

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY

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Meeting Date: June 29, 2010 Consent [X] Regular []
Public Hearing []

Submitted By: Water Utilities Department
Submitted For: Water Utilities Department
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I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: a voluntary one time "Special Assessment" fee from the Florida Water Environment Association Utility Council (FWEAUC) in the amount of \$8,400 to make certain that numeric nutrient standards being developed by the United States Environmental Protection Agency (EPA) are meaningful, reasonable and based on sound science.

Summary: This special assessment is being sought from all members to subsidize the FWEAUC's efforts to make certain that the proposed numeric nutrient standards are scientifically sound and do not have severe, unintended economic consequences on water and wastewater providers in Florida. The FWEAUC is a technical and scientific association of 47 local government and private utilities in Florida (including PBCWUD), representing more than 8 million Florida residents, that own and operate domestic wastewater treatment, disposal, reuse, and recycling facilities. Its members share a common commitment to environmental protection and scientifically sound environmental policies. The economy of scale achieved by supporting FWEAUC's efforts to make certain cost effective rule development, which if promulgated is expected to adversely impact Palm Beach County residents and businesses and be unlikely to achieve meaningful environmental protection, more than justifies the anticipated costs WUD would incur through independent engineering and/or legal contractual services. The South Florida Water Management District (SFWMD), Department of Environmental Protection (FDEP), and the State of Florida have all provided official comment expressing concerns over the scientific validity and cost impact of the proposed rule. This assessment is above the regular dues amount of \$5,600, which has been paid for 2010. Districtwide (MJ)

Background and justification: On January 14, 2009 the EPA determined that new or revised water quality standards in the form of numeric nutrient water quality criteria were necessary to meet the requirements of the Clean Water Act in the State of Florida. They subsequently entered into a consent decree that required the EPA to adopt numeric nutrient standards by October 15, 2010. Since this determination was made, members of the Florida Congressional Delegation have endorsed a letter to the Administrator of the EPA calling for more open collaboration with the state, expressing concerns that the new rule would have economic impacts on the state. Congressman Bill Posey (R-Rockledge) also introduced testimony to the EPA regarding Florida's water standards, stating that "The state of Florida has been a national leader in making our waters cleaner. Florida has in place today some of the most robust standards to support water quality improvement. Unfortunately, the proposed regulations fail to recognize this and instead impose a blanket approach to water quality that fails to recognize the variability of Florida's water resources and the positive steps Florida has already taken." He concluded with concerns that if the new rules became promulgated, they would have serious economic harm with uncertain environmental benefit. Florida's Chief Financial Officer also recognized the potential for tremendous economic impact these standards will have on Florida, as did the FDEP in their letter to the EPA where they recognized a significant underestimate of costs to wastewater facilities. Statewide, those costs are estimated to be \$50 billion in additional capital investment for treatment facilities and an estimated \$1.3 billion per year in added operational costs. Undoubtedly, if the numeric nutrient rule is promulgated it is anticipated that WUD customers would see a significant increase in utility bills for water and wastewater services.

Attachments:

- 1. Invoice Request
- 2. Letter from Florida's Congressional Delegation to EPA
- 3. Letter from Florida's Chief Financial Officer to EPA
- 4. Letter from Florida Department of Environmental Protection to EPA
- 5. Letter from Palm Beach County to EPA

Recommended By:  6/14/2010
Department Director Date

Approved By:  6/22/10
Assistant County Administrator Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2010	2011	2012	2013	2014
Capital Expenditures	<u>\$8,400.00</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
External Revenues	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Program Income (County)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
In-Kind Match County	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
NET FISCAL IMPACT	<u>\$8,400.00</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
# ADDITIONAL FTE POSITIONS (Cumulative)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Budget Account No.: Fund 4001 Agency 720 Org. 1110 Object 5412

Is Item Included in Current Budget? Yes No

Reporting Category N/A

B. Recommended Sources of Funds/Summary of Fiscal Impact:

Water Utilities Department user fees

C. Department Fiscal Review: Delura m west

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Development and Control Comments:

*2009 special Assessment \$5600,
2010 special Assessment \$2800: totals \$8400.
Annual dues \$5600 already paid*

[Signature] 6/23/10
OFMB
6/24/10 *5/12/10*

[Signature] 6/24/10
Contract and Development Control

B. Legal Sufficiency:

[Signature] 6/25/10
Assistant County Attorney

C. Other Department Review:

(If Applicable)

This summary is not to be used as a basis for payment.



FWEA Utility Council

Protecting Florida's Clean Water Environment

P.O. Box 2814 • Windermere, FL 34786-2814 • 407-363-7751 • Fax 407-370-3595

www.fweauc.org

November 16, 2009

Re: Wastewater Utility Coalition Opposing Federal Promulgation of Nutrient Water Quality Standards for Florida

Dear Utility Director,

I am writing to you today about an urgent matter that needs your attention and support. The Environmental Protection Agency (EPA) recently initiated a severely flawed process to establish federal numeric nutrient water quality standards for the State of Florida that may have profound economic consequences to your utility and your ratepayers, without commensurate environmental benefit. The Florida Water Environment Association Utility Council has been following EPA's actions, and has moved forward to legally challenge EPA's actions before it is too late.

Unless we engage, EPA's actions will result in the establishment of arbitrary, unscientific and needlessly stringent numeric nutrient standards for Florida's surface waters, including all of Florida's streams, agricultural canals, lakes, estuaries, and coastal waters. The establishment of numeric nutrient criteria will particularly impact utilities that have direct discharges to these waters, as well as many utilities that have indirect discharges to these waters through reuse activities such as irrigation, wetland discharges to shallow groundwater, infiltration basins, wells or similar features. For many of the impacted utilities, it has been estimated that this regulation will nearly double the rates their subscribers pay for wastewater service.

The goals of the FWEA Utility Council are to ensure science-based numeric nutrient criteria are implemented where needed to protect state water ecosystems and also to protect utility ratepayers from the economic burdens of unsound regulatory policy. We need your help to do this.

