

**The Florida Senate**  
**COMMITTEE MEETING EXPANDED AGENDA**

**APPROPRIATIONS SUBCOMMITTEE ON THE ENVIRONMENT AND NATURAL RESOURCES**

**Senator Book, Chair**  
**Senator Hukill, Vice Chair**

**MEETING DATE:** Wednesday, October 11, 2017  
**TIME:** 10:00 a.m.—12:30 p.m.  
**PLACE:** 301 Senate Office Building

**MEMBERS:** Senator Book, Chair; Senator Hukill, Vice Chair; Senators Braynon, Garcia, Hutson, Latvala, Mayfield, and Stewart

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1	Presentations on Water Infrastructure Needs by: - Florida Water Advocates - Resiliency Florida - Department of Environmental Protection		Presented
2	Presentations by the Department of Environmental Protection on: - State Parks - Beaches		Presented
3	Presentation by the Fish and Wildlife Conservation Commission on Derelict/Displaced Vessels		Presented
Other Related Meeting Documents			

# **Florida's Water Challenge**

**By**

**Frank Bernardino**

**Florida Water Advocates**



# A Recognized National Crisis:

- **AWWA "Buried No Longer: Confronting America's Infrastructure Crisis" Report**  
- <http://www.awwa.org/Portals/0/files/legreg/documents/BuriedNoLonger.pdf>
- **National Association of Water Companies (NAWC) and U.S. Chamber of Commerce effort on water infrastructure, "Water is Your Business"**  
- <http://waterisyourbusiness.org>
- **American Society of Civil Engineers report on the future economic costs of failing to act on infrastructure needs**  
- [http://www.asce.org/uploadedFiles/Infrastructure/Failure\\_to\\_Act/Failure\\_to\\_Act\\_Report.pdf](http://www.asce.org/uploadedFiles/Infrastructure/Failure_to_Act/Failure_to_Act_Report.pdf)
- **Congressional Research Service - Water Infrastructure Needs and Investment: Review and Analysis of Key Issues**  
- <http://www.fas.org/sgp/crs/homesec/RL31116.pdf>
- **Drinking Water Infrastructure Needs Survey and Assessment | Drinking Water Infrastructure Needs Survey | US EPA**  
- <http://water.epa.gov/infrastructure/drinkingwater/dwns/index.cfm>



## States Stepping-up to Challenge

- **The Texas Water Dev. Board has approved nearly \$4 Billion in financing for projects to increase water supplies across the state, and to promote conservation.** (Texas Tribune, July 2015)
- **New Jersey provides \$5B to future-proof water, wastewater treatment plants against extreme weather.** (NJSpotlight, Aug. 2013)
- **Massachusetts passed a bi-partisan water infrastructure bill that would provide \$21.4 billion over the next 20 years.** (CapeCod Today, Oct. 2013)
- **California plans to expend between \$800 million and \$1 billion annually on recycled water projects over the next decade.** (WaterReuse Assoc., Nov. 2013)
- **Illinois Governor marks \$2B for statewide clean water and stormwater management projects.** (CleanWater, Illinois, Feb. 2014)



# Florida's Water Resources Priorities

**Protecting State's economy & quality of life.**

- **Restoring our already impacted natural systems.**
  - Safeguarding fragile environments (rivers, wetlands, lakes, springs & estuaries) that drive our tourism and recreational industries.
- **Developing alternative supplies of water to support sustainable economic growth.**
  - Ensuring adequate supplies to support Florida's agriculture & projected population growth.
- **Repairing or replacing aging infrastructure.**



# Florida Faces A Daunting Challenge

- **\$16.5 Billion over next 20 years in drinking water infrastructure improvements.** (EPA Drinking Water Infrastructure Needs Survey and Assessment - Fifth Report to Congress Sept. 2015)
- **\$18.4 Billion in wastewater infrastructure by 2020.** (ASCE: 2013)
- **\$2.8 billion dollars are needed by 2025 for capital improvements and long term maintenance programs to support flood control.** (Florida Stormwater Association, 2014 Stormwater Utilities Survey)
- **\$50.5 to \$149.8 million per year for Numeric Nutrient Criteria Rule compliance.** (FSA & FSU CEFA: 2/2012)



# Florida Challenge (Continued)

- **\$11.3 Billion (\$4.4 B Fla. share) over next 20 years for implementation of the Comprehensive Everglades Restoration Plan (CERP).** (Task Force Working Document: Cross-Cut Budget 2017)
- **\$3 Trillion coastal infrastructure replacement value by 2030**  
(Florida Oceans and Coastal Council / 2010 [DEP & FWC Co-chairs] & Climate Works Foundation / 2009)

**\$51 Billion over the next 20 years (Excluding SLR)**



# Water 2070

- Florida is projected to have 15 million additional residents.
- Sprawl development-related water demand will increase by more than 100% compared to the 2010 Baseline.
- Compact development and a modest 20% increase in water conservation, would save 27% in development-related water demand as compared to sprawl based growth.
- Statewide agriculture irrigation demand in the 2070 Trend is 24% less due to the loss of ag lands to development.
- Given existing water shortages in some areas of the state the increases in total demand are clearly not sustainable.



