

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Environmental Preservation and Conservation

BILL: SPB 7034

INTRODUCER: For Consideration by the Environmental Preservation and Conservation Committee

SUBJECT: Numeric Nutrient Criteria

DATE: March 21, 2013

REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Hinton	Uchino		EP Submitted as Committee Bill
2.				
3.				
4.				
5.				
6.				

I. Summary:

SPB 7034 provides guidance for setting numeric nutrient criteria (NNC) for flowing waters of the state.

The SPB authorizes the Department of Environmental Protection (DEP) to implement its adopted nutrient standards for streams, springs, lakes, and estuaries in accordance with the document, "Implementation of Florida's Numeric Nutrient Standards."

The SPB states the conditions that have to be met to trigger the expiration of Rule 62-302.531(9), Florida Administrative Code (F.A.C.).

The SPB subjects any nutrient criteria rules for estuaries adopted by the DEP in 2013 to the provisions of rule 62-302.531(9), F.A.C., and exempts them from legislative ratification.

The SPB directs the DEP to establish estuary specific NNC for estuaries not already subject to DEP NNC, and set NNC for chlorophyll *a* for non-estuarine coastal waters by December 1, 2014.

The SPB establishes the water quality standard for non-estuarine coastal waters until such time as NNC are established for those waters.

The SPB directs the DEP to provide the Governor, the President of the Senate and the Speaker of the House of Representatives a report by August 1, 2013, detailing the status of setting NNC for estuaries and non-estuarine coastal waters for which NNC have not been set.

This SPB substantially amends s 403.061 of the Florida Statutes. It also creates four unnumbered sections of law.

II. Present Situation:

Water Quality Standards for Surface Waters in Florida

Water quality standards (WQSs) are the foundation of the water quality-based pollution control program mandated by the Clean Water Act (CWA). The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.¹ The CWA governs all “waters of the United States” and activities impacting those waters. “Waters of the United States” are defined as:²

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - Which are used or could be used for industrial purposes by industries in interstate commerce;
- All impoundments of waters otherwise defined as waters of the United States under this definition;
- Tributaries of waters identified in the preceding bullets;
- The territorial sea; and
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in the preceding bullets.

Waste treatment systems, including treatment ponds or lagoons designed to meet the CWA’s requirements (other than cooling ponds as defined in 40 CFR 423.11(m)) are not waters of the United States. The definition also expressly excludes prior converted cropland.

The CWA requires states or the EPA to establish WQSs for pollutants flowing into surface waters and prohibits the discharge of any pollutant from a point source, such as a pipe, man-made ditch, or large animal feeding operation, into navigable waters without a National Pollutant Discharge Elimination System (NPDES) permit. In Florida, the water quality of surface waters is

¹ Applicable water quality standards for purposes of the CWA are the minimum standards which must be used when the CWA and regulations implementing the CWA refer to WQSs, for example, in identifying impaired waters and calculating total maximum daily loads under section 303(d), developing NPDES permit limitations under section 301(b)(1)(C), evaluating proposed discharges of dredged or fill material under section 404, and in issuing certifications under section 401 of the Act. 40 CFR 131.21.

² 40 CFR 230.3(s).

primarily regulated through Florida's implementation of the CWA. The CWA provides incentives to Florida to adopt CWA-compliant WQSs and administer the federal NPDES program on behalf of the EPA.³

Under the CWA, states adopt WQSs for their navigable waters and review and update those standards at least once every three years. States determine WQSs for surface waters in three steps by establishing:

- The designated uses for each water body, which may be for drinking, recreation and aquatic life propagation, and agricultural and industrial purposes;
- Water quality criteria, which can be either numeric or narrative standards, that define the amount of pollutant a water body can contain without impairing the designated use; and
- An anti-degradation policy to maintain and protect existing uses and high quality waters.

The CWA requires states to submit WQSs to the EPA for review and approval.⁴

The EPA Administrator must “promptly prepare and publish” proposed regulations setting forth a revised or new WQS for the navigable waters involved if a revised or new WQS submitted by the state is determined by the Administrator not to be consistent with the applicable requirements, or in any case where the Administrator determines that a revised or new standard is necessary to meet requirements of the CWA.⁵

The Administrator must promulgate any new or revised standards not later than 90 days after publication of the proposed standards, unless prior to such promulgation, the state adopts a revised or new WQS, which the Administrator determines to be in accordance with the CWA. After promulgation by the EPA, however, the promulgated rules become the state's WQSs until such time as the EPA withdraws the promulgation, again by rule.⁶ This may occur if the state proposes and the EPA approves the state's submission.