Attached to this letter is a PowerPoint presentation that further describes how this issue has evolved and what the ramifications of inaction are to Wastewater Utilities. Also attached is your annual dues invoice along with line items for a two part voluntary special assessment that the Utility Council is asking your utility pay to contribute to this effort. The assessment has been broken out into two parts to afford utilities more flexibility in contributing to this effort. The requested contributions from your utility are calculated according to your utility's size in the same manner that FWEA Utility Council Annual Dues are calculated. The majority of the funding for this effort is coming from existing Utility Council members through their existing

annual dues and this special assessment. In order to ensure we are successful in our goals, we also need your help.

Your contributions are requested by the dates indicated on the invoice or at the earliest date possible for your utility. The special assessment is being spearheaded by a group of FWEA Utility Council volunteers in 6 different regions in Florida. This group consists of:

Northwest Florida

- Richard Griswold
Destin Water Users Inc.
P.O. Box 308 Airport Road
Destin, FL 32540-0308
850-837-6146
rgriswold@dwuinc.com

Southeast Florida

- Lisa Wilson-Davis,
City of Boca Raton Utility Services
1401 Glades Road
Boca Raton, FL 33431
561-338-7310
lwilsondavis@myboca.us

Southwest Florida

- Richard McLean
Pinellas County Utilities
14 S. Ft. Harrison Ave., 5th Fl.
Clearwater, FL 33756
813-464-3438
rmclean@co.pinellas.fl.us
- Patty DiPiero
Lee County Utilities
1500 Monroe St.
Fort Myers, FL 33901
239-533-8534
dipierpm@leegov.com

Northeast Florida - St. John's Area

- Scott Kelly
JEA
P.O. Box 4910
Jacksonville, FL 32201
904-630-4642
kellsd@jea.com

Central Florida

North

- David Richardson
Gainesville Regional Utilities
PO Box 147117, Station A136
Gainesville, FL 32614-7117
352-393-1612
Richardsodm@gru.com

South

- Ted McKim
Reedy Creek Improvements District Utilities
P.O. Box 10000
Lake Buena Vista, FL 32830
407-824-4846
Ted.McKim@disney.com

Any of the above regional contacts can answer questions you may have about this issue, or put you into contact with others who are working closely on the technical and legal issues of this

FWEA Utility Council
November 16, 2009
Page 3

matter. You may also be directly contacted by one of these contacts in the near future to see if we can count on your support and what the timing of your contributions would be.

The FWEA Utility Council is highly cognizant of the difficult economic times all of our utilities are facing. This is why it is especially important that we band together through the association to achieve together for a small cost to each what none of us could do individually. The total cost to the Utility Council to engage in this legal matter for the benefit of us all will be only a small fraction of what it would cost a single lmgd utility in Florida to comply with the proposed arbitrary standards.

Your payment of the additional voluntary special assessment dues will help ensure that numeric nutrient standards developed for Florida are meaningful and reasonable. We hope we can count on your support.

Sincerely,



Paul Steinbrecher, PE
FWEA Utility Council Vice President and Issue Lead
904-536-8885

FWEA UTILITY COUNCIL ANNUAL DUES AND SPECIAL ASSESSMENT INVOICE

Date: 10/30/2009
Invoice # 009-577

Remit Payment to:

FWEA Utility Council Bookkeeper
C/O Jan Peters
P.O. Box 2814
Windermere, FL 34786-2814

Contact Name: Thomas Miller
Member Company: Palm Beach County Water Utilities
Address: P.O. Box 16097
West Palm Beach, FL 33416
Phone: 561-4993-6004
E-mail: THMiller@pbcwater.com

* Please include a copy of this invoice

FWEA Utility Council Annual Dues and Special Assessment Invoice		Payment Terms
2009 - 2010 Annual Dues and Special Assessments for Numeric Nutrient Criteria Rulemaking Efforts		Due upon receipt or as indicated
Annual Dues Payment		Total
ADF 20 MGD to 50 MGD	\$5600.00	\$5600.00
2009 Special Assessment (Based on Wastewater Flow in 2008) (100%)		Total
ADF 20 MGD to 50 MGD	\$5600.00	\$5600.00
2010 Special Assessment (Based on Wastewater Flow in 2009) (50%) - Payment requested by May 1, 2010		Total
ADF 20 MGD to 50 MGD	\$2800.00	\$2800.00
Total Due		\$14000.00



Make checks payable to:

FWEA Utility Council

Credit Card payments can be made at:

<http://www.illexservices.net/registration.asp?confid=91>

Thank you!

Numeric Nutrient Criteria

Overview for Regional POTW Groups

Winston K. Borkowski
David W. Childs
Hopping Green & Sams

Legal and Regulatory Actions

- ◆ **August 2008**, EPA sued for failing to establish numeric nutrient criteria for Florida. Florida's existing statewide criterion is a narrative standard. EPA regulations indicate that narrative standards are appropriate, particularly when numeric standards cannot be derived.
- ◆ **January 2009**, EPA declares numeric criteria necessary for Florida to be in compliance with the Clean Water Act. EPA documents indicate that the hasty motive was to promote settlement of the lawsuit; not because numeric criteria were "necessary" under the Clean Water Act or scientifically feasible.
- ◆ **January 2009**, EPA sets deadline of 1 year for EPA to propose numeric criteria (Jan. 2010) for flowing waters; 2 years (Jan. 2011) for marine waters. In response, DEP accelerates 8 year process to go to ERC by October 2009 to avoid EPA proposing EPA criteria.

What's wrong with these numbers?...

◆ Serious scientific flaws in EPA's regional probabilistic approach

- Criteria not based on causal relationships between TN / TP and biological responses in streams (i.e. not tied to impairment thresholds)
- Instead, arbitrary line drawn on scatter of regional nutrient data, each region's streams falling on the 'wrong' side of the line deemed impaired (e.g. DEP's reference stream approach would result in 25% of Florida's best streams being deemed impaired)
- For nutrients, causal dynamics change as a function of multiple factors discounted in EPA's approach, including pH, water temperature, light availability, flow regime, etc.
- Will lead to impairment designations and TMDLs to 'recover' water bodies to nutrient levels they would not naturally meet

What's wrong with these numbers?...

