standard is inadequate, but with or without the consent decree, that determination will be equally subject to challenge—based on the same standard of review and with an equal level of deference to the Administrator—on judicial review

[7] These were the Northwest Florida, Southwest Florida, and Suwannee River Water Management Districts.

> of any revised or new standard. The consent decree has compromised the intervenors' rights not at all.

Order Approving Consent Decree, ECF No. 152 at 14-15.

The Administrator has complied with the consent decree. She signed the notice of proposed rulemaking for lakes and flowing waters on January 14, 2010, as scheduled. Citing the large number of comments, the Administrator moved to extend by 30 days the deadline for adopting a rule. I granted the motion, extending the deadline to November 14, 2010. *See* ECF No. 192. The Administrator signed the rule that day.[8]

C. The Appeal of the Consent Decree

Two of the intervenors—the Florida Water Environment Association Utility Council, Inc., and the South Florida Water Management District—appealed the consent decree. In an opinion issued on August 2, 2011, the Eleventh Circuit dismissed the appeal for lack of standing, essentially agreeing with my ruling that the 2009 determination—not the consent decree—was the source of any harm

[8] On June 7, 2010, the Administrator and the Florida Wildlife parties filed a notice that they had agreed to extend the deadlines for the Administrator to adopt numeric nutrient criteria for South Florida flowing waters, essentially putting those waters on the same schedule as coastal and estuarine waters. ECF No. 184. The notice also delayed the coastal and estuarine deadlines, now requiring the Administrator to propose a rule by November 14, 2011, and to adopt a rule by August 15, 2012. Work on a rule for South Florida flowing waters and for coastal and estuarine waters is going forward, but a rule has not been adopted and is not now at issue in these consolidated cases.

alleged by the appellants. *Fla. Wildlife Fed'n, Inc. v. S. Fla. Water Mgmt. Dist.*, 647 F.3d 1296 (11th Cir. 2011).

The Eleventh Circuit did not address the validity of the 2009 determination, because the only order that was on appeal—the consent decree—did not address the determination's validity. Indeed, until today, no ruling has been made—in this court or any other—on the validity of the 2009 determination.

D. Challenges to the Determination and Rule

Now pending in 13 separately filed but now-consolidated cases are challenges to the 2009 determination and to the rule adopting numeric criteria. The cases include the original action, in which these issues are pending on a crossclaim, two actions that were filed after the determination but before adoption of the rule, and 10 cases filed after adoption of the rule.[9]

A total of 25 parties assert in 11 of the cases that the determination is invalid and that even if valid the rule goes too far. These parties include the State of

[9] Seven cases were originally filed in this court's Pensacola division and, in accord with this court's standard practice for handling related cases, were transferred to the Tallahassee division for coordinated proceedings. Without objection, all 13 cases have been consolidated for pretrial purposes. A broader consolidation order was entered for six cases in Pensacola before the transfer. Because of that, the clerk opened only one Tallahassee case corresponding with those six Pensacola cases. Thus there are eight Tallahassee case numbers for the total of 13 cases that were originally filed.

Florida,[10] the Florida Commissioner of Agriculture, the South Florida Water Management District, and 22 others.[11] This order refers to the 25 parties collectively—though somewhat imprecisely—as the "state and industry parties."[12]

The state and industry parties assert that the 2009 determination is arbitrary or capricious and thus should be set aside under the Administrative Procedures Act. Two of these parties—referred to in this order as the "Power and Utility

[10] The state's chief legal officer—the Attorney General—filed one of the cases in the name of the "State of Florida." She did not explicitly assert a claim in FDEP's name. The Agriculture Commissioner, through his own counsel, also is a plaintiff in that case. It makes no difference to the outcome whether the Attorney General intended the plaintiff "State of Florida" to mean, to include, or to omit FDEP. Nor does it make a difference to the outcome whether the State of Florida, separate from FDEP, has standing to assert a claim. No party has challenged the State's standing in its own name, nor has any party challenged the Commissioner's standing. I conclude that at least one plaintiff in that case has standing.

[11] The 22 are Florida Electric Power Coordinating Group, Inc.; Florida Water Environment Association Utility Council; Mosaic Company; CF Industries, Inc.; Destin Water Users, Inc.; South Walton Utility Co., Inc.; Emerald Coast Utilities Authority; Okaloosa County Board of County Commissioners; the City of Panama City; Fertilizer Institute; White Springs Agricultural Chemicals, Inc.; American Farm Bureau Federation; Florida Farm Bureau Federation; Florida Fertilizer and Agrichemical Association; Agricultural Retailers Association; Florida League of Cities, Inc.; Florida Stormwater Association, Inc.; Florida Pulp and Paper Association Environmental Affairs, Inc.; Southeast Milk, Inc.; Florida Fruit and Vegetable Association, Inc.; Florida Cattlemen's Association; and National Cattlemen's Beef Association.

[12] The National Association of Clean Water Agencies is not a party but filed an amicus brief in support of the state and industry parties.

Associations"[13]—also challenge the determination under the Clean Water Act's citizen-suit provision and on constitutional grounds. The citizen's suit asserts that the Administrator made the determination only to settle the original lawsuit rather than on the merits. In response to the Administrator's contention that the citizen's suit cannot proceed because these issues are discretionary with the Administrator, the Power and Utility Associations assert that Congress's delegation of that discretion is unconstitutional. The Power and Utility Associations also assert that treating Florida and its residents differently from other states and their residents violates the equal-protection component of the Fifth Amendment. Five parties—imprecisely referred to in this order as the "Destin group"[14]—assert that the Administrator violated the Regulatory Flexibility Act.

A total of seven parties—all environmental organizations—assert in two of the cases that the rule is valid but does not go far enough and thus, to that extent, is arbitrary or capricious. These seven parties are the five original plaintiffs, who have filed a new action and are referred to in this order as the Florida Wildlife parties, and two plaintiffs in another new action, collectively referred to in this

[13] The two parties are the Florida Electric Power Coordinating Group, Inc., and Florida Water Environment Association Utility Council.

[14] The five are Destin Water Users, Inc.; South Walton Utility Co., Inc.; the City of Panama City; Florida League of Cities, Inc.; and Florida Stormwater Association, Inc.

order as the "Gulf Restoration parties."[15] This order refers to these seven parties collectively as the "environmental parties."

The parties have filed cross-motions for summary judgment that collectively address all the claims in all the cases. In addition, the Administrator has moved for judgment on the pleadings on the citizen's-suit claim and constitutional claims. The parties have filed multiple briefs and have presented extensive oral argument. The case is ready for a decision.

XI. The Issues

The state and industry parties first challenge the determination that a revised or new standard is necessary to meet the requirements of the Clean Water Act. Success on that claim would invalidate the entire rule; the Administrator cannot promulgate a criterion for a state unless a revised or new standard is necessary. Further, the state and industry parties say that even if the determination is valid, the lake and stream criteria and the default DPVs are not. One of the assertions is that the Administrator aimed at the wrong target—that a criterion must be tied to a designated use, but the Administrator adopted criteria without establishing a connection between the criteria and a designated use. A related assertion is that the Administrator's criteria are not supported by sound science. The state and industry

[15] These parties are Gulf Restoration Network and Natural Resources Defense Council.

parties do not separately challenge the spring criterion or the provisions on site-specific alternative criteria.

The environmental parties support the determination that a revised or new standard is necessary. They assert the new criteria are uniformly better than the preexisting narrative criterion and should go into effect as scheduled. But they say there are substantive and procedural flaws in the lake and stream criteria and substantive flaws in the spring criterion. And they challenge the SSAC provisions. The environmental parties say the Administrator should be required to correct the errors. The environmental parties do not separately challenge the DPVs.

Finally, some of the state and industry parties say the rule is unconstitutional or that the Administrator violated the Regulatory Flexibility Act.

XII. The Standard of Review

Under the Administrative Procedures Act, a court must set aside agency action of this kind if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). As noted above, this order uses "arbitrary or capricious" as a shorthand reference to the entire standard. The applicability of the standard to the APA challenges in this case is not subject to doubt. Indeed, at least one binding circuit decision applied the standard to the Administrator's disapproval of a state water-quality criterion and the

Administrator's adoption of a replacement criterion. *See Miss. Comm'n on Natural Res.*, 625 F.2d at 1274-75.

The Eleventh Circuit has called this standard "exceedingly deferential." *Fund for Animals, Inc. v. Rice*, 85 F.3d 535, 541 (11th Cir. 1996). The court has explained:

> To determine whether an agency decision was arbitrary and capricious, the reviewing court "must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." This inquiry must be "searching and careful," but "the ultimate standard of review is a narrow one." Along the standard of review continuum, the arbitrary and capricious standard gives [a reviewing] court the *least* latitude in finding grounds for reversal; "[a]dministrative decisions should be set aside in this context . . . only for substantial procedural or substantive reasons as mandated by statute, . . . not simply because the court is unhappy with the result reached." The agency must use its best judgment in balancing the substantive issues. The reviewing court is not authorized to substitute its judgment for that of the agency concerning the wisdom or prudence of the proposed action.

