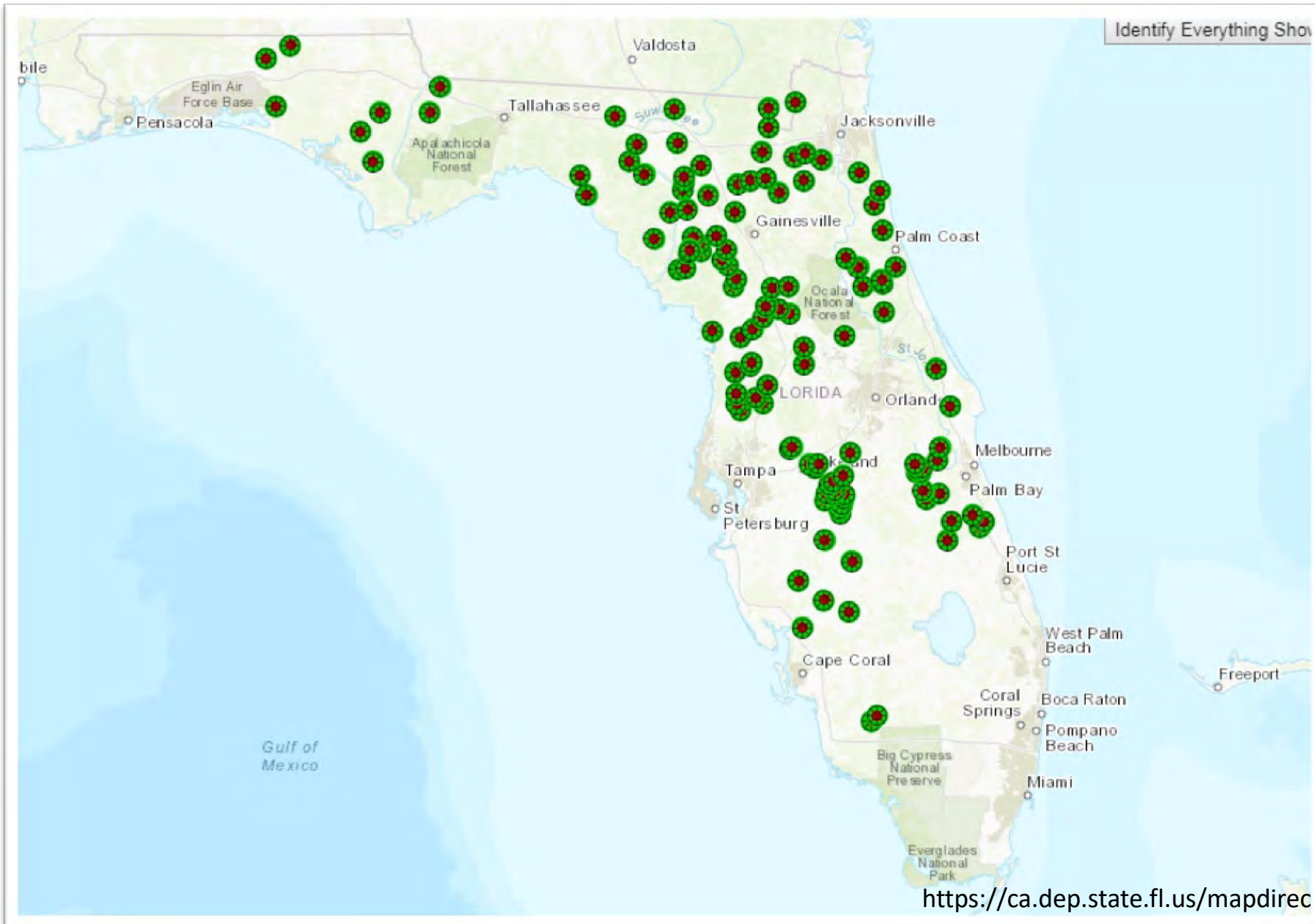


BLUE CYPRESS LAKE



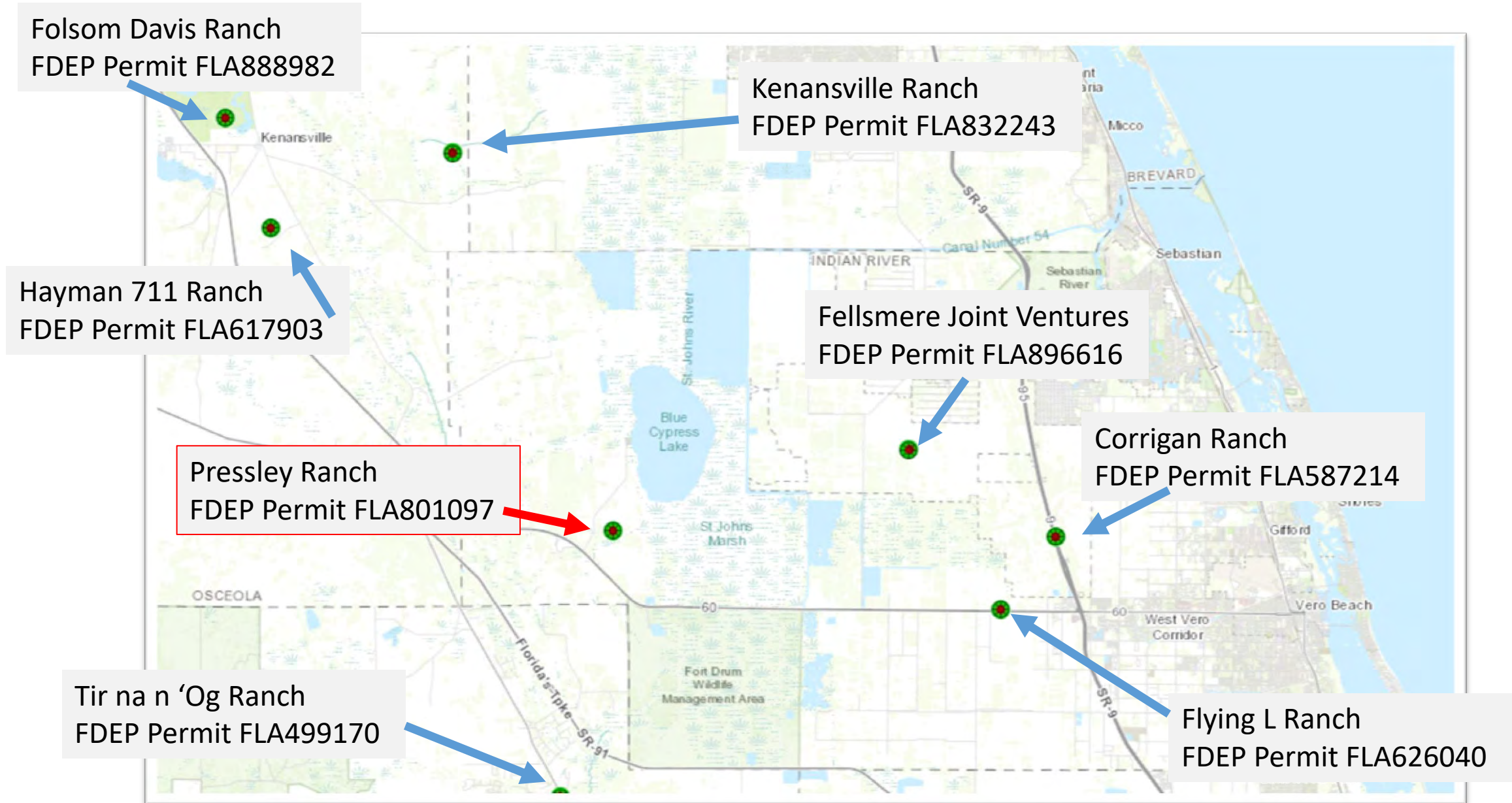
**FLORIDA STORMWATER ASSOCIATION
ANNUAL MEETING – JUNE 2019**

Florida Department of Environmental Protection Permitted Land Application Sites for Biosolids



“Biosolids” = the solid, semisolid, or liquid residue generated during the treatment of domestic wastewater in a domestic wastewater treatment facility, formerly known as “domestic wastewater residuals” or “residuals.”

Florida Department of Environmental Protection Permitted Land Application Sites for Biosolids In and Around Indian River County



Biosolids Land Application sites are permitted through the Florida Department of Environmental Protection

III. APPLICATION REQUIREMENTS

- Biosolids applied to the application site shall meet the requirements of Class B biosolids as defined in Rule 62-640.200, F.A.C. [62-640.700(2)]

Permits contain general language on Biosolids Application Restrictions and Monitoring Requirements

- Storage restrictions
- Reporting and record keeping requirements
- Application set-backs
- Crop use restrictions
- Cattle grazing restrictions
- Groundwater table monitoring
- Weather-related application guidelines
- Biosolids quality and quantity restrictions
- Site access restrictions/signage

- The setback distances in the following table shall be met for Class B biosolids, except as provided below.

