

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

FLORIDA WILDLIFE
FEDERATION, INC., et al.,

Plaintiffs,

vs.

CONSOLIDATED CASE
NO. 4:08-cv-324-RH-WCS

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

Defendants.

BRIEF OF AMICUS CURIAE
THE NATIONAL ASSOCIATION OF CLEAN WATER AGENCIES

The National Association of Clean Water Agencies (“NACWA” or “the Association”) submits this *amicus brief* in connection with the Court’s consideration of the parties’ motions for summary judgment. The U.S. Environmental Protection Agency’s (“EPA”) action in promulgating numeric nutrient criteria for Florida represents an unauthorized and otherwise material departure from the requirements of sections 303 and 304 of the Clean Water Act (“CWA” or “the Act”). 33 U.S.C. §§ 1313, 1314. EPA has usurped the State’s primary role under the CWA to establish water quality standards consistent with federal guidance but with an emphasis on local considerations and credible, site-specific science. Moreover, EPA’s numeric nutrient criteria rule fails to apply the cause and effect requirement of section 304 of the Act. The rule is also scientifically indefensible, and contradicts the Agency’s longstanding policies regarding the development of nutrient water quality requirements. The inappropriate legal, technical and policy bases underlying EPA’s rule will have significant implications for

NACWA's members, including the potential for hundreds of millions of dollars in new infrastructure requirements for the Association's members in Florida that may not be effective in improving water quality due to the fundamental flaws in EPA's approach. For the same reasons, EPA's rule will establish a negative precedent for NACWA's members nationally by suggesting that the use of numeric values is more important than accurately characterizing the linkage between nutrients and water quality impacts. NACWA urges the Court to find that EPA's rule violates and is otherwise inconsistent with sections 303 and 304 of the CWA.

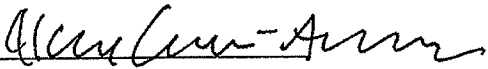
CORPORATE DISCLOSURE STATEMENT

Pursuant to Fed. R. App. P. 26.1 and 29(c), *amicus* National Association of Clean Water Agencies ("NACWA"), an incorporated, not-for-profit association, makes the following disclosure:

1. NACWA is not a publicly held corporation or other publicly held entity.
2. NACWA has no parent corporations.
3. No publicly held corporation or other publicly held entity owns 10% or more of NACWA.

Dated: June 15, 2011

National Association of Clean Water Agencies

By: 

Name Nathan Gardner-Andrews

Title General Counsel

**STATEMENT PURSUANT TO FEDERAL RULE OF APPELLATE
PROCEDURE 29(C)(5)**

The *amicus* hereby states that (A) no party's counsel authored this brief in whole or in part; (B) no party or party's counsel contributed money that was intended to fund preparing or submitting this brief; and (C) no person other than the *amicus curiae* contributed money that was intended to fund preparing or submitting the brief.

Dated: June 15, 2011

National Association of Clean Water Agencies

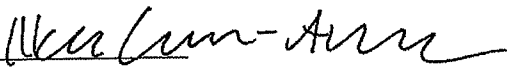
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INTERESTS OF THE AMICUS CURIAE

The National Association of Clean Water Agencies (“NACWA”) is a national trade organization representing the interests of the nation’s publicly owned wastewater and stormwater utilities with nearly 300 public utility members nationwide, including 12 utility members in Florida. NACWA and its members have a strong interest in this case because of the national implications of the U.S. Environmental Protection Agency’s (“EPA”) actions in (i) asserting the need for federally mandated numeric nutrient criteria for Florida’s waters, (ii) establishing numeric nutrient criteria that neglect a core Clean Water Act (“CWA” or “the Act”) requirement, and (iii) promulgating numeric nutrient criteria using controversial scientific and regulatory approaches that contradict the Agency’s guidance as well as peer-reviewed science. NACWA and its members are vitally interested in the proper resolution of this matter because the outcome here will impact how EPA implements nutrient water quality requirements nationwide. NACWA members also have extensive experience and expertise applying EPA’s longstanding nutrients policies and the scientific principles that apply to nutrients to inform the Court’s consideration of the issues in this case. And, significantly, NACWA members in Florida and elsewhere have invested billions of dollars in infrastructure and related measures designed to comply with EPA’s past interpretations of nutrient water quality requirements under the CWA.

The new, hastily crafted, and lightly considered direction by EPA reflected in the Florida rule threatens the public interest as it will force NACWA members in Florida to construct potentially hundreds of millions of dollars more in additional, unfunded measures, with little regard for actual water quality improvement. If allowed to stand, EPA’s rule also sets a concerning precedent that could similarly adversely impact NACWA members in other parts of the nation as well. Because EPA is dictating such a fundamental change in approach that is

arbitrary and indefensible, NACWA and its members have an obligation to protect the public interest in a rational and affordable approach to water quality under the CWA.

NACWA's strong interest in rational, scientifically appropriate approaches to addressing nutrients is reflected in its March 2011 summary of a Nutrients Summit held in September 2010. Nutrient pollution is complex both in its creation, which is in part a natural process inherent in the natural environment, and in evaluating ways to reduce harmful levels of nutrients. In recognition of this complexity, and following extensive legal, technical and policy deliberations at this Summit, NACWA identified three principles that should guide the development of numeric nutrient criteria to result in outcomes that are consistent with the law, science, and thoughtful policy choices. These principles are as follows:

- Numeric nutrient criteria must be technically and scientifically defensible, developed to reflect the full ranges of biological, chemical and physical properties of a specific water body, and must protect designated uses;
- Numeric nutrient criteria must be based on a demonstrated and quantified cause and effect relationship and appropriately qualified by the uncertainty in these relationships; and
- Numeric nutrient criteria should not be used as the basis for imposing nutrient controls unless a nutrient caused biological impact has been confirmed or a potential for impact can be demonstrated through a nutrient-specific, technically and scientifically defensible, reasonable potential evaluation.

