

Navigating the Statewide Stormwater Rule

How did we get here?

Florida Stormwater Association
Fall Seminar – September 8, 2023

Mark Heidecker
City of Tallahassee



CITY OF
TALLAHASSEE

Agenda

- ▶ What is Here?
- ▶ Problem Recognition
- ▶ Impacts
- ▶ Political/Rulemaking Process



What is Here?

- ▶ Statewide Stormwater Rule (62-330)
 - Adopted & Filed (April 28, 2023)
 - NOT EFFECTIVE
 - Legislative Ratification Required



What is Here?

- ▶ **Statewide Stormwater Rule (62-330)**
 - Provides stormwater treatment performance criteria to increase treatment and removal of nutrients.
 - Establishes BMPs to more accurately reflect the latest scientific information on their performance.
 - Strengthens requirements for operation, inspection, maintenance and reporting of stormwater management systems.
 - Improves permitting requirements for dams.



Recognition of a Problem

HEALTH OFFICIALS ISSUE BLUE-GREEN ALGAE BLOOM ALERTS FOR TWO PRIVATE ACCESS LAKES

By Ryan L. Terry, Public Information Officer

June 20, 2023

SHARE THIS PAGE

 Facebook

 Twitter

TAMPA, FLA – The Florida Department of Health in Hillsborough County has issued a Health Alert for the presence of harmful blue-green algal toxins at both Lake George—North and Little Half Moon Lake—South. This is in response to water samples taken on 6/15/2023. The public should exercise caution in and around these lakes.

Residents and visitors are advised to take the following precautions:

- Do not drink, swim, wade, use personal watercraft, water ski or boat in waters where there is a visible bloom.
- Wash your skin and clothing with soap and water if you have contact with algae or discolored or smelly water.
- Keep pets away from the area. Waters where there are algae blooms are not safe for animals. Pets and livestock should have a different source of water when algae blooms are present.
- Do not cook or clean dishes with water contaminated by algae blooms. Boiling the water will not eliminate the



Recognition of a Problem

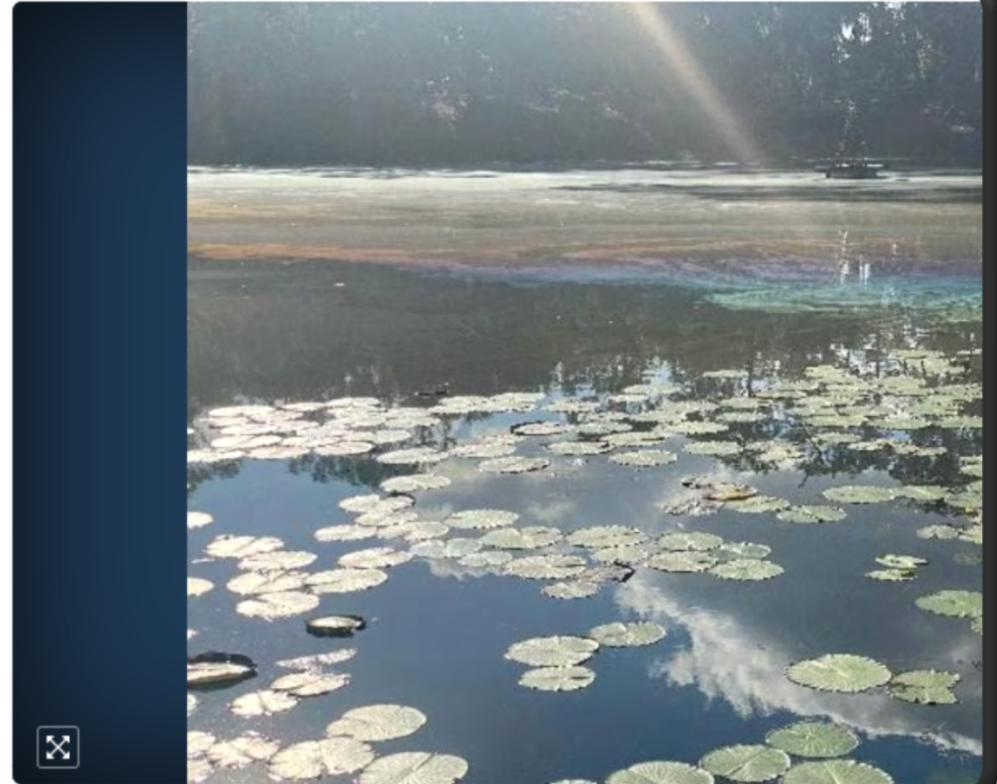
LOCAL

Health Alert: Toxic blue-green algae found in Lake Jesup



By Michelle Shore, WFTV.com

July 31, 2023 at 3:24 pm EDT



Recognition of a Problem

- Impaired Waters (No TMDL, BMAP or ARP)
 - 1,116 Individual Impaired WBIDs
 - 1,846 Impaired Parameters
- Total Maximum Daily Loads
 - 459 Adopted
- Basin Management Action Plans
 - 33 Adopted
- Alternative Restoration Plans
 - 86 Approved