Id. at 541-42 (emphasis, omissions, and second brackets by the Eleventh Circuit) (quoting *N. Buckhead Civic Ass'n v. Skinner*, 903 F.2d 1533, 1538-40 (11th Cir. 1990) and citing *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360 (1989)).

More recently, the Eleventh Circuit explained it this way:

> We "may not set aside an agency rule that is rational, based on consideration of the relevant factors, and within the scope of the authority delegated to the agency by the statute." *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42, 103 S.Ct. 2856, 2866, 77 L.Ed.2d 443 (1983). Under this "narrow" form of review, we may find a rule arbitrary and capricious where "the agency has relied on factors which Congress has not intended it

> to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Id.* at 43, 103 S.Ct. at 2867. The reviewing court may not make up for these deficiencies, which is to say that "we may not supply a reasoned basis for the agency's action that the agency itself has not given." *Bowman Transp., Inc. v. Ark.-Best Freight Sys., Inc.*, 419 U.S. 281, 285, 95 S.Ct. 438, 442, 42 L.Ed.2d 447 (1974).

Ala.-Tombigbee Rivers Coal. v. Kempthorne, 477 F.3d 1250, 1254 (11th Cir. 2007).

The deferential nature of the review is especially important on some of the issues in this case. When an issue calls for scientific judgment, "a reviewing court must generally be at its most deferential." *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 103 (1983). "When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, the court might find contrary views more persuasive." *Marsh*, 490 U.S. at 378.

In short, my obligation is to make a searching and careful review of the Administrator's action but to be "exceedingly deferential," especially on matters calling for scientific judgment.

The same level of deference is not appropriate on the constitutional and Regulatory Flexibility Act claims. On those, the familiar summary-judgment standard applies: when the record is viewed in the light most favorable to the state

and industry parties asserting the claims, is the Administrator entitled to judgment as a matter of law?

XIII. The Merits

A. The Necessity Determination

The Clean Water Act gives a state the primary role in setting its water-quality standards. But the Act gives the Administrator a role as well. The state must submit its standards to the Administrator for approval. And the Administrator's approval of a state standard does not end the Administrator's involvement. Under § 303(c)(4) of the Act, the Administrator must "promptly" propose and adopt "a revised or new" standard "in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of" the Act. 33 U.S.C. § 1313(c)(4).

The question for the Administrator thus was whether a revised or new standard—specifically a numeric nutrient standard—was necessary to meet the Act's requirements, or whether, instead, the existing narrative criterion was adequate. The Act's "requirements" include water-quality criteria that are "such as to protect the public health or welfare, enhance the quality of water and serve the purposes of [the Act]." *Id.* § 1313(c)(2)(A). The Administrator has explained that to "serve the purposes of the Act,"

> water quality standards should, wherever attainable, provide water quality for the protection and propagation of fish, shellfish and

> wildlife and for recreation in and on the water and take into consideration their use and value [for] public water supplies, propagation of fish, shellfish and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation.

40 C.F.R. § 131.2.

The Administrator concluded that the narrative criterion was not getting the job done. The evidence supporting the conclusion was substantial, indeed overwhelming. A significant portion of the state's waters was impaired by nutrient pollution. The situation had persisted for many years. That, without more, would support the conclusion that something needed to be done. And the Administrator noted that the projected increase in Florida's population was likely to compound the problem still further.

The Clean Water Act allows the Administrator to conclude that when this level of pollution has endured, a new water-quality criterion is needed. That is what the Administrator concluded. The question for the court is not whether the Administrator's conclusion was correct, but only whether the conclusion was arbitrary or capricious. It was not.

The contrary contention of the State of Florida and its Commissioner of Agriculture is especially curious. The state agency with primary responsibility in this field, FDEP, concluded long ago that the narrative nutrient criterion was inadequate and that numeric nutrient criteria were needed. *See*, *e.g.*, Letter from

Jerry Brooks, Deputy Dir., Div. of Water Res. Mgmt., Fla. Dep't of Envtl. Prot., to James D. Giattina, Dir., Water Mgmt. Div., U.S. Envtl. Prot. Agency (Dec. 30, 2003) (AR000767) ("FDEP is committed to a timely establishment of numeric nutrient criteria" and believes they "will lead to further protection of water quality for Florida.") At least as shown by this record, in the years from 2003 to 2009 and indeed right up to today, FDEP never wavered from that position. FDEP spent millions of dollars studying not whether numeric criteria were needed, but what the numeric criteria should be. FDEP's work produced not a hint that the narrative criterion was working and should be retained.

The analysis to this point should end the matter. But the determination's opponents mount additional attacks that deal not with whether numeric criteria were and are needed—the only question under the Clean Water Act—but instead with other issues. Six of their contentions deserve mention.

First, the opponents say the Administrator made the determination in just two or three weeks and that this was not long enough to consider the issue fully. It is true that an EPA Assistant Administrator formally asked the Administrator to delegate the authority to make a determination on December 22, 2008; the Administrator made the delegation on December 29, 2008; and the determination was made on January 14, 2009. But the suggestion that the Administrator first began work on this in December 2008 could not be further from the truth. The

Administrator issued formal reports in 1998 addressing the need for numeric nutrient criteria and directing states to have them in place by the end of 2003. EPA and FDEP worked on numeric nutrient criteria unabated from at least as early as 2001. EPA said repeatedly that it would make a formal § 303(c)(4) determination if it became appropriate. In short, the 2009 determination was many years in the making—long enough by any measure.

Second, the opponents say the Administrator did not need to act because FDEP was itself working toward numeric nutrient criteria. I assume that the Administrator had discretion under the statute to consider the state's progress as a factor in the decision whether to make a determination.[16] The Administrator plainly considered the state's efforts, noting in the determination letter the work FDEP had done. But FDEP had been working on numeric criteria since 2001 and

[16] This may not be completely clear. By its terms, the Clean Water Act calls for the Administrator to determine only whether a revised or new standard is "necessary" to meet the requirements of the Act, not whether it is "necessary" for the Administrator, rather than the state, to adopt the new standard. If a new standard is "necessary" to restore or maintain water quality, the Act does not call on the Administrator to decide who should adopt it. Instead, the Act makes that decision: the Administrator must adopt the new standard, unless the state does so first. When the Administrator determined that the narrative nutrient criterion was inadequate, the Administrator followed the statute to the letter, proceeding to propose and adopt new criteria, but saying all along that the Administrator's criteria would yield if the state adopted its own criteria and, as required by the Act, the Administrator approved them. Still, I assume that in deciding whether to make a "determination" at all, the Administrator may properly take into account the likelihood that a state will correct the problem itself.

had repeatedly moved back the schedule. FDEP originally said it would begin rulemaking in October 2004. In the plan submitted on December 31, 2008, FDEP said rulemaking would begin by January 2011. There was no end in sight. Had the question been who should act to address the necessity, a rational conclusion would have been that the Administrator needed to step up.[17]

The opponents' third contention that warrants discussion is that the Administrator changed positions without an adequate explanation. The first answer is that the Administrator did not change positions at all. The view that numeric nutrient criteria should be adopted dated to 1998. The Administrator had been saying since at least as early as July 2004 that if the state did not act, the Administrator would make a § 303(c)(4)(B) determination. When the Administrator finally did what she had long said she would do, it was not a change of position. Moreover, the Administrator was free to adopt a new position if she chose, so long as she explained the decision and it was not arbitrary or capricious. *See FCC v. Fox*, 556 U.S. 502 (2009) (holding that an agency action that is a change of position is subject to review under the same arbitrary-or-capricious

[17] More recent events fully support—and certainly do not undermine—this conclusion. FDEP missed even the milestones in its 2008 plan. And other state agencies—as shown by their position in this litigation—have dug in with vigor to oppose even the rather obvious proposition that the narrative criterion was falling short. Had the Administrator not acted, there are good grounds to doubt that FDEP would have been able to accomplish what FDEP has long said needs to be done.

standard as an original action). The Administrator explained her decision at some length in the determination letter. And finally, the assertion that a change of position somehow undermines a § 303(c)(4)(B) determination is flatly at odds with the statute. A § 303(c)(4)(B) determination that a revised or new standard is necessary is *by definition* a change from the Administrator's original decision to approve the standard that is being superseded. As a binding circuit decision noted, "[i]f EPA were bound by its prior approvals, this power [to make a § 303(c)(4)(B) determination] would be meaningless." *Miss. Comm'n on Natural Res.*, 625 F.2d at 1277.

