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# Florida Department of Environmental Protection

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Lt. Governor

Herschel T. Vinyard Jr.
Secretary


April 22, 2011

Ms. Lisa P. Jackson
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, Northwest
Washington, DC 24060

Dear Ms. Jackson:

Please find enclosed a Petition from the Florida Department of Environmental Protection requesting that the U.S. Environmental Protection Agency (EPA) withdraw its January 2009, determination that numeric nutrient criteria are necessary in Florida. It also requests that EPA restore to the state its responsibility for the control of excess nutrients, including the pursuit of nutrient criteria. We are confident that EPA will find the information in the petition compelling and grant the petition after review.

As clearly demonstrated by the petition, the State of Florida, including its citizenry, local governments and businesses, is very committed to addressing excess nutrients pollution. We look forward to your timely response.

Sincerely,

Herschel T. Vinyard Jr.
Secretary

c: Gwendolyn Keyes Fleming



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UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

In re: Florida Department of Environmental Protection's Petition for Withdrawal of EPA's 303(c)(4)(B) Determination for Florida, Repeal of 40 C.F.R. § 131.43, and Related Actions.
_____/

**PETITION**

The Florida Department of Environmental Protection ("FDEP") hereby petitions the United States Environmental Protection Agency ("EPA") to take the following actions; 1) withdraw its January 2009, determination that numeric nutrient criteria are necessary in Florida; 2) initiate repeal of 40 C.F.R. § 131.43; and 3) discontinue proposing or promulgating further numeric nutrient criteria in Florida.

On March 16, 2011, EPA issued a memo to all EPA's Regional Administrators, entitled "Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions" (the "EPA memo" or "March 16, 2011, memo") that details the elements "necessary for effective programs to manage nitrogen and phosphorus pollution," which is attached hereto as Attachment 1. The EPA memo provides a useful benchmark for evaluating the strength of a State's nutrient reduction program.

As demonstrated herein, Florida's program is one of the strongest in the country when measured against the elements set forth in the EPA memo, or by other objective standards. Based on the strength of Florida's nutrient pollution control program, which includes a commitment to nutrient standards, FDEP submits EPA should rescind its January 2009, determination. This action will reestablish the proper regulatory framework in Florida, whereby



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States designate the uses of their waters and set criteria that are protective of those uses, and EPA should simply review the changes to water quality standards proposed by the States. 33 U.S.C. § 1313(a)(3)(A) and (c)(2)(A); *see also Natural Resources Defense Council v. U.S. E.P.A.*, 16 F.3d 1395, 1399 (4th Cir. 1993)("While the states and E.P.A. share duties in achieving this goal [of protecting water resources], primary responsibility for establishing appropriate water quality standards is left to the states. EPA sits in a reviewing capacity of the state-implemented standards, with approval and rejection powers only.").

FDEP requests that EPA respond to this Petition within 30 days of filing. Failure of EPA to timely act can interfere with the Florida's ability to implement the activities described by this petition. Additionally, granting this petition will confirm to the States that EPA is committed to a reasoned approach to evaluating the success of state programs and will stand behind the EPA Memo.

**Background**

According to EPA, Florida has one of the preeminent programs in the nation to address excess phosphorus and nitrogen pollution in its waters. "Florida is one of the few states that have 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). As outlined below, in measuring Florida's program against the eight elements in the EPA memo, the State of Florida, in partnership with its regional water management districts and local governments, is a national leader in developing innovative and comprehensive tools and programs to detect, assess, prevent and/or remedy nutrient problems in the State's waters.



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For instance, Florida has placed substantial emphasis on the monitoring and assessment of its waters as a cornerstone of its water quality program, and, as a result of this valuable objective, has collected significantly more water quality data than any other State. *See* EPA's January 14, 2009, Necessity Determination for Florida, p. 6. Greater than 30% of all water quality data in EPA's national water quality database, STORET, comes from Florida.[1] STORET, http://www.epa.gov/storet. Florida has used this extensive data to, among other things, accurately and scientifically assess whether individual waterbodies are impaired for nutrients; promulgate nutrient restoration goals first through Pollutant Load Reduction Goals ("PLRGs") and then through Total Maximum Daily Loads ("TMDLs"); calculate protective nutrient water quality-based effluent limits ("WQBELs") for NPDES dischargers; and adopt restoration plans setting forth restoration requirements on both point and nonpoint sources on a watershed-wide basis (i.e., Basin Management Action Plans ("BMAPs"), Surface Water Improvement and Management ("SWIM") plans, and legislatively-mandated plans for targeted waters).[2]

Overall, Florida's efforts have resulted in significant reductions in ambient phosphorus concentrations since the early 1980s despite the explosive growth of Florida's population during this same period. 2008 Integrated Water Quality Assessment for Florida: 305(b) Report and 303(d) List Update, p. 34, available at http://www.dep.state.fl.us/water/docs/2008_Integrated_Report.pdf. However, Florida continues to further refine and enhance its programs and implement specific restoration plans high priority

[1] FDEP doesn't substitute quantity of sampling for the quality of those samples. Rather than accepting any collected sample, FDEP requires stringent quality assurance for water quality samples to be used for regulatory purposes. *See* Fla. Admin. Code Ch. 62-160.
[2] Florida has also utilized this extensive data in adopting a protective numeric phosphorus criterion for the Everglades Protection Area that has been upheld in both state and federal courts. *See* Fla. Admin. Code R. 62-302.540(4)(a).



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watersheds to both protect its many healthy waters from nutrient impairment and achieve nutrient reductions in those that are impaired by nutrients so that water quality improvements are fully realized.

FDEP has also used the vast water quality data, collected at substantial cost to Florida taxpayers, to study the subtle relationships between nutrient concentrations and healthy aquatic ecosystems with the intention of deriving appropriate numeric nutrient criteria for its waters. As part of this process, FDEP has created a number of biological assessment tools, including the Stream Condition Index and the Lake Vegetation Index. FDEP has submitted to EPA statewide numeric nutrient criteria development plans to document its ongoing efforts, with the last development plan being submitted in March 2009.

Despite Florida's status as a national leader in nutrient reduction efforts and FDEP's great progress on the complex science needed to support defensible numeric nutrient criteria, on January 14, 2009, EPA, under the previous administration, issued a § 303(c)(4)(B) determination that numeric nutrient criteria were necessary in the State of Florida, but in no other State.[3] The 2009 "necessity" determination led to EPA settling a frivolous lawsuit alleging that EPA had already made such a necessity determination in its 1998 Clean Water Action Plan. The settlement agreement was subsequently memorialized as a Consent Decree in *Florida Wildlife*

[3] While the necessity determination implies that Florida's situation is unique, excess nutrients are a problem in every State. *See, e.g.*, USGS Circular 1350: Nutrients in the Nation's Streams and Groundwater, 1992 – 2004 (2010), available at http://pubs.usgs.gov/circ/1350/pdf/circ1350.pdf. EPA has not utilized its 303(c)(4)(B) authority to promulgate numeric nutrient criteria elsewhere and has declined to set numeric nutrient standards in the Mississippi River basin even though EPA has been petitioned twice (in 2003 and 2008) to do so. *See* EPA's Response to Sierra Club Petition Regarding Defined Portions of the Mississippi and Missouri Rivers, available at http://water.epa.gov/scitech/swguidance/standards/SierraClub.cfm; and Petition to Establish Numeric Nutrient Standards for the Mississippi River, available at http://www.cleanwaternetwork.org/resources/petition-establish-numeric-standards-and-tmdls-nitrogen-and-phosphorous.



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*Federation v. Jackson*, Case No. 08-00324, Consent Decree, DE 153 (N.D. Fla. December 30, 2009), and is currently on appeal. FDEP was not a party to that litigation and did not participate in the negotiations resulting in the settlement and consent decree.

Pursuant to the settlement agreement, on December 6, 2010, EPA promulgated numeric nutrient criteria for Florida's lakes and flowing waters. 75 Fed. Reg. 75762 (Dec. 6, 2010) (codified at 40 C.F.R. §131.43). EPA remains obligated to propose numeric nutrient criteria for the remainder of Florida's waters (except for wetlands) by November 14, 2011, and finalize those numbers in rule by August 15, 2012. *See Florida Wildlife Federation*, Joint Notice to the Court of Extension of Consent Decree Deadlines, DE 184 (N.D. Fla. June 7, 2010).