# **Historic Sources of State Funding Support**

## **(1) Water Management District Funding**

- **Ad valorem; Grants for Water Supply, Dispersed Water Storage, Conservation and Water Quality.**

## **(2) Programmatic Funding**

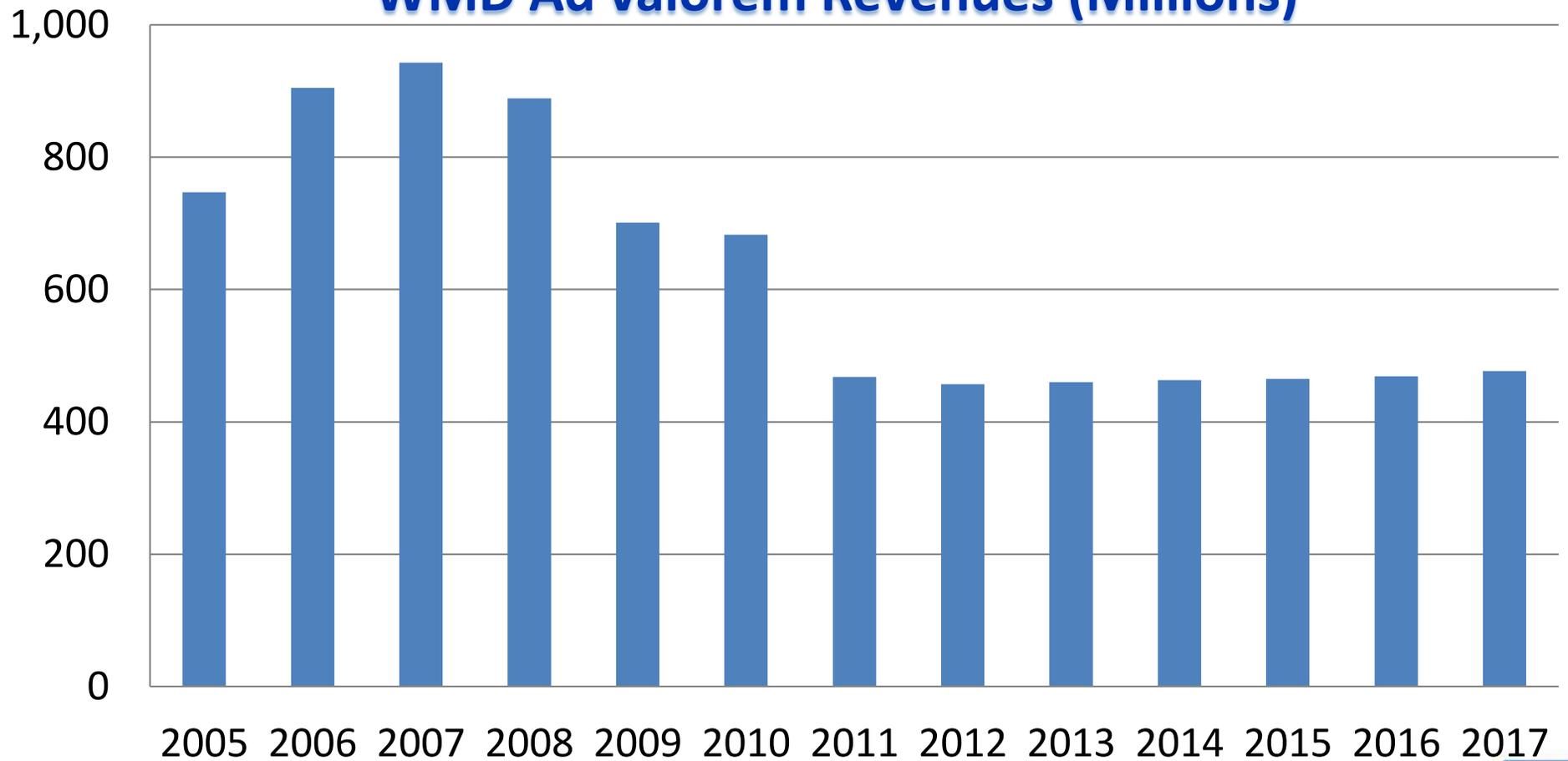
- **State Revolving Loans; Everglades; Springs**