- ◆ DEP's serious efforts to develop scientifically defensible numbers derailed. DEP forced to abandon causal approach and use a variation of EPA's flawed probabilistic approach
- ◆ Probabilistic approach for nutrients ignores Clean Water Act process, where criteria are developed to protect designated uses; basic purpose of the TMDL process undermined
- ◆ Significant state resources wasted: numeric criteria would mandate expensive nutrient controls that would not protect stream ecosystems

Funding: Special Assessment

2010 Special Assessment (Based on Wastewater Flow in 2008)

◆ ADF < 5 mgd	\$600
◆ 5 mgd < ADF < 10 mgd	\$1000
◆ 10 mgd < ADF < 20 mgd	\$2800
◆ 20 mgd < ADF < 50 mgd	\$5600
◆ ADF > 50 mgd	ADF(gpd) x \$0.00012

FWEAUC members will be automatically invoiced with annual dues; FWEAUC non-member interested parties will be invoiced directly.

2010 Spring Special Assessment (Based on Wastewater Flow in 2009)

◆ ADF < 5 mgd	\$300
◆ 5 mgd < ADF < 10 mgd	\$500
◆ 10 mgd < ADF < 20 mgd	\$1400
◆ 20 mgd < ADF < 50 mgd	\$2800
◆ ADF > 50 mgd	ADF(gpd) x \$0.00012

Congress of the United States
Washington, DC 20515

December 3, 2009

Administrator Lisa P. Jackson
United State Environmental Protection Agency
1200 Pennsylvania Ave, NW
Washington, DC 20460

Dear Administrator Jackson:

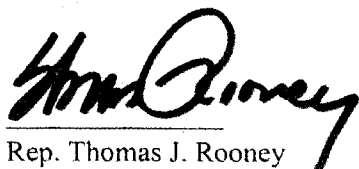
As members of the Florida delegation, we are writing today regarding the proposed EPA numeric nutrient rules for our state. While we all value the health of our waterways, this regulatory change will also have economic impacts on the state, and thus it is important that the standards are based on the best available science.


As we are sure you are aware, Florida has spent several years working with the EPA and over \$19 million to collect the necessary data, sound science and community input in developing numeric criteria under the Clean Water Act. We were encouraged to read in your January 14th letter that said the EPA planned to "work closely and collaboratively with the State of Florida to ensure that these numeric nutrient criteria are protective of applicable designated uses, based on sound scientific rationale, responsive to the specific needs of Florida's waters, responsive to available public and stakeholder input, and sufficient to meet the needs of the State's complete suite of water quality management tools." We respectfully ask that as you finalize the proposed rules for the state you work with Florida's Department of Environmental Protection in an open, collaborative manner and utilize its extensive resources of science and data on this issue.

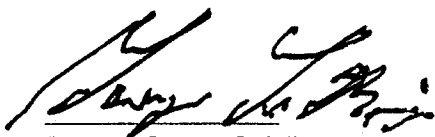
To date, the Florida Nutrient Technical Advisory Committee has met 22 times to openly evaluate and consider the data with industry input from manufacturing to agriculture. This is an excellent model that we strongly encourage you to consider using as you move through this process. The proposed rule will have a widespread effect on Florida's industry and economy, and all concerned parties should be heard.

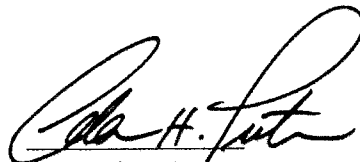
Thank you for your consideration of our concerns. As you can imagine, this is a very important issue to our state. Florida will be the first state subject to such federal rules, so it is essential that the water quality standards are based on sound science and that all parties concerned have an opportunity to be heard.