FDEP urges EPA to withdraw its determination. This action will allow Florida to address nitrogen and phosphorus pollution through State and local programs, including the FDEP's pursuit of nutrient water quality standards.

**Overview of Florida's Nutrient Reduction Program**

The State of Florida has a comprehensive set of legislatively mandated programs, implemented at the State, regional and local levels, which work in unison to protect waters from nutrient pollution and reduce nutrient loading from all sources of pollution, not just federally-regulated point sources. The core of Florida's program focuses on NPDES permitting with appropriate effluent limits,[4] extensive monitoring of its waters, identification of those waters that are impaired, setting load reduction targets for those waters identified as impaired, and implementing watershed restoration plans covering both point and nonpoint sources. Over the

[4] For wastewater sources that discharge nutrients, WQBELs are specifically derived to protect State waters from nutrient impairment under "worst case" conditions. *See* Fla. Admin. Code R. 62-650.300(3)(h). Before FDEP is able to issue a wastewater permit, the permit applicant must provide upfront "reasonable assurance" that the permittee can meet all conditions in their permit, including the permit effluent limit – a more rigorous permitting standard than contained within the Clean Water Act. *Compare* Fla. Admin. Code R. 62-620.320(1) *with* 40 C.F.R. § 122.44(d).



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years, Florida has expended great time and resources in undertaking these activities. While many of these efforts emanate from the typical Clean Water Act NPDES and TMDL programs, there are a number of programs unique to Florida that complement the standard Clean Water Act tools and in many instances go far beyond the mandates of the Clean Water Act.

For instance, under the Clean Water Act, once a TMDL is set and incorporated into NPDES permits, mandated federal actions are at an end. No comprehensive implementation plan is required. *See* EPA's TMDL website, available at http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/glossary.cfm ("Current 303(d) regulations do not require implementation plans, though some state regulations do require an implementation plan for a TMDL."); *see also Sierra Club v. Meiburg*, 296 F.3d 1021 (11th Cir. 2002). Florida, on the other hand, has a number of watershed-based approaches that result in restoration plans covering both point *and* nonpoint sources. These watershed plans include BMAPs, SWIM plans, and legislatively-mandated restoration efforts directed at a number of specific watersheds like the Everglades and Lake Okeechobee. *See, e.g.,* §§ 373.451 - .4595 and 403.067(7), Fla. Stat.

Florida has already adopted aggressive nutrient load reduction limits for major waterbodies across the State through its TMDL and SWIM programs. Currently, there are 135 adopted nutrient TMDLs and 47 SWIM plans (many with PLRGs) for major waterbodies including: Lake Okeechobee, the Caloosahatchee Estuary, the St. Lucie Estuary, the Indian River Lagoon, Tampa Bay, the Lower St. Johns River, the Suwannee River, the Santa Fe River, the Ocklawaha Chain of Lakes, the Winter Haven Chain of Lakes, Lake Jesup, and many first magnitude springs across the State including Manatee, Fanning, and Wekiva Springs. Florida has also established comprehensive restoration and/or protection plans for most of our high priority waters including the Everglades, Lake Okeechobee, the St. Johns River and Estuary, the



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Ocklawaha Chain of Lakes, Tampa Bay, Sarasota Bay, and the Florida Keys coastal waters, among others.

These efforts, combined with the point and nonpoint source strategies discussed below, already have shown significant, positive results in many of Florida's watersheds. EPA itself has documented a number of Florida's nutrient reduction successes including Lake Apopka, Tampa Bay, Sarasota Bay and Indian River Lagoon. *See* EPA Region 4's Watershed Improvement Summaries, http://www.epa.gov/region4/water/watersheds/watershed_summaries.html#fl.

In Sarasota Bay, EPA acclaims the successes of the nutrient reduction efforts in that watershed:

> "The broadest measure of Sarasota Bay water quality and ecosystem health is the presence of seagrass in the estuary, so critical for the proper function of an estuary. Seagrass coverage in Sarasota Bay has significantly increased, approaching the 1950 extent of coverage. . . . The Sarasota Bay Estuary Partners instrumental in this outstanding Seagrass restoration and recovery effort include Florida Department of Environmental Protection, Southwest Florida Water Management District, Manatee and Sarasota County, city of Sarasota, city of Bradenton, town of Longboat Key, city of Bradenton Beach, city of Holmes Beach and Anna Maria Island."

Reducing Excessive Nutrient Enrichment in Sarasota Bay, available at http://www.epa.gov/region4/water/watersheds/documents/sarasora_bay.pdf.

Moreover, Florida has a number of nationally preeminent programs including its long-standing post-construction stormwater program for all new or modified development (since 1981), its land purchasing program (protecting over 5.3 million acres of land to date representing 15% of the State – Florida spent more than any other State in the nation to acquire conservation lands from 1998-2005), and its reuse of reclaimed water. Florida also has a broad agricultural nonpoint source program setting forth best management practices ("BMPs") for most of the primary agricultural commodities in the State as well as BMPs specific to targeted areas of the State. All of these programs, as well as others, complement one another and result in Florida's



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nutrient program being, unquestionably, a national leader.

These various programs are further discussed below in the context of evaluating Florida's water quality program pursuant to the EPA memo.

**Florida Has as a Strong Nutrient Reduction Program as Measured Against EPA's March 16, 2011 Memo or Any Other Objective Standard**

EPA's March 16, 2011, memo outlines eight minimum elements needed in a comprehensive State nutrient reduction program. Florida undoubtedly exceeds all eight of these requirements, and is a national leader in most of these categories.

FDEP meets or exceeds all eight of the memo elements as follows:

1. *Prioritize Watersheds on a Statewide Basis for Nitrogen and Phosphorus Loading Reductions*

Florida has long utilized a watershed-based approach to address nutrient pollution in Florida. The 1987 SWIM Act directed the regional water management districts to develop management and restoration plans for preserving or restoring priority waterbodies. §§ 373.451 – 373.4595, Fla. Stat. One of the key goals established in a SWIM Plan is the development of a PLRG, which are a precursor and are similar in nature to the more recent TMDLs, designed to preserve or restore designated uses and attain water quality standards in SWIM waterbodies. The legislation initially designated six SWIM waterbodies: Lake Apopka, Tampa Bay, Indian River Lagoon, Biscayne Bay, the Lower St. Johns River, and Lake Okeechobee. Currently, 47 waterbodies are on the priority list. *See* SWIM Website, http://www.dep.state.fl.us/water/watersheds/swim.htm.

The 1999 Florida Watershed Restoration Act, Section 403.067, Florida Statutes, provides for the systematic assessment of impaired waters and development and implementation of scientifically-sound TMDLs for those Florida waters verified as impaired. FDEP's "Impaired



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Waters Rule" provides the scientific methodology for assessing waterbody impairment and includes numeric thresholds for assessing nutrient impairment. Fla. Admin. Code Ch. 62-303. Prioritizing the development of individual TMDLs has largely been dictated by EPA in the 1999 TMDL consent decree in *Florida Wildlife Federation, Inc. v. Browner*, Case No. 98-00356 (N.D. Fla. 1999). However, as limited resources allow, FDEP also prioritizes TMDL development based on factors primarily related to public health (including potential impacts to drinking water supplies and exposure through recreational activities), environmental significance, and its rotating basin schedule. *See* Fla. Admin. Code R. 62-303.500 and .700.

Between the various SWIM Plans, BMAPs, and restoration programs for legislatively targeted watersheds, Florida has already identified its high priority waters and, for most of these waters, established nutrient load reduction targets.[5] Some examples of high priority waterbodies that the State has made a significant investment in actions to reduce nitrogen and phosphorus pollution are:

Lake Apopka: Since the 1980s, Florida has invested millions of dollars in efforts to reduce phosphorus inputs to Lake Apopka and remove phosphorus from the lake, resulting so far in a 41% decrease in lake phosphorus and a 34% increase in water clarity since 1992. *See* St. Johns River Water Management District Lake Apopka Restoration website, http://www.floridaswater.com/lakeapopka/.

Tampa Bay: Nutrient pollution problems documented in Tampa Bay in the 1960s and 1970s have been successfully addressed through the implementation of advanced wastewater treatment of domestic wastewater, increasing reuse, reduced NOx emissions, and significant investments in stormwater treatment. As a result of the reductions in nutrient loading, seagrass

[5] FDEP's monitoring efforts, including both targeted watershed monitoring and statewide basin trend monitoring, are discussed in element seven below.