Setbacks	Distance
*Class I water, Outstanding Florida Water, or Outstanding National Resource Water	1000 ft
**Other surface water	200 ft
**Other surface water – if biosolids incorporated or injected	100 ft
Subsurface fractures, sinkholes, or other conduits to groundwater	200 ft
Private potable well	300 ft
Public potable well	500 ft
**Occupied buildings - biosolids stored or stockpiled for more than 7 days	1320 ft
**Occupied buildings - Class B only	300 ft
Occupied buildings - Class B only; incorporated or injected	100 ft
Property lines - Class B only	75 ft

*Setbacks from surface waters shall be vegetated.
 **May be reduced with building owner consent
 Note - Setbacks do not apply to surface waters owned entirely by one person other than the state which are located completely within the property and will not discharge from the property.
 [62-640.700(8)]

- The application of B biosolids to application zones shall be restricted by the following cumulative application limits:

Parameter	Cumulative Application Limits
Arsenic	36.6 pounds/acre
Cadmium	34.8 pounds /acre
Copper	1340 pounds/acre
Lead	268 pounds/acre
Mercury	15.2 pounds/acre
Molybdenum	Report only
Nickel	375 pounds/acre
Selenium	89.3 pounds/acre
Zinc	2500 pounds/acre

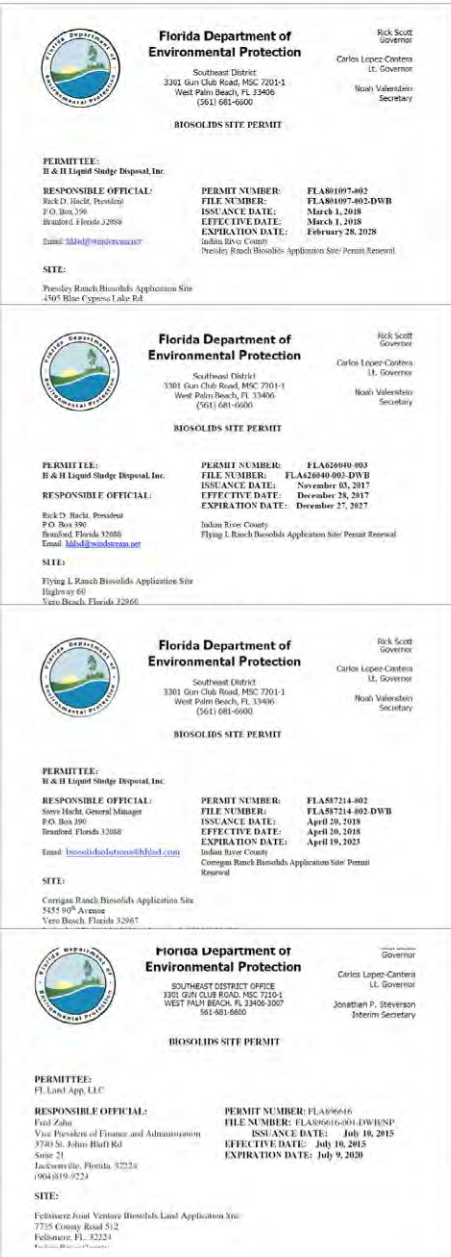
[62-640.700(7)(b)]

II. MONITORING, RECORDKEEPING, REPORTING, AND NOTIFICATION REQUIREMENTS

A. Monitoring Requirements

Soil

- The Permittee shall conduct soil fertility testing, in accordance with the NMP, at least every five years. [62-640.650(5)(b)1.]
- Soil fertility testing shall follow the procedures in the Institute of Food and Agricultural Sciences (IFAS) publications "Soil Testing", University of Florida's Institute of Food and Agriculture (UF/IFAS) Circular 239, <http://edis.ifas.ufl.edu/SS156>, and "Extension Soil Testing Laboratory (ESTL) Analytical Procedure and Training Manual," UF/IFAS Circular 1248, <http://edis.ifas.ufl.edu/SS312>. Results of soil fertility testing shall be included in the application site records. [62-640.650(3)(b)1.]
- The pH of the biosolids soil mixture shall be 5.0 or greater at the time biosolids are applied. At a minimum, soil pH testing shall be conducted annually. [62-640.700(9)]



Page

Biosolids Application Site Annual Summary

Part I - Application Site Information

SITE NAME:	SITE ID:
MAILING ADDRESS:	MONITORING PERIOD - From: JAN 1 to DEC 31,
SITE PERMITTEE:	
SITE MANAGER:	
SITE OWNER(S):	
Total acres approved for land application	acres
Total acres applied during reporting period	acres
Total quantity of biosolids applied during reporting period:	dry tons
Total quantity of Total Nitrogen (TN) applied	lbs
Total quantity of Total Phosphorus (TP) applied	lbs

Documentation Checklist

Yes/No

- N/A
- Attach copies of any revisions made to the Nutrient Management Plan (NMP). [62-640.650(5)(d), F.A.C.]
- Attach the results of ground water monitoring, if applicable. [62-640.650(3)(c), F.A.C.]
- Attach example calculations for the nutrient and cumulative loadings to an application zones. [62-640.650(5)(d), F.A.C.]
- Attach copies of records, as applicable, demonstrating compliance with the demonstration submitted with the NMP for sites located within the Lake Okechobee, St. Lucie River, or Caloosahatchee River watersheds in accordance with subsection 62-640.500(8), F.A.C. [62-640.650(5)(d), F.A.C.]

Comments

Certification

I certify:

- Copies of this report will be sent to the facilities whose biosolids were applied at this biosolids application site;
- The management and application of biosolids at the site during the reporting period were consistent with the NMP; and
- Annual soil pH testing has been conducted and the results documented in the site records.

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME OF SITE PERMITTEE OR AUTHORIZED AGENT (Type or Print)	TELEPHONE NO.
SIGNATURE OF SITE PERMITTEE OR AUTHORIZED AGENT	DATE (YY/MM/DD)

PRESSLEY RANCH





Florida Department of Environmental Protection

Division of Water Resource Management

Biosolids Application Site Annual Summary

Part I - Application Site Information

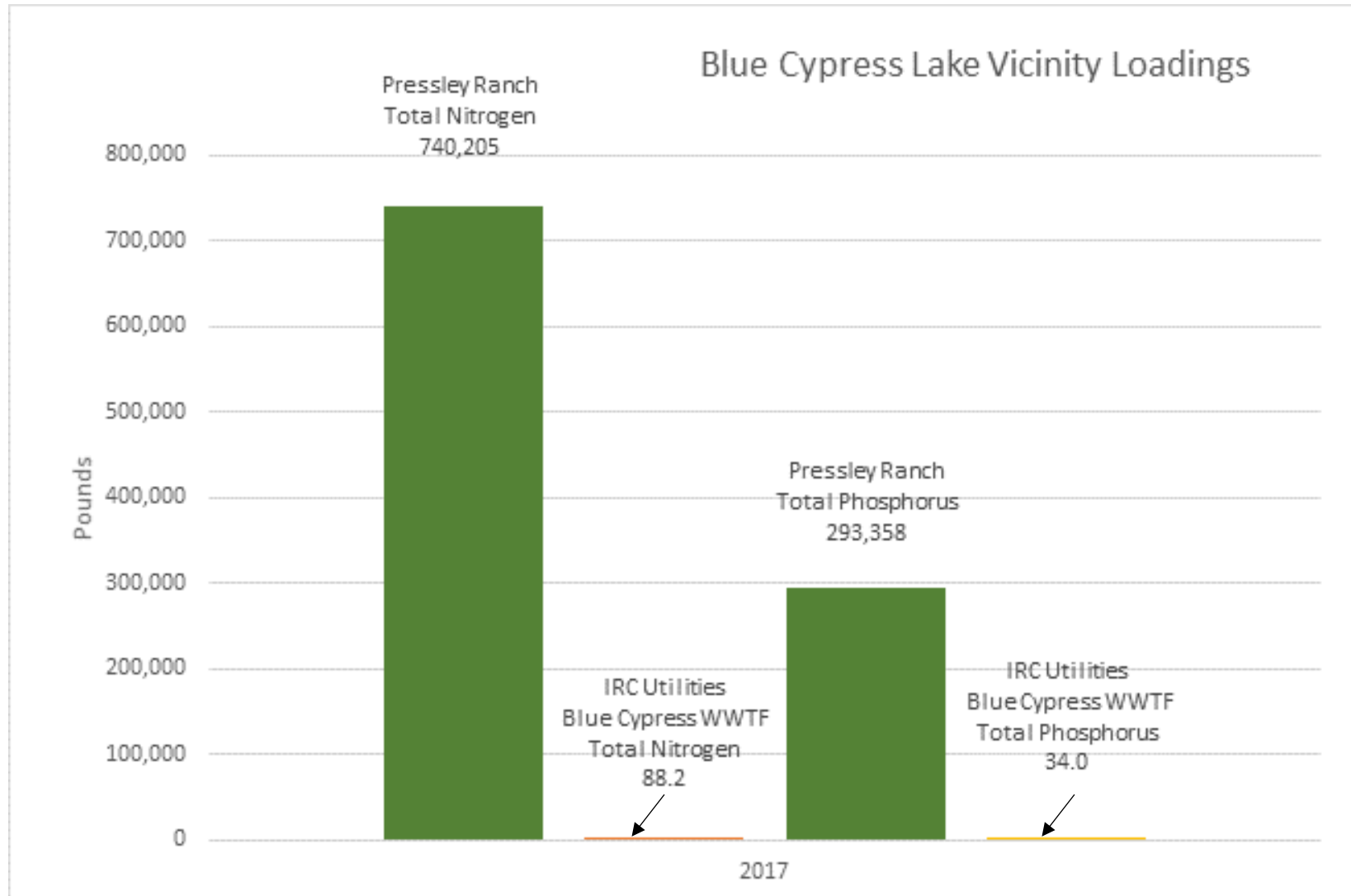
SITE NAME:	PRESSLEY RANCH	SITE ID:	FLA801097
MAILING ADDRESS:	4505 Blue Cypress Lake Road	MONITORING PERIOD -- From: JAN 1 to DEC 31,	2017
	Vero Beach FL 32966		
SITE PERMITTEE:	H & H L.S.D., INC		
SITE MANAGER:	DONNIE YATES		
SITE OWNER(S):	GARY PRESSLEY		
Total acres approved for land application		3,058.7	acres
Total acres applied during reporting period		2,165.6	acres
Total quantity of biosolids applied during reporting period:		5,277.4	dry tons
Total quantity of Total Nitrogen (TN) applied		740,205.1	lbs
Total quantity of Total Phosphorus (TP) applied		293,358.9	lbs