## **(3) Member Water Projects**

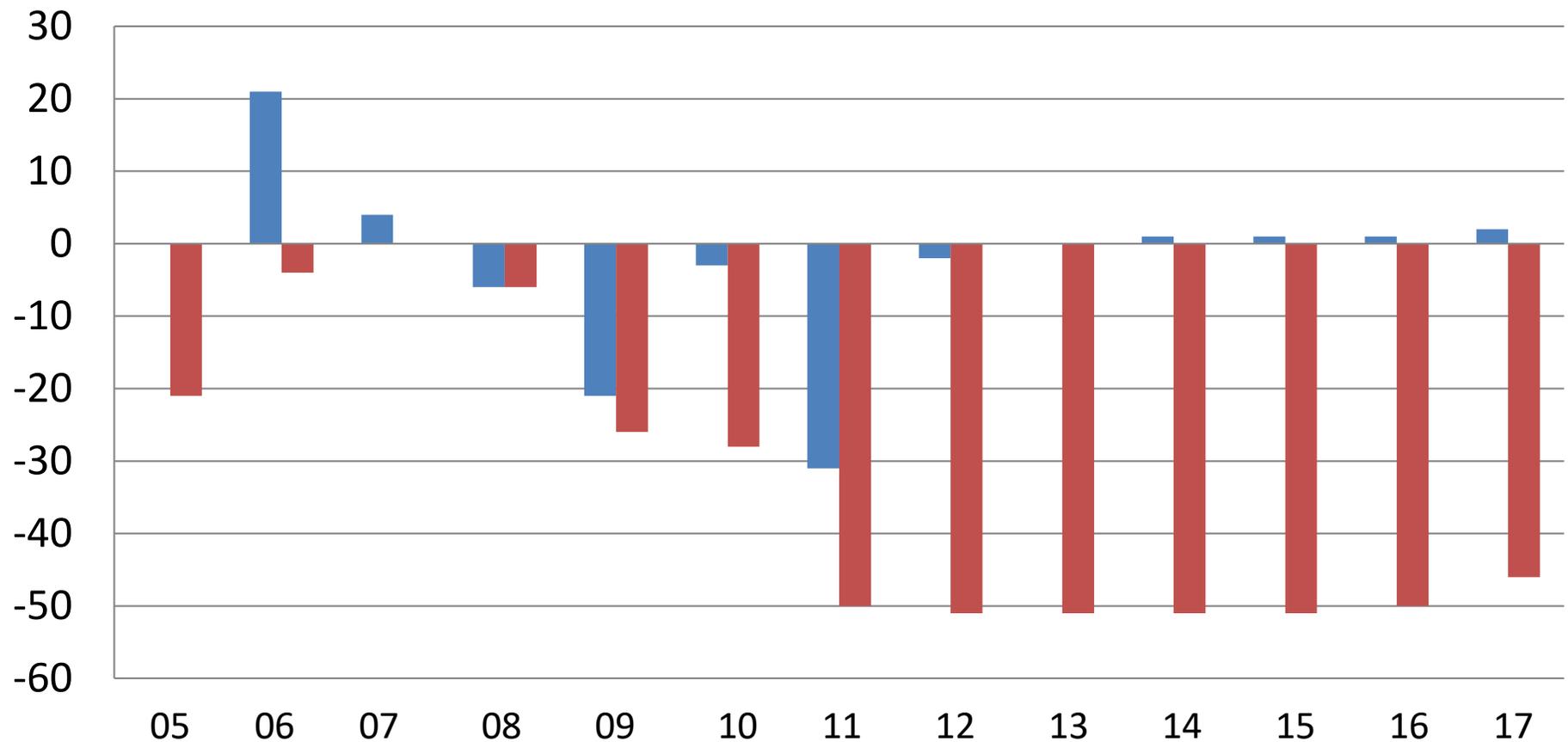
- **General Revenue**



## WMD Ad valorem Revenues (Millions)



## Percent Change in WMD Ad valorem Revenues



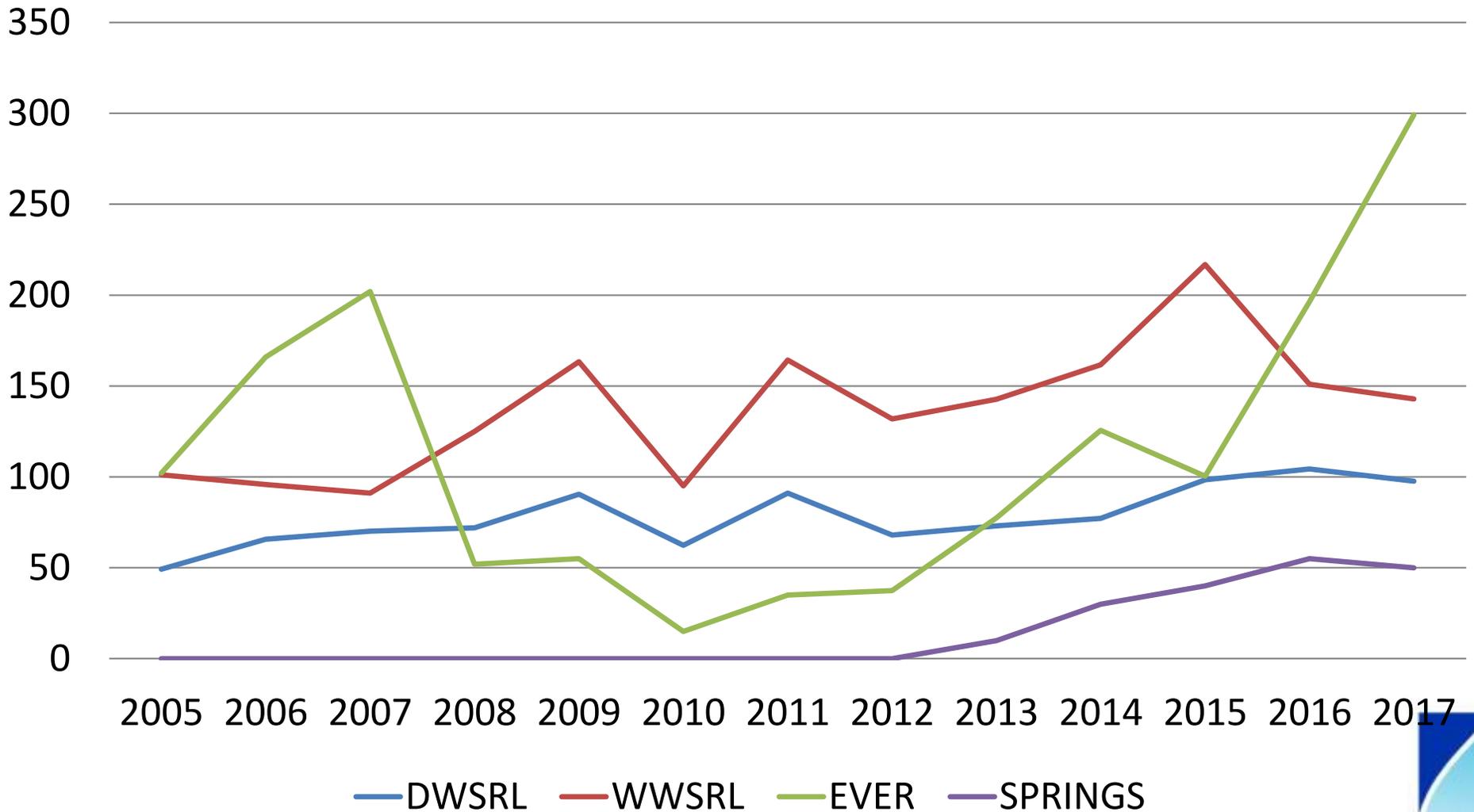
- Change in Ad valorem Revenue from Previous Year
- Change relative to highest Ad valorem Revenue Year (FY07/08)