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coverage has increased to the highest levels since the 1950s in spite of a 500% increase in population in the area during this same period. *See* Tampa Bay Estuary Program website, http://www.tbep.org/.

Indian River Lagoon ("IRL"): Through the combined efforts of State and Federal Agencies, five Counties and other partners, nutrient loadings goals to the IRL have been achieved by reducing and eliminating point source discharges, and implementing measures to reduce nutrient loads from septic systems, stormwater discharges, marinas and boating. The monitoring data indicate decreasing levels of nitrogen, phosphorus and chlorophyll a, and improving dissolved oxygen and seagrass coverage throughout the IRL. *See* St. Johns River Water Management District's Its Your Lagoon website, http://www.sjrwmd.org/itsyourlagoon/.

Everglades: Nutrient loadings to the Everglades have been greatly reduced through a combination of almost 60,000 acres of constructed treatment wetlands and mandatory agricultural BMPs. The State is close to completing $1.1 billion in water quality restoration projects which reflects an unprecedented State commitment to nutrient pollution reduction for a waterbody in the United States. Over the past 15 years, the State's efforts have prevented more than 3,500 metric tons of phosphorus from reaching the Everglades. 2011 South Florida Environmental Report, Volume I, available at http://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_prevreport/2011_sfer/v1/vol1_table_of_contents.html.

Lake Okeechobee Watershed: The State is in the process of implementing the first phase of a Lake Okeechobee Watershed Restoration Plan, the cost of which is estimated to be between



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~$1.3 - $1.7 billion. Lake Okeechobee Protection Plan Update, March 2011, available at http://www.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/lopp_update_2011.pdf.

St. Lucie and Caloosahatchee River Watersheds: Under legislation passed in 2007, multi-billion dollar restoration plans for the St. Lucie and Caloosahatchee River Watersheds have been developed and subsequently ratified in 2009 by the Florida legislature. St. Lucie River Watershed Protection Plan, available at http://www.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/ne_slrwpp_main_123108.pdf; and Caloosahatchee River Watershed Protection Plan, available at http://www.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/ne_crwpp_main_123108.pdf.

Lower St. Johns River: FDEP cooperatively worked with multiple interests and stakeholders to adopt a billion dollar BMAP in 2008 to address nitrogen and phosphorus pollution in the Lower St. Johns River. Loading reductions from implementation of the BMAP are already being realized. *See* 2010 Progress Report, Lower St. Johns River Basin Management Action Plan. Available at http://www.dep.state.fl.us/water/watersheds/docs/bmap/lsjr_prog_rpt2010.pdf.

2. *Set Watershed Load Reduction Goals Based Upon Best Available Information*

As previously noted, Florida has already established restoration goals for most high priority waters in the State, including all the high priority waters specifically discussed under element one. For a complete list of 406 FDEP and EPA established nutrient TMDLs for the State of Florida, please refer to EPA's website at http://iaspub.epa.gov/tmdl_waters10/attains_impaired_waters.tmdls?p_pollutant_group_id=792.



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FDEP has one of the most comprehensive and technically-sophisticated TMDL process in the nation. FDEP's nutrient TMDLs are only possible as a result of the extensive investments in both water quality monitoring data and modeling efforts, including actively funding cutting edge modifications to various modeling tools being used to assess impacts to Florida's surface and ground waters. For instance, in the case of the Lower St. Johns River, more than one million dollars was expended to enhance the Chesapeake Bay model. Significant site-specific improvements were based on extensive additional water quality monitoring, which was used to develop, calibrate, and validate a three dimensional model to assess complex tidal hydrodynamics and water quality changes, with the intent of being able to more accurately determine the critical conditions and the areas where impacts were the greatest.

In addition, Florida has funded the development of the Watershed Assessment Model ("WAM"), a very powerful tool for watershed-scale modeling. WAM can model nutrient loading and transport from small, individual watersheds or large complex basins, including agricultural, urban and native land uses, and natural and channelized streams, springshed groundwater systems, and tidal areas. WAM has been used by FDEP for development of TMDLs and/or restoration plans in numerous areas of the state (e.g., the Suwannee River, Peace River, and the Caloosahatchee Basin) and Florida's regional Water Management Districts also utilize WAM for assessing watershed water and nutrient budgets. Moreover, WAM and other modeling tools are used in the development of BMAPs, which can rely heavily on the use of land use loading models and associated Geographic Information System tools to properly represent and assess local attributes in creating a suite of cost-effective management practices needed to reduce point and non-point sources.



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3. *Ensure Effectiveness of Point Source Permits in Targeted/Priority Sub-Watersheds*

FDEP has a multi-pronged approach for controlling nutrient loading from NPDES point source dischargers.[6] These efforts include: eliminating significantly reducing the volume of wastewater discharges to surface waters, encouraging reuse of domestic wastewater, aggressively identifying nutrient impaired waters and setting TMDLs for those waters, incorporating protective water quality based effluent limits into permits, and adopting comprehensive watershed-wide restoration programs to address both point and nonpoint sources with the assistance of government-funded regional restoration projects. And as noted above, Florida conducts more water quality sampling than any other State to ensure the effectiveness of these programs.[7]

Currently, less than 10 percent of all domestic wastewater treatment facilities in the State even discharge to surface waters (197 out of 2,118 facilities), and over 25% (51 facilities) of the surface water discharges provide full advanced wastewater treatment ("AWT"). Few, if any, States can meet that record of success. Section 403.086(1) of the Florida Statutes was passed in the 1980s to specifically require AWT for domestic wastewater facilities discharging to Old Tampa Bay, Tampa Bay, Hillsborough Bay, Boca Ciega Bay, St. Joseph Sound, Clearwater Bay, Sarasota Bay, Little Sarasota Bay, Roberts Bay, Lemon Bay, or Charlotte Harbor Bay, or any water or tributary flowing into any of these waters. Additionally, in 1990, Chapter 90-262, Laws

[6] In 1995 Florida received NPDES program approval from EPA. 60 Fed. Reg. 25,718 (May 1, 1995); 33 U.S.C. § 1342(c). Prior to receiving program approval, Florida had in place a comprehensive program regulating wastewater discharges into both surface and groundwater and merged that pre-existing permitting program into its NPDES approved program. *See* § 403.088, Fla. Stat.

[7] FDEP also has a robust compliance and enforcement program, averaging over 3,680 inspections of wastewater facilities each year for the past 10 years and assessing over $2.6 million in enforcement penalties in 2010.



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of Florida, was passed to protect the Indian River Lagoon ("IRL") system[8] by prohibiting new discharges or increased loadings from domestic wastewater treatment facilities, and reducing or eliminating nutrient loadings to surface water from existing domestic wastewater treatment facilities that discharge to the IRL system. The result has been an annual 90% reduction in nutrients and suspended solids to IRL. Indian River Lagoon (2010 EPA Fact Sheet), available at http://www.epa.gov/region4/water/watersheds/documents/indian_river_lagoon.pdf. Similar legislation for the protection of the Florida Keys and the Wekiva Study Area was passed in 1999 and 2005, respectively. *See* Chapter 99-395, section 6, Laws of Florida; and § 369.318, Fla. Stat.

In the early 1980's, Florida recognized the importance of reusing wastewater for both wastewater management and water resource management. Reuse offers an environmentally sound means for managing wastewater that dramatically reduces environmental impacts associated with discharge of wastewater effluent to surface waters. In addition, use of reclaimed water provides an alternative water supply for many activities that do not require potable quality water, which serves to conserve available supplies of potable quality water. These facts prompted Florida to actively encourage and promote reuse as a formal state objective.

Two decades later, Florida leads the country in the reuse of domestic wastewater, and in 2006, Florida's Water Reuse Program was the first recipient of the EPA Water Efficiency Leader Award. The total reuse capacity of Florida's domestic wastewater treatment facilities has increased from 362 million gallons per day ("MGD") in 1986 to 1,559 MGD in 2009. Florida Reuse Activities Website, http://www.dep.state.fl.us/water/reuse/activity.htm. The current reuse capacity represents approximately 62 percent of the total permitted domestic wastewater treatment capacity in Florida. In 2006, Florida averaged nearly 37 gallons/day/person of reuse,

[8] The IRL system extends from Jupiter inlet, north to Ponce de Leon Inlet, including Hobe Sound, Indian River Lagoon, Banana River, and Mosquito Lagoon and their tributaries.



