

August 29, 2019

South Florida Water Management District Governing Board

3301 Gun Club Road

West Palm Beach, FL 33406

**Subject: Revision to Rule 40E-61, Works of the District Regulatory Program**

I want to personally thank you for bringing before the public the revisions to the Works of the District regulatory program (Rule 40E-61, FAC). This critically important activity may be our last chance to set the regulatory framework for cleaning up the water entering Lake Okeechobee and the estuaries; and for truly holding landowners accountable for achieving the nutrient reductions necessary to ensure polluted waters will stop causing harm to our public health, economies and environment.

As the Board has recently discussed, the state's water quality protection program for the Lake and estuaries is broken and needs to be revamped. You are aware that phosphorus loads to Lake Okeechobee regularly exceed the Total Maximum Daily Load (TMDL) set by the state. The Districts' 2019 annual report indicated that the average load to the lake was 633 metric tons per year – 4.5 times the TMDL of 140 metric tons/yr.

You have a good foundation in place that can be built on during the revision of Rule 40E-61. The District has issued close to 1,000 permits under the existing Works of the District program (see **Figure 1**). As of this week, there were 977 "ACTIVE" permits, as documented in the District's e-permitting database. These have numeric discharge limits for total phosphorus concentration, ranging from 180 parts per billion to 1,200 ppb. The publically-available permit files include locations of monitoring stations and descriptions of surface water runoff onto, through and off the individual properties. These permits were established based on the 1989 Lake Okeechobee SWIM Plan to help the District achieve an interim load target of about 397 tons per year. With the TMDL having been established in 2001 as 105 metric tons/yr from the watershed, it is past time to revise Rule 40E-61 and change the basin load reduction targets to reasonable and effective levels. For historical perspective, a summary of previous phosphorus control activities is shown in **Figure 2** compared to the historical phosphorus loads entering the Lake.

In general, the strategy for achieving the TMDL is a 2-part process (see **Figure 3**):

1. Landowners reduce nutrient loads using best management practices; and

2. Regional water quality treatment projects reduce nutrient loads the final amount to achieve the TMDL.

This 2-part strategy works well south of the lake: the EAA and the adjacent C-139 Basin are both covered under Rule 40E-63. The diversity of land use, topography and soil type in the C-139 Basin are more like the area north of the Lake than the EAA.

The good news is that much of the technical support has been completed, and can serve as a foundation for revising Rule 40E-61 consistent with the Basin Management Action Plans (BMAPs), which rely heavily on source controls. Working with Dr. Del Bottcher, District staff in 2013 drafted technically feasible load reduction targets ranging from 0% to 40% for basins within the Lake and estuaries' watersheds (see for example **Table 1** for the Lake Okeechobee Watershed). Technical issues that remain to be resolved include legacy nutrients in the soil, assimilation capacity in Lake Kissimmee and Lake Istokpoga, and ensuring an appropriate water quality monitoring network is in place.

It will not be easy to revise the program to include reasonable load reduction targets and an effective assessment/compliance program, and will require courageous leadership on your part. It will also require additional staff and budget for the District's regulatory division who will develop and implement the revisions. But you have the support of the public of south Florida that relies on clean water for their health, their economies and their environment! And I believe that is what Gov. DeSantis has pledged.

Working with Tallahassee you can enhance the Works of the District program to make it more effective and consistent with the BMAPs for Lake Okeechobee and the Estuaries.

As always, I stand ready to assist you in any way that would be helpful. I will be happy to come to your office and meet with you at your convenience. Please don't hesitate to call me if I can be of assistance.

Thank you again for your continuing commitment to clean water for all of south Florida!



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Figure 1. Map showing existing permits issued under the Works of the District program (from FDEP TMDL, 2001).