Under the existing allowable application rules, it is possible that this site could have applied considerable more material, thus increasing the possibility of increasing phosphorus loadings into the Blue Cypress Lake watershed, and ultimately, the Blue Cypress Lake.

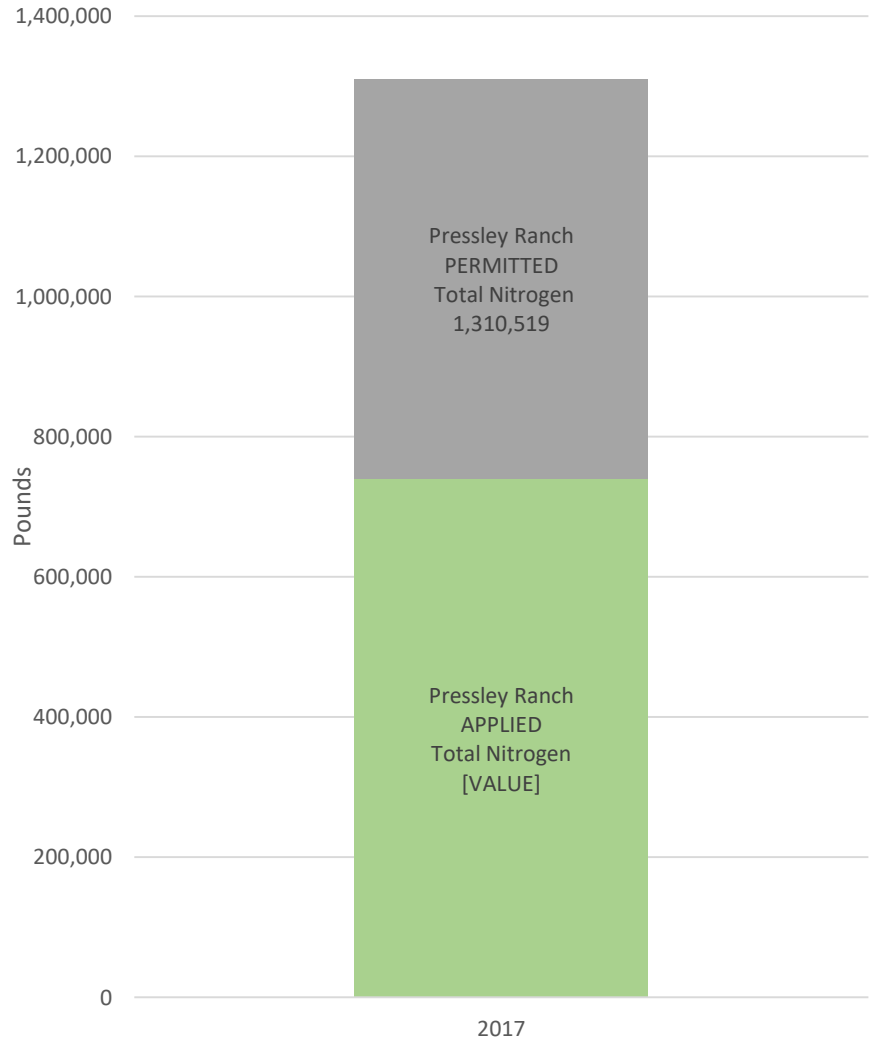
It is estimated that an additional **4,066** tons of Biosolids could have been applied, which could have increased the phosphorus loadings up by an additional **226,140 lbs.**

2017 Application of Class B Biosolids was substantial in the Blue Cypress Lake Watershed, but well below permitted levels.