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compared to the next two best states -- California, which reuses approximately 16 gallons/day/person, and Virginia, which reuses approximately 1.5 gallons/day/person. *See* Reuse Inventory Database and Annual Report Website, http://www.dep.state.fl.us/water/reuse/inventory.htm. Additionally, legislation was passed in 2008 that will result in the elimination of 300 MGD of domestic wastewater discharges into the Atlantic Ocean in Southeast Florida (i.e., Palm Beach, Broward and Miami-Dade Counties) through a gradual transition to water reuse. Chapter 2008-232, Laws of Florida.

Since its inception, Florida's State Revolving Fund Clean Water program has committed more than $3 billion to plan, design, and build wastewater facilities across the state. Over forty percent of that amount has been directed towards advanced wastewater treatment and reuse facilities.

In permitting domestic and industrial wastewater discharges, the State of Florida has had a program designed to assess the impacts of permitted point source discharges on surface waters and include appropriate WQBELs since the late 1970s, long before it received NPDES program approval.[9] In the case of the Little Wekiva River system, WQBELs have been included in permits as early as 1975. Since receiving program approval, over 140 nutrient WQBELs have been included as specific conditions in FDEP-issued NPDES permits.

More recently, effluent limitations for most traditional point source dischargers of nutrients are derived based upon waste load allocations from TMDLs set for the receiving waterbody. However, for NPDES facilities discharging into waters without a TMDL, FDEP continues to independently derive WQBELs, as appropriate. *See* Fla. Admin. Code Ch. 62-650.

[9] Regulation of concentrated animal feeding operations is discussed below under element 4.



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4. *Agricultural Areas*

FDEP works closely with Federal and State agricultural partners and the agricultural community to address nutrient loading from agricultural operations. In fact, according to the American Farm Bureau Federation ("AFBF"), Florida has the most aggressive and comprehensive program implementing agricultural source controls (i.e., BMPs) in the nation. Personal Communications - Don Parrish, Senior Director of Regulatory Relations, AFBF. The State of Florida adopts agriculture BMPs by rule in the Florida Administrative Code and State law requires these BMPs to be implemented as part of State-adopted watershed restoration plans, known as basin management action plans ("BMAPs"). § 403.067(7), Fla. Stat. Agricultural nonpoint sources covered in a BMAP are subject to enforcement by FDEP or the applicable regional Water Management District, for failure to implement BMPs or conduct monitoring. *Id.*

To date BMPs have been adopted in rule covering citrus (Rules 5M-2, 5M-5, 5M-7, and 5E-1.023), container nurseries (Rule 5M-6), beef cattle operations (Rule 5M-11), sod farms (Rule 5M-9), vegetable and row crops (Rule 5M-8), and forestry operations (Rule 5I-6), with other agricultural BMPs currently under development. Agricultural BMPs have also been adopted for the Everglades Agricultural Area (Rule 40E-63), the C-139 Basin (Rule 40E-63), and the Lake Okeechobee watershed (Rules 5M-11 and 40E-61) and are key components of Everglades and Lake Okeechobee restoration. Over the past 15 years, mandatory agricultural BMPs in the Everglades Agricultural Area have consistently reduced phosphorus loadings by greater than the 25 percent regulatory minimum. 2011 South Florida Environmental Report, Chapter 4, available at http://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_prevreport/2011_sfer/v1/chapters/v1_ch4.pdf.



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Besides promulgating numerous agricultural BMP rules, the Florida Department of Agriculture and Consumer Services ("FDACS") provides assistance to agriculture operations in reducing their pollutant loads to the State's waters. With FDACS' efforts over the last decade, more than 8 million acres of agriculture are now implementing approved agricultural BMPs. FDACS' BMP rules require growers to maintain records demonstrating compliance with the BMPs (including amount of fertilizer applied, etc.) and allow FDACS staff to conduct inspections.

For concentrated animal feeding operations ("CAFOs"), Florida was among the first states in the nation to implement rules regulating CAFO wastes through the Lake Okeechobee Dairy Rule adopted in the 1980s. Fla. Admin. Code R. 62-670.500. Furthermore, all known CAFOs in Florida that require NPDES permits are either permitted or pending permits, with all CAFO dairies already permitted. In addition, Florida requires individual permits for CAFOs, rather than general permits.

All permitted CAFOs in Florida, a hurricane state, have production areas designed to contain the 25-year, 24-hour rainfall event for a site-specific design storage period. Since 1998, based on data from PCS/ICIS, only four permitted CAFOs have discharged to surface water, with the last discharge occurring in 2007. Additionally, Nutrient Management Plans ("NMPs") were implemented by CAFOs even before they were required by the 2008 EPA rules. In Florida NMPs are prepared by either a licensed Professional Engineer or a provider certified by NRCS. Upon permit issuance, components of NMPs are included as permit conditions.

Beyond BMP implementation, the State has undertaken comprehensive watershed restoration efforts to capture and treat nutrient levels not fully addressed by BMP implementation, including construction and operation of off-line treatment facilities in



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watersheds including the Everglades, Lake Okeechobee, and the St. Lucie River. In the Everglades alone, more than 45,000 acres of treatment wetlands are currently operational, with another 13,000 acres of treatment wetlands scheduled to be completed in the near future. 2011 South Florida Environmental Report, Chapter 5, available at http://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_prevreport/2011_sfer/v1/chapters/v1_ch5.pdf. These are the largest complex of treatment wetlands in the world, costing in excess of $1 billion dollars to construct and operate.

Other innovative agricultural initiatives include the first in the nation program to engage the agricultural community in a payment for environmental services framework where land owners enter into a contract for nutrient reduction services for payment. *See* Lake Okeechobee Protection Plan Update, March 2011, Section 6.3.1.1, available at http://www.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/lopp_update_2011.pdf. In 2010, FDEP developed a pilot Water Quality Credit Trading Program in the Lower St. Johns River Basin that allows agricultural operations to partner with point sources to more economically meet nutrient reductions required under the BMAP for the river. Fla. Admin. Code Ch. 62-306.

5. *Stormwater and Septic Systems*

A. Stormwater

Florida was the first State in the Nation to implement comprehensive stormwater treatment regulations in 1981 for all new urban development and redevelopment and is still only one of eleven States with a fully State-financed post-construction permitting program for new



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development and redevelopment.[10] *See* FDEP Urban Stormwater Program website, http://www.dep.state.fl.us/water/nonpoint/urban1.htm. For new stormwater discharges to impaired waters, Florida law requires that no increase in pollutant loading will occur for the pollutants causing or contributing to the impairment. § 373.414(1)(b)(3), Fla. Stat. Despite rapid population growth over the last 30 years, Florida's post-construction stormwater program has been a significant contributor to controlling and reducing nutrient loads during this period.

For the past decade, FDEP has been conducting research on innovative BMPs such as stormwater harvesting and low impact design to obtain data on the effectiveness of BMPs in reducing nutrients. *See* websites at: http://www.dep.state.fl.us/water/nonpoint/pubs.htm #Urban_Stormwater_BMP_Research_Reports and http://stormwater.ucf.edu/. Currently, additional studies and monitoring are being undertaken to enhance the nutrient removal effectiveness of existing stormwater BMPs. FDEP is also developing a rule to establish minimum levels of stormwater treatment for nitrogen and phosphorus that FDEP envisions will result in the most comprehensive urban stormwater treatment program in the country.[11]

In addition to its state stormwater permitting program for new stormwater discharges, Florida has provided state cost share funding to local governments to retrofit existing drainage systems with BMPs to reduce the stormwater pollutant loads discharged from areas built before Florida's stormwater treatment regulations existed. In support of this retrofit effort, for over 20 years Florida has been using a majority of its Section 319 funds for urban stormwater retrofitting projects. For example, Table 1 summarizes stormwater retrofitting in two significant watersheds, the Indian River Lagoon and Tampa Bay. Since 1999, the State has provided over

[10] Florida was also one of the first States to limit the use of phosphates in detergents. *See* § 403.061(23), Fla. Stat.; Chapter 72-53, Laws of Florida.
[11] FDEP's activities to date in support of this rulemaking effort are documented at http://www.dep.state.fl.us/water/wetlands/erp/rules/stormwater/index.htm.