The CWA also requires that states identify impaired waters not meeting established WQSs. In such instances, a state establishes a total maximum daily load (TMDL), for those impaired waters. A TMDL is a value of the maximum amount of a pollutant that a body of water can receive and still meet WQSs.⁷ To enforce TMDLs, water quality-based effluent limitations must

³ Under the U.S. Constitution, the federal government cannot compel states to enact legislation or take executive action to implement federal regulatory programs. However, Congress often offers funding as an incentive for states to do so. Congress may also create a “potential preemption” structure in which states must regulate the activity under state law according to federally approved standards, or have state regulation pre-empted by federal regulation. The CWA utilizes these techniques. In addition, a state agency in Florida must have legislative authorization to implement a federal law. The Florida Department of Environmental Protection receives federal funds to administer the NPDES permitting program in the state.

⁴ This section of the CWA represents the “potential preemption” structure previously mentioned. Apart from receiving federal funds to assist the state in meeting WQSs approved by the EPA, the state retains local control over its water quality programs, and provides to its NPDES applicants something the federal structure lacks – administrative deadlines for the agency to approve or deny a permit application.

⁵ 33 U.S.C. s.1251 et seq. (1972), s. 303(a)(3)(c).

⁶ Pursuant to 40 CFR 131.21(c), if the EPA finalizes a proposed rule, the EPA promulgated WQSs would be applicable WQSs for purposes of the CWA until the EPA withdraws the federally-promulgated standard. Withdrawing a federal standard would require rulemaking by the EPA pursuant to the requirements of the Administrative Procedure Act (5 U.S.C. 551 et seq.).

⁷ Generally, the pollutant of concern and a numeric water quality target are, respectively, the chemical causing the impairment and the numeric criteria for that chemical (e.g., chromium) contained in the WQS. The TMDL expresses the

be developed and incorporated into NPDES permits for point sources. Each TMDL represents a goal that is implemented by adjusting pollutant discharge requirements in the individual NPDES permits, along with the implementation of nonpoint source controls, such as best management practices (BMPs).⁸ State-established TMDLs and NPDES water quality-based effluent limitations are submitted to the EPA for approval. The EPA may adjust the criteria on either if it determines the standard does not comply with the CWA.

The threshold limit on pollutants in surface waters (Florida's surface WQS on which TMDLs are based) are set in administrative rule. The state's impaired waters rule contains a table that catalogues over 100 substances, including subparts, with numerical thresholds for surface water classifications, including fresh and marine waters.⁹ Generally, a pollutant is expressed in a numerical threshold (e.g., 11mg/L, or 11 milligrams per liter) because certain chemicals (e.g., Benzene, Lead, Mercury), have threshold concentrations above which adverse biological damage is a scientific certainty.

The EPA and the DEP executed a Memorandum of Understanding in 2007 delineating the state and federal agencies' mutual responsibilities in the DEP's administration of the federal NPDES program (the approved program). Pursuant to the memorandum, the EPA acknowledges that the DEP has no veto authority over an act of the Florida Legislature. The EPA reserves the right to initiate procedures for withdrawal of the state NPDES program approval in the event the state legislature enacts legislation or issues any directive which substantially impairs the DEP's ability to administer the NPDES program or to otherwise maintain compliance with NPDES program requirements. If the approved program were withdrawn, entities requiring a NPDES permit for activities relating to wastewater, stormwater, construction, industry, pesticide application, power generation and some agricultural activities would need to acquire both federal and state permits independent of one another.

The memorandum anticipates situations when the EPA resumes authority over an individual permit and instances when DEP-submitted NPDES permits are disapproved by the EPA until the DEP adjusts the permit conditions to include EPA conditions on the permit. If the permit is issued by the DEP, the permit holder may seek an administrative challenge in the Florida Division of Administrative Hearings. If the permit is issued by the EPA, the permit holder may seek a federal appeal; however, in the interim, the permit holder would be required to comply with the federal permit.