1,694 Individual Impaired Waters, TMDLs, BMAPs or ARPs



Recognition of a Problem

CURRENT STATUS OF IMPAIRED WATERS (Through Group 4)

Group	# of Segments (WBIDs)	Verified Impair Parameters	Delisted Parameters	Parameters on Plan List	Newly Verified Impaired Parameters	Potentially Impaired Parameters Added to List
1	1746	258	185	213	140	1082
2	1657	453	230	167	352	1671
3	1217	199	187	255	154	1964
4	1088	50	144	TBD	114	TBD
5	575	TBD	TBD	TBD	TBD	TBD
Total	6283	960	746	635	760	4717

92% Increase Since 2007

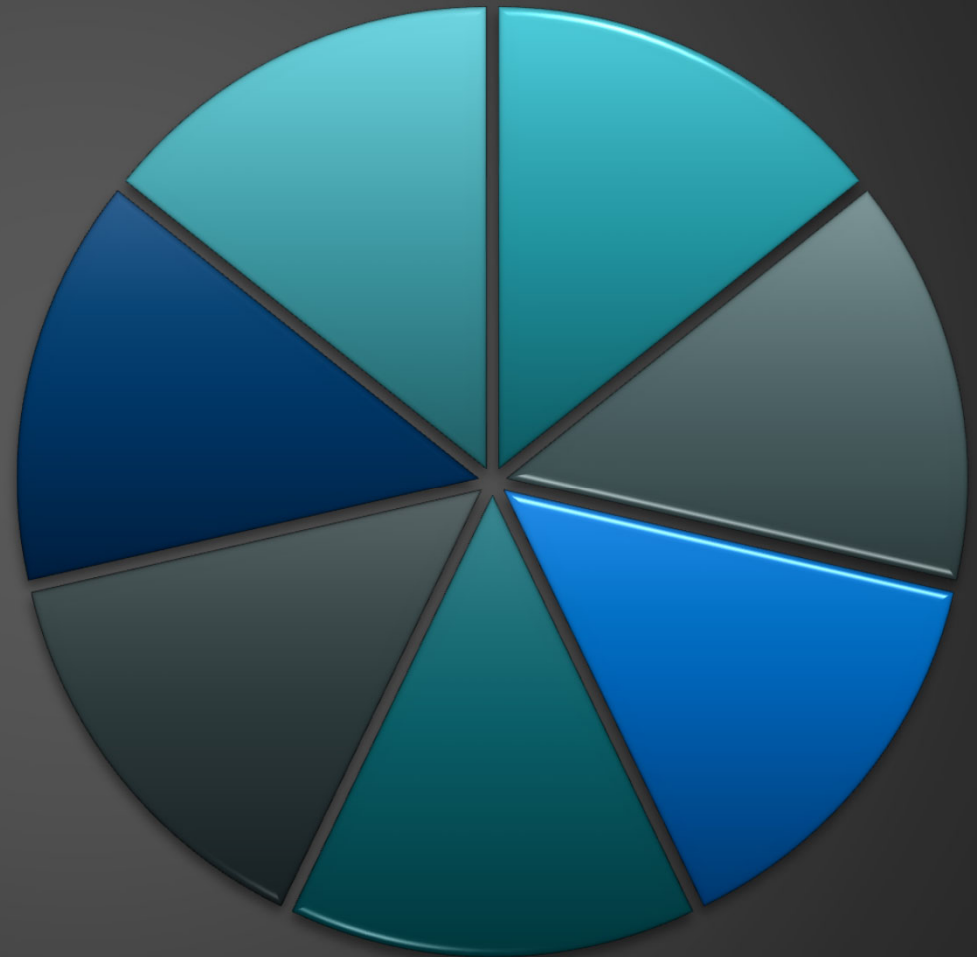
* DEP (Livingston) Presentation 9/12/07



The Problem

Sources of Nutrient Pollution

- Stormwater
- Atmospheric Deposition
- Wastewater
- Agriculture
- OSTDS
- Internal Recycling
- Wildlife



The Problem (Stormwater)

