



Proposed Nutrient Standards for Florida's Coastal, Estuarine & South Florida Flowing Waters

Summary

EPA has proposed numeric water quality criteria and downstream protection values to protect aquatic life and human health in certain estuaries and coastal waters within the State of Florida, and in flowing waters in south Florida, from nitrogen and phosphorus pollution. These criteria, and the downstream protection values for flowing waters into estuaries and coastal marine waters, are intended to help reduce water pollution that causes algal blooms.

Algal blooms can discolor water, deplete the oxygen required for fish and shellfish survival, smother vegetation, and produce toxins harmful to humans, animals and ecosystems across the State of Florida. They occur when excess nitrogen and phosphorus, called “nutrient” pollution, flows into waterways via wastewater discharges, urban stormwater runoff and fertilizer runoff.

EPA fully supports FDEP's continued efforts to set protective standards which will eliminate the need for EPA to take further action. However, court orders resulting from settlement of a 2008 lawsuit required EPA to propose the federal rules announced today. Because EPA prefers for Florida to implement its own nutrient limits, we have removed the water bodies that are covered in the state's rules from EPA's proposals.

This proposed rule, along with criteria for certain estuaries and coastal marine waters in Florida that were recently adopted by Florida and approved by EPA, seeks to improve water quality of Florida's estuaries, coastal waters and flowing waters in south Florida, and thereby protect public health, aquatic life and the recreational uses of Florida's waters, which are a critical part of the State's economy.

Background

Florida is known for its abundant and beautiful natural resources, particularly its aquatic resources, which are vital to Florida's economy. According to the Florida Fish and Wildlife Conservation Commission in 2011, the State's aquatic resources enabled an annual contribution of more than \$5 billion in revenue and more than 54,000 jobs in the saltwater sport fishing industry as well as more than \$1 billion in revenue and more than 24,000 jobs in the commercial saltwater fishing industry. However, nutrient pollution has contributed to severe degradation of aquatic resources in the State of Florida.

Litigation

In 2008, the Florida Wildlife Federation filed a lawsuit against EPA, following which EPA made a determination in January 2009 under the Clean Water Act that numeric nutrient criteria are needed in Florida. A December 2009 consent decree settling the lawsuit laid out milestones for EPA to establish criteria in two stages.

The first stage was for inland water bodies outside of the south Florida, which EPA promulgated in December 2010. EPA defined “south Florida” as those areas south of Lake Okeechobee, the Caloosahatchee River watershed west of Lake Okeechobee, and the St. Lucie watershed east of Lake Okeechobee.

The second stage (the current proposal) is for certain estuaries and coastal waters, and south Florida flowing waters. Under the consent decree, EPA's Administrator is required to sign a rule with proposed criteria for these waters by November 30, 2012 and to sign a final rule by September 30, 2013. EPA is only required to establish criteria in waters where the State of Florida has not established their own criteria.

On June 13, 2012, Florida submitted water quality criteria that include numeric nutrient criteria for a set of estuaries and coastal marine waters in Florida to the EPA for review pursuant to section 303(c) of the Clean Water Act, and EPA approved these criteria on November 30, 2012.

Specifically, these newly-approved criteria apply to Clearwater Harbor/St. Joseph Sound, Tampa Bay, Sarasota Bay, Charlotte Harbor/Estero Bay, Clam Bay, Tidal Cocohatchee River/Ten Thousand Islands, Florida Bay, Florida Keys, and Biscayne Bay. Under the consent decree, EPA is no longer required to propose numeric criteria for these waters.

About this Proposed Regulation

In accordance with the terms of the EPA's January 14, 2009 determination and the consent decree, the Agency is proposing numeric criteria for certain estuaries and coastal waters within the State of Florida, and flowing waters (e.g. rivers, streams, and canals) in south Florida.

Criteria Derivation

EPA is proposing to use location-specific approaches for the derivation of numeric nutrient criteria to ensure that the diversity of unique habitats found in each type of water body are taken into account and addressed. This location-specific approach allowed the Agency to consider individual physical, chemical, and biological characteristics for a particular waterbody as a whole.

Criteria for Florida Estuarine Waters

EPA is proposing total nitrogen (TN), total phosphorus (TP) and chlorophyll-a criteria for 19 estuaries. The criteria are based on the biological response to TN and TP levels in Florida's estuaries, determined using substantial site-specific field data, and predictive models that simulate the conditions within the estuary and the associated watershed.

Criteria for Florida Coastal Waters

EPA is proposing chlorophyll-a criteria for three coastal systems in Florida. For these areas, EPA evaluated chlorophyll-a levels in Florida's

coastal waters using satellite remote-sensing images and derived criteria based on chlorophyll-a concentrations in coastal waters that are unimpaired for nutrients.

Criteria for Flowing Waters in the South Florida Region

EPA is proposing approaches to derive TN and TP criteria that apply at the "pour points" of the flowing waters in south Florida, where the fresh flowing water enters the downstream marine water. EPA is not proposing separate in-stream criteria, but requests comment on the development of in-stream criteria based on stressor-response relationships.

Downstream Protection Values

EPA regulations implementing Clean Water Act section 303(c) require that water quality standards "provide for the attainment and maintenance of the water quality standards of downstream waters." Therefore, the EPA is proposing approaches to derive TN and TP criteria expressed as downstream protection values (DPVs) at the pour points of all flowing waters in Florida.

Florida's EPA-approved water quality criteria also include provisions addressing downstream protection that establish quantitative approaches to ensure the attainment and maintenance of downstream waters consistent with EPA's regulations. However, the provisions themselves do not consist of numeric values and the consent decree requires EPA to sign rules proposing numeric DPVs for Florida by November 30, 2012.

Therefore, EPA is proposing numeric DPVs to comply with the consent decree. However, EPA has amended its January 2009 determination and will ask the court to modify the consent decree to not require EPA to promulgate numeric DPVs for Florida. If the court agrees, EPA will not finalize the numeric DPVs proposed in this rule.

Site-Specific Alternative Criteria

Under this proposal, stakeholders may seek federal site-specific alternative criteria (SSAC) by submitting scientifically defensible recalculations of the criteria for estuaries, coastal waters, and flowing waters in the South Florida

Region that meet the requirements of Clean Water Act section 303(c). This is an extension of the approach EPA finalized in its December 2010 rule for lakes and flowing waters outside of south Florida.

Economic Analysis

Once Florida implements these standards, point source dischargers of nitrogen and phosphorus pollution may require new or revised National Pollutant Discharge Elimination System (NPDES) permits.

Additionally, implementation may lead to requirements for treatment controls on other sources of nitrogen and phosphorus pollution (e.g., agriculture, urban runoff, and septic systems) primarily through the development of additional Total Maximum Daily Loads (TMDLs) and Basin Management Action Plans (BMAPs) for restoring impaired waters.

To provide information on the potential costs associated with these State actions, EPA conducted an economic analysis associated with this rule. EPA estimates that the total costs associated with full implementation of this rule will range from approximately \$239.0 million to \$632.4 million per year over 20 years since capital costs will be financed and thereby spread out over time.

For More Information

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