The opponents' fourth contention is that the Administrator acted from a bad motive, seeking not to apply the Clean Water Act on the merits but instead only to settle the original lawsuit. The contention fails on the law and on the facts. The contention fails on the law because a reviewing court's mission is not to divine an agency's "true purpose" but instead to decide whether, in light of the administrative record and the agency's explanation, the agency's action was arbitrary or capricious. The contention fails on the facts because the record is devoid of any indication that the Administrator's true purpose was anything other than to apply the Clean Water Act on the merits. The Administrator had been asserting for more than 10 years that numeric nutrient criteria were needed. If my role were to divine the Administrator's true purpose—it is not—my conclusion

would be that the Administrator's purpose was to apply the Clean Water Act on the merits based on the agency's long and sincerely held belief that numeric nutrient criteria were necessary to restore and maintain Florida's waters.[18]

The opponents' fifth contention is that the Administrator improperly singled Florida out from all the other states. This contention too fails on the law and on the facts. The law is that in deciding to take on a major and complicated task—the establishment of numeric nutrient criteria—the Administrator was not obligated to address the problem in every state or none. The Administrator was free instead to take on the problem a little at a time, so long as her action was not arbitrary or capricious. *Cf. FCC v. Beach Commc'ns, Inc.*, 508 U.S. 307, 316 (1993) (noting

[18] If anything, the opponents' assertion that the Administrator was just trying to end the litigation and fend off a precedent that might require numeric nutrient criteria in other states as well as in Florida seems to have it backwards. First, the risk of such a ruling was not high, and the 2009 determination did not end the risk. A person could have filed a new lawsuit in another state at any time—and still could—asserting that the 1998 documents were a determination. This would present again precisely the same risk of an adverse precedent as existed in this case before the 2009 determination. Indeed, if the 2009 determination affected the risk of litigation in another state at all, it almost surely *increased* the risk; a prospective plaintiff would surely view the 2009 determination as a successful resolution of the Florida case. Second, the overall thrust of the opponents' position on the merits is not that the Administrator was impermissibly lax in her efforts to protect the environment; their assertion instead is that she was overly zealous and adopted a rule that goes too far. This seems inconsistent with the assertion that the Administrator did not really believe numeric criteria were needed at all. Third, if, as the opponents contend, the Administrator's goal was to avoid litigation, issuing the determination was especially obtuse; it should have been obvious that the determination would expand, not end, the litigation, precisely as has occurred. A person whose goal is to avoid snakes does not walk headfirst into a swamp.

that "the legislature must be allowed leeway to approach a perceived problem incrementally"); *Williamson v. Lee Optical of Okla.*, 348 U.S. 483, 489 (1955) (noting that a legislature may take on a problem "one step at a time, addressing itself to the phase of the problem which seems most acute to the legislative mind," and "may select one phase of one field and apply a remedy there, neglecting the others"). The contention that the Administrator improperly singled Florida out fails on the facts because, as the Administrator spelled out in some detail in the determination letter, Florida's climate, geography, waters, and demographics make the nutrient-pollution issue different in Florida than in any other state. *See* 2009 Determination Letter at 7 (AR010963). Florida has some 668 endemic species found nowhere else on Earth, has unique water-filled caves and sinkholes and an abundance of springs, has the only near-coast shallow coral-reef formations in the continental United States, and has—10 miles off its coast—the single richest concentration of marine life in the Atlantic Ocean. *Id.* The hot, sunny, and damp climate promotes such undesirable outcomes as algal growth, and the demographics, including rapid population growth, risk further nutrient pollution. *Id.* Finally, the quantity of data available in Florida for developing numeric nutrient criteria far exceeded that in any other state, making it reasonable for the Administrator to take on Florida first, even if—contrary to fact—there were no other reasons to do so. *Id.* at 6 (AR010962); *see also* Fla. Dep't of Envtl. Prot.,

Nutrient Samples per State in STORET (indicating that Florida has more than four times as many nutrient data as the next highest state) (AR128687).

The opponents' sixth contention is that numeric nutrient criteria are not necessary because FDEP has already established a total maximum daily load ("TMDL") for many water bodies. The contention misconceives the structure put in place by the Clean Water Act. Criteria are set in advance for all waters, impaired and unimpaired. One goal is to prevent a water body from becoming impaired in the first place. A TMDL, on the other hand, is established for an impaired water body *after* it becomes impaired. That Florida has many TMDLs is evidence that it has many impaired waters—and thus that it needs new criteria to avoid impairment in the first place. Moreover, Florida has many impaired waters that do not yet have TMDLs. Establishing a TMDL is a resource-intensive process that takes time. As the Administrator explicitly recognized in the determination letter, numeric nutrient criteria will make it much easier for FDEP to develop TMDLs for impaired water bodies. 2009 Determination Letter at 4 (AR010960). In short, the existence of a substantial number of TMDLs does not mean numeric nutrient criteria are unnecessary.

The 2009 determination was not arbitrary or capricious.

B. The Rule

The Administrator published notice of her proposed rulemaking, received thousands of comments, responded to them, and adopted a rule. The state and industry parties challenge the procedure, asserting, for example, that the Administrator did not adequately respond to all the comments and made changes in the final rule without adequate notice. The challenge is insubstantial. The Administrator followed the rulemaking requirements without fail. The substantial issue is only whether the rule's provisions as adopted survive review on the merits under the arbitrary-or-capricious standard.

The Administrator explained the rule as an effort to translate Florida's existing narrative nutrient criterion into numeric criteria. Under the narrative criterion, "nutrient concentrations of a body of water [must not] be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." Fla. Admin. Code r. 62-302.530(47)(b).

Florida interprets the narrative criterion to prohibit not *any* change in natural populations of flora and fauna, but only a *harmful* change—an "imbalance" in the pejorative sense of the word. Thus, for example, in one of FDEP's plans for adopting numeric nutrient criteria, FDEP said: "The State of Florida intends to adopt quantitative nutrient water quality standards . . . to provide a means to protect state waters from the *adverse effects* of nutrient over-enrichment." Water

Quality Standards & Special Projects Program, Water Res. Div., Fla. Dep't of Envtl. Prot., *State of Florida Numeric Nutrient Criteria Development Plan* 2 (Sept. 2007) (emphasis added) (AR012229). Similarly, in addressing a permit application, a Florida administrative law judge said:

> [Petitioners] also contend that [the NPDES permit applicant's] effluent would permanently change the hydroperiod of the wetlands within the effluent distribution system, but they cite no law that prohibits such a change. Pollutant discharges made in compliance with all applicable regulations usually change the receiving waters. The relevant permitting question, therefore, is not whether the receiving waters are changed, but whether the changes are permissible under the law.

Lane v. Int'l Paper Co., Cases No. 08-3922, 08-3923, 2010 WL 333011, at *14 (DOAH Jan. 27, 2010), *modified in part on other grounds by*, Cases No. 08-1964, 08-2074 (DEP March 10, 2010). In another permit case, the administrative law judge said:

> Even though petitioner's evidence established that, eventually, several tons of nutrients would enter surface waters annually, petitioner did not prove that algal populations would in fact change as a result, and did not rebut, therefore, in any material way, . . . sworn testimony that this tonnage would not adversely affect the receiving waters.

Westerman v. Escambia Cnty. Utilities Auth., Case No. 89-0035, 1990 WL 128579, at *12 (DOAH Feb. 2, 1990), *modified in part on other grounds by*, Case No. 88-1151 (DEP March 19, 1990). As these authorities show, Florida's narrative nutrient criterion addresses *harmful* effects, not *all* effects.

At least when the narrative criterion is so understood, no party has challenged its validity or has asserted that it is inconsistent with, or exceeds the scope of, the Clean Water Act. By definition, numeric criteria that accurately translate an admittedly valid narrative criterion are themselves valid.

The challenges extend to the separate criteria for lakes, springs, and streams; to downstream-protection values or "DPVs"; and to the provisions authorizing, and establishing the procedures for adopting, site-specific alternative criteria. This order addresses the challenges in this order.

1. Lake Criteria

The Administrator established numeric criteria for lakes based on models and field studies designed to determine the point at which an increase in nutrients can be expected to cause harmful effects to flora and fauna. The rule sets numeric criteria for chlorophyll-a, total nitrogen, and total phosphorus. The state and industry parties assert in effect that the Administrator botched the science, adopting criteria that are too exacting. The environmental parties also assert that the Administrator botched the science, though in different respects; they say the Administrator adopted criteria that are not exacting enough. They also say the Administrator adopted criteria that are inadequate to protect recreational and drinking-water uses. These are all issues of scientific judgment on which, as set out above, the standard of review is at its "most deferential." Having made the

required "searching and careful review," I conclude that the Administrator's decisions were based on sound science and are not arbitrary or capricious. This section of this order addresses the principal challenges.

a. The Classification Scheme: Color and Alkalinity

The rule classifies lakes according to their color and alkalinity. The Administrator chose these characteristics based on substantial data showing that they influence a lake's response to increased nutrients. The rule establishes three classes: (1) colored lakes, that is, lakes with true color greater than 40 Platinum Cobalt Units; (2) clear lakes with high alkalinity, that is, lakes with color less than or equal to 40 Platinum Cobalt Units and alkalinity of more than 20 mg/L $CaCO_3$; and (3) clear lakes with low alkalinity, that is, lakes with color less than or equal to 40 Platinum Cobalt Units and alkalinity of less than or equal to 20 mg/L $CaCO_3$.

The state and industry parties challenge the Administrator's classification scheme, asserting that the Administrator ignored relevant characteristics beyond color and alkalinity.