- Inadequate Stormwater Standards
 - Volume Based ($\frac{1}{2}$ " or $\frac{3}{4}$ ")
 - Utilize Inefficient BMPs
 - Lack of Maintenance


EXAMPLE PROJECT			
	PRE DEVELOP	POST DEVELOP	POST WITH BMPs
LAND USE	90 ac forest 10 ac wetlands	95 ac SF 5 ac SWM	95 ac SF 5 ac SWM
% IMP		25%	25%
RUNOFF	82 ac ft/yr	123 ac ft/yr	123 ac ft/yr
TN LOAD	109 kg/yr	330 kg/yr	231 kg/yr
TP LOAD	5 kg/yr	51 kg/yr	18 kg/yr
Assume BMPs are wet detention			

* DEP (Livingston) Presentation 9/12/07

Evaluation of Current Stormwater Design Criteria within the State of Florida

Final Report

Prepared for:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
FDEP Contract No. SO108

June 2007

Prepared By:

Harvey H. Harper, Ph.D., P.E.
David M. Baker, P.E.

Environmental Research & Design, Inc.
3419 Trentwood Blvd., Suite 102
Orlando, FL 32812



Impact of Impaired Waters

- Economic
 - Tourism
 - Property Values
 - Recreational Support
- Community/Social
 - Way of Life/Retreat
- Political
- Local Government



Impact of Impaired Waters

Reductions Summary

The table below summarizes reductions and project cost estimates for all 33 BMAPs as of Dec. 31, 2022. Reductions for completed and ongoing projects shown in the table have been reviewed and verified by DEP. Underway and planned projects may be assigned estimated reductions and costs that have not been verified or may be listed as "to be determined" (TBD). As projects move to a completed or ongoing status, DEP reviews the project information and revises reductions as appropriate. Project statuses are defined as follows:

Completed – Project, activity, or task is finished and is providing water quality benefits.

Ongoing – Project or activity which requires action each year to continue providing water quality benefits. These projects are typically non-structural and continuous.

Planned – Project or activity is conceptual or proposed.

Project Status	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Cost Estimate	Cost Annual O&M
Completed	4,819,438	771,912	\$9,328,514,710	\$166,589,235
Ongoing	3,429,591	349,874	\$87,629,469	\$48,045,867
Planned	716,579	12,696	\$2,715,538,094	\$3,464,635
Underway	1,284,328	134,277	\$7,286,089,977	\$28,860,089