Notably, EPA's approach in Florida fails all three principles. Thus, NACWA seeks to provide the Court with an important and informed national perspective regarding the key problems with EPA's approach. NACWA urges the Court to require EPA to adhere to the clear

State and federal roles established by the CWA rather than stretching its otherwise legitimate authority under section 303 to effectuate a mere policy preference. Holding the Agency to the CWA's legal and scientific standards will result in the careful, principled and step-wise approach to the development of numeric nutrient criteria that EPA's rule fails to deliver.

SUMMARY OF THE ARGUMENT

Just as a court is without authority to substitute its policy preferences for those of an agency during review under the Administrative Procedures Act, EPA here is without authority to substitute its policy preference for numeric nutrient water quality criteria in place of narrative criteria, over those of a State where the State's water quality standards are consistent with the CWA. It is just such a substitution on which EPA based its determination under section 303 that Florida's water quality standards must be overridden by federally issued standards. As a result, EPA's determination and the numeric nutrient criteria that flow from it constitute an *ultra vires* act that the CWA prohibits. Moreover, EPA not only went outside the limits of its supervisory role under section 303, but failed to comply with the cause and effect requirement under section 304 and ignored both longstanding guidance on nutrients and the best science available, including the direct advice of its own Science Advisory Board. The result is that EPA's Florida rule is both unauthorized and arbitrary. The Court should not allow EPA's determination for Florida or the rule that flowed from it to stand.

ARGUMENT

I. THE CLEAN WATER ACT PLACES PRIMACY FOR ESTABLISHING WATER QUALITY STANDARDS ON STATES AND EPA'S ACTIONS TO ESTABLISH NUMERIC NUTRIENT CRITERIA FOR FLORIDA ARE FUNDAMENTALLY INCONSISTENT WITH THE LIMITED ROLE CONGRESS DEFINED FOR FEDERAL INVOLVEMENT IN ESTABLISHING WATER QUALITY STANDARDS

A. Section 303 designates States as the lead for developing water quality standards and limits EPA's role to a review function to ensure State standards are "consistent with" the requirements of the Clean Water Act

Section 303 of the CWA establishes requirements related to the development and periodic review of water quality standards¹ and designates the States as primary authorities in creating and enforcing water quality standards. 33 U.S.C. § 1313. Each State must adopt water quality standards² for all waters of that State and review them at least every three years. *Id.* at §§ 1313(a)(2) and (3), 1313(c)(1) and (2). EPA's role in this process is limited to approving or disapproving standards based solely on whether a State's efforts comply with the Act. *Id.* at § 1313(c)(3). "[S]tates have the primary role, under § 303 of the CWA . . . , in establishing water quality standards. EPA's sole function, in this respect, is to review those standards for approval." *Defenders of Wildlife v. EPA*, 415 F.3d 1121, 1124 (10th Cir. 2005). Accordingly, "EPA's role in formulating these water quality standards is limited." *Id.*

¹ The EPA defines water quality standards as "legally binding norms that describe the desired ambient condition (i.e., level of protection) for a waterbody." Water Quality Standards - Authorities, Definitions and Considerations, <http://yosemite.epa.gov/r10/water.nsf/Water+Quality+Standards/Whats-a-WQS/> (last visited June 14, 2011). See 40 C.F.R. § 131.6, which establishes the minimum requirements for all State water quality standards submitted to the EPA for review.

² In developing water quality standards, States are permitted to describe water quality criteria in numerical (quantitative, using precise measurements) or narrative (qualitative) forms. 40 C.F.R. § 131.11(b)(1)-(2).

If EPA disapproves a State's standard, it must provide the State with an opportunity to either amend or justify the standard, a requirement that stems directly from the State's primacy over water quality standards. *See Natural Res. Def. Council v. EPA*, 806 F. Supp. 1263 (E.D. Va. 1992), *aff'd* 16 F.3d 1395 (4th Cir. 1993) (holding that EPA's approval of a State standard that was less stringent than EPA's recommended standard was not arbitrary and capricious where the State's standard was based upon scientifically-defensible assumptions). As one court has stated, "Congress clearly intended the EPA to have *a limited, non-rulemaking role* in the establishment of water quality standards by States and Tribes" *City of Albuquerque v. Browner*, 97 F.3d 415, 425 (10th Cir. 1996) (emphasis added) (further finding that "[n]othing in the Act evidences any intent that EPA involve itself in the details or substance of the process [of establishing water quality standards], except only to make sure that the States have complied with the Act.").

Congress placed States in the lead for establishing water quality standards and strictly limited EPA's role to supervising State compliance with section 303's requirements, for good reasons. In particular, this structure is an explicit recognition that water quality is a localized concern that is impacted not only by site-specific conditions such as geography, temperature, and land use, but also by point source discharges subject to regulation under the federal CWA as well as sources of pollution that are not subject to federal regulation under the Act, such as non-point sources. Florida's comprehensive water quality programs for controlling and reducing nutrient pollution illustrates why this objective was and is important; Florida's programs include a number of elements that are either legally unavailable to EPA, such as regulatory control of non-point sources, or reflect innovations by the State that go beyond EPA's requirements in a manner that Congress sought to encourage, such as Florida's unique programs for controlling nutrient-

contributing operations and land uses including confined animal feeding lots, septic systems, storm water, fertilizers, and land acquisition. *See* Letter from Herschel Vinyard, Secretary, Fla. DEP, to Lisa Jackson, Administrator, EPA, 11-23 (Apr. 22, 2011) (“DEP Petition”).