Nutrients and Water Quality

Nutrients, such as nitrogen and phosphorus, are substances that are needed by organisms to live and grow. Nitrogen and phosphorus are essential to the production of plant and animal tissue.

relationship between any necessary reduction of the pollutant of concern and the attainment of the numeric water quality target. Guidelines for Reviewing TMDLs Under Existing Regulations Issued in 1992, are found at: <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/final52002.cfm> (last visited Mar. 17, 2013).

⁸ When a water body is classified as impaired, Florida law also authorizes the DEP to adopt a Basin Management Action Plan, or BMAP, for that particular water body. A BMAP is designed to reduce the pollutant concentrations to meet the TMDL. Strategies may include educational programs, permit limits on wastewater facilities, BMPs, conservation programs, and financial assistance.

⁹ Rule 62-302.530, F.A.C.

Phosphorus is essential to cellular growth and respiration. In aquatic systems, these nutrients feed the growth of bacteria, algae and other organisms. The DEP has relied on a narrative criterion (described in its impaired waters rule as “an imbalance in natural populations of flora or fauna”)¹⁰ for many years because nutrients are unlike any other pollutant regulated by the CWA.

Natural sources of nitrogen and phosphorus are the atmosphere, soils and the decay of plants and animals. Human sources include sewage disposal systems (wastewater treatment facilities and septic tanks), overflows of storm and sanitary sewers (untreated sewage), agricultural production and irrigation practices, and stormwater runoff.

Excessive amounts of nutrients may result in harmful algal blooms, nuisance aquatic weeds and alteration of the natural community of plants and animals. Dense, harmful blooms of algae can also cause human health problems, fish kills, problems for water treatment plants and generally impair the aesthetics and tastes of waters. Growth of nuisance aquatic weeds tends to increase in nutrient-enriched waters, which can impact recreational activities. Increased algal production as a result of increased nutrients can alter plant communities, which affects natural systems.

The derivation of specific NNC to complement the narrative standard is complex.¹¹ Since nutrients are essential to life, a balance must be maintained to provide adequate nutrients to sustain aquatic life while not providing excessive nutrients which alter the aquatic ecosystem through species shifts. Complicating the picture is the fact that each water body can have very different and unique nutrient requirements. To develop thresholds at which a healthy aquatic environment can be sustained, it is best to establish a reliable measure of the biological condition of the water body.

Florida’s Adoption of NNC Rules

On July 17, 2008, environmental groups sued the EPA, alleging failure on the part of the EPA to comply with the CWA. These groups initially alleged that the EPA’s 1998 National Strategy for the Development of Regional Nutrient Criteria was a necessity determination, pursuant to s. 303(c)(4)(B) of the CWA, requiring the EPA to promulgate numeric nutrient rules for Florida. Their amended complaint asserted the 1998 Clean Water Action Plan, coauthored with the U.S. Department of Agriculture, was the necessity determination. The EPA initially defended the suit and contested the plaintiffs’ arguments. However, in an EPA internal memorandum from December, 2008, the writer warned that a judicial finding in favor of the plaintiffs could result in the EPA being required to promulgate numeric nutrient rules for the other 49 states. The internal memorandum proposes a strategy to avoid this possibility: if the EPA issues a s. 303(c)(4)(B) necessity determination, that may be used as a basis to settle the lawsuit and request a dismissal from the court.¹²

¹⁰ Rule 62-302.530(47)(b), F.A.C.

¹¹ For insight into the process of developing NNC, in this case for lakes, spring vents, and streams, *see, Technical Support Document: Development of Numeric Nutrient Criteria for Florida Lakes, Spring Vents and Streams*, <http://www.dep.state.fl.us/water/wqssp/nutrients/docs/tsd-nnc-lakes-springs-streams.pdf> (last visited Mar. 16, 2013).

¹² Fifteen months earlier, the EPA agreed with Florida’s methodology and plan to finalize NNC rules by the end of 2010. The DEP was not a party to the lawsuit; however, several groups representing utilities, local governments, and agriculture in the state intervened.

On January 14, 2009, the EPA placed the DEP on formal notice that numerical criteria for nutrients were necessary for compliance with the CWA. This notice triggered a deadline of one year for the EPA to develop numeric nutrient criteria for Florida's surface waters and 24 months to develop numeric criteria for coastal waters, unless the state proposed criteria acceptable to the EPA before final promulgation. On August 19, 2009, the EPA entered into a consent decree to settle the lawsuit filed by the five environmental groups. The EPA committed to propose numeric nutrient standards for inland waters (lakes and flowing waters), as well as for estuarine and coastal waters, by certain dates. The DEP did not formally submit NNC to the EPA before the deadline.