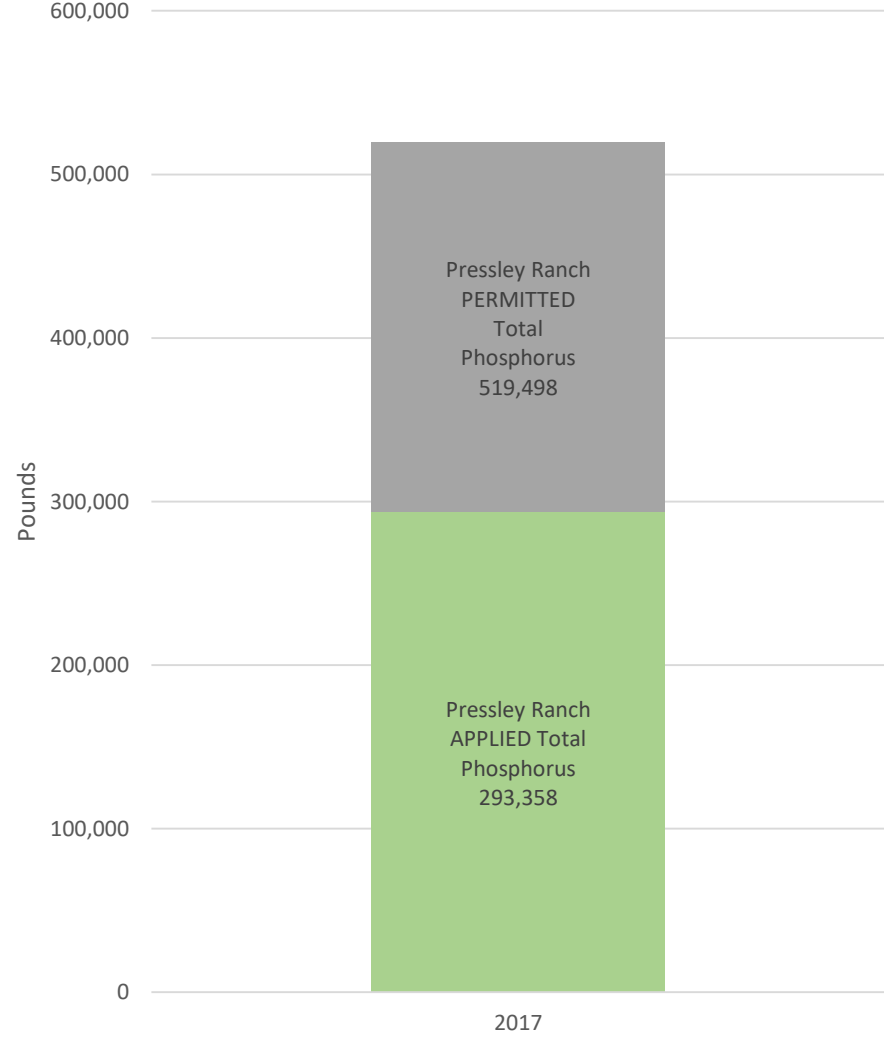
2017 Loadings



Blue Cypress Lake Vicinity Loadings
Total Nitrogen



Blue Cypress Lake Vicinity Loadings
Total Phosphorus



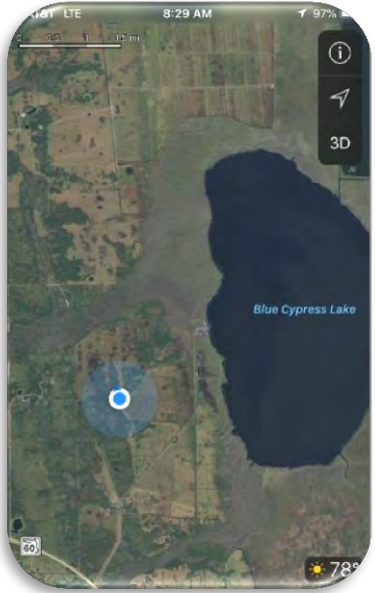


C/O ORCA

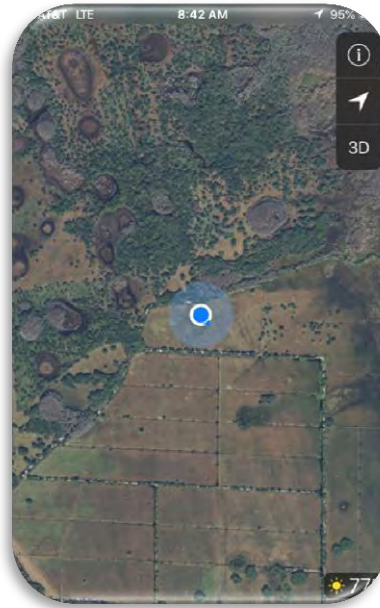
Sample
collected June
16, 2018

IRC Staff Site Visit to Active Biosolids Land Application Site within Indian River County

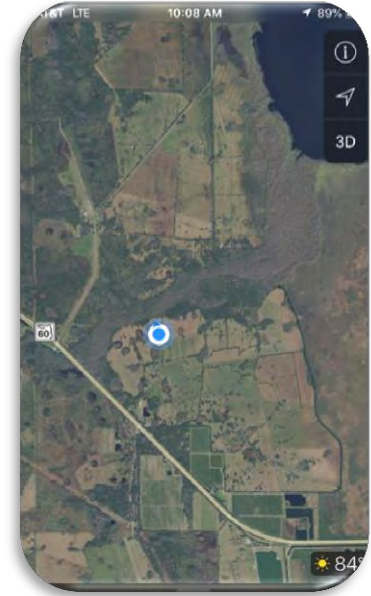
June 29, 2018



Access Road to one land application site



Open fields



South East side of Property



IRC Staff Site Visit to Active Biosolids Land Application Site within Indian River County
June 29, 2018



Perimeter ditching to retain water on-site



Biosolids Application required signage

Regulatory Agency Action Items in Conjunction with Indian River County BCC Directives



Florida Department of Environmental Protection

Southeast District Office
3301 Gun Club Road, MSC 7210-1
West Palm Beach, FL 33406
561-681-6600

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

July 12, 2018

Mr. Rick D. Hacht, President
H&H Liquid Sludge Disposal, Inc.
P.O. Box 390
Branford, FL 32088
hhlsd@windstream.net

Re: Pressley Ranch Biosolids Application Site
DW Facility ID# FLA801097
Indian River County

Dear Mr. Hacht,

The Department is committed to protecting water quality and enhancing Florida's natural resources, including Blue Cypress Lake. As you may be aware, we are currently conducting a watershed assessment to help us better understand all potential nutrient sources in the watershed and their possible connection to nutrient levels in the lake.

Per my conversation with Mr. Blake Hacht, the Department understands that H&H Liquid Sludge Disposal, Inc. will not land apply any biosolids at Pressley Ranch until after the wet season. Halting your application of biosolids for the next 180 days is important to helping the Department perform a thorough assessment of Blue Cypress Lake, and we appreciate your cooperation, as well as the cooperation of the owner of Pressley Ranch.

To reiterate, your permit requires a minimum unsaturated soil depth of two feet between the depth of biosolids placement and the water table level at the time biosolids are applied to the soil. During the last inspection, it was noted that the soil was saturated and there was evidence of ponding. As such, any application of biosolids at this time would be a violation of your permit conditions. Before any biosolids are applied, we ask that you notify the Department so that we can ensure these requirements would be met.

We appreciate your interest and assistance in protecting Florida's water quality. Should you have any questions or comments, please contact me at jennifer.k.smith@floridaden.gov or 561-681-6642.

07/12/2018 Letter issued from FDEP to halt land application of Biosolids in the vicinity of Blue Cypress Lake while FDEP in coordination with SJRWMD determine the scope and details of how to best assess the Blue Cypress Lake watershed.

IRC proposed county-wide moratorium on land application of Biosolids

ORDINANCE NO. 2018-____

AN ORDINANCE OF THE BOARD OF COUNTY COMMISSIONERS OF INDIAN RIVER COUNTY, FLORIDA AUTHORIZING A TEMPORARY MORATORIUM FOR 180 DAYS, OR UNTIL A COMPREHENSIVE REVIEW OF THE IMPACT ON THE COUNTY'S ECOSYSTEM IS COMPLETED, WITHIN THE UNINCORPORATED AREAS OF INDIAN RIVER COUNTY PROHIBITING LAND APPLICATION ACTIVITIES OF CLASS B BIOSOLIDS; PROVIDING FOR STUDY AND POSSIBLE REGULATION OF CLASS B BIOSOLIDS APPLICATION ACTIVITIES; PROVIDING FOR EXHAUSTION OF ADMINISTRATIVE REMEDIES; AND PROVIDING FOR CODIFICATION, SEVERABILITY, REPEAL OF CONFLICTING PROVISIONS, AND AN EFFECTIVE DATE.

WHEREAS, as provided in Article VIII, Section 1 of the Florida Constitution and chapter 125, Florida Statutes, counties have broad home rule powers to enact ordinances, not inconsistent with general or special law, for the purpose of protecting the public health, safety and welfare of the residents of the county; and

WHEREAS, the Indian River County Board of County Commissioners ("Board") specifically determines that the enactment of this ordinance is necessary to protect the health, safety and welfare of the residents of Indian River County; and

WHEREAS, Class B biosolids are solid, semi-solid, or liquid materials resulting from the treatment of domestic sewage sludge from sewage treatment facilities that contain algae supporting nutrients such as phosphorus and nitrogen; and

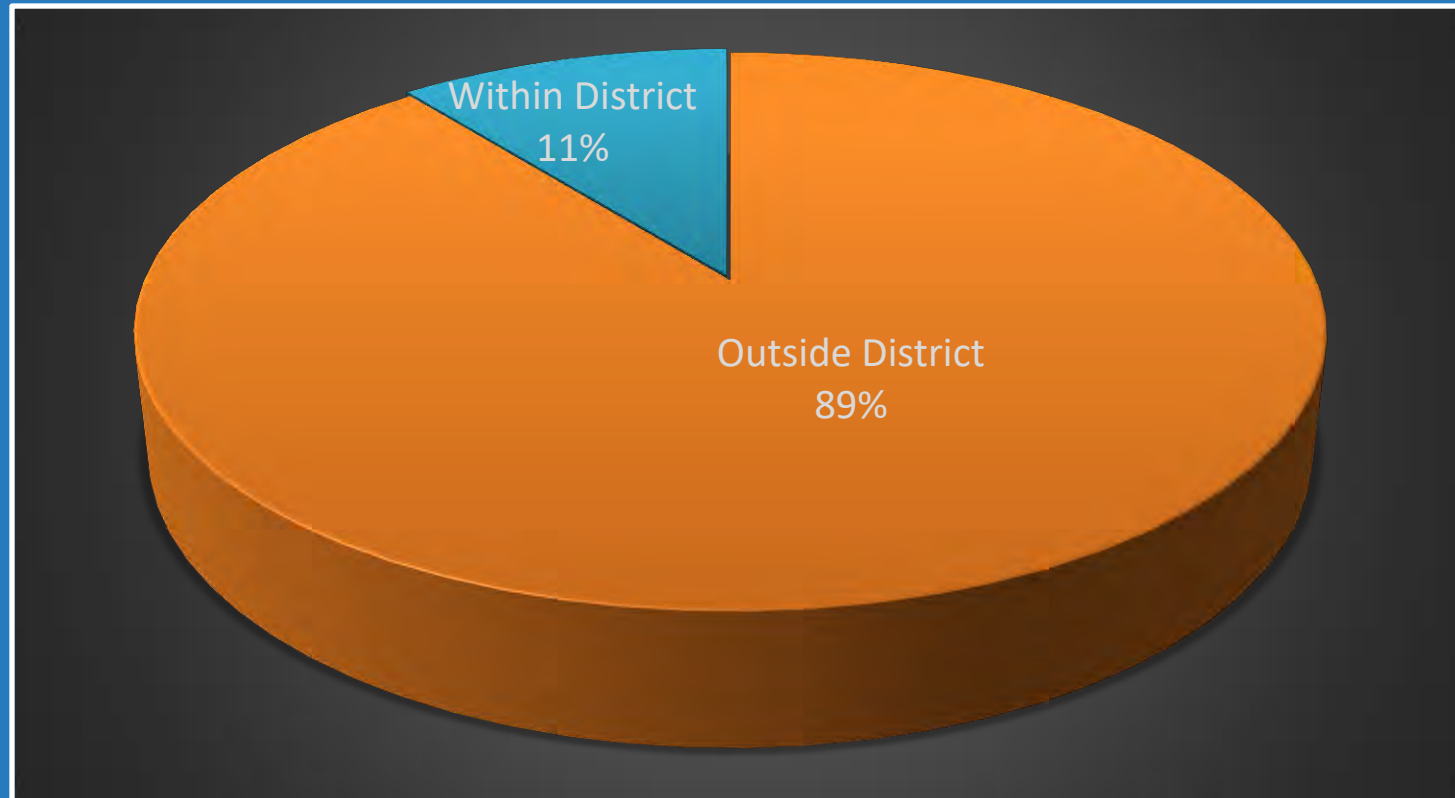
WHEREAS, phosphorus and nitrogen pollution have been a long term problem for surrounding estuaries and watersheds, as phosphorus and nitrogen promote algal blooms, fuel growth of noxious vegetation, and replace the unique natural ecosystem with one which is undesirable to humans and native wildlife; and