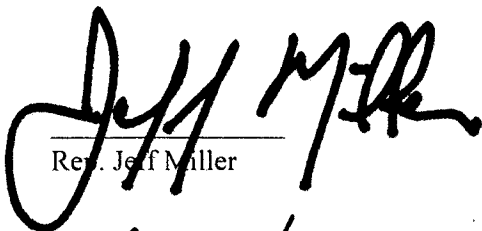
Sincerely,


Rep. Thomas J. Rooney



Senator Bill Nelson

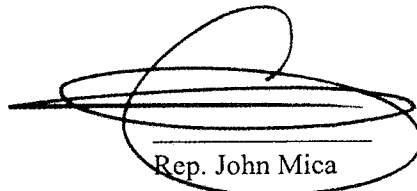

Senator George LeMieux


Rep. Adam Putnam

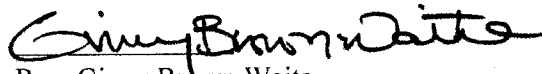

Rep. Jeff Miller

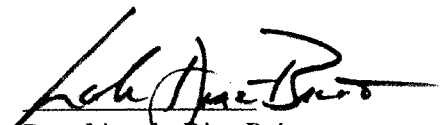

Rep. Allen Boyd



Rep. Kendrick Meek

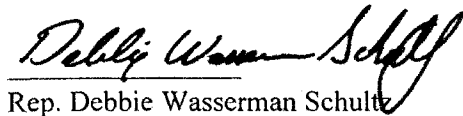

Rep. John Mica

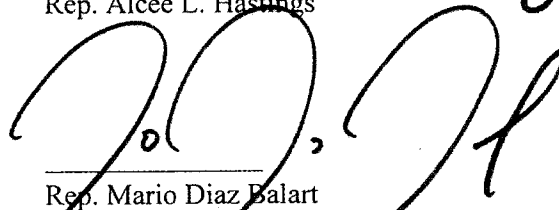

Rep. Ileana Ros-Lehtinen

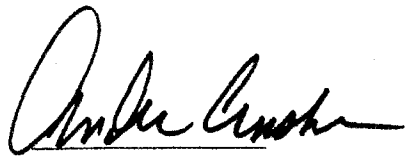

Rep. Ginny Brown Waite

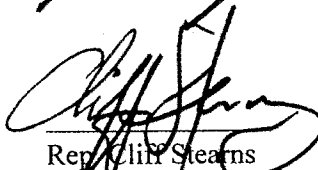

Rep. Lincoln Diaz Balart

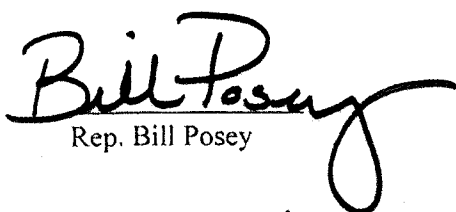

Rep. Alcee L. Hastings


Rep. Debbie Wasserman Schultz


Rep. Mario Diaz Balart


Rep. Ander Crenshaw


Rep. Cliff Stearns

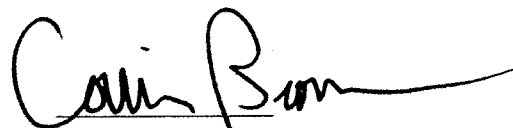

Rep. Bill Posey


Rep. Vern Buchanan

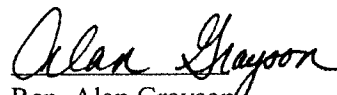

Rep. Connie Mack IV


Rep. Suzanne Kosmas


Rep. Gus Bilirakis


Rep. Corrine Brown


Rep. C.W. Bill Young


Rep. Alan Grayson


Rep. Ron Klein



STATE OF FLORIDA
CHIEF FINANCIAL OFFICER
ALEX SINK

December 7, 2009

Ms. Lisa Jackson, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator Jackson:

As Florida's CFO, I have the pleasure of sitting with the Governor and other members of the Cabinet as the Board of Trustees of the Internal Improvement Trust Fund, which oversees all state lands in Florida. I look forward to our scheduled discussion about setting numeric water quality standards in Florida, given my responsibility for Florida's lands and the tremendous economic impact these standards will have on Florida. In advance of our call, I am writing to share some specific concerns I hope to discuss with you.

As you are well aware, this litigation will significantly affect Florida's municipal and county governments, our water management districts, our public lands, our water utilities and our agricultural industry. That is why I am hopeful the U.S. Environmental Protection Agency (EPA) will reach out to the Florida Department of Environmental Protection (DEP) and other interested parties at the earliest possible time to work together cooperatively as numeric nutrient criteria for Florida waters are developed and finalized.

I join Florida's Congressional Delegation in asking that your agency work jointly with the Florida DEP, given that since 2001 it has been developing numeric criteria for the almost 1,000 bodies of water in Florida. With the difficulty of developing numeric standards for our diverse state, where for example some of our pristine waters have high levels of naturally occurring nutrients, it is essential that the DEP's work to develop the best standards for Florida is utilized.

Below are some areas I would like to cover on our call:

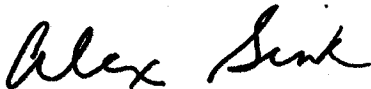
1. **Open Dialogue with Florida** – I understand that the EPA may be constrained because of the federal rule-making process, but I believe that it is important for the Florida DEP and other interested parties to have significant input as soon as possible during your agency's development of these numeric nutrient standards. Considering the DEP's years of work developing nutrient criteria that are right for our state and the economic impact this decision will have on all parties involved, I would like to discuss the best way for the EPA to ensure open communication and productive dialogue as this process continues.

Administrator Jackson
December 7, 2009
Page Two

2. **Reasonable Schedule** – I am concerned that under the current consent decree, the EPA has less than one year to finalize numeric standards that could have significant economic consequences for Florida. While it is important to set deadlines, it is also important to develop scientifically defensible water quality standards. Since the consent decree allows for the extension of these timeframes with the agreement of all parties, I would like to speak with you about how the EPA can work with the litigants in order to finalize and utilize the best science in a reasonable timeframe.

I am a strong supporter of the Clean Water Act and share your goals of protecting Florida waters and improving the quality of waters that are impaired. I also recognize that setting unrealistic water quality standards will have an enormous economic impact during what are already very challenging times for our state. If this process is done in a spirit of cooperation and partnership, the final result can be in the best interest of Florida. I look forward to speaking with you further about this issue.

Sincerely,



Alex Sink

cc: Ms. Nancy Sutley, Chair of the White House Council on Environmental Quality
Mr. Michael Sole, Secretary of the Florida Department of Environmental Protection



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Konkamp
Lt. Governor

Michael W. Sole
Secretary

MEMORANDUM

Date: April 28, 2010

Subject: Department Comments on the Environmental Protection Agency's (EPA)
Proposed Numeric Nutrient Criteria for Florida Lakes and Flowing Waters,
January 26, 2010

To: Docket ID No. EPA-HQ-OW-2009-0596

From: Jerry Brooks, Director
Division of Environmental Assessment and Restoration

The Florida Department of Environmental Protection (Department) respectfully submits our comments on the January 26, 2010 Environmental Protection Agency (EPA) proposed numeric nutrient water quality criteria for the State of Florida's Lakes and Flowing Waters. Attached to this cover letter are numerous documents containing the Department's technical, legal, and policy evaluations of the proposed EPA action.

The Department evaluated the science behind the criteria and how that science was utilized in the expression of the criteria, including any implementation provisions. With that in mind, we evaluated the proposal to determine whether the criteria were established at levels necessary to protect the designated use of Florida's lakes and flowing waters. It is critically important that the criteria are correct. Criteria values that are more stringent than necessary result in forced investment of limited public (and private) dollars to develop site-specific alternative criteria, an activity that has no environmental benefit. In the absence of site specific criteria, overly stringent criteria forces significant investments for remediation with no associated environmental benefit. Criteria less stringent than necessary can result in failure to prevent environmental harm. Furthermore, the Department reviewed the science underlying the criteria to determine whether it was suitable to support adoption of the water quality standards, including whether appropriate regulatory provisions were included that recognize uncertainty in the analysis. The Department provided recommendations where improvements could be made based on our review.