The historical purpose behind assigning States primacy under section 303 was also based on Congress’ concern that “federal promulgation [of water quality standards] . . . ‘would place in the hands of a single Federal official the power to establish zoning measures over [sic] to control the use of land within watershed areas’ throughout the nation.” *Miss. Comm’n. on Natural Res. v. Costle*, 625 F.2d 1269, 1272 (5th Cir. 1980) (citations omitted). As the Fifth Circuit noted, “[t]he varied topographies and climates in the country call for varied water quality solutions.” *Id.* at 1275. Thus, if a State’s water quality standard has been found by EPA to be “consistent with” the Clean Water Act’s requirements, then EPA’s role is completed until the next triennial review. *See id.* at 1276. What the Fifth Circuit warned against, and what Congress sought to avoid, has now taken place with EPA’s federalization of numeric nutrient criteria for Florida.

B. EPA’s actions usurp Florida’s primary role in establishing numeric nutrient criteria and are based on impermissible grounds, because Florida has not failed to establish nutrient standards that satisfy Clean Water Act requirements

While the federal government has always had a role in approving State-generated water quality standards, Congress never intended for EPA to use section 303 to usurp State authority to assess the quality and needs of its territorial waters. By asserting such authority in Florida, EPA is contravening its longstanding interpretation of section 303, as well as congressional intent.

It is undisputed that EPA has found Florida’s narrative criteria for nutrients to be in compliance with CWA requirements, and EPA has made no subsequent finding that these

standards no longer comply with the CWA.³ In addition, EPA has commended Florida's efforts in implementing its EPA-approved narrative criteria, cataloging the numerous and diverse approaches employed to combat nutrient pollution. *See* Letter from Benjamin Grumbles, Assistant Administrator, EPA, to Michael Sole, Secretary, Florida Department of Environmental Protection ("DEP"), 1-3 (Jan. 14, 2009) ("2009 Necessity Determination") (describing Florida's "widely recognized efforts" in implementing "some of the most progressive nutrient management strategies in the Nation"). By EPA's own admission, "Florida is one of the few states that has in place a comprehensive framework of accountability that applies to both point and nonpoint sources and provides the enforceable authority to address nutrient reductions in impaired waters based upon the establishment of site-specific total maximum daily loads []." 75 Fed. Reg. 4174, 4175 (Jan. 26, 2010). This "framework" includes EPA-approved narrative nutrient criterion for phosphorous and nitrogen. *See* FLA. ADMIN. CODE ANN. r. 62-302.530(47)(b). For these and other reasons, Florida recently petitioned EPA to revoke its section 303(c)(4) determination and the numeric nutrient criteria rule promulgated pursuant to that determination. *See* DEP Petition. EPA recently responded to DEP's Petition, purporting to provide an interim response but in essence denying the Petition, thereby leaving Florida no

³ EPA most recently approved Florida's narrative water quality criteria for nutrients, applicable to all state surface waters, in 2008, stating that "all portions [with one unrelated exception] of the 2006 Chapter 62-302 Surface Water Quality Standards are in effect for Clean Water Act purposes." *See* 2006 Chapter 62-302 Surface Water Quality Standards of the Florida Administrative Code (May 28, 2008); FLA. ADMIN. CODE ANN. r. 62-302.530(47)(b). EPA has also approved state generated pollutant-specific and indicator criteria developed from Florida's broader narrative criteria, demonstrating the agency's continued support for Florida's chosen method of addressing nutrient pollution. *See* FLA. ADMIN. CODE ANN. r. 62-302.540(4)(a) (establishing a numeric criterion for phosphorous); FLA. ADMIN. CODE ANN. r. 62-302.530(67) and (69) (establishing transparency and turbidity criteria, which, as surrogates for water clarity, are indicators for measuring biological response in surface water).

choice but to remedy EPA's unauthorized actions in this litigation. *See* EPA Letter to Herschel T. Vinyard Jr., Secretary, Florida Department of Environmental Protection (undated).

Despite these facts, and contrary to decades of Agency policy, EPA chose to abruptly discard Florida's carefully crafted nutrient control measures and promulgate its own standards when sued by an environmental group. In doing so, EPA purportedly acted under the authority of section 303(c)(4)(B).⁴ In unilaterally discarding Florida's scientifically-based and CWA-compliant water quality standards and seeking to impose federal numeric nutrient criteria, EPA has acted outside the scope of its authority under section 303. This is both an *ultra vires* action contrary to the CWA and also one that has the effect of eradicating the carefully crafted balance between State and federal authority that section 303 embodies.

Consistent with the limited role EPA is to play in the development of water quality standards, the Act places on the Agency a high burden of showing that federal action is "necessary to meet the requirements of" the Clean Water Act. EPA guidance explicitly recognizes this limitation on its authority to act under section 303(c)(4)(B), describing such action as warranted only where "a State, or States, [] *failed to conduct a triennial review and submit new or revised standards to EPA for review so long as the Administrator determines new standards were required.*" EPA Water Quality Handbook, Ch. 6, Section 6.3, *available at* <http://water.epa.gov/scitech/swguidance/standards/handbook/chapter06.cfm>.