\$19,417,772,250 \$246,959,826



Impact of Impaired Waters

ProjID	BMAPID	LeadEntity	Partners	ProjectN	ProjectN	ProjectD	ProjectTy	Project Type	CostEstimate	CostEsti	CostAnnualO&
392	ORCR	Alachua County	City of Gainesville;	ALACHUA	Water	Public	Educatio	Stormwater	\$0.00	NA	\$13,333.00
424	ORCR	Alachua County	City of Gainesville;	ALACHUA	Landscap	Impleme	Educatio	Stormwater	\$600,000.00	Provided	\$0.00
425	ORCR	Alachua County	City of Gainesville;	ALACHUA	Water	Public	Educatio	Stormwater	\$0.00	NA	\$10,000.00
426	ORCR	Alachua County	City of Gainesville;	ALACHUA	Water	Conduct	Educatio	Stormwater	\$0.00	NA	\$0.00
428	ORCR	Alachua County	City of Gainesville;	ALACHUA	Water	Public	Educatio	Stormwater	\$0.00	NA	\$13,333.00
430	ORCR	Alachua County	City of Gainesville;	ALACHUA	Water	Public	Educatio	Stormwater	\$0.00	NA	\$13,333.00
432	ORCR	Alachua County	City of Gainesville;	ALACHUA	Fertilizer	Impleme	Educatio	Stormwater	\$435,000.00	Provided	\$0.00
448	ORCR	Alachua County	City of Gainesville;	HOG26	Forest	Forest	Vegetated	Stormwater	\$7,500.00	Provided	\$0.00
459	ORCR	Alachua County	Wildlife Foundation	ALACHUA	Aquifer	Mobile	Educatio	Stormwater	\$6,000.00	Provided	\$0.00
468	ORCR	Alachua County	City of Gainesville;	ALCODE0	Alachua	Alachua	Regulatio	Stormwater	\$17,400.00	Provided	\$0.00
470	ORCR	Alachua County	DEP; SJRWMD	NEW42	Newnans	The NLII	Control	Stormwater	\$315,000.00	Provided	\$0.00
471	ORCR	Alachua County	City of Gainesville;	ALACHUA	Interactiv	Interactiv	Educatio	Stormwater	\$6,500.00	Provided	\$0.00
472	ORCR	Alachua County	Adventure Outpost	ALACHUA	Inspiring	Impleme	Educatio	Stormwater	\$12,600.00	Provided	\$0.00
477	ORCR	Alachua County	NA	LOCH09	NE 179th	Intersecti	Baffle	Stormwater	\$0.00	TBD	\$0.00
482	ORCR	Alachua County	NA	URBAN08-	Alachua	Urban	Street	Stormwater	\$0.00	NA	\$0.00
483	ORCR	Alachua County	NA	URBAN08-	Alachua	Urban	Street	Stormwater	\$0.00	NA	\$0.00
484	ORCR	Alachua County	NA	URBAN08-	Alachua	Urban	Street	Stormwater	\$0.00	NA	\$0.00
504	ORCR	Alachua County	City of Gainesville;	ALACHUA	Landscap	Impleme	Educatio	Stormwater	\$50,000.00	Provided	\$7,000.00
513	ORCR	Alachua County	UF-IFAS Extension	SWT22	Springhil	Stormwat	Vegetated	Stormwater	\$7,500.00	Provided	\$0.00
515	ORCR	Alachua County	City of Gainesville;	TUM18	Tumblin	Public	Educatio	Stormwater	\$7,500.00	Provided	\$0.00
516	ORCR	Alachua County	City of Gainesville;	ALACHUA	Water	Offer DEP	Educatio	Stormwater	\$0.00	NA	\$2,000.00
520	ORCR	Alachua County	NA	ALCODE0	Fertilizer	Adopt	Educatio	Stormwater	\$0.00	NA	\$0.00
532	ORCR	Alachua County	City of Gainesville;	ALACHUA	Pet	Alachua	Educatio	Stormwater	\$40,655.00	Provided	\$7,000.00
2114	SAFE	Alachua County	Adventure Outpost	AC-05	Interactiv	Impleme	Educatio	Stormwater	\$12,600.00	Provided	\$0.00
2115	SAFE	Alachua County	DEP; Gainesville	AC-04	Fertilizer	Impleme	Educatio	Stormwater	\$435,000.00	Provided	\$0.00
2117	SAFE	Alachua County	DEP	AC-02	Hornsby	Install	Hydrolog	Stormwater	\$443,480.00	Provided	\$0.00
2119	SAFE	Alachua County	Gainesville Clean	AC-06	Interactiv	Interactiv	Educatio	Stormwater	\$6,500.00	Provided	\$0.00
2123	SAFE	Alachua County	Local and State Parks	AC-10	Santa Fe	The goal	Educatio	Stormwater	\$12,600.00	Provided	\$0.00
3730	SILV	Alachua County	NA	S166	Public	Impleme	Educatio	Stormwater	\$0.00	TBD	\$0.00
3880	SILV	Alachua County	NA	S001	Fertilizer	Adopt	Regulatio	Stormwater	\$0.00	TBD	\$0.00
4015	SILV	Alachua County	City of Gainesville;	S074	Landscap	Impleme	Educatio	Stormwater	\$0.00	TBD	\$25,000.00
4020	SILV	Alachua County	City of Gainesville;	S072	Water	Conduct	Educatio	Stormwater	\$0.00	TBD	\$0.00
4023	SILV	Alachua County	City of Gainesville;	S071	Landscap	Impleme	Educatio	Stormwater	\$0.00	TBD	\$0.00
4024	SILV	Alachua County	City of Gainesville;	S070	Pet	Impleme	Educatio	Stormwater	\$40,655.00	Provided	\$0.00
4025	SILV	Alachua County	City of Gainesville;	S069	Water	Alachua	Educatio	Stormwater	\$0.00	NA	\$2,000.00
4542	ORCR	Alachua County	City of Gainesville -	SWT37	Sweetwat	Orange	LID- Rain	Stormwater	\$555,430.00	Provided	\$0.00
118	OKLA	SJRWMD	NA	HAR03	Harris	Harris	Hydrolog	Stormwater	\$5,000,000.00	Provided	\$0.00
905	LSJM	Clay County MS4	Clay County	CC-12	CC MS4	Educatio	Educatio	Stormwater	\$10,000.00	Provided	\$0.00
5565	CIRL	SJRWMD	Not provided	SJRWMD-	C-10	Construct	Hydrolog	Stormwater	\$0.00	TBD	\$0.00
5568	CIRL	SJRWMD	Graves Brothers	SJRWMD-	Disperse	The	Disperse	Stormwater	\$5,655,000.00	Provided	\$0.00
2333	EWCO	City of Bonita Springs	Lee County	BS-10	Pine Lake	City	Hydrolog	Stormwater	\$0.00	TBD	\$0.00
									\$9,850,731,665.33		\$73,500,933.59