WHEREAS, the Board finds that the proper regulation of the land application of Class B biosolids is necessary and appropriate to guide the future use, development, and protection of the land and natural resources in the unincorporated areas of Indian River County and within areas within drainage areas potentially affecting conservation lands and the Indian River Lagoon; and

WHEREAS, the land application activities of Class B biosolids is currently being conducted on property in Indian River County, in areas near waterbodies such as Blue Cypress Lake; and

WHEREAS, Blue Cypress Lake, the first lake along the St. Johns River, is classified by the Florida Department of Environmental Protection as a Class I surface water with a designated use for potable water supplies

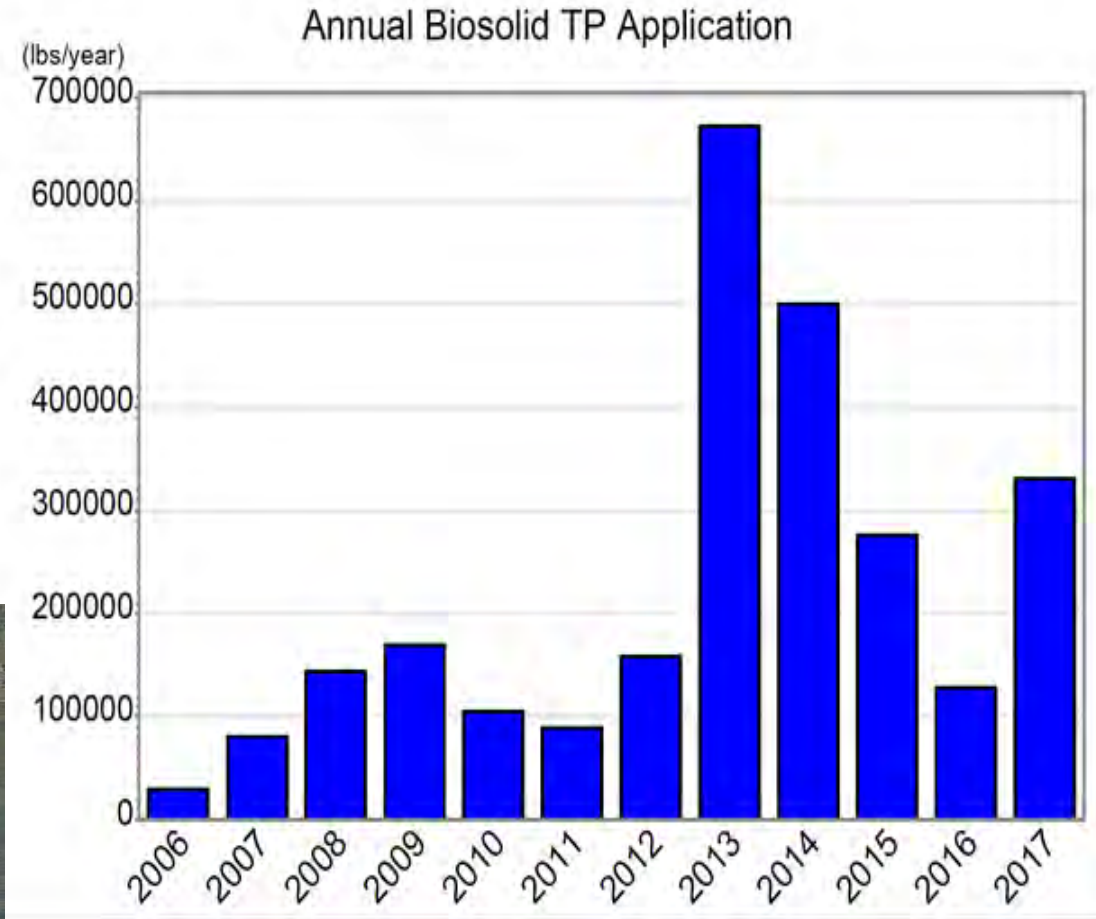
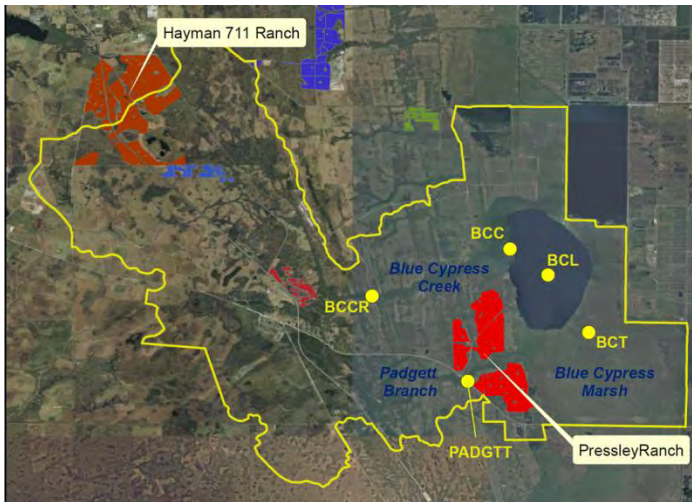
2017 Sources of Biosolids Applied in the Upper St. Johns River Basin



In 2017, 73% of all the land applied class B biosolids were spread in IRC, Osceola and Brevard Counties.

Biosolids Application in Blue Cypress Lake Watershed

- Biosolids applications began in 2006
- Increased significantly in 2013*



*Coincided with the regulatory biosolids land application ban in the St. Lucie River, Lake Okeechobee and Caloosahatchee River Water Sheds under the **Northern Everglades and Estuaries Protection Program**

Florida Department of Environmental Protection Permitted Land Application Sites for Biosolids In and Around Indian River County