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$50 million in grant money to provide funding for local projects that reduce pollutant loading from urban stormwater discharges.

Table 1

| WATERSHED | PROJECTS | ACRES RETROFITTED | TOTAL COST | TN LOAD REDUCTION | TP LOAD REDUCTION |
|---|---|---|---|---|---|
| Indian River Lagoon | >40 | 47,144 | $51,870,829 | 37,9217 | 68,691 |
| Tampa Bay | >20 | 24,930 | $26,209,779 | 67,230 | 43,866 |

A source of local matching funds is key to stormwater retrofitting and to tapping into state and regional Water Management District funding. The State of Florida currently has more stormwater utilities (154) with a dedicated local revenue stream specifically targeted for stormwater treatment and management than any other State.

In 2003, FDEP and the Florida Department of Transportation, partnered with the University of Central Florida to establish the Stormwater Management Academy as a center of excellence on urban stormwater treatment and management. *See* http://www.stormwater.ucf.edu. The academy has completed or is conducting research on a variety of urban stormwater BMP issues, including the health and water quality risks associated with stormwater reuse. Moreover, FDEP is funding research to determine fertilization and irrigation needs to establish and maintain turf grasses, the impact of wet detention pond depth on the effectiveness of stormwater treatment, and the development of BMPs to increase nitrogen removal in stormwater.

FDEP and FDACS have been working with the fertilizer industry to develop Florida-specific formulations of slow-release and low-phosphorus fertilizers. FDACS adopted its Urban Turf Rule (Rule 5E-1.003), which specifies which types of fertilizers can be used on urban turf in Florida and the amount of nutrients in the various types of urban turf fertilizers. Additionally, the 2007 Florida Legislature established the Consumer Fertilizer Task Force to develop statewide



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recommendations on the use of fertilizer on urban turf and on training and certification requirements for people engaged in the commercial application of fertilizer. The outcome of that task force was a model ordinance for the use of fertilizer. Local government adoption of the model ordinance is statutorily mandated within impaired watersheds, as well as the implementation of a mandatory commercial applicators training and program. *See* § 403.9337, Fla. Stat.

After January 1, 2014, to be licensed to commercially apply fertilizer to urban landscapes, this same Act also requires a certificate from FDEP demonstrating satisfactory training in urban landscape BMPs. § 403.9338, Fla. Stat. An estimated 100,000 people will receive this training by the statutory deadline. As of September 20, 2010, 11,013 people already have received the certification. *See* FDEP's 2010 Annual Report: Nonpoint Source Management Program, pp. 12 - 14, available at http://www.dep.state.fl.us/water/nonpoint/docs/319h/2010AnnualReport319h.pdf.

Finally, Florida has the largest public land acquisition program of its kind in the United States. This program, combined with Florida's comprehensive wetland protection program, ensures that environmentally sensitive areas are not only protected, but that they perform their natural function as nutrient sinks. The state's first environmental land acquisition program goes back as far as 1972 (the Environmentally Endangered Lands Act) and was expanded in 1981 with the Save Our Coasts and Save Our Rivers Programs. In 1989, recognizing the importance of accelerating land acquisition, given the state's rapid population growth, the Preservation 2000 program was enacted. This decade-long program provided $300 million, annually, for land acquisition. In 1999, Preservation 2000 was extended for another decade by the enactment of the Florida Forever Program, which continued the $300 million annual commitment. *See generally*



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Florida's Landmark Programs for Conservation and Recreation Land Acquisition, available at http://www.dep.state.fl.us/lands/files/Florida_LandAcquisition.pdf. In combination with other State programs, over 5.3 million acres of sensitive lands have been acquired for protection. Florida Natural Areas Inventory Summary of Florida Conservation Lands, available at http://www.fnai.org/PDF/Maacres_201102_FCL_plus_LTF.pdf.

B. Septic Systems

Florida has established standards for septic systems and as part of adopted restoration plans (i.e., BMAPs), septic tanks are routinely removed and residents are hooked up to centralized sewer. Throughout Florida, a number of successful programs have been implemented to ensure that septic systems are well-maintained and, when necessary, taken offline. As part of adopted BMAPs for the Lower St. Johns Rivers, Lake Jesup, and Bayou Chico, septic tanks are routinely removed and residents are hooked up to centralized sewer. More than 230,000 lb/yr TN has been reduced in the St. Johns River alone.

EPA has assisted Florida in its septic tank efforts, including an award of $3.6 million grant to the Florida Keys Aqueduct Authority for the Florida Keys Decentralized Wastewater Demonstration Project. This project, which addresses the upgrade of approximately 400 onsite sewage treatment and disposal systems in the lower Keys, will allow owners the option of giving ownership of their system to the Florida Keys Aqueduct Authority, who will then provide upgrade, maintenance, and repair services. Under State law, these septic systems must be upgraded to nutrient reduction systems by July 2016. § 381.0065(4)(l), Fla. Stat.

Florida's State Revolving Fund has provided over $3 billion in funding to projects designed to improve Florida's waters and make drinking water safe. Of this amount, almost $1 billion has been spent on sewer projects, which includes taking septic tanks offline in sensitive



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areas throughout Florida such as Key Largo, Marathon Key, Monroe County, Sopchoppy, Grand Ridge, Clewiston, Panama City Beach, Lee, Key Biscayne, and Marco Island.

In 2008, EPA and the National Oceanic and Atmospheric Administration ("NOAA") jointly determined that the State of Florida had satisfied all conditions for approval of the Florida coastal non-point pollution control program. Florida Coastal Non-point Program, NOAA/EPA Decisions on Conditions of Approval, available at: http://coastalmanagement.noaa.gov/non-point/docs/6217fl_fnl.pdf. Within its approval, with regard to new and operating onsite disposals systems, EPA and NOAA stated that Florida "has satisfied" the requirements of Coastal Zone Act Reauthorization Amendments ("CZARA") by "incorporating a well funded and targeted approach statewide." *Id.* The approval notes the use of the Carmody Data Systems program, the state's "robust" Onsite Sewage Treatment and Disposal System ("OSTDS") licensing, certification, and standards of inspection program, point-of-sale outreach, and a "very professional" public outreach campaign. *Id.* EPA and NOAA further commented that Florida is "providing guidance and technical assistance to the local health department offices to help them systematically implement broad [OSTDS] inspection programs on a county-to-county basis and to educate the public about inspections and maintenance." *Id.* To maintain its CZARA approval, Florida has committed to continue to work with county health departments to increase inspections through 2018 and to devote approximately $1 million a year from the Florida Department of Health ("FDOH") and $200,000 a year from section 319 funds administered by FDEP.

6. *Accountability and Verification Measures*; and

7. *Annual Public Reporting of Implementation Activities and Biannual Reporting of Load Reductions and Environmental Impacts Associated with Each Management Activity in Targeted Watersheds*



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The description of how the State of Florida achieves these two elements is articulated below and described in unison due to the significant overlap of information. Monitoring of environmental response and verification that management activities are carried out are important components of restoration efforts implemented in the State of Florida, generally in annual reports.

A. Public Reporting

The annual South Florida Environmental Report details the progress of restoring the Everglades, Lake Okeechobee, and the Southern Coastal Waters including the Caloosahatchee and St. Lucie estuaries. *See* 2011 South Florida Environmental Report, Volume I, available at http://my.sfwmd.gov/portal/page/portal/pg_grp_sfwmd_sfer/portlet_prevreport/2011_sfer/v1/vol1_table_of_contents.html. All five of the regional water management districts report on their various activities on their individual websites. *See generally* http://www.dep.state.fl.us/secretary/watman/. In addition, for watersheds with adopted BMAPs, annual progress reports are prepared that detail the specific activities implemented and loads reduced. The National Estuary Programs also issue routine reports describing the measures implemented to protect and restore those high priority waterbodies. FDEP produces a variety of reports on wastewater and wastewater-related issues. *See* http://www.dep.state.fl.us/water/wastewater/pubs.htm. FDACS issues annually a Report on the Implementation of Agricultural Best Management Practices. *See* http://floridaagwaterpolicy.com/ImplementationAssurance.html. Finally, FDOH produces a variety of reports on installation and repair of septic systems and research to enhance the State's septic systems. *See* http://www.myfloridaeh.com/ostds/research/Index.html.