Impact of Impaired Waters

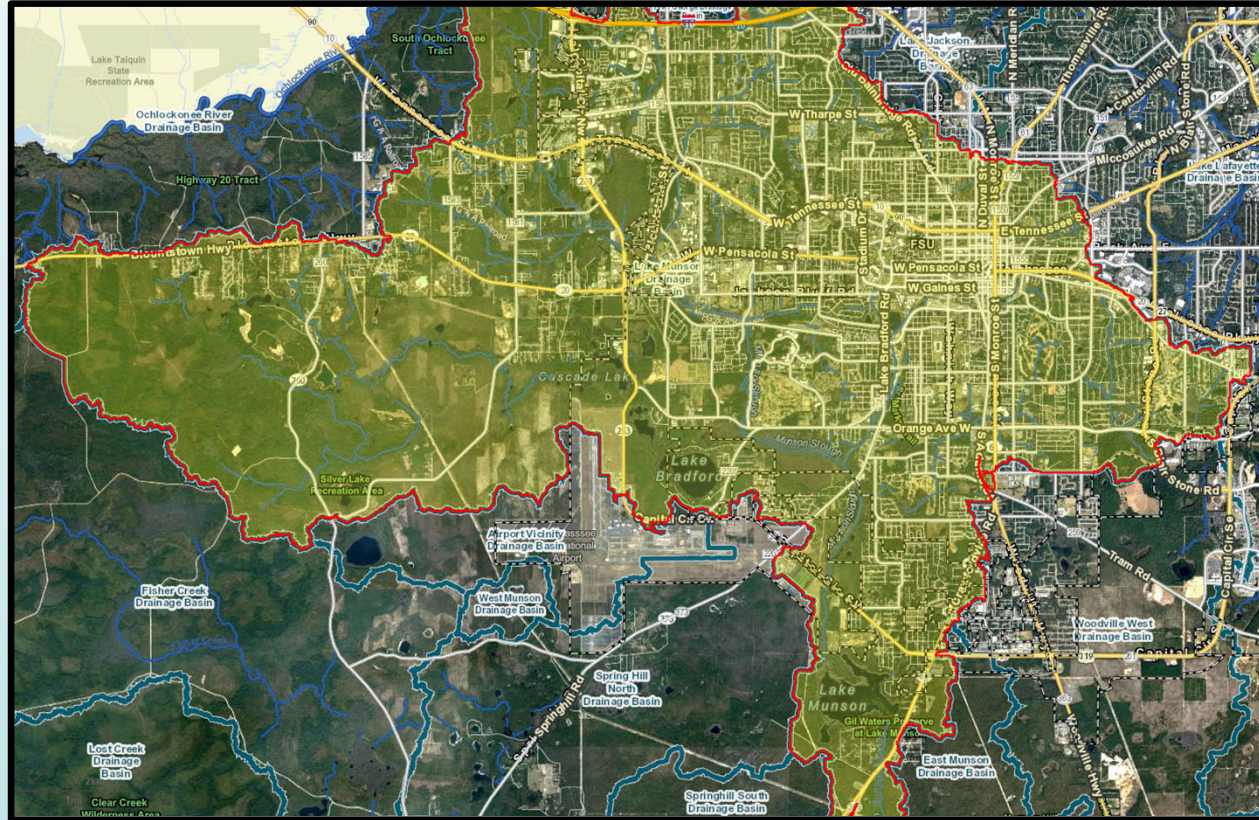
Case Study: Munson Slough (Above Lake Munson)
Tallahassee, FL

Drainage Basin: 53 sq. miles

Impairments: Lead, Nutrients

TMDLs: Nutrients (2011)

BMAPs: None



Impact of Impaired Waters

Lake Munson Basin Investments in Improvements and Programs

Over 28 Projects - 21 BMPs - \$285 M Investment

This document provides a summary of the past, present, and future significant projects and investments in the Lake Munson Basin as well as ongoing and future Best Management Practices to benefit the water quality of Lake Munson.