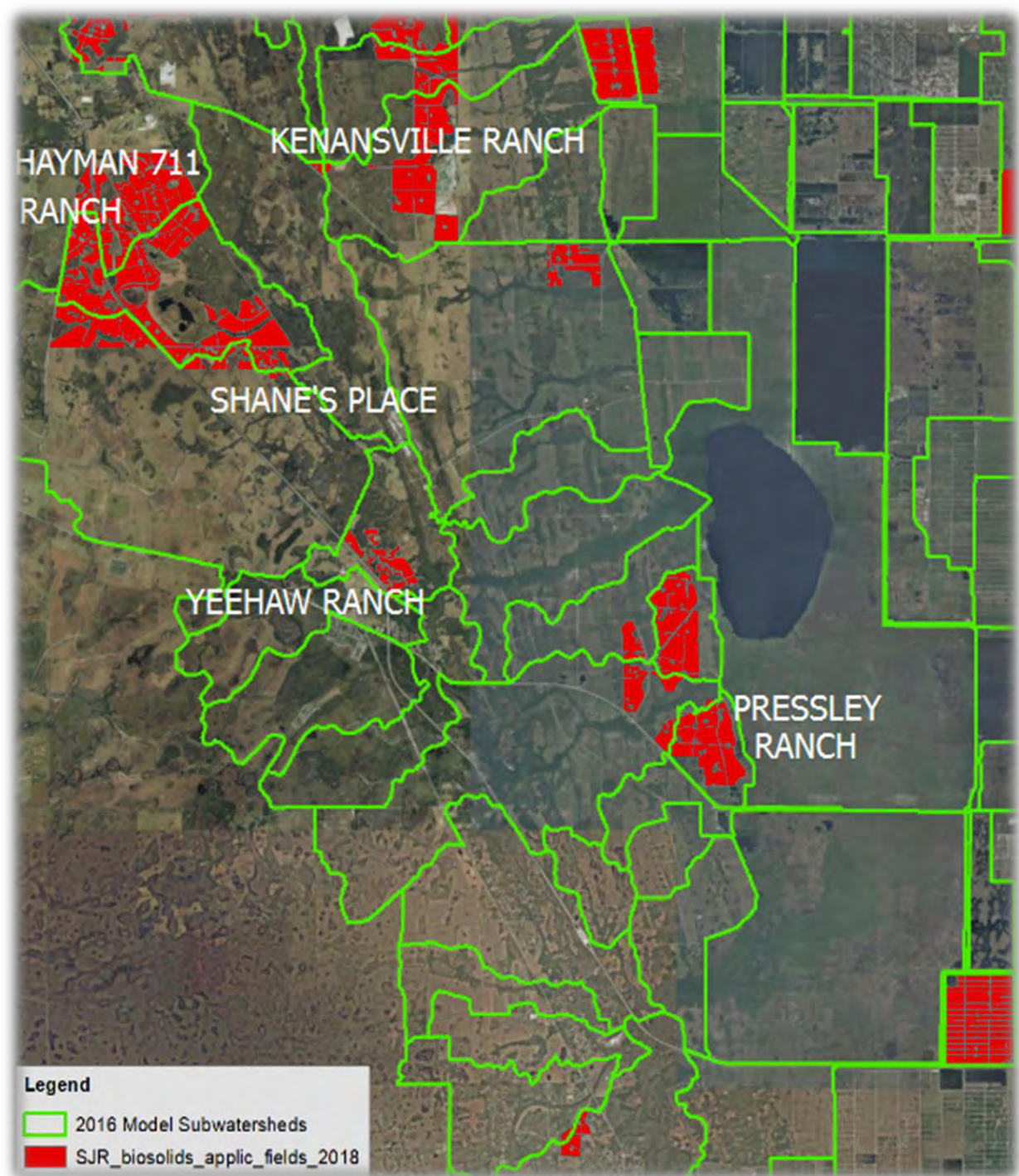
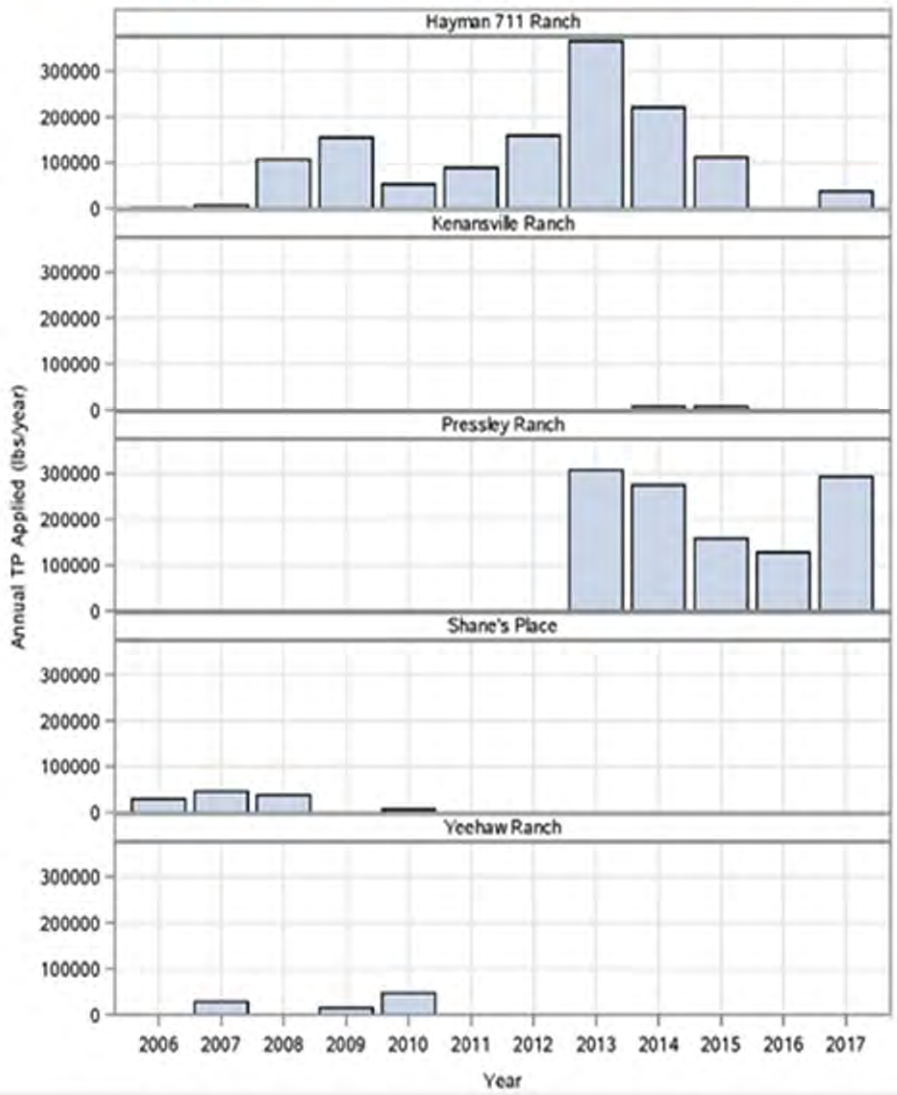
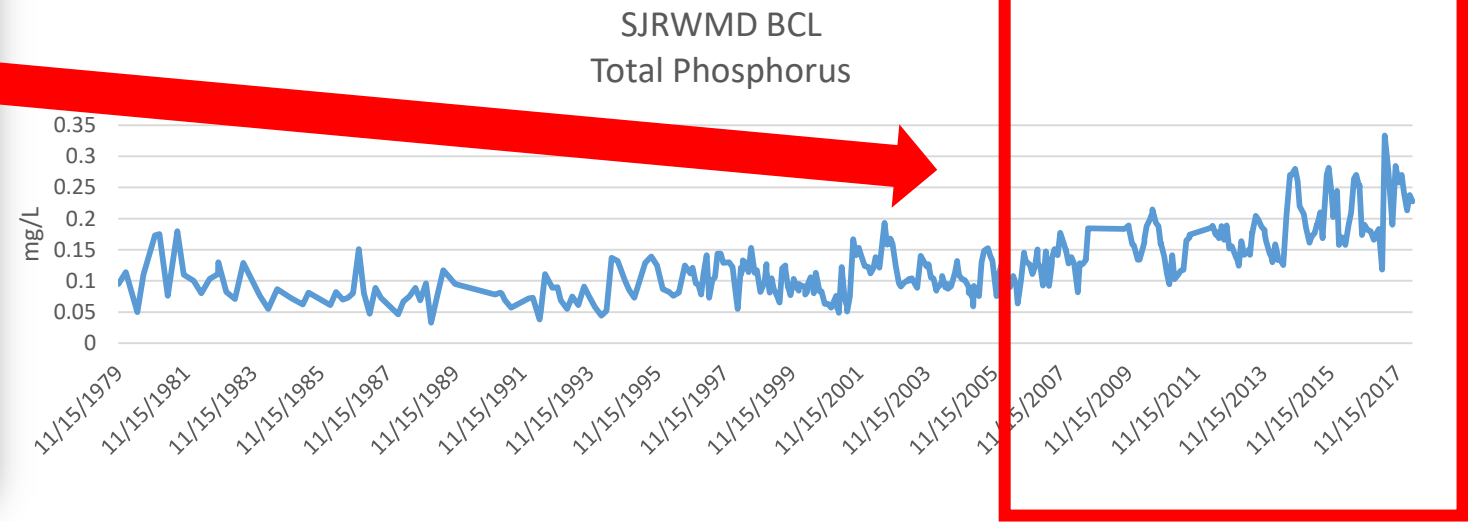
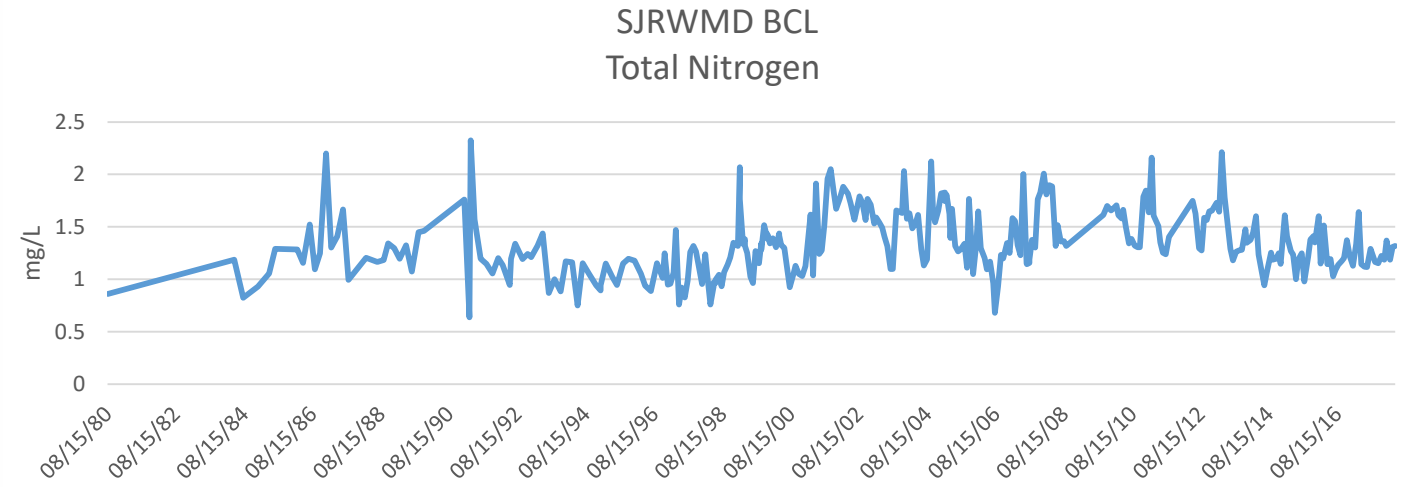