The Administrator acknowledged that other characteristics—including temperature—may influence biological response to nutrients in lakes. *See* U.S. Envtl. Prot. Agency, *Technical Support Document for U.S. EPA's Final Rule for Numeric Criteria for Nitrogen/Phosphorus Pollution in Florida's Inland Surface Fresh Waters* ("Technical Support Document") 68 (AR087827). But the

Administrator chose a classification scheme based on color and alkalinity. The decision was based in part on prior studies that classified Florida lakes based on these two characteristics. *See id.* The Administrator performed her own analyses and "found strong associations of TN, TP, and chl-*a* with color and alkalinity." *See id.* at 81 (AR087840). The Administrator also evaluated alternative classification systems and presented a rational explanation for her selection of this one. *See id.* at 81-83 (AR087840-42). The decision was not arbitrary or capricious.

The state and industry parties also challenge the criteria's applicability to highly colored lakes. They say total-nitrogen and total-phosphorus concentrations in those lakes do not matter because the lake color inhibits algal growth. And they note the weak relationship in highly colored lakes between chlorophyll-a and nutrients. *See id.* at 75 (AR087834) (indicating that the association between color, on the one hand, and nutrients or chlorophyll-a, on the other, weakens as color increases). The state and industry parties conclude that highly colored lakes should be exempt from the criteria.

The Administrator originally considered establishing a separate class for highly colored lakes, but the Administrator ultimately chose to include highly colored lakes in the same class with intermediately colored lakes. *See id.* at 83 (AR087842). The Administrator concluded that while algal growth in colored

lakes is limited, it does occur. And the Administrator concluded that even without algal growth, nutrient criteria are needed to protect colored lakes' designated uses. The Administrator also cited evidence that highly colored lakes have expected nutrient concentrations that are statistically similar to other colored lakes. *See id.* at 103-04 (AR087862-63); Chapter 2 Issue Category: Proposed Numeric Nutrient Criteria for the State of Florida's Lakes, Response to Public Comments ("Response to Public Comments - Lakes") 2-2681 (Nov. 14, 2010) (AR092027). The decision to apply to highly colored lakes the same criteria that apply to other colored lakes was not arbitrary or capricious.

The state and industry parties also complain that the classification scheme fails to account for the naturally high phosphorous levels in West Central Region lakes and the naturally high chlorophyll-a levels in reclaimed mining lakes. The state and industry parties say these levels naturally exceed the rule's criteria but that the lakes support their designated uses. And the state and industry parties note that the Administrator cannot properly require an alteration of natural conditions. *See, e.g.*, *Sierra Club, Inc. v. Leavitt*, 488 F.3d 904, 920-21 (11th Cir. 2007) ("The phrase 'restore and maintain' [in 33 U.S.C. § 1251(a)] indicates that Congress sought to return waterbodies to their natural conditions, not modify waterbodies' natural conditions."); *see also* Fla. Stat. § 403.021(11) (directing FDEP to "recognize that some deviations from water quality standards occur as the result of

natural background conditions" and thus directing FDEP not to "consider deviations from water quality standards to be violations when the discharger can demonstrate that the deviations would occur in the absence of any human-induced discharges or alterations to the water body").

The Administrator considered classifying lakes by region but decided not to do so. The Administrator concluded that a rule with regional classifications would not differ significantly from the rule with classifications based on color and alkalinity. *See* Technical Support Document at 82-83 (AR087841-42). For example, alkalinity responds to carbonate rocks, such as limestone, associated "with natural elevated phosphorus levels." *Id*. at 79-80 (AR087838-39). Regional differences thus correlate with alkalinity differences that the rule takes into account. *See id*. at 68 (AR087827).

Further, the Administrator found that chlorophyll-a correlates with total phosphorus and total nitrogen in West Central Region lakes, supporting the decision to apply the same criteria to West Central Region lakes as to others. U.S. Envtl. Prot. Agency, *Technical Support Document for EPA's Proposed Numeric Nutrient Criteria for FL Inland Surface Fresh Waters* 1-24 to 1-25 (AR006454-55) (noting a positive relationship between chlorophyll-a and nitrogen and between chlorophyll-a and phosphorus in the Bone Valley Region—the earlier name for the West Central Region). The West Central Region may have a "unique geology,"

but the Administrator's decision to apply the same criteria to its lakes was not arbitrary or capricious.

That reclaimed mining lakes may be meeting their designated uses does not mean that the rule must carve out for them a separate classification or an express exemption. The authority to adopt water-quality criteria does not depend on a showing that a water body or group of water bodies is not meeting the designated uses. Indeed, under the Clean Water Act, a state could and properly would adopt criteria even if all its waters were meeting their designated uses; the point is not just to identify existing impairment but also to measure for and thus help prevent future impairment. And a criterion is not rendered invalid just because an example can be found of a water body that exceeds the criterion but still meets its designated uses. If, as the state and industry parties assert, there is a reclaimed mining lake with natural levels in excess of the criteria, the answer is not to change the criteria, but to apply to the lake the settled principle that the Clean Water Act does not require a change from natural conditions. That can be done through site-specific alternative criteria or through the TMDL process; it need not be done as part of the rule. The Administrator's decision not to include in the rule a separate classification or express exemption for reclaimed mining lakes was not arbitrary or capricious.

b. Three Criteria, Not Just One or Two

For each class the rule sets numeric criteria for three parameters: chlorophyll-a, total nitrogen, and total phosphorus. Chlorophyll-a is a response variable that measures algal growth and serves as an indicator of a lake's biological health. In setting the chlorophyll-a criterion, the Administrator's stated goal was to maintain the trophic state of the lake. A lake's trophic state reflects its nutrient conditions and algal productivity. The Administrator decided that colored lakes and clear, high-alkalinity lakes should maintain a mesotrophic state, as these lakes receive natural nitrogen and phosphorus input but still support a healthy diversity of aquatic life. For these two classes, then, the rule sets the allowable chlorophyll-a concentration at 0.020 mg/L. In contrast, clear, low-alkalinity lakes do not receive natural nitrogen and phosphorus input from underlying geological formations, support less algal growth, and have lower chlorophyll-a levels than the other two lake classes. The rule sets the chlorophyll-*a* criterion for these lakes at 0.006 mg/L.

The Administrator developed the criteria for total nitrogen and total phosphorus by examining predictive relationships between these nutrients and the chlorophyll-a response. The Administrator quantitatively estimated chlorophyll-a responses with linear regressions. The Administrator used the regressions to establish baseline total-nitrogen and total-phosphorus criteria at the 75th percentile

of the predicted distribution of chlorophyll-a concentrations, given a total-nitrogen or total-phosphorus concentration. The Administrator concluded that the resulting total-nitrogen or total-phosphorus criterion should maintain a lake's chlorophyll-a concentration at a level supporting designated uses.

The state and industry parties challenge the rule's requirement that to be deemed unimpaired, a lake must meet all three criteria—that a lake must meet the nitrogen and phosphorous criteria even if it meets the chlorophyll-a criterion. Chlorophyll-a measures algal growth. Excess algal growth is associated with degradation in aquatic life. The Administrator adopted the chlorophyll-a criterion as an indicator of whether a lake is supporting a balanced population of flora and fauna. *See* Technical Support Document at 85 (AR087844). The state and industry parties say that this is enough—that if a lake meets the chlorophyll-a criterion, it does not matter whether it also meets the nitrogen and phosphorous criteria.

The Administrator disagreed, explaining that while chlorophyll-a is one indicator of a lake's biological health, it is not the only indicator. And chlorophyll-a is sometimes a *lagging* indicator. Gale-force winds, heavy rain, and a storm surge are reliable indicators of bad weather, but a prudent sailor checks the barometer in advance. Just so with nutrient levels: a prudent regulator checks them in advance of an algal bloom or spike in chlorophyll-a levels. *See* Response to

Public Comments – Lakes at 2-2693 (AR092039). Also, criteria are useful not just to identify impaired lakes but to assess how to bring them back into compliance; the chlorophyll-a criterion, standing alone, does not serve that purpose as reliably as separate criteria for nitrogen and phosphorous. *See id.*

The Administrator's decision to adopt all three criteria and to make them independently applicable, so that to be deemed unimpaired a lake must meet them all, was not arbitrary or capricious.

c. Modified Criteria

In addition to the baseline criteria, the rule provides that the state may derive a modified total-nitrogen or total-phosphorus criterion for a lake if, in each of the three immediately preceding years, the lake's properly-monitored annual geometric-mean chlorophyll-a concentration was less than the baseline criterion. The rule allows the state to do this for a given lake only once. A modified criterion must be the lower of ambient conditions, on the one hand, or an upper limit specified in the rule, on the other hand.

The Gulf Restoration parties challenge the provision for modified criteria, contending that it will allow the state to adopt new water-quality criteria without the Administrator's oversight or approval, and that in any event the rule does not adequately spell out how the state must determine annual geometric-mean chlorophyll-a concentrations.

The challenge is unfounded. The rule sets out specific conditions that must be met before modified criteria can be adopted, and the rule sets out an objective basis for calculating the modified criteria. The Administrator adopted this approach to provide appropriate flexibility. Indeed, the availability of modified criteria blunts the force of some of the state and industry parties' complaints about the rule.