In drafting the proposed rule, the EPA drew from more than seven years of DEP data and analysis, DEP's nutrient plans, as well as technical support documentation. The DEP maintained contact with the EPA while the EPA formulated the proposed rule.

On January 14, 2010, EPA Administrator Jackson signed the EPA's rule proposing NNC for Florida's fresh waters. Ten months later, on November 14, 2010, Administrator Jackson signed the final rule adopting NNC for Florida's fresh waters. On December 6, 2010, the EPA published its final administrative rule.

The DEP has petitioned EPA to return the responsibility of NNC rulemaking to the state. The DEP has already established NNC for rivers, streams, lakes, and the majority of estuaries. The EPA has approved the criteria for rivers, streams, lakes, and south Florida estuaries. However, pursuant to the settlement agreement and consent decree, the EPA has proposed, though not set, criteria for coastal waters and the remaining estuaries, and re-proposed their river and stream criteria, which were invalidated by the U.S. District Court for the Northern District of Florida in a ruling handed down in February, 2012.¹³

On November 30, 2012, the EPA approved state NNC standards for the prevention of nutrient pollution in Florida's waterways applicable to 100 percent of Florida's rivers, streams, lakes and to estuaries from Tampa Bay to Biscayne Bay, including the Florida Keys.¹⁴ Simultaneously, the EPA proposed draft federal NNC rules pursuant to a federal consent decree for waters not yet covered by state rules, which include:

- remaining estuaries;
- open ocean waters;
- the location where south Florida canals enter estuaries; and
- scientifically challenging areas like tidal creeks, headwaters that are dry for portions of the year (excluding drought conditions), and managed water conveyances.

As part of the November 30, 2012, action, the EPA also amended its previous January 2009 determination concluding that the DEP's rules provided sufficient quantitative procedures upstream to ensure the protection of water quality standards in downstream waters, as required by the CWA.

¹³ *Florida Wildlife Federation, Inc. v. Jackson*, 853 F.Supp.2d 1138 (N.D.Fla. 2012).

¹⁴ Letter from James Giattina, Director, Water Protection Division, EPA, to DEP Secretary Herschel Vinyard, Nov. 30, 2012, http://www.dep.state.fl.us/water/wqssp/nutrients/docs/new/epa_approval_letter_113012.pdf (last visited Mar. 16, 2013).

The only NNC that have taken full effect so far are those for the estuaries located in south Florida. The remainder of the Florida and EPA rules go into effect at various times. In the interim, narrative goals listed in state rules continue to apply to these waters, as well as any established restoration goals in existing TMDLs.¹⁵

The DEP is continuing its development of criteria for the rest of the estuaries in the state. In November 2012, the DEP adopted NNC for additional estuaries, expanding coverage to 72 percent of Florida estuaries. The DEP has committed to adopting criteria for the remaining estuaries by 2015 after data collection and analysis, which will require EPA approval.¹⁶ The DEP and the EPA are negotiating the requirements Florida must comply with in order for the EPA to request a release from the consent decree and return all NNC rulemaking to the state.

Rule 62-302.531(9), F.A.C., provides for the adoption of Florida's NNC rules if the EPA approves the rules in their entirety, concludes rulemaking that removes federal NNC in response to the approval of Florida's rules, and finds that the rules sufficiently address the EPA's January 14, 2009 determination. If any of the state rules are found to be invalid, then none of the state rules will be implemented.

Legislative Ratification of Agency Rules

Pursuant to s. 120.541, F.S., any rule that meets any of three thresholds must be ratified by the Legislature. The thresholds are:

- If it is likely to have an adverse impact on economic growth, private sector job creation or employment, or private sector investment in excess of \$1 million in the aggregate within five years after the implementation of the rule;
- If it is likely to have an adverse impact on business competitiveness, including the ability of persons doing business in the state to compete with persons doing business in other states or domestic markets, productivity, or innovation in excess of \$1 million in the aggregate within five years after the implementation of the rule; or
- If it is likely to increase regulatory costs, including any transactional costs, in excess of \$1 million in the aggregate within five years after the implementation of the rule.¹⁷