Capital Improvements

1. San Luis Park - Est. \$700,000 (1982)
2. Carter-Howell-Strong Pond - Est. \$2 M (1980s)
3. Jim Lee Road Facility - \$347,000 (1993)
4. Gil Waters Park - \$350,000 (1997)
5. Gum Swamp Restoration - \$492,300+ (1998)
6. Lake Elberta - \$10.55 M (2000)
7. RSF Trash Trap - \$71,090 (2001)
8. Lake Munson Restoration - \$13.6 M (2002)
 - a. Lake Henrietta Restoration
 - b. Munson Slough Restoration
 - c. Lake Henrietta Wetlands Restoration
 - d. Lake Munson Delta Sediment Removal
 - e. Lake Munson Wetlands Restoration
9. Gum Creek Erosion Control - \$150,000 (2003)
10. Orange Avenue Facility - \$23.1 M (2006)
11. Bond Stormwater Facility - Est \$2 M (2006)
12. Martha Wellman Facility - Est. \$13.8 M (2006)
13. Munson Slough Stabilization - \$55,000 (2009)
14. Lake Munson Dam Rehabilitation - \$1.5 M (2011)
15. Lower East Branch Trash Trap - \$207,000 (2012)
16. Capital Circle NW/SW - Est \$25.4 M (2015)
 - a. Broadmoor Stormwater Facility
 - b. Delta Stormwater Facility
17. Lakeview Bridge - \$928,000 (2017)
18. FGS Sediment Study - \$328,570 (2019)
19. Lower CDD Erosion Control - \$11.45 M (2020)
20. Country Club Creek Drainage Imp. - \$1.75 M (2020)
21. Capital Cascades Trail Seg. 1-3 - \$138 M+ (2021)
 - a. Franklin Blvd
 - b. Cascades Park
 - c. Lake Anita
 - d. Coal Chute SWMF
 - e. Tallahassee Junction

Over 21 Projects Totaling Nearly \$247 M

Planning, Design & Construction Projects

1. Advanced Septic Tank Pilot Project - \$1.5 M (2018)
2. Comprehensive Wastewater Treatment Facilities Plan - \$500,000 (2019)
3. Blueprint 3D-B RSF - Est. \$700,000+ (2021)
4. Capital Cascades Segment 4 - Est. \$20 M (2021)
5. Septic Incentive Upgrade Program - \$1.1 M (2022)
6. NE Lake Munson Septic to Sewer - \$12.1 (2022)
7. Lake Henrietta Sediment Removal - \$2 M (2023)

7 Ongoing Projects Totaling Nearly \$38 M

Best Management Practices (BMPs)

1. Hopkins Crossing wetland preservation

2. North Ridge Road wetland preservation
3. County Environmental Management Act (EMA) prohibits illicit discharges (untreated water) flowing offsite from a business or residence
4. County EMA requires trash racks and sediment sumps on all new stormwater management facilities to protect downstream waterbodies
5. Special development zone regulations minimize clearing around lakes to protect vegetation
6. All stormwater facilities are inspected for compliance in order to obtain a Leon County Operating Permit, renewal permits and inspections are required every 3 years
7. Adopted State-wide model Fertilizer Ordinance with additional application restrictions to limit nutrients run-off from lawns
8. Lake Munson Clean-Up during drawdowns
9. FWC Lake Munson Fish Restocking
10. Routine maintenance of County stormwater facilities to reduce sediment downstream
11. Leon County Water Resources Program provides quarterly water quality sampling, public education, and annual reporting
12. Leon County Water Resources website provides information on personal responsibility for keeping our waterbodies clean and healthy