The Administrator may adopt a rule with conditions—a rule that applies if a lake is 10 feet deep or its alkalinity is at a specified level or if a spill at a gas station exceeds a specified amount or, as here, if a lake meets chlorophyll-a limits for three successive years. And the Administrator may adopt a rule that will be applied based on a site-specific analysis, even without setting out every detail of how the site-specific analysis will be conducted. That is all the Administrator did here. Nothing in the Clean Water Act or Administrative Procedures Act prohibits the practice.

The modified-criteria provision survives arbitrary-or-capricious review.

d. Duration and Frequency

The lake criteria include duration and frequency components: a lake is deemed impaired only if the annual geometric mean of a parameter exceeds the limit in more than one year out of any consecutive three. The Gulf Restoration parties argue with considerable force that this does not sufficiently protect at least

one designated use—recreation—if not also the designated use of class I waters for drinking water.

The Administrator says that under her preexisting rule, criteria for a water body with multiple uses must be set to "support the most sensitive use." *See* 40 C.F.R. § 131.11(a). The Administrator says the most-sensitive use for a Florida lake is aquatic life, not recreation. But almost by definition, if a criterion is sufficient to protect one use (aquatic life) but not another (recreation), the latter is the more-sensitive use, at least for purposes of that criterion. What else could "more sensitive" mean? In any event, this view comports with the most natural reading of § 131.11(a): criteria must be set to support all uses, including the most sensitive.

The question, then, is whether the Administrator considered all uses, including recreation, and reasonably decided that these criteria are sufficient to support the uses. While the issue is not free of doubt, I resolve the question in the Administrator's favor, giving substantial weight to the standard of review.

Three considerations support the duration and frequency provisions. First, the Administrator cited a lake's ability to recover from nutrient spikes without lasting harm to flora or fauna and noted that harmful effects usually result from chronic exposure to elevated nutrient levels, not from isolated elevations. *See*, *e.g.*, Technical Support Document at 109 (AR087868). Second, the provisions have a

practical component; the Administrator said "the 3-year evaluation period provides a sufficient representation of average lake characteristics in the majority of cases, because it balances both short-term and long-term variation, while not imposing undue monitoring expectations." Response to Public Comments – Lakes at 2-2935 (AR092281). Third, the Administrator noted that the criteria were developed from underlying data compiled into annual geometric means. An observed relationship between a nutrient's annual mean level and a resulting harm may say little about whether the same nutrient level, maintained only for a shorter period, would cause the same harm. This of course means only that the Administrator could not use the unadjusted annual data to determine criteria for a shorter period; it does not mean the Administrator could not make appropriate adjustments or develop other data addressing shorter periods.

It is clear that the Administrator *did* consider recreational use, citing and analyzing the same study on which the Gulf Restoration parties now rely. The study is anything but compelling, sometimes relying on as little as a single user's subjective assessment of the effect of lake conditions on recreation. *See* Mark V. Hoyer, et al., *Relations Between Water Chemistry and Water Quality as Defined by Lake Users in Florida*, 20 Lake & Reservoir Mgmt. 240, 248 (2004) (AR116592). The Administrator concluded that nutrient and chlorophyll-a levels that are not high enough for long enough to adversely affect aquatic life also are not high

enough for long enough to have a substantial adverse effect on recreation. The conclusion survives arbitrary-or-capricious review.

A word also is in order about another use. The criteria apply not only to class III waters but also to class I waters. A designated use of class I waters is for drinking water. It is by no means obvious that criteria that are sufficient to protect aquatic life are sufficient to protect use for drinking water. Still, the Gulf Restoration parties mention this issue only in passing. And the Administrator offers two explanations. First, she says the criteria are indeed sufficient to protect the use of class I waters for drinking water. Second, she notes that the state has adopted an additional nitrate limit for class I waters in order to protect drinking-water uses. *See* Fla. Admin. Code r. 62-302.530(45). This criterion will continue to apply. *See* 75 Fed. Reg. at 75,807 (to be codified at 40 C.F.R. § 131.43(d)(1)(i)) (stating that the federal criteria will apply except when state water-quality standards "contain criteria that are more stringent for a particular parameter and use") (AR086811). The Administrator adequately considered the protection of the drinking-water use of class I waters.

In sum, the rule's lake criteria are based on sound science and are not arbitrary or capricious.

2. Spring Criterion

The spring criterion addresses nitrate nitrogen (NO_3) and nitrite nitrogen (NO_2), often expressed as nitrate+nitrite. Nitrate+nitrite is the predominant form of nutrient pollution in springs. It stimulates the growth of excess algae, particularly the most common types of nuisance algae in springs, *Lyngbya wollei* and *Vaucheria*. In deriving the nitrate+nitrite criterion, the Administrator reviewed multiple lines of evidence, including stressor-response analyses from controlled laboratory experiments and field studies.

a. The Nitrate+Nitrate Level

The rule sets the nitrate+nitrite criterion at 0.35 mg/L. The Gulf Restoration parties say this is too high. It is higher than laboratory experiments suggested was necessary to prevent excess algal growth, but lower than field studies suggested. The Administrator said the 0.35 level balanced the uncertainty inherent in translating controlled laboratory conditions to the field, on the one hand, with the uncertainty inherent in estimating stressor-response relationships from field data, on the other hand. Technical Support Document at 137 (AR087896).

The Gulf Restoration parties disagree. They say the 0.35 level might protect against *Vaucheria*, but they point to a laboratory study indicating that the maximum growth rates of *Lyngbya wollei*—a toxic cyanobacterium—occur at nitrate+nitrite levels below 0.35 mg/L. *See id.* at 132 (AR087891). They also say

the field studies relied on by the Administrator provided no reliable data on the nitrate+nitrite level necessary to control *Lyngbya wollei.* They say the Administrator just split the difference between the laboratory and field-study results and that this does not adequately protect against *Lyngbya wollei*.

This is a classic issue for scientific judgment of the kind Congress entrusted to the Administrator and to which a reviewing court should defer. The evidence is not so one-sided as the Gulf Restoration parties suggest. The Administrator reasonably considered field data showing a spring's response to nutrients outside a highly-controlled laboratory. The field data addressed not only *Lyngbya wollei* but 22 other macroalgal taxa. *See id.* at 133 (AR087892). Based on all the evidence, the Administrator concluded that 0.23 to 0.26 mg/L was a lower boundary for a spring criterion, as supported by laboratory studies, and 0.45 mg/L was a higher boundary, as supported by field studies and change-point analyses. *Id.* at 137 (AR087896). The Administrator noted the uncertainties inherent in both types of data and selected a criterion of 0.35 mg/L. This scientific judgment was not arbitrary or capricious.

b. Duration and Frequency

The spring criterion includes the same duration and frequency components as the stream and lake criteria: a spring is impaired only if the annual geometric mean for nitrate+nitrite exceeds the limit in more than one of any three consecutive

years. The Gulf Restoration parties mount the same challenge. The analysis set out above for the lake criteria applies here as well. The Administrator reviewed the data and concluded that intra-annual variability was not necessarily associated with impairment in designated uses. *See* 75 Fed. Reg. at 75,785 (AR086789). The Administrator's scientific judgment was not arbitrary or capricious.

3. <u>Stream Criteria</u>

The Administrator started her work on streams by trying to develop criteria based on models and field studies. But the effort did not succeed. The observed correlation between nutrients and results did not produce a consistent pattern. The Administrator came to doubt that this approach would yield reliable criteria.

So the Administrator took a different approach. The Administrator divided the state into five regions based on geography and, for each region, identified a representative sample of minimally-disturbed streams for which nitrogen and phosphorous data were available. She calculated annual geometric means for each nutrient for each stream and in turn for the sample set of streams. The rule sets nitrogen and phosphorous criteria at the 90th percentile for four of the regions and at the 75th percentile for the last; the difference turns on the parameters used to select the sample streams. The criteria include duration and frequency components: a stream is impaired only if the annual geometric mean for a nutrient exceeds the limit in more than one of any three consecutive years.

Each side criticizes the Administrator's implementation of this approach. Thus, for example, each side criticizes the Administrator's selection of sample streams. The environmental parties criticize the duration and frequency components. These are matters of scientific judgment on which the rule would survive arbitrary-or-capricious review.

But the state and industry parties point to a more fundamental problem—one that turns not on scientific judgment but on the substantive law and the requirement for an agency to provide a reasoned explanation of its action. The state and industry parties say the Administrator aimed at the wrong target.

Identifying the actual target at which the Administrator was aiming is difficult. The Administrator says that here, as with the rest of the rule, the goal was to translate Florida's existing narrative criterion: "nutrient concentrations of a body of water [must not] be altered so as to cause an imbalance in natural populations of aquatic flora or fauna." Fla. Admin. Code r. 62-302.530(47)(b). This was an appropriate goal. In order to pursue this goal, the right target was a criterion that would identify a *harmful* increase in a nutrient level—an increase that, in the language of Florida's narrative criterion, would create an "imbalance" in flora or fauna. This is the target the Administrator was shooting at in her initial approach using models and field studies.