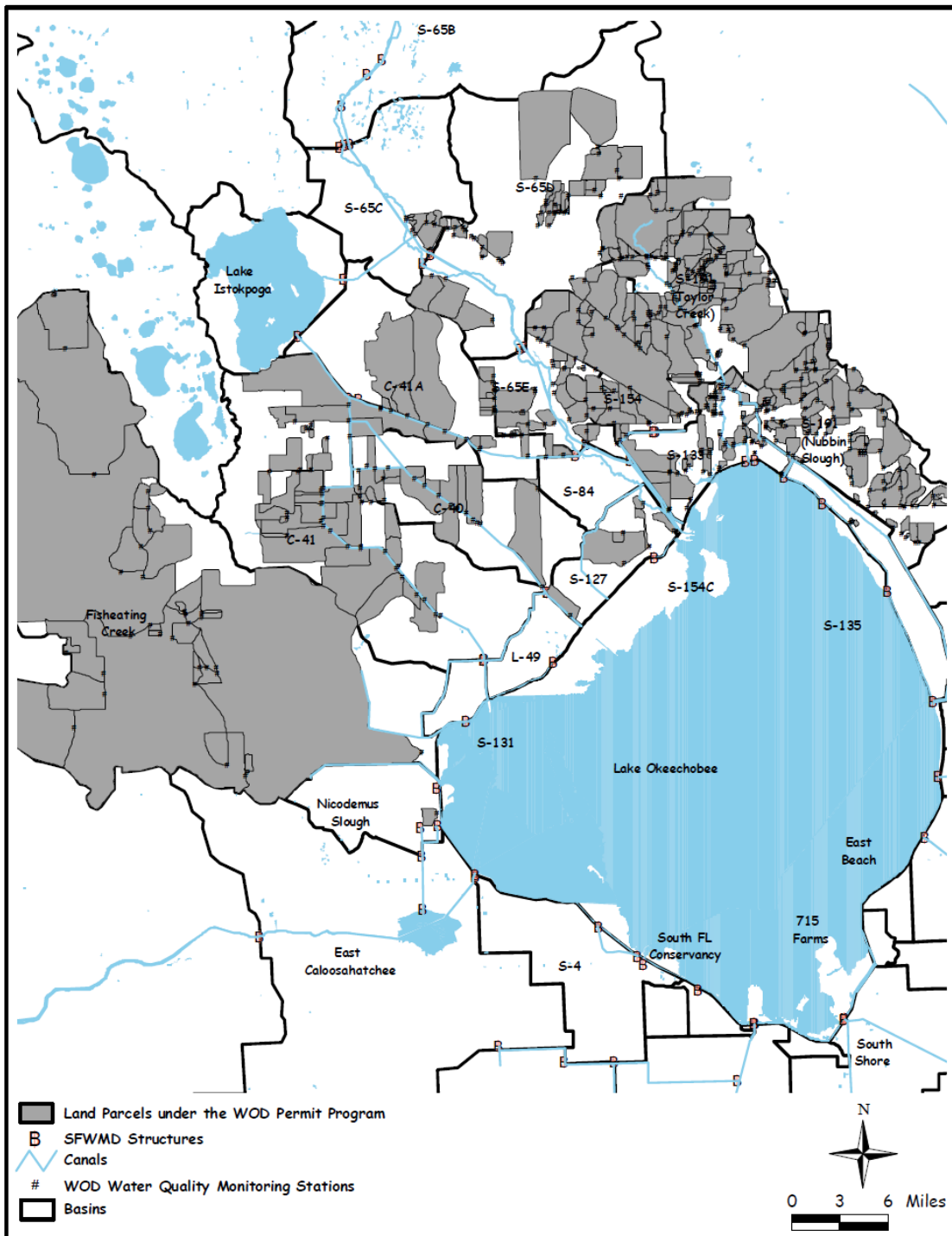
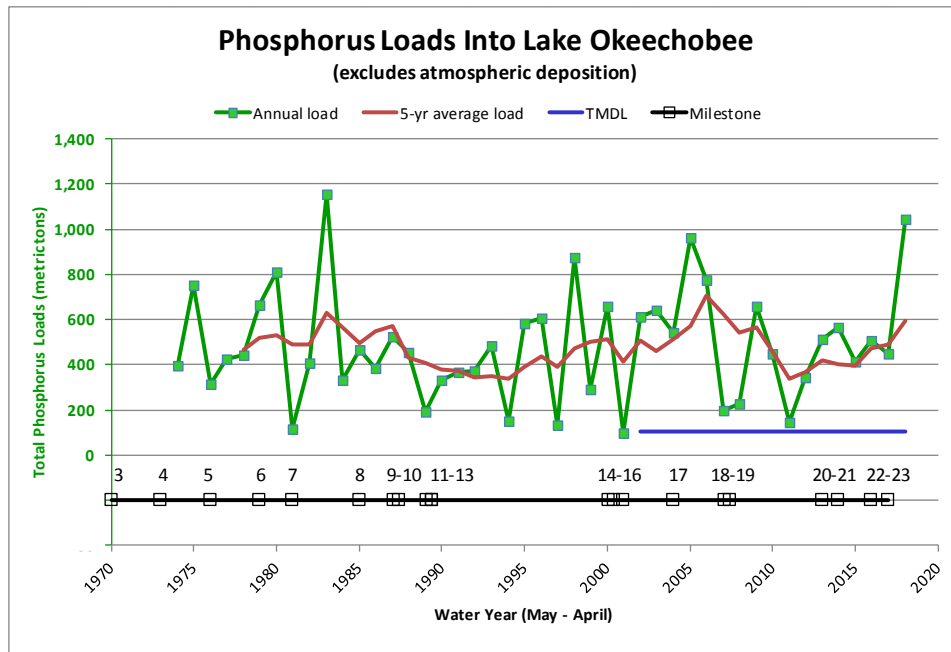