1) Criteria for the Protection of Streams

The overarching issue related to the protection of streams is EPA's failure to account for natural features in the State that affect nutrient concentrations. The influence of the

geologic Hawthorne formation on total phosphorus concentrations and the contributions of high levels of organic nitrogen to streams from wetlands are not accounted for in the EPA proposal. In evaluating unimpacted, largely natural streams in Florida against the proposed criteria thresholds, those that exceeded the criteria were either located proximal to the Hawthorne formation (a natural phosphorus bearing geologic feature) or dominated by the influence of wetlands as evidenced by the high water color and low dissolved oxygen content. It is illogical to establish criteria that are violated by natural features, and EPA should account for this in their final promulgated criteria to avoid implication of these features as pollutant sources.

The Department would also like to caution EPA against viewing occasional nonattainment of the currently adopted dissolved oxygen (DO) standard in Florida waterbodies as an indication of nutrient enrichment or biological harm. Most of our biologically healthy streams and lakes will exhibit low DO events during the course of the year. The Department has collected one years' worth of detailed biological and DO information and is continuing that collection effort with the intent of revising the currently adopted DO criteria to one that is more indicative of what is necessary to protect Florida's aquatic biology. Our attached comments contain some preliminary analysis of that data. Florida's DO criterion is based upon the EPA recommended 304(a) criteria and has not been adjusted to account for all the natural features that define Florida's unique diversity. Alternatively Florida has implemented the criterion, both in a regulatory context and assessment context, to recognize the influence of Florida's wetlands on dissolved oxygen. Our laws and regulations are structured to ensure that our programs do not force actions to correct natural conditions. With that in mind, we encourage EPA to focus more on the designated use attainment of streams as an indication of stream health rather than the DO condition of the stream.

It must also be acknowledged that the derivation of stream criteria was not based on a cause effect relationship. This is important as you move towards implementation of the criteria. EPA should acknowledge that attainment of the criteria would provide protection, but at the same time acknowledge that nonattainment of the criteria may not be an indication of designated use impairment. Given that uncertainty, EPA should include in its proposal an allowance for the evaluation of response variables, like chlorophyll *a* or biological monitoring.

2) Criteria for the Protection of Lakes

The Department appreciates the EPA's willingness to build your criteria proposal from the procedures proposed by FDEP, including the use of modified criteria. We think this is critically important when implementing criteria derived from a correlated relationship between nutrient concentrations and chlorophyll *a*. While the correlation was strong, there is still enough variability to demand the need for adjustments to the nitrogen and phosphorus variables in instances where they are not exhibiting an undesirable algal response.

The structure of EPA's proposed lake criteria results in a process that weakens Florida's surface water protection programs. Using EPA's structure, each time FDEP conducts assessments for lakes under paragraph 303(d) of the Clean Water Act, FDEP would become obligated to define the modified lakes criteria. This would happen every year for numerous lakes and would shift resources into assessment and reporting and away from monitoring, TMDL production, restoration activities, permitting, or other environmental programs. EPA should embrace the structure proposed by FDEP that acknowledges the variability of TN and TP from year to year and controls against an unacceptable number of annual excursions from the criteria. This structure is similar to many of our currently approved metals criteria that are based on hardness and does not impose a burdensome process for implementation.

The proposed rule for the protection of downstream lakes is inaccurate and unnecessary. The error associated with the total phosphorus loading results provided by the Vollenweider formula is too large to use as a water quality standard. The Vollenweider formula was derived using northern, deep lakes that do not exist in Florida, and a one size fits all formula does not work for the varying dynamics of the 7,000 lakes in Florida. The water quality models referred to in EPA's Technical Support Document would produce much fewer errors. Additionally, the assumption that zero phosphorus is attenuated in streams (i.e., that 100% of phosphorus in the headwaters reaches the lake) is not correct. This may occur over geologic timeframes considering geologic processes, but it is not the intent of the Clean Water Act to govern natural geologic processes. Fortunately, the in-stream protection values offered by the Department provide inherent protection of downstream lakes making additional downstream protection values for lakes unnecessary. The Department requests that EPA reconsider their proposal to adopt a single formula to represent all lake conditions in Florida, acknowledge that the combination of lake and stream criteria meets the intent of the law, and let the other programs authorized by the Clean Water Act serve to ensure protection of both streams and downstream waters. Adoption of the proposed formula will result in excessive process for the establishment of site specific criteria because the formula does not reflect true lake water quality processes.

3) Criteria for the Protection of Estuaries

The Department is pleased that EPA recognizes the benefit of delaying these provisions until the necessary water quality targets for estuaries are known. We will continue to work with local scientists to develop these protective estuary values. However, it must be noted that downstream protection values for total nitrogen for the protection of estuaries are unnecessary because the in-stream protection values proposed by FDEP are inherently protective of the downstream estuaries. Additionally, the use of the SPARROW model in Florida does not produce accurate downstream protection values even if correct estuary loads are used. The SPARROW model is built upon a delineated stream network that is coarse and does not reflect the true hydrology of Florida. This results in significant error when projecting necessary nitrogen values upstream. The

SPARROW model also does not account for the influence of wetlands on total nitrogen values, which underestimates true nitrogen conditions of Florida streams. These types of errors produce faulty criteria that should not be adopted into federal regulations. Again the promulgation of criteria that does not reflect the true water quality dynamics of streams, rivers, lakes, and wetlands as water flows from them towards estuaries will demand unnecessary process that overall weakens the protection of Florida's surface waters.

