



# Florida Department of Environmental Protection

## The role of citizen science in nutrient TMDL development for Sanibel Slough

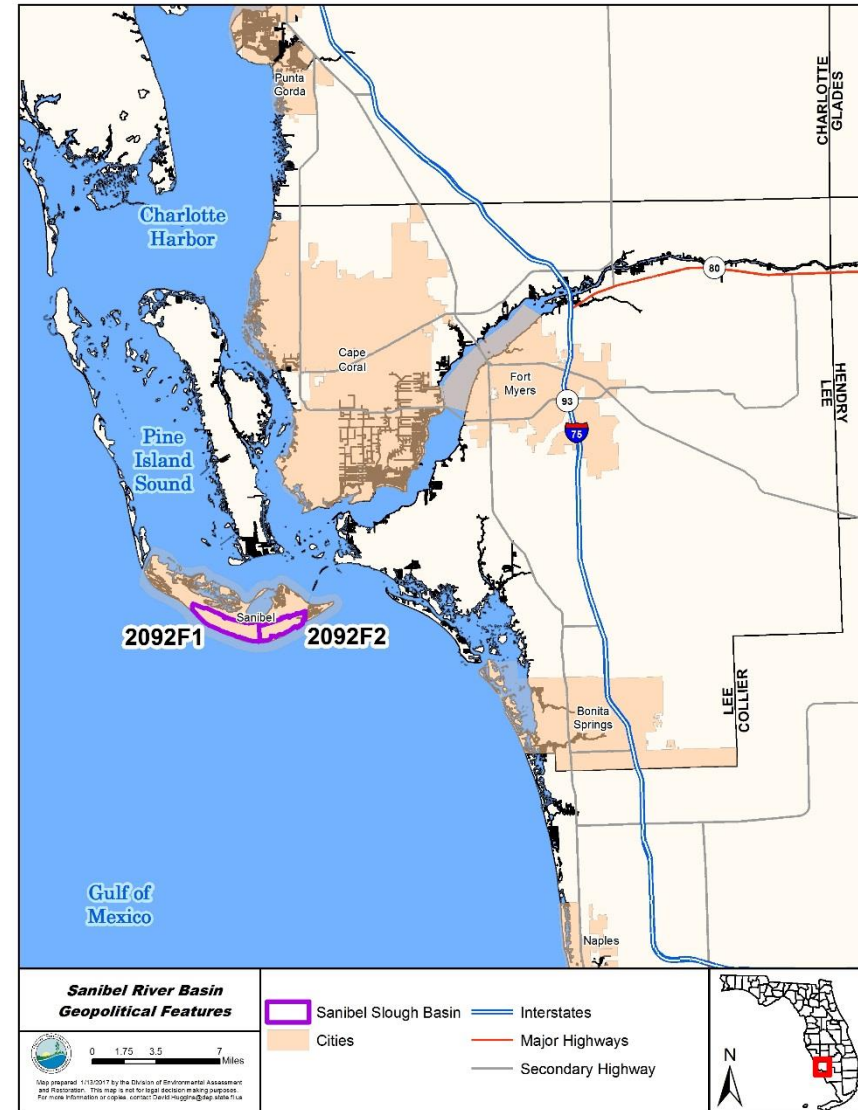
May 31st, 2018





# Watershed Location

- Sanibel Slough (aka Sanibel River) is on Sanibel Island in Lee County, Florida.
- The population of the City of Sanibel was 6,469 (2010 U.S. Census)
  - Population Density  $\approx$  400 / Sq. Mi.