# Impact of New Homestead Exemption

- Every person who qualifies.... is entitled to an additional exemption of up to \$25,000 on the assessed valuation greater than \$50,000 and up to an additional \$25,000 on the assessed valuation greater than \$100,000 for all levies other than school district levies.
- For the Water Management Districts the impact is estimated to be:

– Northwest Florida WMD	\$ 127,936
– Suwanee River WMD	\$ 189,914
– St. Johns River WMD	\$ 3,640,000
– Southwest Florida WMD	\$ 4,598,144
– South Florida WMD	<u>\$ 9,000,000</u>
	\$17,555,994

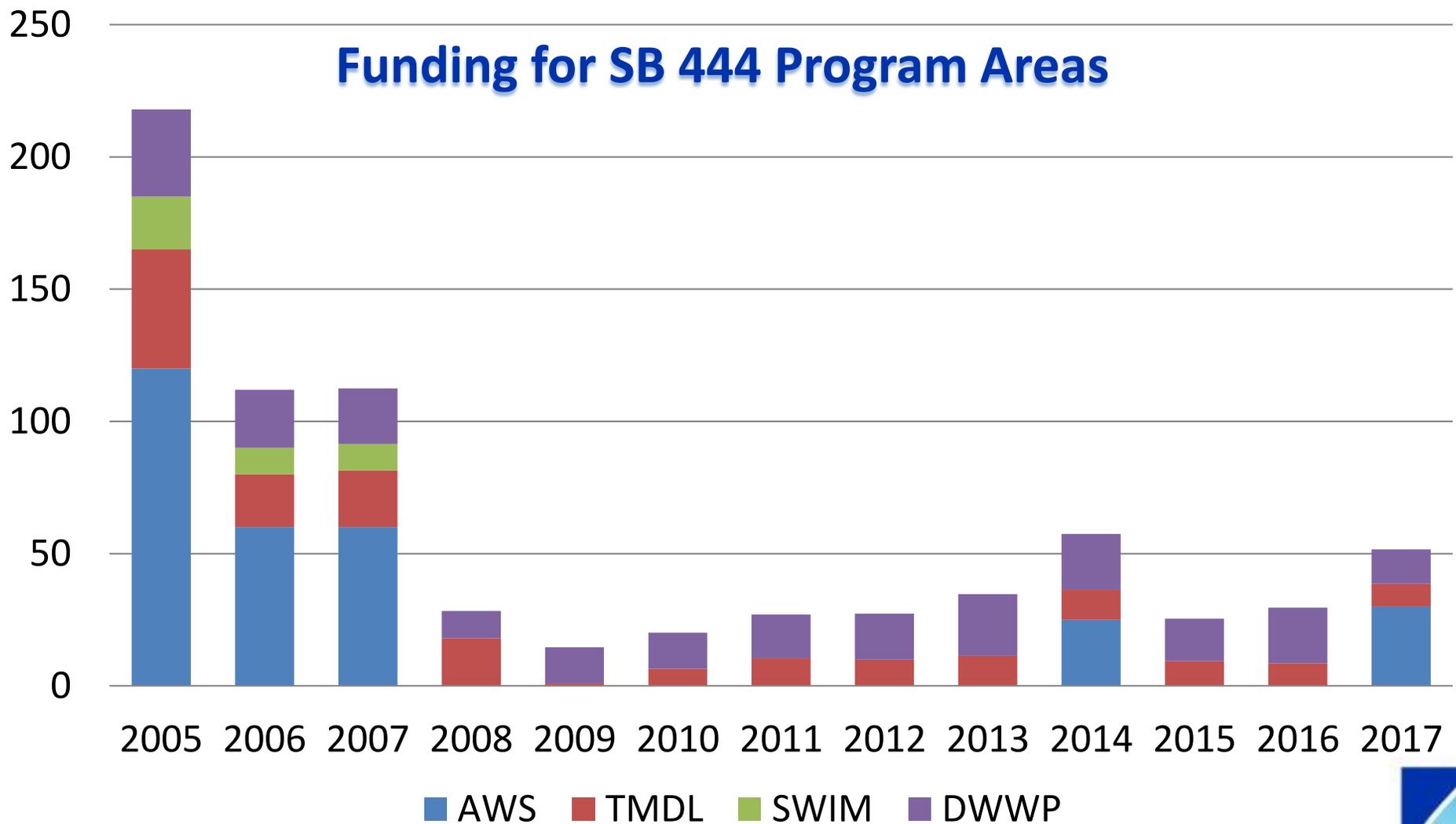
# State Programmatic Funding



# Florida Water Protection and Sustainability Program

- **Enacted in 2005 (SB 444) with universal support**  
(Chs. 403.890 & 373.707, f.s.)
- **Recurring \$100 Million for:**
  - Alternative Water Supply Development
  - Development and Implementation of TMDLs
  - Surface Water Improvement Project Support
  - Small Disadvantaged Community Wastewater Projects.