But when she turned to the sample-set approach, the Administrator apparently changed the target, shooting not for a criterion that would identify a *harmful* increase in a nutrient level, but a criterion that would identify *any* increase in a nutrient level. As all parties seem to agree, *any* increase in nutrients causes a change in flora and fauna, but not every increase in nutrients causes a *harmful* change in flora and fauna. There is a substantial difference, then, between a criterion designed to identify a *harmful* increase in a nutrient level, on the one hand, and a criterion designed to identify *any* increase in a nutrient level, on the other hand.

The conclusion that the Administrator aimed at the wrong target draws support from three sources. First, the Administrator asserted at oral argument that the Florida narrative criterion applies to *any* change in flora and fauna and that Florida so interprets the criterion. That is incorrect. But if, in devising the stream criteria, the Administrator's understanding was the same as asserted at oral argument, that is, if the Administrator set out to translate the wrong thing, she aimed at the wrong target.

Second, as discussed in more detail later in this opinion, for a stream entering a lake that is in compliance with the lake criteria and for which a model has not been constructed, the Administrator set the downstream-protection criteria or DPVs at ambient conditions at the point where the stream enters the lake. The

use of unadjusted ambient conditions makes clear that at least for that purpose, the Administrator was shooting at a target intended to identify *any* change in nutrient levels, not just a *harmful* change. That this was the Administrator's target there—the only other part of the rule not based on modeling or field studies—suggests that this was also the Administrator's target for the stream criteria.

Third, and most important, the Administrator set the stream criteria based on naturally occurring ambient conditions—those that exist now, on average, in unimpaired streams—without building in an adjustment for increases in nutrients that are not harmful. Instead, a stream is deemed impaired—in four of the regions—if a nutrient level exceeds that of 90% of the sample set. This is the criterion even though the other 10% are apparently unimpaired at a higher nutrient level. The Administrator explained the 90% mark in terms that make sense if the target is a criterion that identifies *any* increase in nutrients and thus *any* change in flora and fauna: one can say with some confidence that a stream with a nutrient level that exceeds that of 90% of the sample set probably has suffered an increase in nutrients and a resulting change in flora and fauna. But if the target is a criterion that identifies a *harmful* increase in nutrients, there is an unexplained disconnect. The Administrator has not explained how the 90% mark correlates with a *harmful* increase in nutrients.

It may well be that there is a sufficient correlation. An experienced environmental scientist might be able to conclude, as a matter of sound scientific judgment, that above the 90th percentile, harmful change is likely. But a reviewing court cannot properly make its own analysis of an issue that the agency did not address. Nor can a court "supply a reasoned basis for the agency's action that the agency itself has not given." *Bowman Transp., Inc. v. Ark.-Best Freight Sys., Inc.*, 419 U.S. 281, 285-86 (1974). The stream criteria thus cannot be upheld as an appropriate means of identifying nutrient levels that will cause harmful effects.

To be sure, the Administrator was not required to aim for the same target as the state. Instead, the Administrator's job was to adopt a "revised or new standard" meeting the Clean Water Act's requirements. If the Administrator had concluded that nutrient criteria should be designed to block *any* change in flora or fauna, not just an "imbalance" as the state defines it, the conclusion would be subject to arbitrary-or-capricious review, but the fact that the Administrator disagreed with the state would not be fatal.

This does not, however, save the stream criteria. The Administrator did not purport to exercise her judgment in deciding that criteria should be designed to block *any* increase in flora and fauna. She purported instead only to defer to the state's judgment—and the state never concluded that *any* increase in flora and

fauna is harmful or that water-quality criteria should be designed on this basis. And even if the Administrator in fact concluded that criteria should be designed to block *any* increase in flora and fauna, the rule still would fall, because the Administrator did not adequately explain the decision. If there is a basis in sound science for disapproving any change in flora and fauna—and thus any increase in nutrients—the Administrator did not cite it.

The Administrator's adoption of the stream criteria, with no further explanation than given, was arbitrary or capricious.

4. Downstream-Protection Values

The rule includes provisions for downstream-protection criteria that the Administrator has referred to as "downstream-protection values" or "DPVs." The goal was to protect a water body—in this case a lake—from nutrient pollution introduced through upstream waters. DPVs are limits on nutrients—total phosphorus and total nitrogen—at a stream's point of entry into a lake, denominated the "pour point." If a nutrient level exceeds the criterion at the pour point, the entire upstream watershed is deemed impaired.

The rule does not set the actual DPVs for a given lake. Instead, the rule specifies the process for setting the DPVs. The first option is to set a lake's DPVs through a "scientifically defensible model" or based on an approved TMDL. If DPVs are not set on that basis, the "default" DPVs for a lake not in compliance

with the lake criteria—an impaired lake—are the same as the lake criteria. The default DPVs for a lake that *is* in compliance with the lake criteria—an unimpaired lake—are the ambient conditions at the pour point.

a. Having DPVs At All

The state and industry parties challenge the decision to enact DPVs at all. The state and industry parties say that DPVs are unprecedented, and they say DPVs are unnecessary because there are already criteria that govern streams; complying with those criteria, they say, should be enough. This order invalidates the stream criteria, temporarily leaving in place only the narrative criterion for streams. But even when numeric criteria take effect for streams, they will not supplant the usefulness of DPVs.

That DPVs are unprecedented of course does not mean they should not be adopted. A better mousetrap is by definition unprecedented, but it is an improvement nonetheless. Moreover, the concept of protecting downstream waters is *not* unprecedented. To the contrary, a preexisting rule has long required that in "designating uses of a water body and the appropriate criteria for those uses," a state—or the Administrator in its stead—"shall ensure that its water quality standards provide for the attainment and maintenance of the water quality standards of downstream waters." 40 C.F.R. § 131.10(b).

Nor do DPVs conflict with stream criteria. DPVs impose an additional requirement, not a conflicting one. The reason for imposing the additional requirement makes sense: if a stream is contributing to the impairment of a lake, the stream is part of the problem, whether or not it is meeting the separate criteria applicable to a stream that is not contributing to a lake's impairment.

The decision to adopt DPVs was not arbitrary or capricious.

b. The DPV Levels

The state and industry parties say that in establishing DPVs, the Administrator ignored factors other than stream inputs that contribute to a lake's nutrient levels. The state and industry parties thus say that DPVs take no account of such things as natural conditions, direct point-source discharges into a lake, and runoff. And they say DPVs take no account of the relative significance of a stream—whether it is a large or only small contributor to the lake and indeed whether the stream will make any real difference at all.

The answer for DPVs based on modeling or TMDLs is that models and TMDLs *do* take account of relevant factors. If such a DPV fails to take account of relevant factors *properly*, the DPV will be subject to challenge, but the possibility that an error will be made is not a basis for disapproving the rule.

For default DPVs for a lake that does not comply with the lake criteria—an impaired lake—the answer is that a small contribution to an impairment is still a

contribution. Someone once said that a person in a hole should stop digging. It is good advice, and it applies as well to a lake with excessive nutrients. It makes sense to stop putting in more water with excessive nutrients.

For default DPVs for an unimpaired lake, in contrast, the challenge is well founded. By setting the default DPVs equal to ambient conditions at the pour point, the rule in effect disapproves *any* change in nutrients, even a change that will have no harmful effect. The result is that upon an increase in a nutrient level at the pour point, an entire stream system is deemed impaired, even if the increase is to a level well below the lake or stream criterion, and even if the change has no harmful effect on the lake's flora or fauna. Here, as with the stream criteria, the Administrator shot at the wrong target, seeking to identify not just a harmful effect on downstream waters, but any change in nutrients at all. As with the stream criteria, this portion of the rule is arbitrary or capricious.

c. Canals

The South Florida Water Management District challenges the Administrator's decision to establish DPVs for canals entering lakes. The District notes, correctly, that a canal that merely transports water from one water body to another is not subject to effluent limitations; the canal does not increase the quantity of pollutants in the system as a whole. *See Friends of Everglades v. S. Fla. Water Mgmt. Dist.*, 570 F.3d 1210, 1227-28 (11th Cir. 2009).

This does not mean, though, that a canal is exempt from *water-quality criteria*. Effluent limitations and water-quality criteria are different constructs that serve different roles under the Clean Water Act. *See, e.g., Am. Paper Inst., Inc. v. EPA*, 996 F.2d 346, 350 (D.C. Cir. 1993) ("[W]ater quality standards by themselves have no effect on pollution; the rubber hits the road when the state-created standards are used as the basis for specific effluent limitations in NPDES permits."); *Bethlehem Steel Corp. v. EPA*, 538 F.2d 513, 515 (2d Cir. 1976) ("Thus, although water quality standards and effluent limitations are related . . . the two are entirely different concepts and the difference is at the heart of the 1972 Amendments.").

The Administrator has recognized the difference. In *Friends of Everglades*, the Administrator's position, like the Water Management District's, was that canals are not subject to effluent limitations. The Eleventh Circuit deferred to the Administrator's judgment. Here, though, the Administrator has adopted the equally reasonable view that canals *are* subject to *water-quality criteria*. The level of deference applied in *Friends of Everglades* supports the same result—upholding the Administrator's decision.