12 BMPs Improving Water Quality

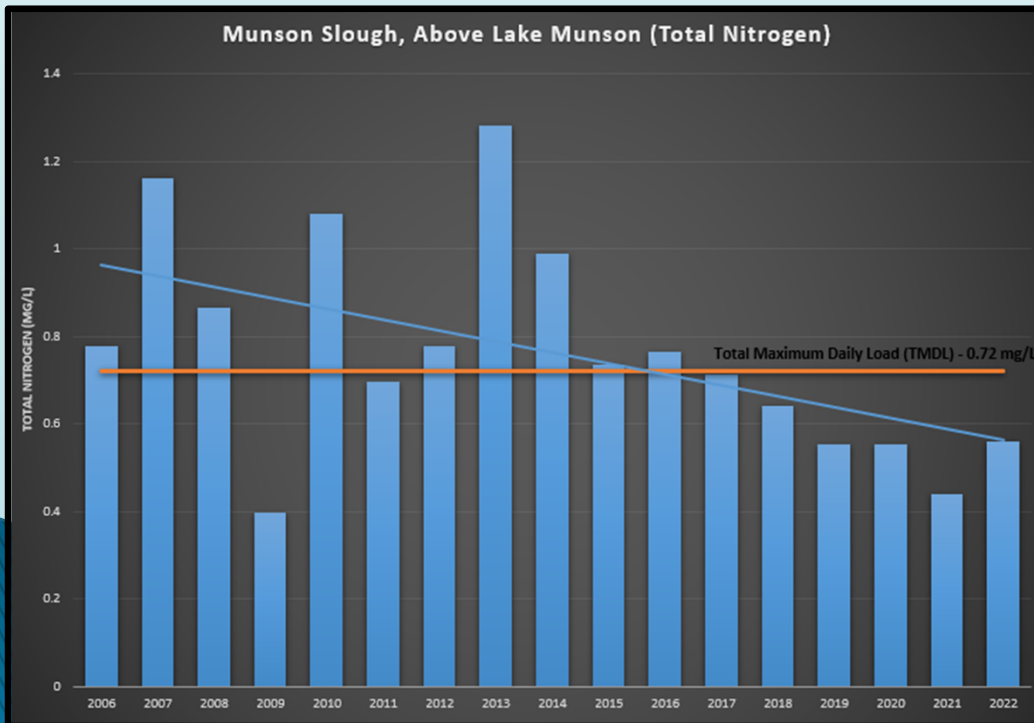
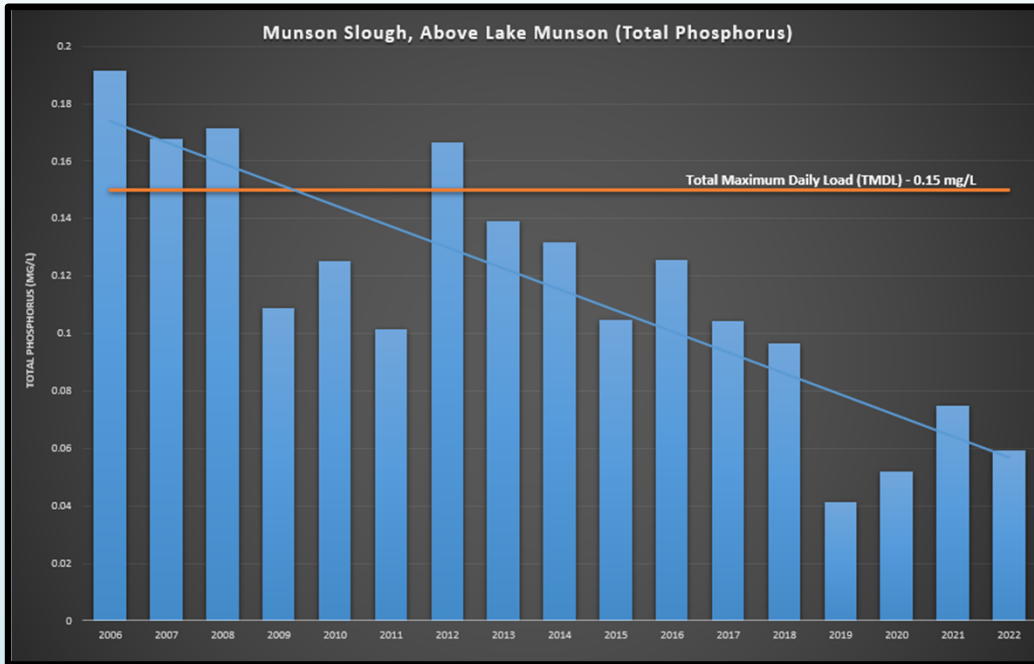
Future Lake Management & Initiatives

1. Lake Munson drawdowns (2000, 2010, 2022)
2. Enhanced (monthly) water quality sampling for 2 years - \$100 K
3. Aerial topographic survey to map sediment and elevations - \$40 K
4. Investments in upstream improvements to reduce sediment and improve water quality
5. Additional septic system upgrades and conversions to reduce wastewater pollutants
6. Reoccurring drawdowns every 5-10 years
7. Aquatic Vegetation Mgmt Program to mitigate invasive plants - \$60 K
8. Peroxide treatment for algal blooms - \$30 K
9. Innovative Technology Exploration

9 BMPs; \$230,000 Initial Investment



Impact of Impaired Waters



Investment: \$285 million +

Agencies: City of Tallahassee, Leon County, Blueprint IA, DEP

Time Frame: 30+ years

TMDL Achieved: 2022 (2t)

BMAPs: None



Problem Summarized

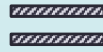
Inadequate Stormwater Standards



Nutrient Imbalance



Degraded Water Quality



(Economic) Impact (Social)



\$Taxpayers\$



Political Process

STATE OF FLORIDA

OFFICE OF THE GOVERNOR

EXECUTIVE ORDER NUMBER 19-12

(Achieving More Now For Florida's Environment)