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B. Water Quality Monitoring and Assessment

Florida has an extensive water quality monitoring and assessment program, particularly with respect to nutrients. Currently, over 30 percent of all the nutrient water quality data and over 55 percent of the chlorophyll a data in EPA's national water quality database, STORET, came from Florida -- more than double from the next highest State, Oklahoma. STORET water quality database, http://www.epa.gov/storet. In fact, 25 percent of the nation's ambient water quality monitoring stations (more than 41,000 stations) are located within Florida. The next highest state is Alaska with 15,187 stations.

FDEP's voluminous water quality data are used for the assessment of waterbodies for nutrient impacts annually under a comprehensive and sophisticated rotating basin approach. FDEP conducts hundreds of assessments of waterbody health for nutrients per year pursuant to the Impaired Waters Rule. *See* FDEP's Adopted Verified Lists of Impaired Waters, available at http://www.dep.state.fl.us/water/watersheds/assessment/303drule.htm. As part of FDEP's rotating basin approach for assessing waters and setting TMDLs, FDEP updates its 303(d) list annually. Additionally, every 2 years, as part of its "Integrated Report" (combining the reporting elements of the 305(b) Report and the 303(d) assessment), the State assesses and reports on statewide nutrient conditions based on data from the status monitoring network and reports on nutrient trends at 77 trend monitoring stations. FDEP's status monitoring network uses a probabilistic design to allow for the unbiased assessment of the status of Florida's waters.

Florida's vast water quality data are readily accessible to the public through FDEP's website at http://ca.dep.state.fl.us/mapdirect/?focus=waterdatacentral. FDEP updates this database quarterly.

Since 1996, FDEP has conducted an Integrated Water Resource Monitoring Network



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("IWRM") Program. *See* http://www.dep.state.fl.us/water/monitoring/index.htm. This program is a multi-level or "tiered" monitoring program designed to answer questions about Florida's water quality at differing scales. Tier I monitoring is comprised of two monitoring efforts, status monitoring and trend monitoring, which are both designed to answer regional to statewide questions.

The purpose of the Status Monitoring Network is to characterize environmental conditions of Florida's fresh water resources and to determine how these conditions change over time. The Status Monitoring Network, which randomly selects stations via a probabilistic design recommended by EPA, is designed to address questions at three different scales: 1) the state as a whole; 2) specific geopolitical regions of the state; and 3) watersheds associated with Florida's major rivers and lakes. Status Network data are used to statistically describe statewide, regional, and basin-specific water quality conditions present during the period of sampling.

The basic design units of the trend monitoring network are the state of Florida's 52 United States Geologic Survey ("USGS") eight-digit surface water drainage basins. The purposes of the Trend Network are to correlate Tier I, II, and III IWRM results with seasonal climatic change, to make best estimates of temporal variance of sampled analytes within the USGS drainage basins, and to determine how these analytes are changing over time. The Trend Network consists of 77 fixed location sites in streams and rivers that are sampled on a monthly basis. The sites are generally located at the lower end of a USGS drainage basin and are placed at or close to a flow gauging station. These sites enable FDEP to obtain chemistry, discharge, and loading data at the point that integrates the land use activities of the watershed.

Tier II monitoring includes strategic monitoring for basin assessments and monitoring required for TMDL development. This monitoring is more localized in nature than that



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occurring under Tier I monitoring, yet may encompass a broader area than that employed in Tier III. Tier II monitoring is primarily conducted as part of FDEP watershed management approach. In 2000, FDEP adopted a five-year watershed management cycle that divides Florida into five groups of surface water basins in which different activities take place each year; the cycle is repeated continuously to prioritize watersheds for implementation of restoration efforts, to evaluate the success of clean-up efforts, to refine water quality protection strategies, and to account for the changes brought about by Florida's rapid growth and development. Activities associated with FDEP's assessment process include preliminary basin assessments; identification of nutrient or other pollutant-impaired waters; targeted water quality monitoring and data analysis; TMDL development and adoption; basin planning with local stakeholders to establish the actions necessary to reduce pollution; and implementation through regulatory actions, funding, pollution prevention strategies, and other measures. Over the past three years, FDEP has conducted more than 26,000 assessments of waterbody health through this process, more than any other agency in the country.

Tier III includes all monitoring tied to regulatory permits issued by FDEP and is associated with evaluating the effectiveness of point source discharge reductions, best management practices or TMDLs. The program addresses both surface and ground waters of the state.

8. *Develop Work Plan and Schedule for Numeric Criteria Development*

Florida has a long-standing, EPA-approved, narrative nutrient criterion found at Florida Administrative Code Rule 62-302.530(47)(b) that has been the guidepost for Florida's nutrient



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reduction efforts.[12] In the Everglades, FDEP has translated the narrative criteria into a numeric phosphorus criterion, which has been approved by EPA and upheld in state and federal courts. Fla. Admin. Code R. 62-302.540(4)(a). FDEP also has statewide, EPA-approved turbidity, transparency and biological integrity criteria[13] in Rules 62-302.530(69), (67) and (10) that work in unison with the existing narrative nutrient standard.

Moreover, FDEP has adopted numeric nutrient response thresholds (chlorophyll-a and Trophic State Index) for determining whether individual waters are impaired for nutrients. Fla. Admin. Code R. 62-304.351, .352, .353, and .450. EPA has approved these nutrient response values as changes to Florida's nutrient water quality standards that are consistent with the Clean Water Act. *See* EPA's July 6, 2005, 303(c) Determination on Florida's Chapter 62-303; *see also*, EPA's February 19, 2008, 303(c) Determination on Florida's Amendments to Chapter 62-303. EPA's approval of these changes to state water quality standards have been upheld in federal court. *Florida Public Interest Research Group v. EPA*, Case No. 4:02cv408-WCS, Order Granting Summary Judgment, DE 185 (N.D. Fla. Feb. 15, 2007) (unpublished opinion). As such, Florida is one of three states in the nation with EPA-approved nutrient response criteria for all of its waters (with the exception of wetlands).

FDEP recognizes the benefits of promulgating scientifically sound nutrient criteria and

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[12] First adopted in 1974, Florida's narrative nutrient criterion provides, "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 and fauna." Fla. Admin. Code Rule 62-302.530(47)(b).

[13] Turbidity and transparency are surrogates for water clarity and are an indicator (along with other parameters, such as chlorophyll-a) for measuring biological response, i.e., algal mass, in surface water. EPA has encouraged States to adopt turbidity, transparency and other water clarity criteria as part of the suite of criteria for addressing nutrient pollution. *See, e.g.*, EPA Memorandum: Development and Adoption of Nutrient Criteria into Water Quality Standards, p. 8, found at http://water.epa.gov/scitech/swguidance/standards/upload/2009_01_21_criteria_nutrient_nutrientswqsmemo.pdf.



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has expended great resources to this end. FDEP had been following a mutually agreed upon (EPA and FDEP) criteria development plan until EPA's 2009 settlement with the various organizations represented by EarthJustice. On numerous occasions, EPA has acknowledged FDEP's extraordinary efforts in this regard and has publically stated that EPA's rulemaking efforts would have been impossible without Florida's extensive water quality data. *See* 75 Fed. Reg. at 75771, 75773; 75 Fed. Reg. 4174, 4183 (January 26, 2010); *see also* EPA's September 28, 2007 Letter Approving FDEP's 2007 Nutrient Criteria Development Plan, available at http://www.dep.state.fl.us/water/wqssp/nutrients/docs/epa-092807.pdf.

As the understanding of nutrients in aquatic ecosystems continues to evolve, FDEP desires to continue our commitment to developing defensible nutrient criteria. As such, FDEP plans to recommence its rulemaking efforts and will target the waterbodies covered by EPA's December 6, 2010 rule in addition to a number of estuaries which will represent a very broad coverage of State waterbodies. FDEP has projected the following timetable for completing the rulemaking, but this timeframe is contingent on EPA's response to this Petition:

| | |
|---|---|
| Notice of Rule Development: | May, 2011 |
| 1st Public Workshop on Rule Concepts: | June, 2011 |
| 2nd Public Workshop on Draft Rules: | July, 2011 |
| 3rd Public Workshop on Final Draft Rules: | September, 2011 |
| 1st ERC Meeting (briefing): | November, 2011 |
| 2nd ERC Meeting (adoption): | January, 2012 |
| Legislative Ratification: | 2012 Legislative Session |

FDEP expects that legal challenges from interested parties could be filed which would delay the effective date of the rule. In the near future, FDEP will update its March 2009



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development plan and submit the updated plan to EPA.