If ratification is required, "the rule must be submitted to the President of the Senate and Speaker of the House of Representatives no later than 30 days prior to the next regular legislative session, and the rule may not take effect until it is ratified by the Legislature."¹⁸

III. Effect of Proposed Changes:

Section 1 amends s. 403.061, F.S., to establish measures to protect downstream lakes and estuaries from pollutants coming from upstream waterbodies, particularly water management conveyances. Specifically, the SPB directs the DEP to implement the TMDL program and water

¹⁵ DEP, *Numeric Nutrient Criteria in the State of Florida: Status and Meaning of November 30, 2012 Action by EPA*, <http://www.dep.state.fl.us/water/wqssp/nutrients/docs/nnc-status-FS-dec2012.pdf> (last visited Mar. 16, 2013).

¹⁶ *Id.*

¹⁷ Section 120.541(2)(a)1.-3., F.S.

¹⁸ Section 120.541(3), F.S.

pollution discharge permitting consistent with attaining and maintaining in-stream and downstream water quality.

For waters downstream from a stream, canal, or other conveyance, the loading of nutrients must be limited to provide for the attainment and maintenance of nutrient WQSs. The SPB provides the DEP with three options based on the downstream conditions:

- If the downstream water does not have a TMDL and has not been verified as impaired, the DEP is directed to implement its authority in a manner that prevents impairment of the downstream water due to upstream water loading
- If the downstream water does not have a TMDL and has been verified as impaired, then the DEP is directed to develop a TMDL for the waterbody.
- If the downstream water has a TMDL that interprets the narrative water quality criterion for nutrients, then allocations shall be set for upstream waterbodies in accordance with s. 403.067(6), F.S., and, if applicable, the BMAP established under s. 403.067(7), F.S.

The SPB states that compliance with an allocation for the downstream water will constitute reasonable assurance that a discharge does not cause or contribute to the violation of the downstream nutrient WQSs.

Section 2 creates an unnumbered section of law authorizing the DEP to implement NNC consistent with “Implementation of Florida’s Numeric Nutrient Standards.” The document explicitly states how the DEP will apply nutrient standards to water management conveyances and has been proposed for adoption in the Florida Administrative Register.

Section 3 creates an unnumbered section of law providing that all NNC adopted by the DEP shall become effective when the EPA withdraws all federal NNC rules and ceases all federal nutrient rulemaking in the state. When this occurs, Rule 62-302.531(9), F.A.C., will expire.

Section 4 creates an unnumbered section of law exempting from ratification any additional estuary NNC adopted by the DEP during 2013; however, these rules are still subject to Rule 62.-302.531(9), F.A.C., until its expiration.

Section 5 creates an unnumbered section of law directing the DEP to adopt NNC for total nitrogen, total phosphorous, and chlorophyll *a* for any estuaries not already subject to the DEP’s NNC, and establish chlorophyll *a* interpretations of the narrative nutrient criterion for non-estuarine coastal waters by December 1, 2014.

The SPB states that until such time as numeric interpretation of narrative water quality criterion is established by final rule or order, the water quality standard for total nitrogen, total phosphorous and chlorophyll *a* in estuaries, and chlorophyll *a* in non-estuarine coastal waters is the current conditions of those unimpaired waters.

The DEP is directed to provide the Governor, the Speaker of the House of Representatives, and the President of the Senate with a report by August 1, 2013, describing the status of establishing NNC pursuant to this SPB.

Section 6 provides that the act takes effect upon becoming a law.

Other Potential Implications:

It is important to note that if the DEP does not set comprehensive NNC for Florida, the EPA will. If that occurs, the costs of compliance will likely be significantly more for the state and for the regulated community.

IV. Constitutional Issues:**A. Municipality/County Mandates Restrictions:**

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:**A. Tax/Fee Issues:**

None.

B. Private Sector Impact:

The regulated community anticipates that the DEP NNC rules, while still requiring significant investment, will be less expensive to implement than the EPA's NNC. The difference in the cost of compliance is attributable to the implementation of the DEP's NNC rules that account for site-specific criteria and allow for biological variations for Florida's waterbodies that the EPA's rules do not.

C. Government Sector Impact:

Like the private sector, government entities will likely see lower costs of compliance with the DEP's NNC rules.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Additional Information:

- A. **Committee Substitute – Statement of Substantial Changes:**
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

- B. **Amendments:**

None.

This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.