## Funding for SB 444 Program Areas

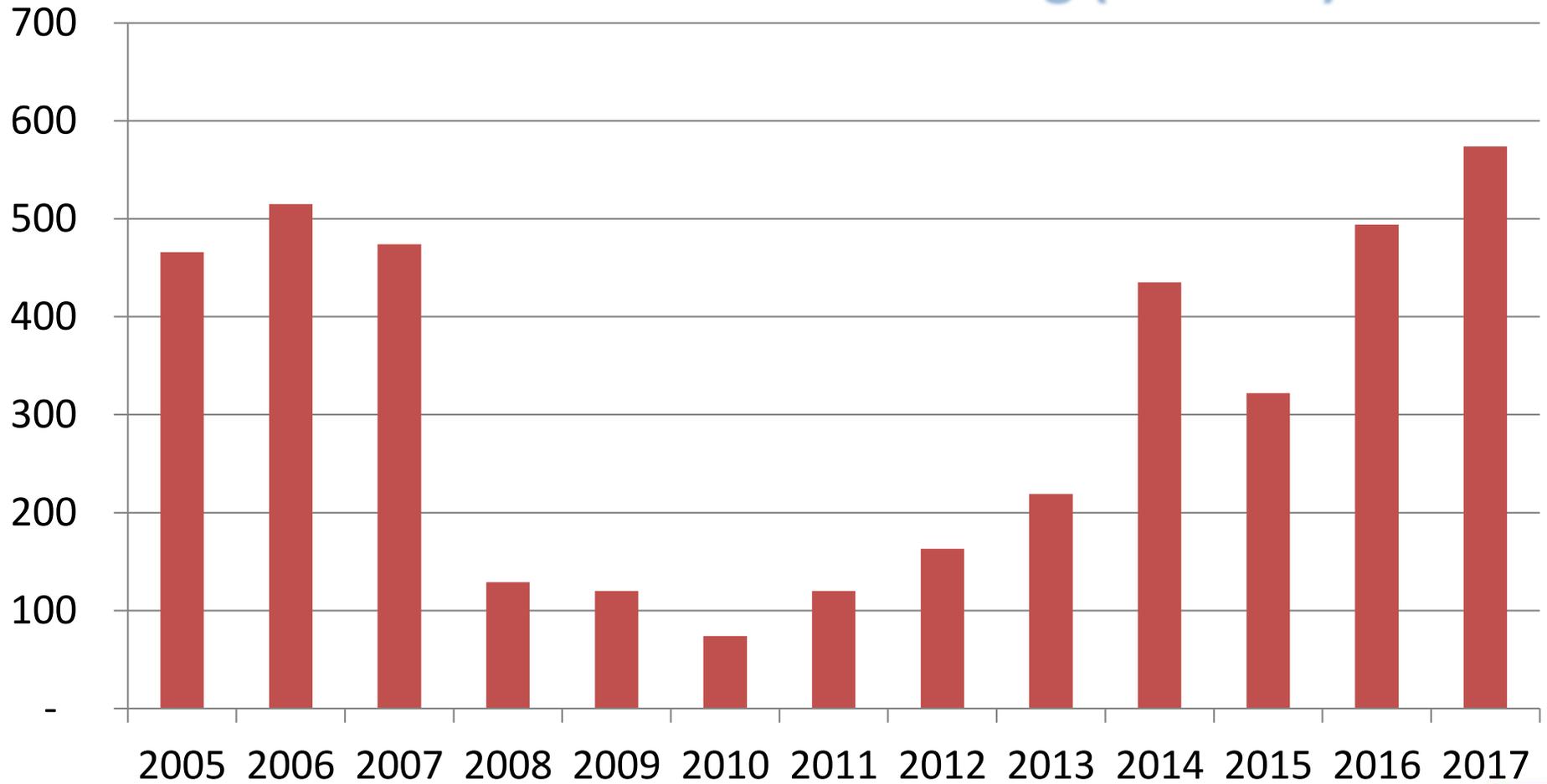


## Member Water Project History FY 05/06 – FY 17/18

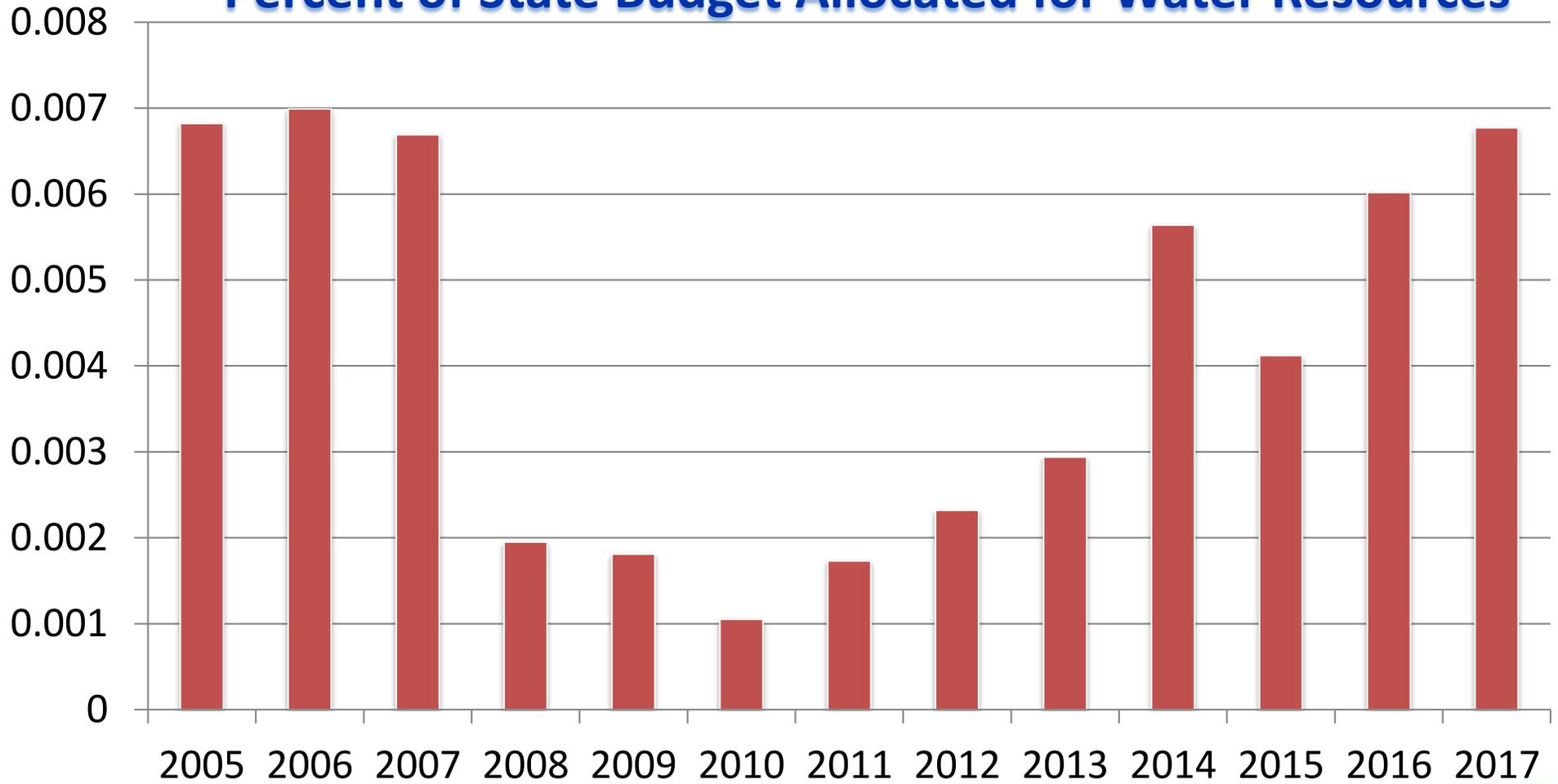
	<u>Average</u>	<u>FY 2017/18</u>
<b>Amount</b>	<b>\$106,662,588</b>	<b>\$55,567,286</b>
<b>No. of Projects</b>	<b>161</b>	<b>95</b>