Here, EPA has not demonstrated that federal development of numeric nutrient criteria for Florida was necessary for the State to comply with the CWA. Instead, EPA's actions

⁴ Notably, EPA did not retroactively disapprove of Florida's narrative criteria pursuant to section 303(c)(4)(A), thereby triggering the procedures set forth in 40 C.F.R. §§ 131.20-22 (providing for EPA's periodic review of state standards and establishing deadlines for states to amend the standards if deemed insufficient by the agency).

demonstrate only that federal development of numeric nutrient criteria for Florida was motivated by the Agency's settlement of a lawsuit with an environmental group. *See* Consent Decree, Dec. 30, 2009, ECF No. 153. Compliance with a judicially imposed duty based on a settlement agreement between litigants is not a requirement of the Clean Water Act, and does not constitute a permissible basis for action under section 303(c). *See Natural Res. Def. Council v. EPA*, 770 F. Supp. 1093, 1100 (E.D. Va. 1991). As a result, EPA cannot invoke section 303(c)(4) because the Agency made its determination to prompt the settlement of a lawsuit. Instead, EPA had to have determined that Florida's approved standards no longer complied with the Act, and EPA made no such finding. For this reason alone, EPA lacks the legal authority to develop federal numeric nutrient criteria for Florida.

EPA's explanation of its action under section 303(c)(4)(B) is telling. EPA stated that it was invoking section 303(c)(4)(B) to hasten the establishment of numeric nutrient water quality standards for Florida so that there would be "faster and more effective progress in water quality protection with regard to nutrients." 2009 Necessity Determination at 8. A desire to expedite intangible "progress" in water quality protection may be laudable policy, but a new policy preference is an impermissible basis for federal action under section 303. Simply stated, the Agency's action seeking to expedite development of numeric nutrient criteria for Florida lacks the necessary legal foundation because, as EPA has previously and repeatedly found, Florida's nutrient water quality standards are consistent with the CWA.

Moreover, the Agency's explanation for its action in Florida echoes the very similar rationale that EPA has articulated *on a national basis* for States to work with EPA to find ways to expedite the development of numeric nutrient criteria. EPA's own historic and recent statements in this regard demonstrate that *the Agency's action in Florida is based on a*

generalized concern that progress on control of nutrient pollution nationwide is not occurring fast enough to satisfy EPA. While this generalized policy concern may be legitimate, it does not create grounds under section 303 for EPA to federalize a State's otherwise compliant nutrient water quality approach. Simply put, section 303 does not authorize EPA to step in and federalize State standards because it is dissatisfied with the pace of water quality improvement within a State. As EPA has recognized, "[o]ver the past ten years the States have adopted numeric nutrient WQS for a range of waters *according to their own priorities and needs.*" EPA, State Adoption of Numeric Nutrient Criteria 1998-2008, Report Summary, *available at* <http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/strategy/status.cfm>.

EPA's first statement of its generalized, national concern regarding the Agency's desire for progress in establishing numeric nutrient criteria appeared in its June 1998 national strategy document. *See* EPA, National Strategy for the Development of Regional Nutrient Criteria (June 25, 1998), *available at* http://water.epa.gov/scitech/swguidance/standards/upload/2009_01_21_criteria_nutrient_strategy_nutstra3.pdf. In that guidance document, EPA articulated its concern about "progress" by explaining that a primary goal in developing the National Strategy was to "[i]mprov[e] the basis for assessing nutrient overenrichment problems [and to] provide critical support for expanded efforts to control nutrient levels in waters and meet the Nation's clean water goals." *Id.* at 5. EPA signaled it would require States and Tribes to demonstrate their "reasonable progress toward developing numerical nutrient standards" when submitting nutrient water quality standards for Agency review. *Id.* at 10.

Consistent with this theme, in a 2007 memorandum EPA updated its policy on the development by States of numeric water quality standards for nutrients, indicating the Agency's

view that, since 1998, “overall progress has been uneven.” *See* Memorandum from Benjamin Grumbles, Assistant Administrator, EPA on Nutrient Pollution and Numeric Water Quality Standards, 1 (May 25, 2007) (“2007 Memo”). EPA urged States and Tribes together with EPA to “take bold steps, relying on a combination of science, innovation and collaboration.” *Id.*

Although the CWA and EPA’s implementing regulations clearly allow States to develop and implement numeric or narrative water quality standards, *see* 40 C.F.R. §§ 131.3(b), 131.11(b), EPA’s 2007 Memo advocated the development of numeric nutrient water quality standards on a broad scale, citing among the “key advantages” of such an approach the following: “easier and faster development of TMDLs;” development of “quantitative targets to support [water quality] trading programs;” “easier to write protective NPDES permits;” “increased effectiveness in evaluating success of nutrient runoff minimization programs;” and “measurable, objective water quality baselines against which to measure environmental progress.” 2007 Memo at 2. The emphasis on administrative convenience and on providing tools to support programs not required by the Act (e.g., water quality trading) or to measure “progress” on reducing nutrient pollution, underscores that none of EPA’s generalized concerns were based on any failure by any States or Tribes, or for that matter, EPA itself, to comply with the Clean Water Act.

The 2007 Memo also urged States and Tribes to “accelerate their efforts and give priority to adopting numeric nutrient standards or numeric translators for narrative standards for all waters . . . that contribute nutrient loadings to our waterways.” *Id.* Citing progress in the Agency’s development of technical nutrients guidance pursuant to section 304 of the Act, EPA nevertheless concluded that “*we need to move more quickly and more comprehensively* in order to meet the growing challenges from increasing population, expanding and more intensive agricultural activities, and spreading urbanization.” *Id.* at 3 (emphasis added).