Figure 2 Biosolids Applications in the Blue Cypress Lake Watershed by Location



ST JOHNS RIVER WATER MANAGEMENT DISTRICT Long Term Monitoring Sites

BCL site: Long term monitoring location for various parameters from 1979 to present.



UF/IFAS determinations show that allowable amounts of Biosolids applied may lead to excessive amounts of Phosphorus being added.

St. Johns River Water Management District

Source of Nutrients - Phosphorus

Fertilizer Label

N - P₂O₅ - K₂O
4 - 1 - 2

N - P - K
4 - **0.436** - 1.66

Biosolids

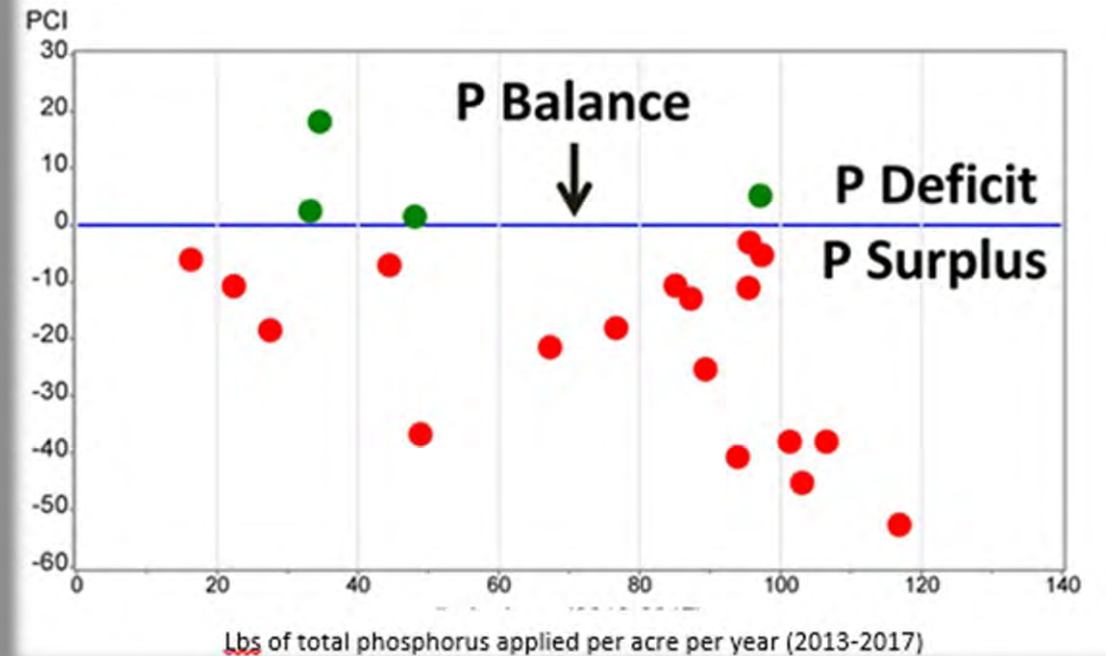
N - P - K
4 - **2** - ?

IFAS fertilization recommendation
for grazed beef cattle:
11-17 lb P/ac/year
If soil and or tissue tests are low
2017 USJRB Calculated Application
Rate: **106 lb P/ac/year**
20,165 ac spread/58,859 permitted

Applying 5-10 times the
crop TP need

Mackowiak, et al. 2012

Phosphorus Loadings



Indian River County Board of County Commissioners (BCC) Directives and Timelines

- | | |
|------------------|---|
| July 17, 2018 | Public Hearing, passed 6-month (180day) temporary moratorium on land applications. City of Fellsmere passed identical moratorium. |
| January 14, 2019 | 2 nd 6-month moratorium for IRC. Fellsmere passed similar moratorium |
| June 18, 2019 | 3 rd 6-month moratorium |

- Increased awareness
 - Since 2013, more phosphorus began leaving the lake then entering the lake which indicates an unaccounted for source of phosphorus.
 - Class B biosolids applications in the Blue Cypress Lake watershed are based on the agronomic needs of nitrogen for hay production with an assumption based on site-specific testing that phosphorus could generally be taken up by the crop and retained by the soils. The resulting phosphorus loading averages close to 10 times the agronomic needs.
 - Phosphorus Capacity Index results from 11/6/2018 on the Pressley Ranch biosolids application sites show that the 19 of the 23 sites exceed the phosphorus threshold for what can be retained in the soils
- Legislative Support
- Regulatory review (TAC recommendations)
 - The upward trend in phosphorus in Blue Cypress Lake will result in a new water quality impairment for total phosphorus in the next cycle of DEP's waterbody assessments.
 - Water bodies downstream of Blue Cypress Lake are currently impaired for total phosphorus.
 - Microcystis blooms in Blue Cypress Lake have been observed in recent years.
- FDEP Rulemaking



HOWARD N. TIPTON
County Administrator

ST. LUCIE COUNTY
BOARD OF COUNTY
COMMISSIONERS

FRANNIE HUTCHINSON
CHAIR
DISTRICT 4

LINDA BARTZ
VICE-CHAIR
DISTRICT 3

CHRIS DZADOVSKY
DISTRICT 1

ANTHONY BONNA
DISTRICT 2

CATHY TOWNSEND
DISTRICT 5

DAN MCINTYRE
COUNTY ATTORNEY

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(772) 462-2131

E-MAIL
PHELANK@STLUCIECO.ORG

WEBSITE
WWW.STLUCIECO.GOV

August 27, 2018

Indian River County

Jason E. Brown
County Administration Office
1801 27th Street
Vero Beach, FL 32960-3365

SEP - 4 2018

Office of the
County Administrator

RE: Resolution 18-148

Dear Mr. Brown: *Jason*

At their August 21, 2018 meeting, the St. Lucie County Board of County Commissioners approved a Resolution, "A Resolution of the Board of County Commissioners of St. Lucie County, Florida, supporting the collaboration with Florida Association of Counties, Florida League of Cities, Florida Small County Coalition, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, and other partners to increase awareness of biosolids management issues in Florida, prioritize the reduction and eventual elimination of the land application of human wastewater biosolids and establish a pilot projects program for funding new state of the arte wastewater technologies to improve recovery and afford more efficient use of human wastewater biosolids."

On behalf of the Board of County Commissioners, I have attached a copy of the Resolution.