# Sanibel Slough

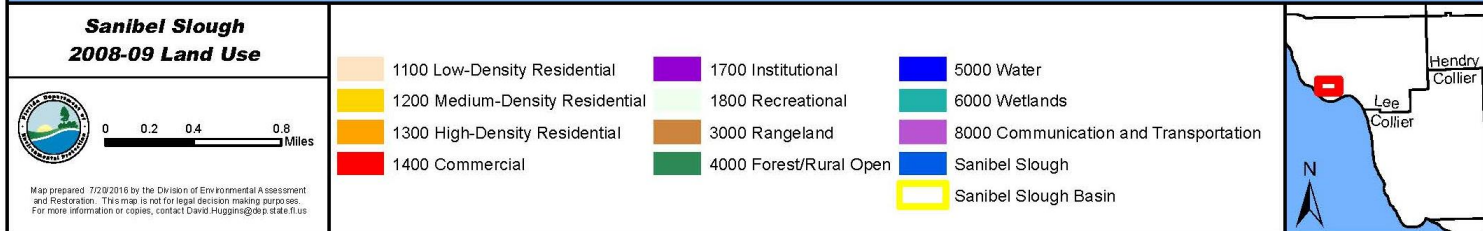
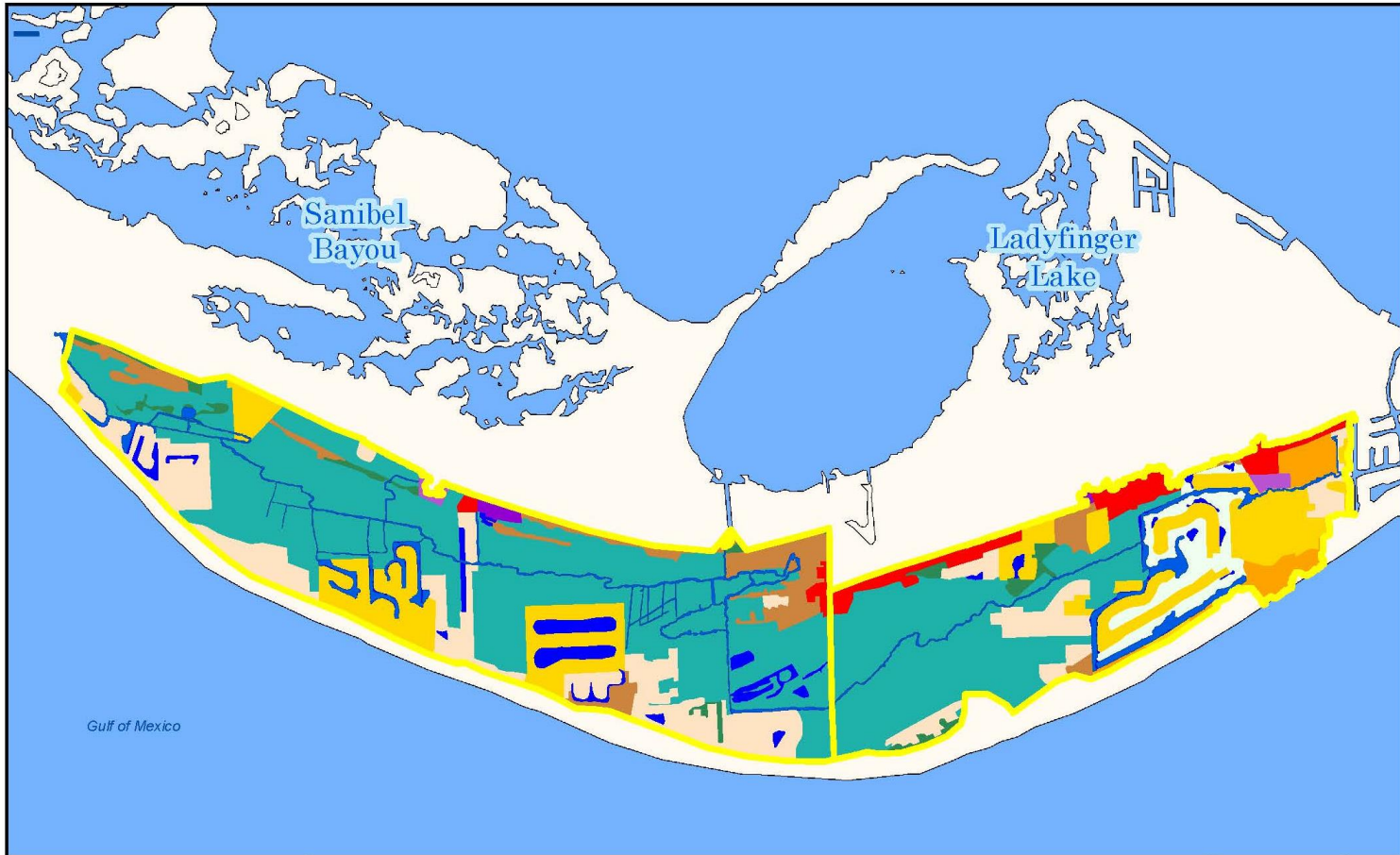


Sanibel Slough West in SCCF preserve. Taken June 15, 2016.