Importantly, and consistent with its limited role under section 303, EPA also articulated in the 2007 Memo that its role in the development of numeric nutrient criteria would be to provide technical and policy assistance to States that were close to adopting numeric criteria, provide other kinds of support (sampling/monitoring, training, data/statistical analysis, and modeling assistance) to States less close to adopting numeric nutrient criteria, continue to develop a science-based foundation for developing nutrient criteria in estuaries, wetlands and large rivers, and communicate data and information on nutrient pollution. *Id.* at 3-4. *At no point in the 2007 Memo did EPA find or suggest that the lack of progress by States and Tribes in developing numeric nutrient criteria constituted noncompliance with the Act that would justify federalization of numeric nutrient criteria for one or more States or Tribes.*

Echoing these themes, EPA's January 2009 determination for Florida – the underlying basis for the challenged rule – does not allege or conclude that Florida's nutrient approach was deficient under the Act. *See* 2009 Necessity Determination. Instead, EPA's determination letter articulates a series of preferences, or policy choices, that the Agency sought to impose on Florida via a purported section 303(c)(4) determination. These include EPA's *opinion* that Florida's approved narrative nutrient criteria are “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,” EPA's *opinion* that “achieving faster and more effective progress in water quality protection with regard to nutrients is critical in Florida,” and EPA's *opinion* that Florida's “highly technical site-specific analyses” should be replaced by numeric nutrient criteria. *Id.* at 8.⁵ In short, EPA's January 2009 determination letter for Florida

⁵ EPA's pronouncements fail to acknowledge that both narrative and numeric water quality approaches are acceptable under the CWA and EPA's implementing regulations, and indeed, that
(Continued ...)

contains a series of opinions that constitute nothing more than a policy preference that is fundamentally inconsistent with EPA's prior approval of Florida's nutrient criteria and decades of Agency guidance. This is an insufficient basis for EPA to act under section 303(c)(4)(B) to federalize a State's nutrients standards.

EPA's most recent pronouncements reinforce that the Agency's action in Florida is driven not by disapproval of what Florida is and has been doing to address nutrient water quality issues, but rather, by the Agency's generalized, national concern that progress on reducing nutrient pollution is simply too slow. In March 2011, EPA issued a memorandum to its Regional Administrators outlining a national framework for States in partnership with EPA to achieve nutrient reductions by addressing sources of phosphorus and nitrogen pollution. *See* Memorandum from Nancy K. Stoner, Acting Assistant Administrator, EPA, on Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions (Mar. 16, 2011) ("Framework Memo"). The Framework Memo highlights EPA's commitment to "make greater progress in accelerating the reduction of nitrogen and phosphorus loadings to our nation's waters" and "urges the Regions to place new emphasis on working with States to achieve near-term reductions in nutrient loadings." *Id.* at 1.

On the one hand, the Framework Memo reinforces the lead role that States are to have in establishing water quality standards and the limited, supporting role that the CWA dictates for EPA, noting that it should be the "states [that] develop numeric nutrient criteria" and "EPA will

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narrative nutrient criteria are the method most often used by States to comply with section 303, a strategy and policy choice that EPA has deemed compliant with the Act for decades.

support states” in that capacity. *Id.* at 3.⁶ Thematically, however, the Framework Memo is grounded in the notion that EPA will establish “certain minimum building blocks” that all States must employ based on EPA’s opinion that these are “necessary for effective programs to manage nitrogen and phosphorus pollution.” *Id.* at 2. Chief among these “minimum building blocks” are the prioritizing of watersheds on a State-wide basis, setting load reduction goals for these watersheds using available water quality information, and reducing loadings through available tools for point and non-point sources. *Id.* In essence, therefore, while the Framework Memo pays lip service to State primacy under section 303, it also serves to dictate a federal blueprint for accelerating national numeric nutrient standards regardless of local conditions. This blueprint effectively strips away State primacy and Congress’ preference for localized solutions, and seeks to adopt a federal, “one-size-fits all” approach to development of numeric nutrient standards on a national basis, with little emphasis on State-and water body- specific considerations.

When reviewed in this context, it is clear that EPA’s actions in Florida with regard to numeric nutrient criteria are not based on any finding that Florida’s water quality standards failed to satisfy the CWA, but instead, on EPA’s new policy preference for speeding up water quality improvements by federalizing numeric nutrient criteria. Section 303 provides no authority for EPA’s actions.

⁶ The Framework Memo also underscores the fundamental need, addressed in Section II of this *amicus* brief, for “scientific understanding of the relationship between nutrient loadings and water quality impairment . . . ,” *e.g.*, identifying cause and effect relationships that then drive regulatory approaches. *Id.* at 2-3.

C. EPA's actions have significant potential national implications because a decision to uphold the Agency's rule will set a precedent for federalizing numeric nutrient water quality standards beyond Florida

NACWA's nearly 300 members are located in 45 of the 51 States and Territories.

NACWA's members continue to face significant regulatory requirements for nutrient reduction based on EPA's historic deference to States that have taken the lead in establishing such requirements based on site-specific factors. This has resulted in NACWA members spending or committing to spend billions of dollars in infrastructure improvements and other measures to reduce nitrogen and phosphorus in their wastewater and stormwater discharges. NACWA members, like the rest of the regulated community, have made these significant commitments and expenditures in reliance on the balanced State-federal framework for water quality protection set forth in the Act and under decades of consistent EPA water quality guidance.