It bears noting, too, that exempting a canal from the DPV provision would have the effect of exempting not only the canal but also any upstream water that flows into the canal and thus indirectly into the lake. The District has suggested no

persuasive reason why a stream that causes nutrient pollution of a lake should be treated differently based on whether the stream's waters do or do not flow through a canal on the way to the lake.

In short, canals that the State of Florida has denominated as class III waters must meet the water-quality criteria that apply to class III waters. That is true for stream criteria, and it is true for DPVs. The Administrator's decision to apply water-quality criteria, including DPVs, to canals that are class III waters was not arbitrary or capricious.

5. Site-Specific Alternative Criteria

The Administrator recognized that specific conditions may make it appropriate to raise or lower the nutrient criteria for a specific water body or set of water bodies. The rule thus authorizes, and establishes a specific procedure for adopting, site-specific alternative criteria ("SSACs"). Any person, including the state, may submit an SSAC application to the EPA's Regional Administrator. The applicant bears the burden of demonstrating, including with appropriate supporting documentation, that the proposed SSAC is based on sound science and meets the requirements of the Clean Water Act and its implementing regulations. If the applicant is not the state, the applicant must give the state notice of the application, and the state may submit comments. After a public-comment period, the Regional Administrator may establish appropriate SSACs for the site.

The availability of SSACs is an important component of the rule. The state and industry parties correctly note that the availability of SSACs would not save general criteria not supported by sound science. But properly implemented, SSACs will blunt the force of many of the other criticisms of the rule. Thus, for example, the state and industry parties say that FDEP did much good work to establish TMDLs for many sites and that the decisions made in that process should not be overridden by general criteria that are not as sensitive to the actual conditions at a site. If indeed FDEP has accurately assessed a site's conditions and dealt with nutrient levels through the TMDL process, the work can be carried forward through the adoption of SSACs for the site.

Moreover, SSACs are not a one-way tool. They may raise as well as lower the criteria for a specific site. The SSAC provision thus may blunt the force of not only some of the state and industry parties' criticisms of the rule but also some of the environmental parties' criticisms.

Nonetheless, the environmental parties challenge the SSAC provision on the ground that it will allow broadly applicable changes in criteria without the safeguards of rulemaking. The answer is that nothing in the Clean Water Act or Administrative Procedures Act requires rulemaking for a decision of this kind affecting a specific site. Perhaps recognizing this, the environmental parties say that the rule would allow the adoption of an SSAC for a broad area—an entire

watershed, for example—and that a broad-enough SSAC would in effect amend the rule.

I assume without deciding that at some point an SSAC could apply to an area so broad that rulemaking would be required. Still, the possibility that the Regional Administrator will in fact adopt an SSAC that broad seems remote. It will be time enough to address the validity of such an SSAC when one is approved. Until then, the environmental parties' challenge to such an SSAC is not ripe for judicial review. *See, e.g.*, *Nat'l Park Hospitality Ass'n v. Dep't of Interior*, 538 U.S. 803, 807-08 (2003); *Abbott Laboratories v. Gardner*, 387 U.S. 136, 149 (1967).

In asserting the contrary, the environmental parties cite *EPA v. National Crushed Stone Ass'n*, 449 U.S. 64, 72 n.12 (1980). There the Court held ripe a challenge to a provision governing Federal Water Pollution Control Act variances, noting that EPA had taken a definitive position on the substantive issue before the Court. EPA had not yet applied the provision to a specific application for a variance, but it was clear that there would be applications and that the provision would be applied and would make a difference; the substantive issue before the Court was going to be presented, and soon. Under those circumstances, the substantive issue was ripe. Here, in contrast, the substantive issue of whether an SSAC is so broad that it requires rulemaking may not—indeed probably will not—

ever be presented at all. And while the Administrator has taken the definitive position that an SSAC can apply beyond a specific water body—a position that as set out above is unobjectionable—the Administrator has taken no definitive position on just how broad any actual SSAC should in fact be. The ripeness doctrine exists to prevent a court from being drawn into just such hypothetical issues as this.

The rule's SSAC provisions are not arbitrary or capricious.

C. The Citizen's Suit and the Administrator's Discretion

The Clean Water Act authorizes "any citizen" to sue "the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator." 33 U.S.C. § 1365(a)(2). The Power and Utility Associations challenge the necessity determination not only under the Administrative Procedures Act but also under this citizen's-suit provision.

The claim fails because the decision whether to make a necessity determination is "discretionary with the Administrator." *Id*. This conclusion is obvious from the Clean Water Act itself and is supported by the cases that address the issue. *See, e.g.*, *Nat'l Wildlife Fed'n v. Browner*, 127 F.3d 1126, 1131 (D.C. Cir. 1997) (dismissing a citizen's suit against the Administrator for lack of a nondiscretionary duty and noting that the Administrator's decision whether to

adopt a revised or new standard for a state is subject to review under the APA, not in a citizen's suit); *Nw. Envtl. Advocates v. EPA*, 268 F. Supp. 2d 1255, 1261 (D. Or. 2003) (characterizing as discretionary the Administrator's authority to determine whether a revised or new criterion is necessary). The Power and Utility Associations have cited no case to the contrary, and I am aware of none.

This conclusion also comports with the law of the circuit. Thus, for example, in *Preserve Endangered Areas of Cobb's History, Inc. v. U.S. Army Corps of Engineers*, 87 F.3d 1242, 1249-50 (11th Cir. 1996), the Eleventh Circuit upheld the dismissal of citizen's-suit claims challenging the Administrator's discretionary decision not to overrule the Army Corps of Engineers' issuance of a wetlands permit. Here, as there, the citizen's-suit challenge to the Administrator's discretionary decision cannot go forward.

The Power and Utility Associations assert, though, that the Administrator improperly exercised her discretion, making the necessity determination not on the merits but instead for the purpose of settling the earlier lawsuit. The Power and Utility Associations say the Administrator had a nondiscretionary duty to consider only proper factors, not improper ones.

This is nothing more than an abuse-of-discretion claim cast in other terms. It is an effort to avoid Congress's decision to authorize a citizen's suit only to enforce a nondiscretionary duty, not a discretionary one. Courts have repeatedly

rejected similar efforts. *See, e.g.*, *Maier v. EPA*, 114 F.3d 1032, 1039 n.12 (10th Cir. 1997) ("[T]he limited jurisdiction granted to the district court [to entertain a Clean Water Act citizen's suit] would be rendered boundless if an abuse of *discretion* were considered to be a 'failure to perform a *nondiscretionary* act.' " (citation omitted) (emphasis added by the court in *Maier*)); *Sun Enters., Ltd. v. Train*, 532 F.2d 280, 288 (2d Cir. 1976) (holding that a citizen's suit is unavailable when the plaintiff does not challenge the failure to perform a nondiscretionary duty, but instead challenges the manner in which a duty was performed); *Nat'l Wildlife Fed'n v. U.S. Army Corps of Eng'rs*, 404 F. Supp. 2d 1015, 1022 (M.D. Tenn. 2005); *Nat'l Wildlife Fed'n v. Browner*, No. 95-1811 (JHG), 1996 WL 601451, at *5 (D.D.C. Oct. 11, 1996) (concluding the discretionary nature of a necessity determination "places it beyond the reach of the citizen suit provisions" of the Clean Water Act), *aff'd*, 127 F.3d 1126 (D.C. Cir. 1997).

In asserting the contrary, the Power and Utility Associations cite *RITE Research Improves the Environment, Inc. v. Costle*, 650 F.2d 1312 (5th Cir. 1981). In that rather unique case, the Administrator refused even to consider the merits of a grant application, *explicitly* resting the decision on a geographic limitation that had no support in the statute and instead was precisely contrary to a recent statutory amendment that Congress adopted to allow projects of this very kind to proceed. Under those extraordinary circumstances, the court allowed a citizen's-

suit challenge to the Administrator's action. The case has no application here, where the Administrator did not explicitly rest her decision on an improper factor; to the contrary, the Administrator said she considered—and the record makes clear she *did* consider—factors properly within the scope of her discretion under the statute. The challengers in *RITE* said the explanation given by the Administrator violated the statute. The challengers here, in contrast, do not say the Administrator's explanation violated the statute; they say that it was not the true explanation and that instead the Administrator made the decision for a secret, unacknowledged reason. They say the secret reason violated the statute. Nothing in *RITE* authorizes a claim of this kind. And allowing such a claim would effectively repeal the statute's ban on a challenge to a decision that is discretionary with the Administrator. Rare or nonexistent would be a case in which an artful pleader could not assert that the Administrator actually considered factors other than those she explicitly identified.