WHEREAS, water and natural resources are the foundation of Florida's communities, economy and way of life; and

WHEREAS, protection of water resources is one of the most critical issues facing our state and requires immediate action; and

WHEREAS, recent algae blooms have resulted in an increasing threat to our environment and fragile ecosystems, including our rivers, beaches and wildlife, as well as causing the issuance of health advisories, closures of recreational areas and economic losses in adjacent communities; and

WHEREAS, as the Governor of the State of Florida, a primary mission of my tenure is to follow in the words of President Theodore Roosevelt by having Florida treat its "natural resources as assets which it must turn over to the next generation increased, and not impaired, in value";



Political Process

Blue-Green Algae Task Force Consensus Document #1

11 October 2019

Stormwater Treatment Systems

The presumption that a stormwater treatment system constructed and permitted in compliance with BMP design criteria will not cause or contribute to violations of surface water quality standards in adjacent and/or connected water bodies has been evaluated and challenged. Available data suggest that a substantial number of stormwater treatment systems throughout the state fail to achieve their presumed performance standards.

Given the quantity of water collected, treated and conveyed in stormwater systems throughout the state, the task force recommends the development and implementation of a stormwater system inspection and monitoring program with the goal of identifying improperly functioning and/or failing systems so that corrective action can be taken to reduce nutrient pollution and other negative environmental impacts. The task force recommends also that stormwater design criteria be revised and updated to incorporate recent advances in stormwater treatment technologies and other practices that have demonstrated environmental benefits, specifically nutrient reduction.



Political Process

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

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

Prepared By: The Professional Staff of the Committee on Appropriations

BILL: CS/CS/SB 712

INTRODUCER: Appropriations Committee; Community Affairs Committee; and Senators Mayfield, Harrell, and Albritton

SUBJECT: Environmental Resource Management

DATE: February 24, 2020 **REVISED:** _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	<u>Paglialonga/Rogers</u>	<u>Ryon</u>	<u>CA</u>	<u>Fav/CS</u>
2.	<u>Reagan</u>	<u>Betta</u>	<u>AEG</u>	<u>Recommend: Fav/CS</u>
3.	<u>Reagan</u>	<u>Kynoch</u>	<u>AP</u>	<u>Fav/CS</u>

Please see Section IX. for Additional Information:

COMMITTEE SUBSTITUTE - Substantial Changes

I. Summary:

CS/CS/SB 712 includes recommendations from the Blue-Green Algae Task Force. The major topics in this bill include onsite sewage treatment and disposal systems (OSTDSs, commonly referred to as septic systems), wastewater, stormwater, agriculture, and biosolids. The bill directs



Political Process

373.4131 Statewide environmental resource permitting rules.—

(6) By January 1, 2021:

(a) The department and the water management districts shall initiate rulemaking to update the stormwater design and operation regulations, including updates to the Environmental Resource Permit Applicant's Handbook, using the most recent scientific information available. As part of rule development, the department shall consider and address low-impact design best management practices and design criteria that increase the removal of nutrients from stormwater discharges, and measures for consistent application of the net improvement performance standard to ensure significant reductions of any pollutant loadings to a water body.



Rulemaking Process

*Clean Waterways Act Technical Advisory Committee
Summary Report*

**Division of Water Resource Management
Florida Department of Environmental Protection**

March 2022



TAC: Represent various stakeholder groups (Agriculture, Local Government, Development, Environmental, FSA, Redevelopment, etc.)

Purpose: Outline recommendations for strengthening stormwater design & operation regulations

Meetings: 13

Timeframe: November 2020 through March 2021

Result: Summary Report



Rulemaking Process

Clean Waterways Act Stormwater Rulemaking Workshops

[Home](#) » [Divisions](#) » [Division of Water Resource Management](#) » [Engineering, Hydrology and Geology Program](#) » Clean Waterways Act Stormwater Rulemaking Workshops

Workshops: 6

Timeframe: May 2022 through January 2023

Rule Adoption Hearing: March 22, 2023

Notice of Change: March 24, 2023

No Challenges

Rule Adopted & Filed: April 28, 2023

Legislative Session Adjourned: May 5, 2023



Almost There!

- ▶ Statewide Stormwater Rule (62-330)
 - Adopted & Filed (April 28, 2023)
 - NOT EFFECTIVE
 - Legislative Ratification Required



Next Steps

- ▶ Ratification by Florida Legislature
 - Requires Sponsor
 - Legislative Session Convenes: January 9, 2024
 - Legislative Session Adjourns: March 8, 2024
- ▶ Continued Education & Outreach