Sincerely,

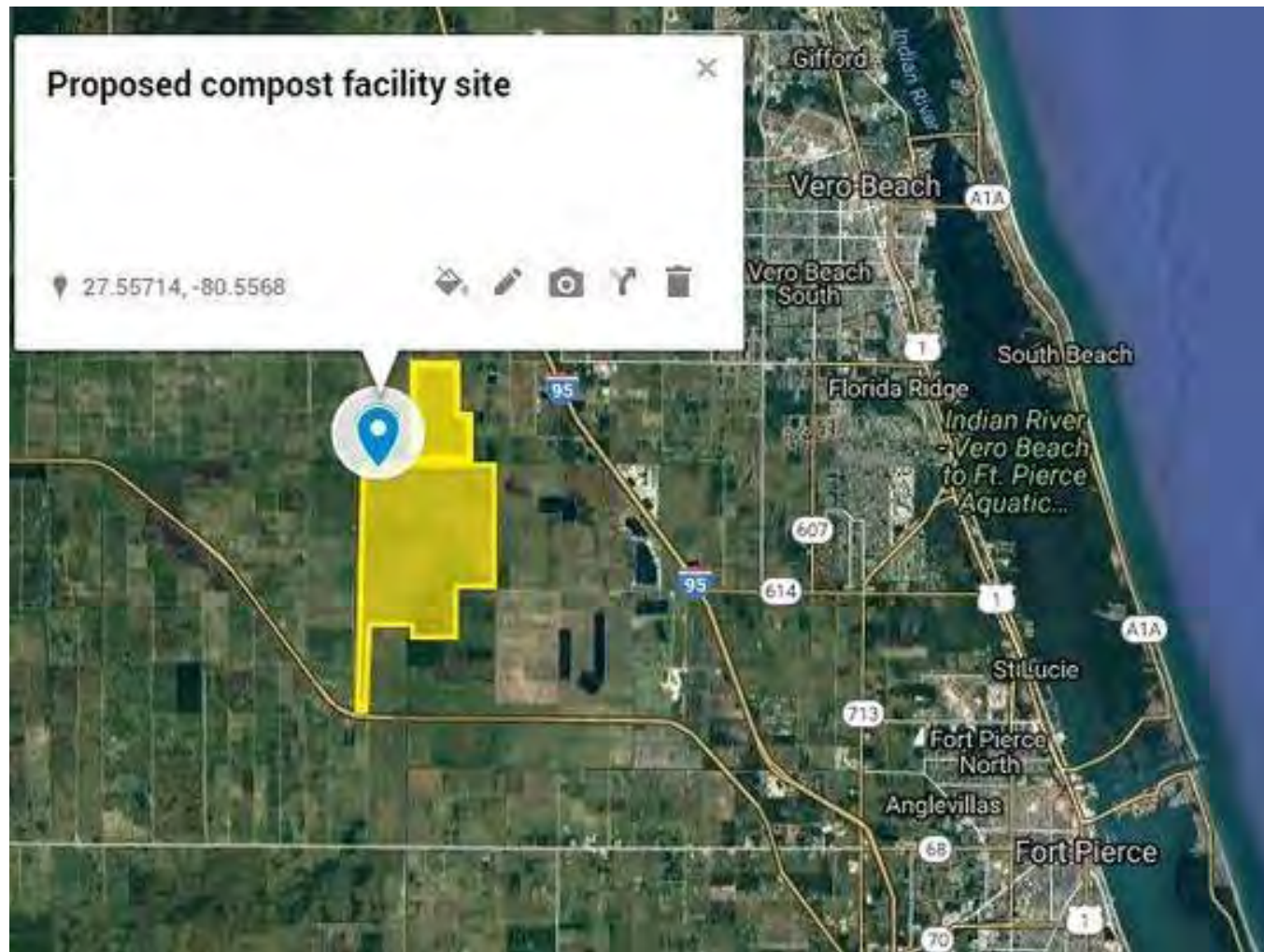
[Signature]
Howard N. Tipton
County Administrator

Hnt/kp

CC: Board of County Commissioners
Dan McIntyre, County Attorney.

Enclosure

ST. LUCIE





SOUTH FLORIDA WATER MANAGEMENT DISTRICT

May 24, 2019

Patrick Cheney
5101 Minute Maid Road
Ft. Pierce, FL 34945

Subject: Notice of Proposed Agency Action to Deny
Environmental Resource Permit Application No.: 180613-16
Project Name: Sunbreak Farms
St. Lucie County

Dear Mr. Cheney:

On September 14, 2018 and January 11, 2019, the South Florida Water Management District ("District") sent you Requests for Additional Information (RAIs) requiring either the submittal of a monitoring plan or an alternative to demonstrate that the proposed pollution abatement practices function properly and meet the objectives of Section 4.9.3, Vol. II of the Applicant's Handbook. The District received a letter from your counsel on April 4, 2019, advising that no monitoring plan or other alternative will be provided and requesting that the District determine the application complete.

Attached is the District's Proposed Agency Action to deny the application, without prejudice to your right to reapply later. Absent further action by you, this denial will be final June 3, 2019.

Alternatively, you may withdraw your application prior to final agency action. If you choose to withdraw your application, the District will apply the submitted processing fee for this application to a new application filed within 365 days, as specified in Rule 5.5.3.7, Environmental Resource Applicant's Handbook Vol. I.

If you wish to refer the application and Proposed Agency Action to the Governing Board for final agency action, a written request must be received on or before May 31, 2019. The application and Proposed Agency Action will then be considered at the June Governing Board meeting.

Sincerely,

Jill S. Creech, P.E.
Division Director, Regulation

South Florida Water Management District plans to deny Sunbreak Farms' biosolids permit

Tyler Treadway, Treasure Coast Newspapers

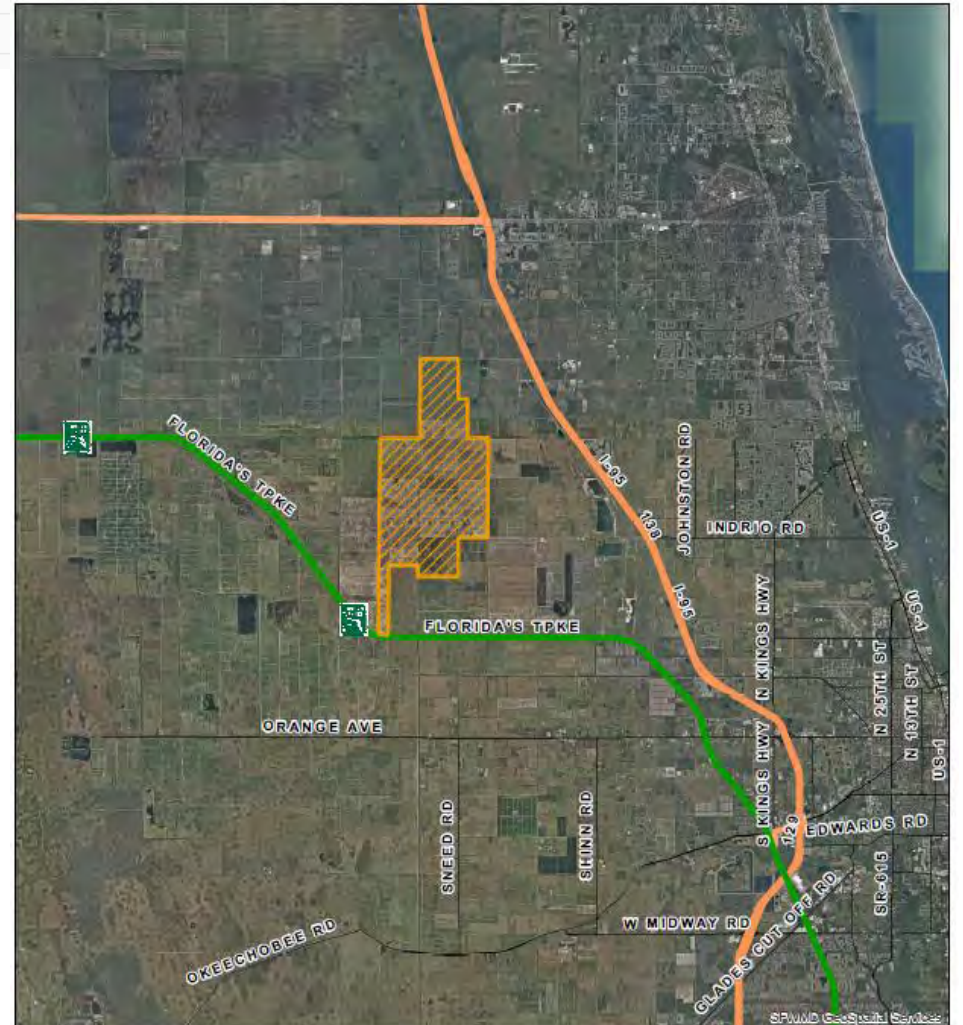


Exhibit No: 1	Exhibit Created On: 2018-07-17	ST. LUCIE COUNTY, FL	Application
REGULATION DIVISION Project Name: SUNBREAK FARMS			Permit No: 56-00111-S
 			Application Number: 180613-16
			 South Florida Water Management District