Once FDEP completes its rulemaking, EPA obviously maintains its authority to review any proposed criteria resulting from the State process. 33 U.S.C. § 1313(c). Consequently, if EPA were to withdraw its necessity determination, it would not relinquish total authority to Florida. This significant step would once again allow Florida to regain its primary responsibility for standard setting, as Congress unambiguously envisioned within the Clean Water Act.

**EPA Should Withdraw Its Necessity Determination and, Consequently, Repeal 40 C.F.R. §131.43 and Refrain from Proposing Other Numeric Criteria in Florida**

EPA's purported willingness to give flexibility to States, like Florida, that have in place the framework for achieving nutrient reductions, is not consistent with EPA's 2009 necessity determination for Florida. Measured against EPA's March 16, 2011 memo, the State of Florida has in place a framework for achieving nitrogen and phosphorus reductions and control that is among the best in the nation. It is therefore reasonable to conclude that EPA's 2009 necessity determination should not have singled out Florida. To rectify this discrepancy, EPA must withdraw its necessity determination and has good reason to do so.

Because the necessity determination is essential for EPA's promulgation of numeric nutrient criteria in Florida's lakes and flowing waters, withdrawal of the determination will require EPA to repeal 40 C.F.R. § 131.43. Withdrawal will also relieve EPA from proposing and promulgating numeric nutrient criteria for Florida's estuaries, coastal waters and south Florida canals.

It is well-recognized that federal agencies may change their mind and alter their previous agency actions. *Mactal v. Chao*, 286 F.3d 822, 825-26 (5th Cir. 2002). As explained by the United States Supreme Court, an agency "faced with new developments or in light of reconsideration of the relevant facts and its mandate, may alter its past interpretation and



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overturn past administrative rulings and practice." *American Trucking Ass'ns v. Atchison, Topeka, and Santa Fe Railway Co.*, 387 U.S. 397, 416 (1967); *see also Motor Vehicle Mfrs. Ass'n of United States, Inc. v. State Farm Mut. Automobile Ins. Co.*, 463 U.S. 29, 41-42 (1983); *Dun & Bradstreet Corp. Found. v. United States Postal Service*, 946 F.2d 189, 193 (2d Cir. 1991) ("It is widely accepted that an agency may, on its own initiative, reconsider its interim or even its final decisions, regardless of whether the applicable statute and agency regulations expressly provide for such review."). EPA has asserted that § 303(c)(4)(B) necessity determinations are discretionary action not subject to judicial review. *See* EPA's Motion to Dismiss Cross-Claim and EPA's Motion for Judgment on the Pleadings on Counts I, III and IV of FCG's and FWEAUC's First Amended Complaint, Case No. 08-00324, DE 151 and 214 (N.D. Fla.); and EPA's Motion to Dismiss, Case No. 09-00428, DE 13 (N.D. Fla. Dec. 22, 2009). Accepting EPA's assertion, the Agency has broad discretion to withdraw that same action. Even if EPA's withdrawal action is reviewable, the reasons for the change in agency action need be no better or worse than the justifications for the original agency course. *F.C.C. v. Fox Television Station, Inc.*, 129 S. Ct. 1800, 1810-11 (2009).

EPA is not irrevocably bound by the previous administration's January 2009 necessity determination. *See National Cable & Telecommunications Ass'n v. Brand X Internet Services*, 545 U.S. 967, 981 (2005) (Reflecting that a change in administration can prompt revaluation of the previous administration's actions). To the contrary, withdrawal of the necessity determination is warranted based solely on the demonstrated strength of Florida's nutrient reduction program. However, the change in EPA's administration, the recent issuance of the EPA memo, and FDEP's commitment to expeditiously promulgate nutrient criteria are additional changed circumstances that warrant rescinding of EPA's necessity determination. Withdrawal



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will also enable FDEP to proceed with its proposed rule adoption schedule without the added complication of overlapping federal rulemaking authority.

## Conclusion

Florida's comprehensive nutrient reduction program is among the upper echelon of programs in the nation. FDEP is also committed to further its comprehensive program by pursuing nutrient criteria under state law. For these reasons and the other grounds articulated in this Petition, FDEP requests that EPA withdraw its January 2009 necessity determination and take the steps necessary to relieve the Agency from the obligation to propose, promulgate, or implement numeric nutrient criteria in Florida. Granting this request will serve as a clear, positive affirmation of EPA's expectation of States consistent with the March 16, 2011, memorandum. In order to implement the nutrient criteria schedule contained in this petition, FDEP requires a response from EPA on this petition within 30 days of filing.

RESPECTFULLY SUBMITTED this 22d day of April, 2011.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 1 6 2011

OFFICE OF WATER

**MEMORANDUM**

**SUBJECT:** Working in Partnership with States to Address Phosphorus and Nitrogen Pollution through Use of a Framework for State Nutrient Reductions

**FROM:** Nancy K. Stoner
Acting Assistant Administrator

**TO:** Regional Administrators, Regions 1-10

This memorandum reaffirms EPA's commitment to partnering with states and collaborating with stakeholders to make greater progress in accelerating the reduction of nitrogen and phosphorus loadings to our nation's waters. The memorandum synthesizes key principles that are guiding and that have guided Agency technical assistance and collaboration with states and urges the Regions to place new emphasis on working with states to achieve near-term reductions in nutrient loadings.

Over the last 50 years, as you know, the amount of nitrogen and phosphorus pollution entering our waters has escalated dramatically. The degradation of drinking and environmental water quality associated with excess levels of nitrogen and phosphorus in our nation's water has been studied and documented extensively, including in a recent joint report by a Task Group of senior state and EPA water quality and drinking water officials and managers.[1] As the Task Group report outlines, with U.S. population growth, nitrogen and phosphorus pollution from urban stormwater runoff, municipal wastewater discharges, air deposition, and agricultural livestock activities and row crop runoff is expected to grow as well. Nitrogen and phosphorus pollution has the potential to become one of the costliest and the most challenging environmental problems we face. A few examples of this trend include the following:

1) 50 percent of U.S. streams have medium to high levels of nitrogen and phosphorus.
2) 78 percent of assessed coastal waters exhibit eutrophication.
3) Nitrate drinking water violations have doubled in eight years.

[1] *An Urgent Call to Action: Report of the State-EPA Nutrients Innovations Task Group*, August 2009.



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Attachment 1

4) A 2010 USGS report on nutrients in ground and surface water reported that nitrates exceeded background concentrations in 64% of shallow monitoring wells in agriculture and urban areas, and exceeded EPA's Maximum Contaminant Levels for nitrates in 7% or 2,388 of sampled domestic wells.[2]
5) Algal blooms are steadily on the rise; related toxins have potentially serious health and ecological effects.

States, EPA and stakeholders, working in partnership, must make greater progress in accelerating the reduction of nitrogen and phosphorus loadings to our nation's waters. While EPA has a number of regulatory tools at its disposal, our resources can best be employed by catalyzing and supporting action by states that want to protect their waters from nitrogen and phosphorus pollution. Where states are willing to step forward, we can most effectively encourage progress through on-the-ground technical assistance and dialogue with state officials and stakeholders, coupled with cooperative efforts with agencies like USDA with expertise and financial resources to spur improvement in best practices by agriculture and other important sectors.

States need room to innovate and respond to local water quality needs, so a one-size-fits-all solution to nitrogen and phosphorus pollution is neither desirable nor necessary. Nonetheless, our prior work with states points toward a framework of key elements that state programs should incorporate to maximize progress. Thus, the Office of Water is providing the attached "Recommended Elements of a State Nutrients Framework" as a tool to guide ongoing collaboration between EPA Regions and states in their joint effort to make progress on reducing nitrogen and phosphorus pollution. I am asking that each Region use this framework as the basis for discussions with interested and willing states. The goal of these discussions should be to tailor the framework to particular state circumstances, taking into account existing tools and innovative approaches, available resources, and the need to engage all sectors and parties in order to achieve effective and sustained progress.

While the Framework recognizes the need to provide flexibility in key areas, EPA believes that certain minimum building blocks are necessary for effective programs to manage nitrogen and phosphorus pollution. Of most importance is prioritizing watersheds on a state-wide basis, setting load-reduction goals for these watersheds based on available water quality information, and then reducing loadings through a combination of strengthened permits for point-sources and reduction measures for nonpoint sources and other point sources of stormwater not designated for regulation. Our experience in almost 40 years of Clean Water Act implementation demonstrates that motivated states, using tools available under federal and state law and relying on good science and local expertise, can mobilize local governments and stakeholders to achieve significant results.