<hr/>		
<b>Vetoed Amount</b>	<b>\$24,542,618</b>	<b>\$15,374,553</b>
<b>% Vetoed</b>	<b>23%</b>	<b>28%</b>
<b>No. of Projects</b>	<b>39</b>	<b>31</b>
<b>% Vetoed</b>	<b>24%</b>	<b>33%</b>



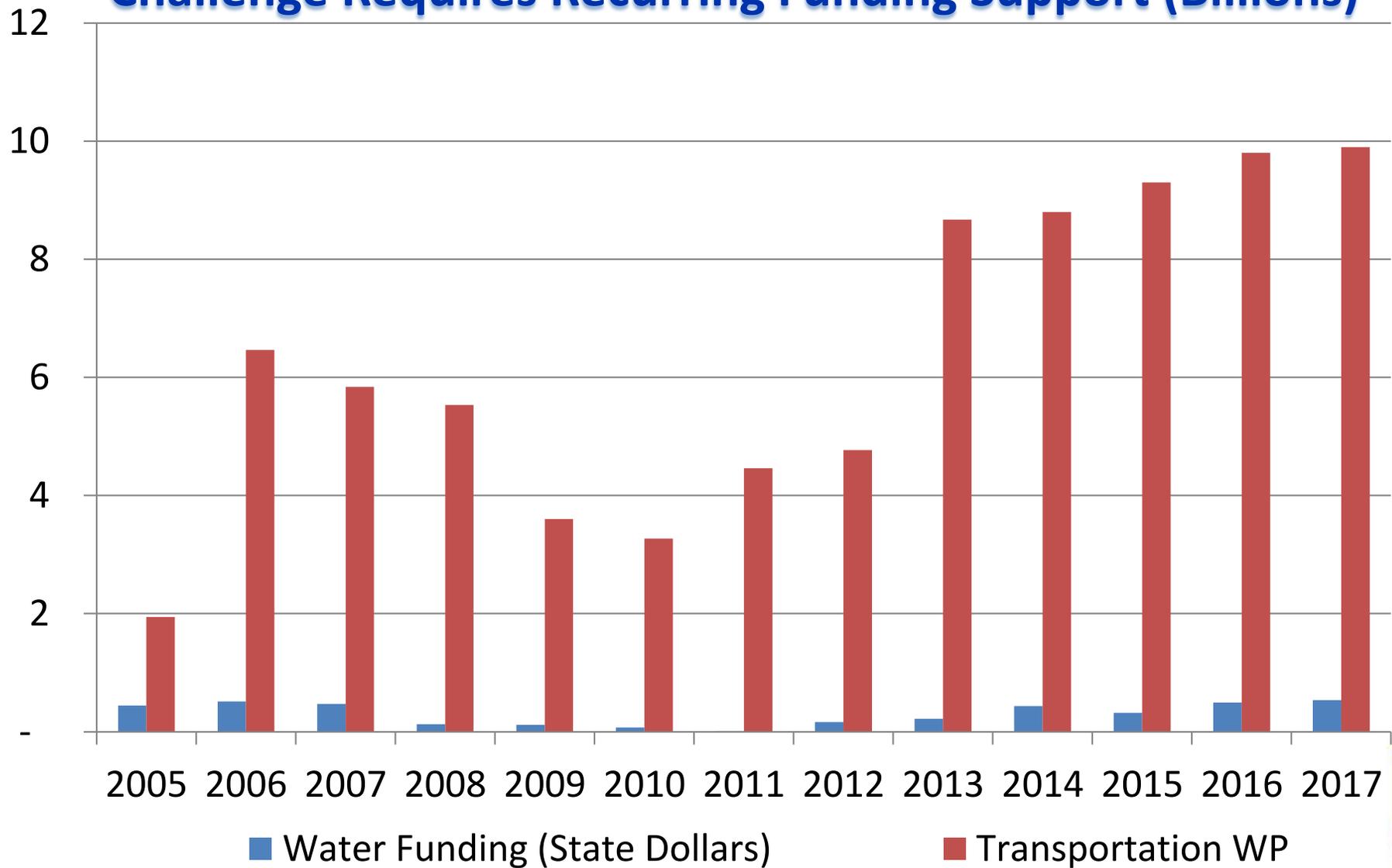
## Florida Water Resource Funding (Millions)