Finally, the Power and Utility Associations say that if the statute indeed makes a decision of this kind discretionary with the Administrator, then the statute violates the constitutional ban on unconstrained delegation of Congress's legislative authority. The contention is plainly wrong. Congress may delegate authority so long as it provides an "intelligible principle" governing the exercise of the delegated authority. *See Mistretta v. United States*, 488 U.S. 361, 372 (1989)

(quoting *J.W. Hampton, Jr., & Co. v. United States*, 276 U.S. 394, 409 (1928)). The Clean Water Act provision governing a necessity determination easily meets this standard. It allows the Administrator to make a determination only when "a revised or new [water-quality] standard is necessary to meet the requirements of" the Clean Water Act. 33 U.S.C. §1313(c)(4)(B). This is an "intelligible principle." *See, e.g., Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 474-76 (2001) (upholding a statute requiring the Administrator to set air-quality standards at the level that is "requisite"); *Touby v. United States*, 500 U.S. 160, 166-67 (1991) (upholding a statute authorizing action when "necessary to avoid an imminent hazard to public safety").

In asserting the contrary, the Power and Utility Associations point to the Administrator's assertion in this litigation that her authority is "unfettered." *See, e.g.*, Case No. 4:09cv428, ECF No. 13 at 15; Case No. 4:09cv436, ECF No. 11 at 15. By this the Administrator plainly did not mean that her authority is unconstrained by the intelligible principle under which Congress delegated the authority. And in any event, the constitutionality of a congressional delegation of authority is determined by the terms of the statute that makes the delegation, not by the adjectives that an agency's lawyers use in a legal brief. The assertion that the statute makes an unconstitutional delegation of congressional authority is wrong.

In sum, the Power and Utility Associations may challenge the necessity determination under the APA, and indeed they have done so. They may not, however, challenge the determination under the statute's citizen's-suit provision, which applies only to nondiscretionary duties. And the Administrator's authority, while discretionary, is constrained by an intelligible principle and thus does not run afoul of the nondelegation doctrine.

D. Equal Protection

The Power and Utility Associations assert that the necessity determination and resulting rule violate the Fifth Amendment's equal-protection component because they treat Florida and Florida residents differently from similarly situated states and their similarly situated citizens. The claim fails on the law and on the facts.

First, it is not at all clear that a decision by the federal government to adopt different rules for different states—even if the states are indeed similarly situated—is an equal-protection violation. A ruling that treating similarly situated states differently *is* an equal-protection violation would call into question a wide array of statutes and rules that have long been enforced without controversy. Indeed, the Power and Utility Associations themselves—and all the other state and industry parties—seem to *insist* on different treatment in different states; they say the Clean Water Act criteria should be those adopted by the State of Florida, not

the Administrator. Almost by definition, if each state adopts its own standards, the standards will be different—and similarly situated citizens of different states will be treated differently. But under the Power and Utility Associations' equal-protection theory, allowing each state to adopt its own water-quality standards—and enforcing the standards as a matter of federal law—would be unconstitutional. This is plainly not the law. [19]

Moreover, to survive equal-protection review, government action of this kind need only have a rational basis. The question—at most—is whether the Administrator could rationally choose to make a necessity determination and adopt this rule for Florida while not taking the same action for other states. As set out in section XIII.A. above, Florida's climate, geography, waters, and demographics make the nutrient-pollution issue different in Florida than in any other state. *See* 2009 Determination Letter at 7 (AR010963). As also set out above, the Administrator, like other units of government, need not take on all phases of a problem at once; the Administrator may instead proceed incrementally, starting in one state before proceeding to others. *Cf. Beach Commc'ns, Inc.*, 508 U.S. at 316;

[19] There must be hundreds if not thousands of instances where federal law treats similarly situated citizens of different states differently. Examples can be found in tax and regulatory statutes, spending statutes, criminal statutes, and others. Just one minor example from a case that went to trial in this court almost simultaneously with the submission of the Power and Utility Associations' equal-protection theory: under 18 U.S.C. § 2422, the very same sexual conduct may be a federal crime in one state but not another. This is not unconstitutional.

Williamson, 348 U.S. at 489. Finally, even if the Administrator needed a further rational basis for starting in Florida rather than elsewhere, she had one: Florida has far more available nutrient data than any other state, making it reasonable for the Administrator to start in Florida.

The necessity determination and rule do not violate the Fifth Amendment's equal-protection component.

E. The Regulatory Flexibility Act

The Regulatory Flexibility Act ("RFA") requires an agency promulgating a rule that will have a "significant economic impact on a substantial number of small entities" to "prepare and make available for public comment an initial regulatory flexibility analysis . . . [that] describe[s] the impact of the proposed rule" on those entities, and to publish a "final regulatory analysis" with the final rule. *See* 5 U.S.C. §§ 603, 604, & 605(b). A small entity may be a small for-profit or not-for-profit enterprise or local government. *See id.* § 601(6).

But an agency need not make an initial or final regulatory-flexibility analysis if the agency "certifies that the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities." *Id.* § 605(b). A rule will have a "significant impact" on a small entity only when the rule will *directly apply* to the small entity. *See Mid-Tex Elec. Coop. v. FERC*, 773 F.2d 327, 342-43 (D.C. Cir. 1985) (citing 5 U.S.C. § 603(b)(3) & (b)(4)).

The Administrator certified that the numeric nutrient rule will not have a significant economic impact on a substantial number of small entities. She therefore did not issue an initial or final regulatory-flexibility analysis. Some of the state and industry parties say that this violated the RFA and that implementation of the rule should be stayed until the Administrator makes the required analysis.

The Administrator's certification is unassailable. The rule and its numeric nutrient criteria only *indirectly* impact small entities. The *direct* effect is on the State of Florida. *See* 75 Fed. Reg. at 75,803 (AR086807). It will fall to the state to implement the criteria. The state may do so, for example, through limits in National Pollutant Discharge Elimination System ("NPDES") permits, and the limits may exactly match the criteria. But nothing mandates that result. When, as here, a rule's only effect on small entities will be indirect, an agency may properly make a no-impact certification. *See, e.g., Michigan v. EPA*, 213 F.3d 663, 688-89 (D.C. Cir. 2000) (per curiam) (upholding a no-impact certification because the Administrator's requirement that a state revise its state implementation plan to reduce nitrous-oxide emissions did not directly regulate small entities; it was left to the state to determine which entities it would regulate in order to obtain the required reduction).

This conclusion makes it unnecessary to reach the Administrator's alternative contention that even if her certification was improper, the rule would still be valid, because she performed the very analysis the RFA would have required. *See, e.g., Envtl. Def. Ctr., Inc. v. EPA*, 344 F.3d 832, 879 (9th Cir. 2003) ("Any hypothetical noncompliance [with the RFA] would thus have been harmless, since the available remedy would simply require performance of the economic assessments that EPA actually made.")

Conclusion

The Administrator's determination that Florida's narrative nutrient criterion is inadequate and that a revised or new standard is necessary for Florida waters to meet the Clean Water Act's requirements is not arbitrary or capricious. The Administrator's rule setting numeric nutrient criteria also is not arbitrary or capricious except in two respects. The stream criteria—at least without a further explanation—are arbitrary or capricious. And so are the default downstream-protection values for unimpaired lakes. For these reasons,

IT IS ORDERED:

1. It is declared that the Administrator validly determined that revised or new standards for nutrients are necessary for Florida's waters to meet the Clean Water Act requirements.

2. It is declared that the Administrator's rule setting numeric nutrient criteria, to be codified at 40 C.F.R. § 131.43, is valid in all respects except these: the stream criteria and the default downstream-protection criteria for unimpaired lakes are invalid. Each valid provision of the rule will take effect on March 6, 2012—or an extended date approved by the court under section X of the consent decree—unless by that date the provision has been superseded by a Florida rule that the Administrator has approved.

3. The consent decree remains in effect and is modified to include these additional requirements. By May 21, 2012, the Administrator must sign for publication a proposed rule, or sign for publication a final rule, that sets numeric nutrient criteria for Florida streams that are not in the South Florida region. By May 21, 2012, the Administrator must sign for publication a proposed rule, or sign for publication a final rule, that sets default downstream-protection criteria for unimpaired lakes, unless by that date the Administrator has filed a notice that she has decided not to propose or adopt such criteria, together with an explanation of the decision. The May 21 deadline may be extended only as provided in section X of the consent decree.

4. The summary-judgment motions, ECF Nos. 272, 277, 278, 280, 282, 283, 284, 285, 299, and 303, are granted in part and denied in part, as set out in this order.

5. The Administrator's motion for judgment on the pleadings, ECF No. 214, is granted.

6. In each of these cases, the clerk must enter a Federal Rule of Civil Procedure 58 final judgment based on this order.

7. The court retains jurisdiction to enforce the consent decree, as modified, and to tax costs and attorney's fees. The deadline for a motion to tax costs, *see* Local Rule 54.2, or a motion for a determination of entitlement to a fee award, *see* Local Rule 54.1, is extended to 30 days after (a) the deadline for filing a notice of appeal from the judgment on the merits, if no appeal is filed in any case, or (b) if an appeal is filed, the date of issuance of the last mandate of the United States Court of Appeals for the Eleventh Circuit affirming the judgment or dismissing an appeal. No motion to tax costs or for the determination of entitlement to a fee award may be filed prior to the resolution all appeals (or, if no notice of appeal is filed, prior to the expiration of the deadline for filing a notice of appeal).

SO ORDERED on February 18, 2012.

s/Robert L. Hinkle
United States District Judge