# Sanibel Slough Land Use





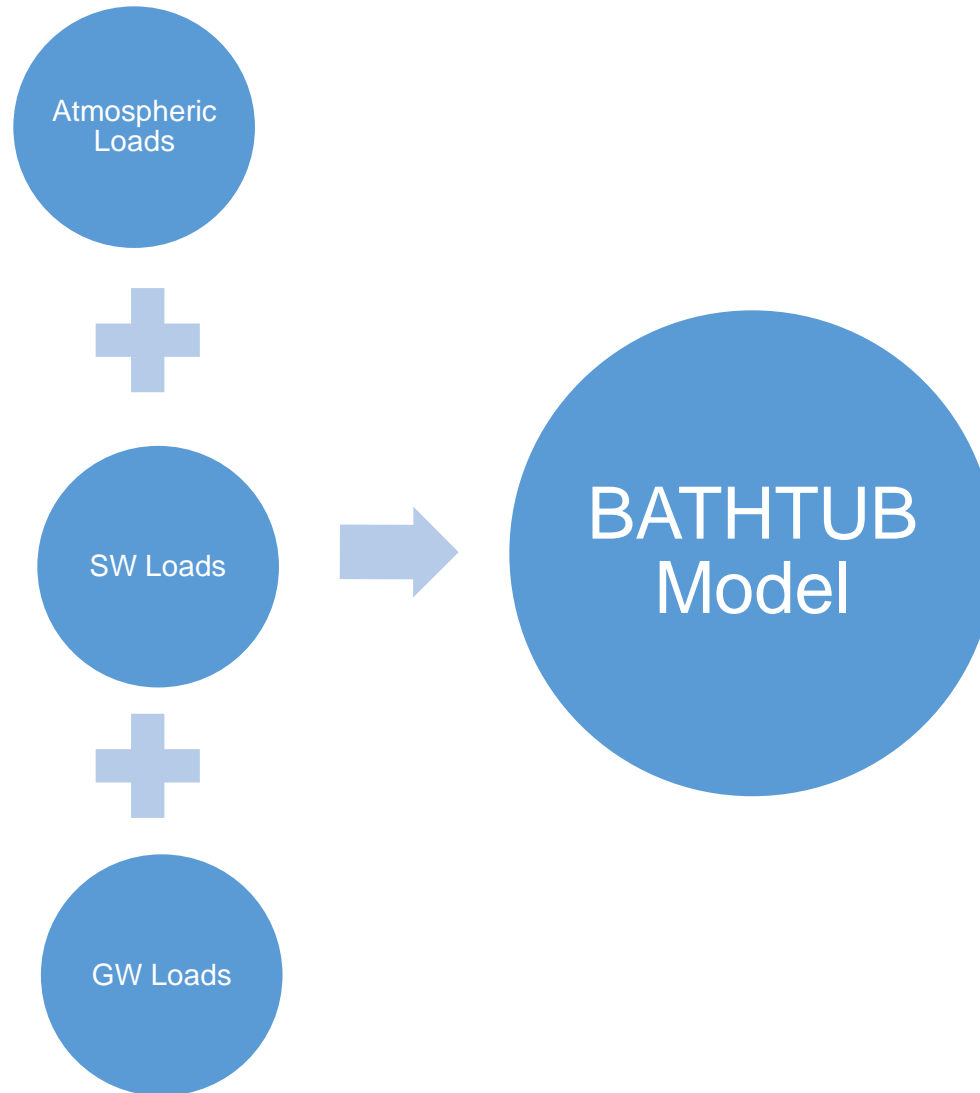
# Sanibel Slough



Sanibel Slough West in SCCF preserve. Taken June 15, 2016.