## Percent of State Budget Allocated for Water Resources



## Challenge Requires Recurring Funding Support (Billions)



**Questions?**



# **Planning for Resilience: Extreme Weather and Sea Level Rise**

**Senate Agriculture and Natural Resources  
Appropriations Committee**

*Water Infrastructure Workshop*  
**October 11, 2017**

**Dr. Jennifer L. Jurado, CRO and Director  
Environmental Planning and Community Resilience Division**



# Overview

- Review of severe weather impacts
- Focus on sea level rise
- Case for resilience planning and investments
- Regional collaborations
- Statewide organization
- Resilience priorities and needs



<http://geology.com/hurricanes/named-hurricane-fran.gif>

# Sea Level Rise, Severe Weather and Flood Risk

2014 Pensacola – 22” rainfall



Credit: Tony Giberson, Pensacola News Journal

2015 Flagler County - Matthew



2016 Fort Lauderdale - Tidal Flooding



2015 Palm Beach – 22” rainfall



# Diverse and Statewide Impacts of Irma

Naples, FL



Credits: REUTERS/Stephen Yang

Monroe County, FL



Credit: Floridatoday.com

Jacksonville, FL



Credit: News.wjct.org

Collier County, FL



Credits: Liam James Doyle/Naples Daily News

# Statewide Challenges of Sea Level Rise

- Saltwater intrusion
- Storm surge



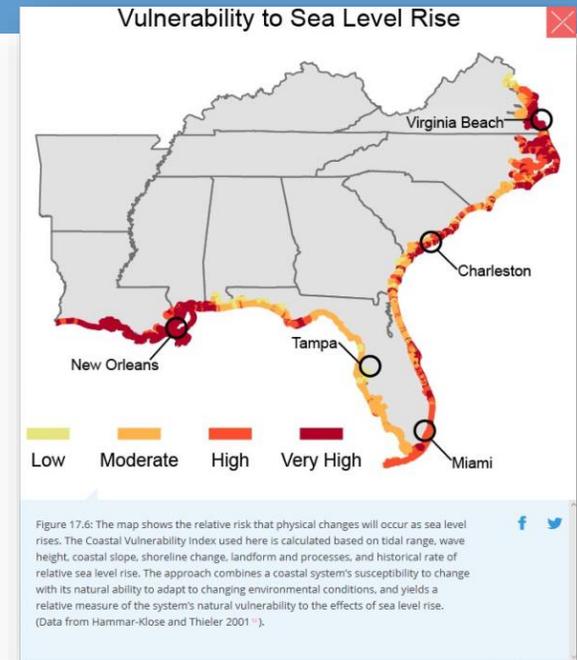
- Saltwater intrusion
- Minimum flows and levels