It has long been EPA's position that numeric nutrient criteria targeted at different categories of water bodies and informed by scientific understanding of the relationship between nutrient loadings and water quality impairment are ultimately necessary for effective state

[2] *Nutrients in the Nation's Streams and Groundwater: National Findings and Implications*, US Geological Survey, 2010.



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programs. Our support for numeric standards has been expressed on several occasions, including a June 1998 National Strategy for Development of Regional Nutrient Criteria, a November 2001 national action plan for the development and establishment of numeric nutrient criteria, and a May 2007 memo from the Assistant Administrator for Water calling for accelerated progress towards the development of numeric nutrient water quality standards. As explained in that memo, numeric standards will facilitate more effective program implementation and are more efficient than site-specific application of narrative water quality standards. We believe that a substantial body of scientific data, augmented by state-specific water quality information, can be brought to bear to develop such criteria in a technically sound and cost-effective manner.

EPA's focus for nonpoint runoff of nitrogen and phosphorus pollution is on promoting proven land stewardship practices that improve water quality. EPA recognizes that the best approaches will entail States, federal agencies, conservation districts, private landowners and other stakeholders working collaboratively to develop watershed-scale plans that target the most effective practices to the acres that need it most. In addition, our efforts promote innovative approaches to accelerate implementation of agricultural practices, including through targeted stewardship incentives, certainty agreements for producers that adopt a suite of practices, and nutrient credit trading markets. We encourage federal and state agencies to work with NGOs and private sector partners to leverage resources and target those resources where they will yield the greatest outcomes. We should actively apply approaches that are succeeding in watersheds across the country.

USDA and State Departments of Agriculture are vital partners in this effort. If we are to make real progress, it is imperative that EPA and USDA continue to work together but also strengthen and broaden partnerships at both the national and state level. The key elements to success in BMP implementation continue to be sound watershed and on-farm conservation planning, sound technical assistance, appropriate and targeted financial assistance and effective monitoring. Important opportunities for collaboration include EPA monitoring support for USDA's Mississippi River Basin Initiative as well as broader efforts to use EPA section 319 funds (and other funds, as available) in coordination with USDA programs to engage creatively in work with communities and watersheds to achieve improvements in water quality.

Accordingly the attached framework envisions that as states develop numeric nutrient criteria and related schedules, they will also develop watershed scale plans for targeting adoption of the most effective agricultural practices and other appropriate loading reduction measures in areas where they are most needed. The timetable reflected in a State's criteria development schedule can be a flexible one provided the state is making meaningful near-term reductions in nutrient loadings to state waters while numeric criteria are being developed.

The attached framework is offered as a planning tool, intended to initiate conversation with states, tribes, other partners and stakeholders on how best to proceed to achieve near- and long-term reductions in nitrogen and phosphorus pollution in our nation's waters. We hope that the framework will encourage development and implementation of effective state strategies for managing nitrogen and phosphorus pollution. EPA will support states that follow the framework but, at the same time, will retain all its authorities under the Clean Water Act.



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With your hard work, in partnership with the states, USDA and other partners and stakeholders, I am confident we can make meaningful and measurable near-term reductions in nitrogen and phosphorus pollution. As part of an ongoing collaborative process, I look forward to receiving feedback from each Region, interested states and tribes, and stakeholders.

Attachment

Cc: Directors, State Water Programs
Directors, Great Water Body Programs
Directors, Authorized Tribal Water Quality Standards Programs
Interstate Water Pollution Control Administrators



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**Recommended Elements of a State Framework for Managing Nitrogen and Phosphorus Pollution**

1. **Prioritize watersheds on a statewide basis for nitrogen and phosphorus loading reductions**

   A. Use best available information to estimate Nitrogen (N) & Phosphorus (P) loadings delivered to rivers, streams, lakes, reservoirs, etc. in all major watersheds across the state on a Hydrologic Unit Code (HUC) 8 watershed scale or smaller watershed (or a comparable basis.)

   B. Identify major watersheds that individually or collectively account for a substantial portion of loads (e.g. 80 percent) delivered from urban and/or agriculture sources to waters in a state or directly delivered to multi-jurisdictional waters.

   C. Within each major watershed that has been identified as accounting for the substantial portion of the load, identify targeted/priority sub-watersheds on a HUC 12 or similar scale to implement targeted N & P load reduction activities. Prioritization of sub-watersheds should reflect an evaluation of receiving water problems, public and private drinking water supply impacts, N & P loadings, opportunity to address high-risk N & P problems, or other related factors.

2. **Set watershed load reduction goals based upon best available information**

   Establish numeric goals for loading reductions for each targeted/priority sub-watershed (HUC 12 or similar scale) that will collectively reduce the majority of N & P loads from the HUC 8 major watersheds. Goals should be based upon best available physical, chemical, biological, and treatment/control information from local, state, and federal monitoring, guidance, and assistance activities including implementation of agriculture conservation practices, source water assessment evaluations, watershed planning activities, water quality assessment activities, Total Maximum Daily Loads (TMDL) implementation, and National Pollutant Discharge Elimination System (NPDES) permitting reviews.

3. **Ensure effectiveness of point source permits in targeted/priority sub-watersheds for:**

   A. Municipal and Industrial Wastewater Treatment Facilities that contribute to significant measurable N & P loadings;

   B. All Concentrated Animal Feeding Operations (CAFOs) that discharge or propose to discharge; and/or

   C. Urban Stormwater sources that discharge into N & P- impaired waters or are otherwise identified as a significant source.

4. **Agricultural Areas**

   In partnership with Federal and State Agricultural partners, NGOs, private sector partners, landowners, and other stakeholders, develop watershed-scale plans that target the most effective practices where they are needed most. Look for opportunities to include innovative approaches, such as targeted stewardship incentives, certainty agreements, and N & P markets, to accelerate adoption of agricultural conservation practices. Also, incorporate lessons learned from other successful agricultural initiatives in other parts of the country.



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5. **Storm water and Septic systems**

Identify how the State will use state, county and local government tools to assure N and P reductions from developed communities not covered by the Municipal Separate Storm Sewer Systems (MS4) program, including an evaluation of minimum criteria for septic systems, use of low impact development/ green infrastructure approaches, and/or limits on phosphorus in detergents and lawn fertilizers.

6. **Accountability and verification measures**

   A. Identify where and how each of the tools identified in sections 3, 4 and 5will be used within targeted/priority sub-watersheds to assure reductions will occur.

   B. Verify that load reduction practices are in place.

   C. To assess/demonstrate progress in implementing and maintaining management activities and achieving load reductions goals: establish a baseline of existing N & P loads and current Best Management Practices (BMP) implementation in each targeted/priority sub-watershed, conduct ongoing sampling and analysis to provide regular seasonal measurements of N & P loads leaving the watershed, and provide a description and confirmation of the degree of additional BMP implementation and maintenance activities.

7. **Annual public reporting of implementation activities and biannual reporting of load reductions and environmental impacts associated with each management activity in targeted watersheds**

   A. Establish a process to annually report for each targeted/priority sub-watershed: status, challenges, and progress toward meeting N & P loading reduction goals, as well as specific activities the state has implemented to reduce N & P loads such as: reducing identified practices that result in excess N & P runoff and documenting and verifying implementation and maintenance of source-specific best management practices.

   B. Share annual report publically on the state's website with request for comments and feedback for an adaptive management approach to improve implementation, strengthen collaborative local, county, state, and federal partnerships, and identify additional opportunities for accelerating cost-effective N & P load reductions.

8. **Develop work plan and schedule for numeric criteria development**

Establish a work plan and phased schedule for N and P criteria development for classes of waters (e.g., lakes and reservoirs, or rivers and streams). The work plan and schedule should contain interim milestones including but not limited to data collection, data analysis, criteria proposal, and criteria adoption consistent with the Clean Water Act. A reasonable timetable would include developing numeric N and P criteria for at least one class of waters within the state (e.g., lakes and reservoirs, or rivers and streams) within 3-5 years (reflecting water quality and permit review cycles), and completion of criteria development in accordance with a robust, state-specific workplan and phased schedule.



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