# Modeling Approach





# Sanibel Slough TMDLs

**Adopted into State Rule on 10/18/2017 – currently being reviewed by EPA TMDL and Standards Staff**

<b>WATERBODY (WBID)</b>	<b>PARAMETER</b>	<b>TMDL (KG/YR)</b>	<b>WLA WASTEWATER (% REDUCTION)</b>	<b>WLA NPDES STORMWATER (% REDUCTION)</b>	<b>LA (% REDUCTION)</b>	<b>MOS</b>
2092F1	TN	1,919	N/A	18	18	Implicit
2092F1	TP	253	N/A	30	30	Implicit
2092F2	TN	1,091	N/A	54	54	Implicit
2092F2	TP	123	N/A	74	74	Implicit

**Notes:**

- 1) The required percent reductions listed in this table represent the reduction from all sources.
- 2) Dividing TMDL (kg/yr) by 365 days yields daily TMDL loads.
- 3) WBID 2092F1 is Sanibel Slough West, and WBID 2092F2 is Sanibel Slough East.





# Fertilizer Ordinance

**mc** Sanibel, FL

Search

Sanibel, Florida - Code of Ordinances / Chapter 30 - ENVIRONMENT / ARTICLE VI. - USE OF FERTILIZERS

VERSION: **MAY 7, 2018 (CURRENT)**

**ARTICLE VI. - USE OF FERTILIZERS**

- Sec. 30-141. - Purpose and intent.
- Sec. 30-142. - Definitions.
- Sec. 30-143. - Applicability.
- Sec. 30-144. - Timing of fertilizer application; content and application rate; impervious surfaces; buffer zones.
- Sec. 30-145. - Exemptions.
- Sec. 30-146. - Soil tests information.
- Sec. 30-147. - Licensing of commercial and institutional applicators.
- Sec. 30-148. - Sale of fertilizer.

## ARTICLE VI. - USE OF FERTILIZERS<sup>5</sup>

### Sec. 30-141. - Purpose and intent.

The purpose and intent of this article is to provide for the... provide specific management guidelines for fertilization in c... in and on Sanibel's lakes, canals, estuaries, interior freshw... Mexico. Collectively these waterbodies are a natural asset, economic well being of Sanibel and the surrounding areas... tide blooms, accumulation of red drift algae on local beaches... Okeechobee have heightened community concerns about... nutrients, including both phosphorus and nitrogen containe... step towards improving and maintaining water and habitat c... (Ord. No. 07-003, § 2, 3-6-2007)

### Sec. 30-142. - Definitions.





# Jordan Filter Marsh

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**LOW T?**

**Testosterone deficiency (Low T)** is a serious medical condition that negatively affects many men over 40, yet is almost universally ignored and neglected.

**Jordan Marsh projects gets its green light**

April 11, 2018

By TIFFANY REPECKI (trepecki@breezenewspapers.com) , Island Reporter, Captiva Current, Sanibel-Captiva Islander

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The city of Sanibel is set to move forward on the Jordan Marsh Water Quality Treatment Park.

On April 2, the city was approved by the U.S. Army Corps of Engineers for a Nationwide Permit, a federal permit, for the project. James Evans, director of the Natural Resources Department, explained that the park required both federal and state permit approval because of the impact to the landscape.

Back in December, the city had received the Environmental Resource Permit from the Florida Department of Environmental Protection - the needed state permit.



# Donax WWTF Upgrade

## News-Press.

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Local water projects also were beneficiaries of a state budget buoyed by improved economic conditions. Restoration efforts for Billy's Creek is set to receive \$775,000, Bonita Beach renourishment \$473,000, Cape Coral Gator Sough Reservoir \$1.55 million, Fort Myers Beach storm water outfall \$500,000 and the Sanibel Donax Wastewater Reclamation facility \$2 million.



# Conclusion

- Faster TMDL development
- More stakeholder buy-in
- Rapid implementation





# FDEP Contact Information

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