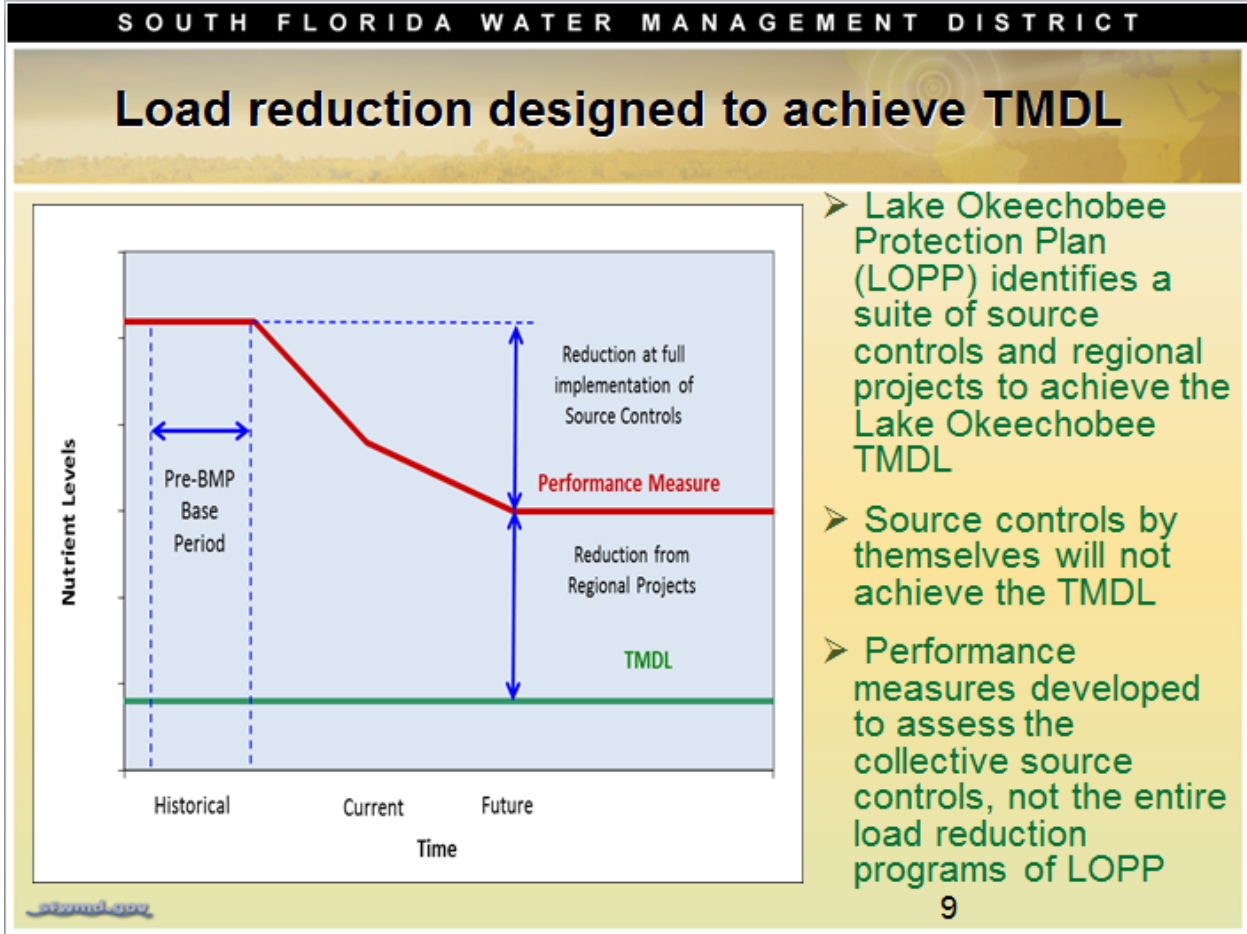
Figure 7. Works of the district (WOD) permits and monitoring locations