4) Economic Cost Estimates

The cost estimates provided by EPA for the implementation of the criteria appear to significantly underestimate the costs to wastewater facilities, municipal separate storm sewer systems (MS4s), and agricultural sources. The Department has compiled the cost estimates from various parties and interests into one attached document for your use and consideration. It is possible that the EPA estimates are significantly less than those compiled by the Department because EPA has made assumptions about implementation. If EPA anticipates implementation actions that moderate the actions to achieve compliance with the proposed criteria, such actions should be clearly articulated.

5) Implementation

Of immediate concern is the effective date of the criteria. Assuming the promulgated criteria address the concerns expressed in our comments, only then can Florida take action to implement those criteria and such actions will take time. The proposed effective date of 60 days from promulgation is untenable. In order to properly implement the criteria after proposal, the Department will need to, at a minimum, adopt regulations for permitting and assessment (Impaired Waters Rule). The Department will also need to adopt the criteria and associated procedures for adoption of site specific criteria into rules. State law prohibits the Department from implementing policies or procedures that are not contained in rule. Given the administrative process for adopting rule changes, this may require two years dependent upon any resulting rule appeal. Without appeal the administrative process would take a minimum of one year. Until that occurs, the Department cannot implement the promulgated criteria in other Clean Water Act programs like permitting, water quality assessment, and total maximum daily loads.

Beyond the effective date issue, it will be very important for EPA to clearly define the Clean Water Act expectations for implementation. The true implications of the proposed criteria can only be established if there is clear understanding of what actions will be demanded upon promulgation. Additionally it will be important to clearly define how the criteria will be applied with regards to duration and frequency, including minimum time frames for long term averages and minimum data requirements.

The Department has made significant investments in the derivation of numeric nutrient criteria and the evaluation of how it should be implemented. We hope that our analysis and expertise is considered as you make decisions about the final promulgation of the criteria for the State.

JB/db/h

Attachments:



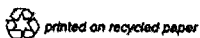
County Administration
P.O. Box 1989
West Palm Beach, FL 33402-1989
(561) 355-2030
FAX: (561) 355-3982
www.pbcgov.com

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April 8, 2010

Water Docket
U. S. Environmental Protection Agency
Mail Code 2822T
1200 Pennsylvania Avenue NW
Washington, DC 20460

Ref. No. A9032.01
Subject: Docket ID No. EPA-HQ-OW-2009-0596

To Whom It May Concern:

On behalf of Palm Beach County, Florida, I am submitting comments on the U.S. EPA (EPA) document Water Quality Standards for the State of Florida's Lakes and Flowing Waters.

Palm Beach County is certainly in favor of achieving the goal of better water quality. However, we are very concerned about the approach EPA is taking in attempting to develop standards that will be used to determine what water bodies need to be cleaned up. The standards proposed by EPA were developed so quickly that one has to wonder how applicable they are to many waters within the state. Palm Beach County urges the EPA and the Florida Department of Environmental Protection (DEP) to come up with additional water body classifications that will provide a practical way of developing standards that fit the water resource. We also urge the EPA to develop standards that not only are scientifically based, but based on the use of that water body. EPA should include a narrative criteria for certain uses in the new criteria as is currently the standard.

The implementation schedule calls for total achievement of the criteria within 20 years. It goes on to say that an entity can select a milestone that will be achieved within a shorter time period. However, if that milestone is not achieved within the specified time period, the entity would then have to achieve the ultimate goal within the next time period. That approach will ensure that many municipalities are out of compliance at some time during the 20 years. A better approach would be to set a more realistic goal within a specific time frame and to re-evaluate the plan prepared for a specific area (watershed) based on achieved results and the availability of technology to achieve more stringent criteria, if desired, after each established time increment.



The following points are made concerning the technical aspects of the proposed rule:

- 1) There is a discrepancy between the map showing the watersheds and drainage areas that represent the Peninsula Region and the text on pages 72 and 189 within the rule that describes the mapped areas. The graphic map (Appendix B-1) identifies that the Peninsula Region extends into Palm Beach County. The text needs to be modified to include the Loxahatchee Watershed, the L-8 Basin, the C-18 Basin, and the Palm Beach County Northeastern Coastal Basin so it is consistent with the areas shown on the map.
- 2) The text on pages 37-38 indicates the proposed criteria will apply to all waters of the United States, which are defined as navigable waters. However, we understand the database that was used to develop these criteria is not limited to water quality samples collected from navigable waters. We believe a number of these samples were collected from isolated waters, which would not fall within the definition of waters of the United States. We believe it is not appropriate for EPA to propose a standard for a certain class of waters based on data collected from waters that fall outside that definition.
- 3) Florida Statutes 373.4142 reads as follows:

“State surface water quality standards applicable to waters of the state, as defined in s. 403.031(13), shall not apply within a storm water management system which is designed, constructed, operated, and maintained for storm water treatment in accordance with a valid permit or noticed exemption issued pursuant to chapter 62-25, Florida Administrative Code; a valid permit or exemption under s. 373.4145 within the Northwest Florida Water Management District; a valid permit issued on or subsequent to April 1, 1986, within the Suwannee River Water Management District or the St. Johns River Water Management District pursuant to this part; a valid permit issued on or subsequent to March 1, 1988, within the Southwest Florida Water Management District pursuant to this part; or a valid permit issued on or subsequent to January 6, 1982, within the South Florida Water Management District (SFWMD) pursuant to this part. Such inapplicability of state water quality standards shall be limited to that part of the storm water management system located upstream of a manmade water control structure permitted, or approved under a noticed exemption, to retain or detain storm water runoff in order to provide treatment of the storm water. The additional use of such a storm water management system for flood attenuation or irrigation shall not divest the system of the benefits of this exemption.



This section shall not affect the authority of the department and water management districts to require reasonable assurance that the water quality within such storm water management systems will not adversely impact public health, fish and wildlife, or adjacent waters". (abbreviation added)

Since most water management systems within south Florida were created as part of the treatment train process for water quality improvement, they would not fall under the definition of waters of the United States, which are navigable. Therefore, the proposed rule should be clarified to state lakes, flowing waters and canals upstream of a manmade water control structure are not subject to the proposed rule.