The Agency's recent actions signal a concerning shift from this proper balance of State primacy and federal support to a new regulatory landscape in which EPA is willing to exercise section 303 in unprecedented and impermissible ways to accelerate the national development of numeric nutrient criteria. While senior EPA officials have made statements indicating that the Agency's actions in Florida are unique and will not be duplicated elsewhere, EPA's actions in Florida set a dangerous precedent for this fundamental and improper shift, demonstrating the Agency's willingness to take such action. In Wisconsin and Kansas, for example, local environmental groups hoping to force EPA to federalize numeric nutrient standards for additional States filed notices of intent to sue EPA, alleging the Agency violated the CWA by failing to impose numeric water quality criteria for nutrients in these States. *See* Letter from Elizabeth Lawton, Midwest Environmental Advocates to Lisa Jackson, Administrator, EPA (Nov. 23, 2009) (Wisconsin); Letter from Mark Dugan, Attorney for Friends of the Kaw, to Lisa Jackson, Administrator, EPA (June 2, 2010) (Kansas). These copy-cat lawsuits, based on what

has happened in Florida, demonstrate the willingness of activist groups to force EPA to inappropriately federalize State nutrient criteria and disrupt the delicate balance between State and federal responsibility over nutrient criteria that the CWA clearly creates.

Because EPA's impermissible use of section 303 to federalize numeric nutrient criteria is being tested first in Florida, this court has a unique and historic role to play in pushing back against the federal government's willingness to usurp the lead role assigned by Congress to States and Tribes to lead such efforts on a localized basis. It is clear that, under pressure from outside forces and lawsuits, EPA is willing to ignore the directives of the CWA regarding State primacy in setting nutrient standards and take the kind of precipitous action nationally that it did in Florida. It is also clear that EPA's actions in Florida, if upheld, will be a bellwether for the rest of the nation. NACWA urges this court to constrain EPA's improper action in federalizing numeric nutrient criteria in Florida, particularly due to the national implications this approach could have if repeated in other parts of the country. Instead, the court should redirect EPA's efforts to respect the primacy that Congress provided to States to address such issues on a localized basis taking into account site-specific considerations.

II. EPA'S APPROACH IN THE FLORIDA RULE IS LEGALLY AND SCIENTIFICALLY INDEFENSIBLE, AND CONTRADICTS EPA POLICY UNDERSCORING THE NEED TO ADDRESS COMPLEX AND NUANCED TECHNICAL ISSUES UNIQUE TO NUTRIENTS AND WATER QUALITY

A. EPA's promulgation of numeric nutrient criteria in the absence of a demonstrated cause and effect relationship violates CWA section 304(a)

CWA section 304(a) requires EPA to develop water quality criteria based in part on a review of the environmental effects of the pollutant at issue. EPA's March 2011 Stoner Memo explicitly recognizes this important requirement. *See supra*, note 6. EPA acknowledged in the Florida rule that it could not establish a cause and effect relationship. *See* 75 Fed. Reg. 75762, 75763 (Dec. 6, 2010). This failure led the Agency to instead rely solely upon statistics rather

than actual water quality impacts and effects on aquatic ecosystems. EPA's actions in this regard violate a fundamental premise of the water quality requirements under the CWA, that EPA has recognized since the inception of the CWA water quality program. *See* EPA, Quality Criteria for Water, 4 (July 1976) (“[t]he word ‘criterion’ represents a constituent concentration or level associated with a degree of environmental effect upon which scientific judgment may be based”) (emphasis added).

While courts have never addressed this issue directly, they have recognized the requirement that water quality criteria be premised on a showing of cause and effect. *See e.g., Natural Res. Def. Council*, 16 F.3d at 1407 (restating EPA's view that “‘water quality criteria represent a . . . scientific assessment of ecological effects.’”) (quoting Ambient Water Quality Criteria for 2,3,7,8-Tetrachlorodibenzo-p-dioxin, iii (Feb. 1984)). The Agency has acknowledged the requirement to demonstrate cause and effect in a number of other instances.⁷ One reason that use of a cause and effect analysis is so important is because water quality standards drive regulatory decisions, such as numeric effluent limits placed in NPDES discharge

⁷ NACWA lists here but a few examples. In the preamble to a notice of availability and request for scientific views with respect to revised water quality criteria for chloroform, EPA stated that “water quality criteria [derived under section 304(a)] represent the concentrations of a chemical in water at or below which human health is protected from *adverse effects* of the chemical.” *See* 69 Fed. Reg. 2712, 2714 (Jan. 20, 2004) (emphasis added). In the 2002 revision of the National Recommended Water Quality Criteria, the Agency stated that “[w]ater quality criteria developed under section 304(a) are *based solely* on data and scientific judgments on the relationship between pollutant concentrations and environmental and human health effects.” 67 Fed. Reg. 79091, 79093 (Dec. 27, 2002) (emphasis added). In 1998, the EPA Office of Water issued guidance stating that “[a]mbient water quality criteria are based on data and scientific judgments on the relationship between pollutant concentrations and environmental and human health effects.” EPA, Water Quality Criteria and Standards Plan, at 15 (June 1998), *available at* http://water.epa.gov/scitech/swguidance/standards/upload/2009_03_26_standards_criplan615-pdf.pdf.

permits. Such limits in turn drive the costs of compliance for dischargers, and if properly fashioned, should improve water quality. Here, EPA's failure to demonstrate cause and effect means that the numeric nutrient criteria it developed could translate to excessively stringent new permit limits that will be imposed regardless of cost and regardless of any connection to water quality improvements related to a specific discharger. Until the Florida rule, EPA has consistently sought to avoid such an illogical and wasteful approach.