**Figure 3. Timeline of major phosphorus reduction activities in the Lake Okeechobee Watershed.**



Item No.	Timeline	Milestone
1	1940s	Initial water quality monitoring of Lake Okeechobee began by USGS
2	1955	USGS produced first comprehensive report on Lake Okeechobee water quality; many more follow
3	1970	FDEP began dairy regulatory programs; FDAACS began agriculture BMP programs
4	1973	SFWMD completed initial investigation of Lake Okeechobee water quality (DRE-26); Florida legislature recognized the need to take action - Authorized Special Project to Prevent
5	1976	Special Project to Prevent Eutrophication of Lake Okeechobee completed
6	1979	Following lawsuit to stop nitrogen pollution from the EAA, FDEP issued Temporary Operating Permit to SFWMD requiring minimization of backpumping at S-2 and S-3 (Interim Action Plan); diversion to south exacerbated Everglades pollution
7	1981	SFWMD Lake Okeechobee research quantifies eutrophication of Lake Okeechobee (DRE-128 and TP 81-2); recommends in-lake concentration of 40 ppb as target
8	1985	Governor establishes Lake Okeechobee Technical Advisory Councils (LOTACs) to evaluate and recommend options (1986-1990)
9	1987	Florida Legislature enacted SWIM Act and identified Lake Okeechobee as the highest priority
10	1987	FDEP adopted Dairy Rule (62-670 FAC) requiring dairies to meet water quality targets
11	1989	Dairy Buy Out Program initiated to assist dairies that can't comply with Dairy Rule; combined with Dairy Rule, resulted in almost 40% reduction in loads from Taylor Creek/Nubbin Slough basin
12	1989	Interim Lake Okeechobee SWIM Plan completed - established interim goal of 397 mtons/yr to achieve in-lake target of 40 ppb
13	1989	Works of the District (WOD) Rule 40E-61 adopted to aid in achieving 40% load reduction (397 mtons/yr); approx. 1,000 permits issued with phosphorus limits between 180 and 1,200 ppb
14	2000	Lake Okeechobee Protection Act (LOPA); set January 2015 deadline to achieve TMDL
15	2000	CERP authorized; contained Lake Okeechobee Watershed Construction Project
16	2001	Following lawsuit, FDEP established the TMDL at 105 metric tons/yr from watershed
17	2004	SFWMD completed Lake Okeechobee Protection Plan which identifies combination of source
18	2007	FDEP issued operating permit to SFWMD with regional phosphorus load targets to achieve TMDL
19	2007	LOPA expanded and became Northern Everglades and Estuaries Protection Plan (NEEPP); SFWMD directed to expand 40E-61 to include estuary watersheds
20	2013	In response to NEEPP, District completed draft Technical Support Documents for Lake, St. Lucie River/Estuary and Caloosahatchee River Estuary Watersheds
21	2014	FDEP completed initial BMAP, with significant deficiencies
22	2016	Legislature revised NEEPP, deleted deadline to achieve Lake TMDL
23	2017	FDEP revised Lake Okeechobee Operating Permit and deleted regional phosphorus load targets to achieve TMDL

Figure 2. Schematic of 2-part Strategy to Achieve the TMDL for Lake Okeechobee.



**Table 1. Draft Recommendations for Source Control Reductions for the Lake Okeechobee Watershed (Table 1-1 from Goforth et al, 2013)**

Basin	Performance Measure or Performance Indicator	Base Period	Base Period Median Load mt	Recommended Source Control Reduction
S-133	Performance Measure	WY1977-1986	7.4	25%
S-154	Performance Measure	WY1977-1984	8.3	35%
S-191	Performance Measure	WY1977-1988	89.7	40%
Lower Kissimmee	Performance Measure	WY1977-1990	56.1	30%
C-44	Performance Measure	WY2000-2010	52.9	35%
L-8	Performance Measure	WY1995-2003	17.1	20%
Indian Prairie	Performance Measure	WY1989-2001	67.6	30%
Fisheating Creek	Performance Measure	WY1998-2008	67.6	30%
S-4/Industrial Canal	Performance Measure	WY1993-2001	17.6	30%
East Caloosahatchee	Performance Measure	WY1982-1990	54.9	30%
Arbuckle Creek	Performance Indicator	WY1997-2007	38.8	0%
Josephine Creek	Performance Indicator	WY1997-2004	3.0	0%
Boggy Creek	Performance Indicator	WY2001-2008	5.0	0%
Shingle Creek	Performance Indicator	WY1999-2007	17.4	0%

The 2013 Draft *Technical Support Documents* are available at the following links:

Lake Okeechobee Watershed: [http://www.garygoforth.net/Draft\\_LOW\\_TSD\\_-\\_Feb\\_2013.pdf](http://www.garygoforth.net/Draft_LOW_TSD_-_Feb_2013.pdf)

St. Lucie River Watershed: <http://www.garygoforth.net/TSD%20for%20SLRW%20-%2012%2018%202013.pdf>

Caloosahatchee River Watershed:

<http://www.garygoforth.net/Deliv%203%2015%20Draft%20TSD%20for%20the%20CRW%20-%2009%2030%202013.pdf>