- 4) EPA proposes Water Quality Criteria for South Florida Canals with the following values: (Chlorophyll-a value of 4.0 ug/l, Total Nitrogen (TN) of 1.6 mg/l, and Total Phosphorus (TP) 0.042 mg/l). Technical support documents provided state that EPA is proposing these criteria based on the 75th percentile from all available freshwater canal data from sites located in waterbody IDs (WBIDs) that have not been identified for nutrient impairment. It appears the methodology being used is one of accepting the DEP impaired water body list and then using the data from water bodies that are not on that list to establish the nutrient criteria for all state water bodies. There appears to be no attempt by EPA to evaluate as to why a particular water body made the impaired list for nutrients. In eastern Palm Beach County there are virtually no water bodies that are not on the impaired list for nutrients. Please note that not all water bodies that made the impaired list are due to high nutrient levels. However, by only using data from water bodies that are not on the impaired list will result in skewed data by having a reduced data set. The end result being that the statistically achieved average nutrient levels will be at a much lower threshold than they would be if all water bodies not impaired by nutrients were considered.
- 5) In its technical support document, "Florida Nutrient Benchmark Distributional Approach for Rivers and Streams", DEP has concluded that the use of the 90th percentile of nutrient concentration derived from distribution of minimally disturbed streams is inherently protective of aquatic life. The documentation of these healthy biological communities demonstrates that aquatic uses are fully met within the associated range of nutrients. It is the County's belief that use of a 75th percentile would result in an excessive error, with a large number of healthy sites incorrectly classified as impaired. In fact, in a presentation made to the Florida House Agriculture & Natural Resource Policy Committee earlier this month, the DEP stated that over 80% of the State's pristine water bodies would be considered impaired by the proposed standards. It would appear that EPA is taking an extremely restrictive approach, establishing criteria which would unnecessarily require that resources be expended to address waters that do not need them. Considering all factors, we all need to work collaboratively to establish standards that do not achieve this kind of a result.



- 6) The use of Chlorophyll-a as a standard for canals and lakes should be eliminated from the proposed rule. Chlorophyll-a is an indicator of a potential water quality problem because of the presence of algae, but does not prove there is a water quality problem. There are ample areas throughout the state that have a high phosphorous and a high Chlorophyll-a number, but the water body is considered healthy. The University of Florida/Institute of Food and Agricultural Sciences (UF/IFAS) stated in a report on Lake Manatee, Florida that Chlorophyll-a is often used as an estimate of algal biomass, with blooms being estimated to occur when Chlorophyll-a concentrations exceed 40 ppb. DEP, through a statistical analysis of data, has determined that a Chlorophyll-a concentration limit of 20 ppb is sufficient to prevent excess phytoplankton (algal biomass) in streams.

However, Chlorophyll-a is not a good indicator of algae growth in a canal due to the dynamics involved in a canal. Many canals in south Florida are highly managed. As an example, Lake Worth Drainage District, which has hundreds of miles of canals within central and southern Palm Beach County, has an average Chlorophyll-a concentration of approximately 36 ppb. This average value is a result of the latest readings at twelve sites scattered throughout their District. Additionally, a few years ago Palm Beach County sampled the water quality in the Chain of Lakes and found the average Chlorophyll-a concentration to be approximately 16 ppb. These lakes receive runoff from a large area of central and southern Palm Beach County. The values ranged from 7 ppb in Lake Osborne (considered good water quality) to 27 ppb in Lake Ida (considered fair to poor water quality). A value of 4 ppb for the portion of Palm Beach County within EPA's South Florida Nutrient Region does not appear to be appropriate.

- 7) Many canals in south Florida are highly managed. Because of this they do not support the same type of wildlife and habitat as a natural stream would. There does not appear to be sufficient data to establish a cause/effect for water body impairment in many areas due to nutrients, especially canals. In fact, Palm Beach County geology and soil conditions are vastly different from other areas in the EPA South Florida Nutrient Region designation. Therefore, having the same criteria for the entire designated region is inappropriate.
- 8) We understand based on a recent letter from EPA Assistant Administrator Pete Sylva to DEP Secretary Mike Sole that the agency has decided to delay promulgation of the "downstream protection values" for streams to 2011. However, since the draft rule still incorporates downstream protection values, we are offering some limited comment regarding this concept.



We are concerned that the downstream protection values are based on the use of the USGS 'Sparrow' model for estuaries and the use of equation/methodology for lakes. USGS acknowledges that this model is not applicable in areas with significant groundwater inputs. South Florida is made up almost exclusively of drainage canals that interact with the groundwater, making the use of this model inappropriate. As to the equation/methodology, we believe it is inapplicable to Palm Beach county waters. We have additional comments concerning downstream protection values, but will defer those comments based on Mr. Sylva's letter until the 2011 rulemaking process. Should EPA elect to proceed with the adoption of the downstream protection values contained in the draft rule, then we request the agency reopen the comment period to allow Palm Beach County to submit additional comments regarding this aspect of the proposed rule.

- 9) The drainage network (mentioned in item 6 above) constructed in Palm Beach County in the early 1900's was done so to offer flood protection for the residents of the County and when that system was designed many decades ago, it did not consider the functions that these proposed regulations are now taking into account. There needs to be some recognition that a drainage system of canals that was designed with one function in mind (providing drainage) cannot be revised completely in a short period of time (20 years per EPA's proposed rule) to meet an entirely different set of functions (water quality and wildlife habitat) without bankrupting the entity responsible for complying with these proposed standards. A longer time frame for compliance should be considered, such as fifty (50) years.
- 10) There are a few concerns that deal with the impacts to Utilities (specifically water, wastewater, & reuse water) as a result of the proposed standards being implemented. Monitoring of the nutrient levels within groundwater by our Utilities Department indicates that that the phosphorous levels in the water being pumped out of the ground are higher than the proposed EPA standards. This would mean the entire surficial aquifer could be considered a source of impairment.