In a situation very similar to the circumstances in Florida, in 2004, the Agency refused to promulgate numeric nutrient criteria for portions of the Missouri and Mississippi Rivers because, in part, it had yet to understand the cause and effect association between the presence of excess nutrients and the observed conditions in the affected areas. *See* Supplemental Information to EPA's Response to Sierra Club Petition Regarding Defined Portions of the Mississippi and Missouri Rivers, 2 (June 2004) ("EPA believes it is important *to fully understand the cause and responses of nutrients in the petition area prior to adopting numeric criteria* for the Mississippi and Missouri Rivers.") (emphasis added). EPA's failure to identify such a cause and effect relationship in Florida waters should have led to a similar conclusion. Instead, EPA decided to pursue federal numeric nutrient criteria for Florida, not for sound technical reasons, but to settle a lawsuit and drive a national policy preference of "accelerated progress." The CWA provides no authority for EPA's actions in this regard.

As EPA's own guidance and practices reveal, the Agency has long recognized the need to use careful, deliberate and technically sound cause and effect methods to develop water quality criteria. This is no less important for nutrients than for other pollutants, and indeed, may be more important given the unique features of nutrients as inherently natural substances in water

that, under some circumstances, can affect water quality.⁸ By failing to follow its own scientifically vetted and otherwise longstanding guidance regarding the need to demonstrate a cause and effect relationship, particularly given the inherently natural status of nutrients, EPA's actions in Florida represent an arbitrary and harmful departure from core legal requirements as well as sound technical principles.

The unproven state of the technical approach that EPA has employed to try to justify the federalized numeric nutrient criteria is apparent from the peer review the Agency sought in connection with its Florida rulemaking efforts. In particular, EPA's Science Advisory Board ("SAB" or "the Board") raised serious concerns about EPA's proposed approach to establishing numeric water quality criteria for nutrients in the absence of demonstrable cause and effect relationships between the presence of nutrients in water and verified water quality problems. Rather than pausing to reflect on the SAB's concerns and recommendations, and perhaps reconsider its hurried and ill-advised approach, EPA gave lip service to these concerns and forged ahead with its novel approach. As a result, EPA's technical underpinnings for the Florida rule lack support in the scientific community, including the Agency's own science advisors.

Several criticisms of EPA's approach that the SAB identified are of particular concern to NACWA's members due to the immensely adverse impact these problems will create in translating numeric nutrient criteria into tangible regulatory requirements, including terms and

⁸ EPA for years has explicitly acknowledged that nutrients are unique and require unique approaches. *See, e.g.*, Water Quality Criteria and Standards Plan, *supra* note 7, at 24 ("Nutrients, in the appropriate amounts, are essential to the health and continued functioning of natural ecosystems. However, depending upon a variety of factors, nutrients can be present in waterbodies in excessive amounts.").

conditions for NPDES permits⁹ held by NACWA members. Although the SAB's review was focused on an approach called stressor-response analysis, the Board's comments generally addressed all nutrient criteria development approaches, so its concerns are pertinent to EPA's use of a reference-condition approach in the Florida rule.

SAB's review focused on the importance of causation in setting numeric nutrient criteria, indicating that "[t]he absence of a direct causative relationship between stressor and response" was "one of the most serious issues raised." Letter from Judith L. Meyer, Chair, Ecological Processes and Effects Committee, Science Advisory Board to Lisa Jackson, Administrator, EPA, 6 (Apr. 27, 2010) ("Final SAB Report"). As the Committee stated, "... understanding the causative link between nutrient levels and impairment is necessary in order to assure that managing for particular nutrient levels will lead to desired outcomes." *Id.* at 4. Without this information and any mechanistic understanding:

"[T]here is no assurance that managing for particular nutrient levels will lead to the desired outcome. There are numerous empirical examples where a given nutrient level is associated with a wide range of response values due to the influence of habitat, light levels, grazer populations and other factors. *If the numeric criteria are not based upon well-established causative relationships, the scientific basis of the water quality standards will be seriously undermined.*"

Id. at 6 (emphasis added).

The SAB's chief concern has now manifested in EPA's numeric nutrient criteria rule for Florida. Because the reference condition approach the Agency adopted does not identify cause and effect relationships, the scientific basis of the resulting criterion is, as the SAB predicted, "seriously undermined." This also means, as the SAB forecast, that EPA's rule is unlikely to

⁹ Section 402 of the CWA requires persons that discharge wastewater to navigable waters to obtain permits to authorize such discharges, known as National Pollutant Discharge Elimination System ("NPDES") permits. 33 U.S.C. § 1342.

achieve the “desired outcomes” for nutrient reduction. The disconnect between the extraordinary costs that EPA’s rule will drive and the lack of any reasonably predictable water quality benefit is directly related to the Agency’s failure to establish a meaningful cause and effect relationship.

For all these reasons, EPA’s Florida rule fails to meet a core requirement of the CWA and, as a result, also lacks scientific merit. If allowed to stand, the flawed science relied upon by EPA will drive hundreds of millions of dollars of regulatory decisions that EPA cannot demonstrate will achieve any significant water quality benefits.