This presents two specific challenges to Utilities that would be very difficult to overcome. First, there are possible implications to all new water consumptive use permits and to all existing consumptive use permit renewals. Special Conditions attached to these permits from the SFWMD prohibit direct or indirect water quality harm or a water quality standards violation due to movement of water. Secondly, possible water quality violations due to the movement of water could end up eliminating the wastewater reuse program. This program, which is supported by both the SFWMD and DEP, has been in place for more than a decade as an alternative water supply source. Without it, the effluent would be discharged into a deep well, thus wasting a valuable resource.



That, in turn, would mean that Homeowner Associations and golf courses who have taken advantage of this program would no longer receive supplemental water and would be seeking a new water source for irrigation supply to make up for the lost reclaimed water. This would all occur while there is fierce competition for all sources of water by a variety of stakeholders. From a Utility standpoint, this would mean a huge stranded investment in reuse facilities that could not be utilized. Even with Advanced Wastewater Treatment (AWT) processes that use additional biological and chemical technologies (which will be cost prohibitive), it is questionable whether the technology can consistently meet the proposed EPA standards.

We request that EPA consider adding language clarifying that the proposed standards are not intended to regulate consumptive use of water or the use of reclaimed water for irrigation and groundwater recharge. This would eliminate concern about the impact of the proposed rule on these activities.

- 11) Finally, there appears to be no provision in the proposed rule for Acts of God, such as hurricanes. We know this scenario can cause extreme water quality impacts to water bodies, such as occurred in Lake Okeechobee and subsequent receiving water bodies as a result of sediment resuspension from winds heavy rains associated with the numerous hurricanes experienced in this area in 2004 and 2005. Stormwater facilities are designed for a finite event (defined in advance of construction) and do not increase in capacity with an event outside the design parameters. The capacity of the facilities is fixed. This concept needs to be addressed in the proposed rule.

The following comments are made concerning the economic aspects of the proposed rule:

- 1) The EPA estimated annual cost of \$100-140 million dollars is way too low. In order to achieve these proposed standards, many municipalities and Counties will have to spend millions of dollars each (far in excess of EPA's estimate) to retrofit existing drainage/wastewater systems in order to comply. A cost estimate was prepared by Carollo Engineers for the Florida Water Environmental Association Utility Council that indicates that Florida's municipal wastewater treatment facilities would spend an estimated \$50 billion in capital improvements for additional treatment facilities and would incur an estimated \$1.3 billion per year in additional operating costs. This could result in an additional \$700/year/household bill (just for water treatment facility upgrades). The costs to governmental or private entities, such as golf courses and Home Owner Associations, which will be needed to retrofit their existing drainage/water management systems is estimated statewide to be a minimum of \$75 billion dollars by the Florida Stormwater Association. If these very low standards are made final, there will be an enormous cost associated with the retrofits that will be necessary to bring existing systems into compliance, particularly in south Florida. It is also incumbent upon EPA to set a very reasonable time frame associated with the effort to bring all these water bodies into compliance.



Otherwise, we all run the risk that many government entities will not be in compliance or they will be bankrupted in their effort to get into compliance.

In this time of economic slowdown where so many governments are trimming budgets just to stay afloat, is that really a wise use of government regulation? EPA needs to do some serious re-thinking of the costs involved with this unfunded mandate. I mention this to bring awareness to EPA and the general public of the potentially dramatic increases in costs to the taxpayer in order to provide the services they have been accustomed to in the past if these proposed standards become the requirement.

- 2) EPA's cost estimate is based on assumptions that potential controls will reduce total phosphorus and total nitrogen but not to the levels required by the proposed criteria. There is no documentation in the technical support document that any of these potential controls will meet the proposed nutrient criteria for any of the source sectors identified. **There is no indication that the proposed nutrient criteria is achievable particularly in Palm Beach County.** The biggest line item of EPA's estimated annual cost is associated with municipal WWTPs. Advance wastewater treatment will only achieve 3 mg/l of TN and 1.0 mg/l of TP, significantly higher than the proposed criteria of 1.6 mg/l for TN and 0.042 mg/l of TP (South Florida Canals). Although it appears EPA is anticipating treatment will reduce TP to 0.1 mg/l, this can only be achieved at a tremendous cost, if it can be achieved at all. Many of the WWTPs provide reuse water directly to private development lakes in order to recharge these lakes for irrigation system supply usage within development projects. This is done in an attempt to use this resource as an alternative water supply. Florida, like many other states, faces significant water supply challenges. Reuse water could cause the urban (private and public) users to be in violation of the proposed criteria. This in turn could lead to the abandonment of a significant dollar investment for the reclaimed facilities (over \$220 million in the case of Palm Beach County).
- 3) Florida's Farm Bureau states that almost 75% of Florida's 2.1 million acres of irrigated lands currently embrace voluntary agricultural best management practices (BMPs). The Farm Bureau admits that technology may not exist for the agricultural entities to meet the proposed criteria. Implementation of BMPs will not in itself meet these proposed nutrient criteria. Structural improvements will most likely be necessary and the annual costs for these types of improvements would likely be in the billions of dollars. Given Palm Beach County is the largest agricultural county in Florida, these rules will have a tremendous financial impact on that industry and potentially on the County's economy if attainable standards are not developed.



Palm Beach County respectfully requests that EPA give adequate consideration to the comments provided and undertake the necessary changes to amend the final Rule. **We are particularly concerned that a fair representation of the costs has not been adequately estimated nor has the feasibility of addressing the criteria been assessed in a technically sound manner.**

If you have any questions, please contact me at (561) 355-4600.

Sincerely,

Kenneth S. Todd, Jr.

Kenneth S. Todd, Jr., P.E.
Water Resource Manager
Palm Beach County

c: Robert Weisman
Shannon LaRocque-Baas
Bevin Beaudet
Brian Shields
George Webb
Rich Walesky
Audrey Norman