B. EPA’s approach to the numeric nutrient criteria rule for Florida is at odds with longstanding EPA guidance to States regarding development of water quality criteria for nutrients given the uniquely complex nature of these substances and the scientific imperative for employing site-specific approaches

Under longstanding guidance, EPA has consistently instructed States that water quality criteria for nutrients should reflect the inherent “variability in nutrient levels and nutrient response throughout the country,” in recognition that there is considerable “natural variability [] due to differences in geology, climate and waterbody type.” Water Quality Criteria and Standards Plan, at 25. As EPA has long recognized:

For these reasons, EPA’s custom of developing water quality criteria guidance in the form of single numbers for nationwide application is not appropriate for nutrients.

Id. (emphasis added). EPA’s ecoregional criteria guidance documents provide further indication that States and Tribes should, as an initial preference, “*develop nutrient criteria that fully reflect localized conditions* and protect specific designated uses using the process described in EPA’s Technical Guidance Manuals for nutrient criteria development. Such criteria may be expressed either as numeric criteria or as procedures to translate a State or Tribal narrative criterion into a quantified end point in State or Tribal water quality standards.” EPA, Ambient Water Quality Criteria Recommendations: Information Supporting the Development of State and Tribal

Nutrient Criteria for Wetlands in Nutrient Ecoregion XIII, Southern Florida Coastal Plain, at iii (Dec. 2000) (emphasis added).

The most recent consensus view of the premier scientists knowledgeable about nutrients and water quality does not deviate from the core technical premise that nutrients are unlike toxics and conventional pollutants for which EPA's national guidance approach is appropriate. The use of statistically derived criteria to adopt a uniform numeric value for nutrients defies not only decades of EPA policy but also the very recent advice of EPA's own Science Advisory Board. In its 2010 review of EPA's numeric nutrient criteria approach, the SAB underscored that using statistics alone cannot accurately account for the large number of variables that affect the impacts of nutrients from water body to water body. In particular, "a large degree of unexplained variation can be encountered when attempting to use the empirical stressor-response [or conditional probability, the type of stressor-response approach the SAB was reviewing] approach to develop nutrient criteria[, which] . . . can present significant problems in the use of this approach." Final SAB Report at 2. More importantly, in the context of EPA's statutory mandate to establish criteria on the basis of "effects," the SAB concluded that "*statistical associations may not be biologically relevant and do not prove cause and effect.*" *Id.* (emphasis in the original). In a subsequent review of EPA's Draft Approaches for Deriving Numeric Nutrient Criteria for Florida's Estuaries, Coastal Waters, and Southern Inland Flowing Waters, the SAB, again expressed skepticism at the validity of relying on statistical models to substantiate criteria development. *See* SAB Nutrient Criteria Review Panel Draft Report (Apr. 8, 2011). Specifically, the SAB emphasized that "[s]tatistical models are correlative [as opposed to causative] and the amount of variance explained by the correlations can be less than that needed for criteria development." *Id.* at 20. Yet, EPA's numeric nutrient criteria for Florida abandons

these core principles and uses a formulaic approach that is inappropriately rigid, given the widely acknowledged unique nature of how nutrients may affect water quality, and contradictory to Agency policy.

Finally, although EPA's numeric nutrient criteria for Florida were developed, in part, using the reference condition approach set forth in EPA water quality guidance, it is important to understand that neither EPA nor any State has chosen to adopt nutrient criteria on this sole basis, due to the inherent shortcomings of such an approach as articulated most recently by the SAB. Instead, States have pursued – and until EPA's unfounded actions in Florida, EPA has supported – development of more scientifically-supportable criteria. The approach taken by Florida, as noted, is one such example. In New Jersey, the State Surface Water Quality Standards rules establish nutrient policies, N.J. ADMIN. CODE § 7:9B-1.5(g), and narrative nutrient criterion, N.J. ADMIN. CODE § 7:9B-1.14(d)4i, applicable to all waters. These rules were then used to establish, for example, EPA-approved numeric criteria for total phosphorus for non-tidal streams and lakes. *See* N.J. ADMIN. CODE § 7:9B-1.14(d)4ii. In this respect, EPA's abandonment of longstanding policy recommending and preferring the use of site-specific approaches with regard to nutrients has the potential to drive similar erroneous and expensive results across the nation, if the Florida rule is allowed to stand.

Unlike the scientifically defensible approaches taken by Florida and other States, EPA's reference condition approach is being applied to nutrients in a way that contradicts the best science and longstanding EPA policy recognizing that development of scientifically valid water quality criteria for the complex problem of nutrient pollution requires approaches that account for site-specific variability. The fact that EPA is employing this approach for the first time in a

context that will have real regulatory implications in Florida and potentially elsewhere makes EPA's departure from its longstanding policies all the more troubling.

CONCLUSION

In sum, EPA's actions in Florida reflect the Agency's willingness to embark on an entirely new program of federalizing nutrient water quality standards based not on CWA compliance or credible science but instead on EPA's desire for intangible accelerated progress in water quality improvements without regard to cost. In doing so, EPA not only went outside the limits of its supervisory role under section 303, but failed to comply with the cause and effect requirement under section 304 and ignored both longstanding guidance on nutrients and the best science available, including the direct advice of its own Science Advisory Board. The result is that EPA's Florida rule is both unauthorized and arbitrary. The Court should not allow EPA's determination for Florida or the rule that flowed from it to stand.

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CERTIFICATE OF SERVICE

I hereby certify that on June 15, 2011, the foregoing document was filed with the Clerk of the Court, using the CM/ECF system, causing it to be served on all counsel of record.

Dated: June 15, 2011

/s/ Karen M. Hansen
Karen M. Hansen