- Flood control structures
- Vulnerability to surge
- Saltwater intrusion

- Flood control structures
- Vulnerability to surge
- Saltwater intrusion

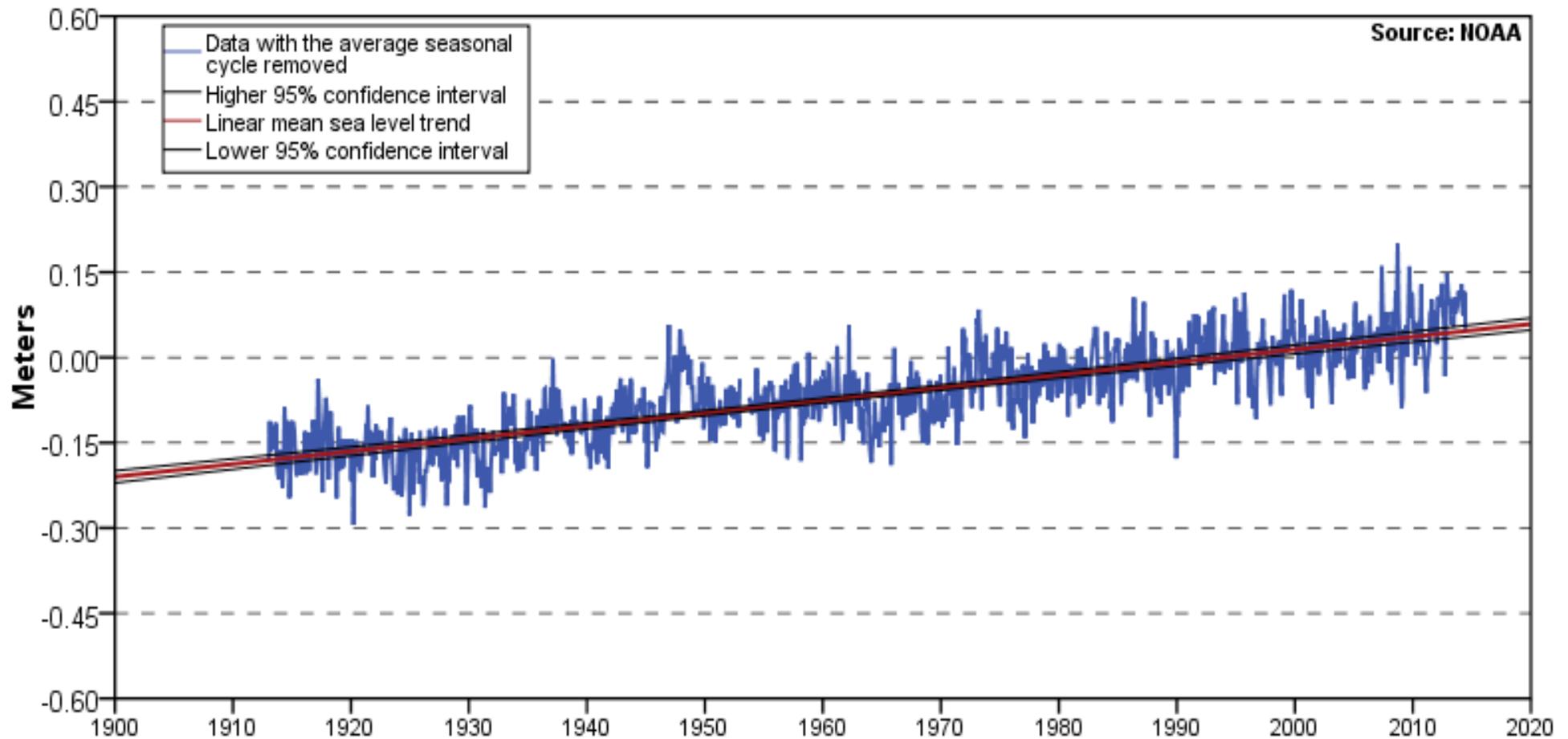
- Flood control structures
- Vulnerability to surge
- Saltwater intrusion

64% water supply from groundwater



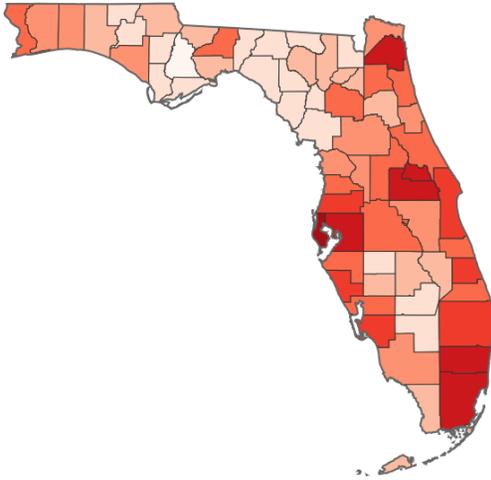
# Sea Level Rise - A Statewide Trend

Key West, FL 2.24 +/- 0.16 mm/yr



# The Case for Immediate Action

## Florida Population Density by County



- 20 million residents
- 3<sup>rd</sup> largest state by population
- 8<sup>th</sup> most densely populated
- 5<sup>th</sup> fastest growing

Florida population surging again

ECONOMIC YEARBOOK 2017

### Civic Hardware: Infrastructure projects drive growth across Florida

| 3/28/2017

SECTIONS SEARCH

SunSentinel

South Florida expected to create jobs faster than US



# The Southeast Florida Regional Climate Change Compact

- Initiated in October 2009
- Product of 1<sup>st</sup> Annual Summit
- Response to shared challenges and needs
- Voluntary collaboration

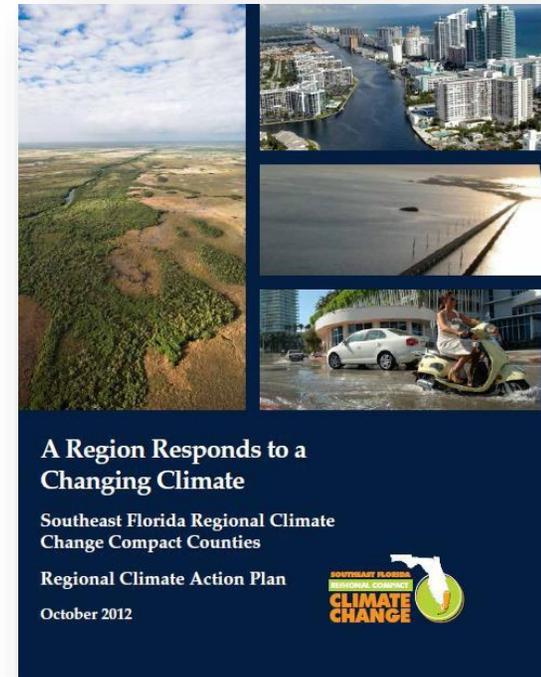


# The Regional Climate Action Plan

*To **integrate** climate adaptation and mitigation into existing systems, through existing processes.*

## Focal Areas:

- Sustainable Community and Transportation Planning
- Water Supply, Management and Infrastructure
- Risk Reduction and Emergency Management
- Energy and Fuel
- Natural Systems
- Agriculture
- Outreach and Public Policy



*Includes companion  
Implementation Guide*

*>100 Recommendations  
Adaptation and Mitigation*



**[Download at www.southeastfloridaclimatecompact.org](http://www.southeastfloridaclimatecompact.org)**

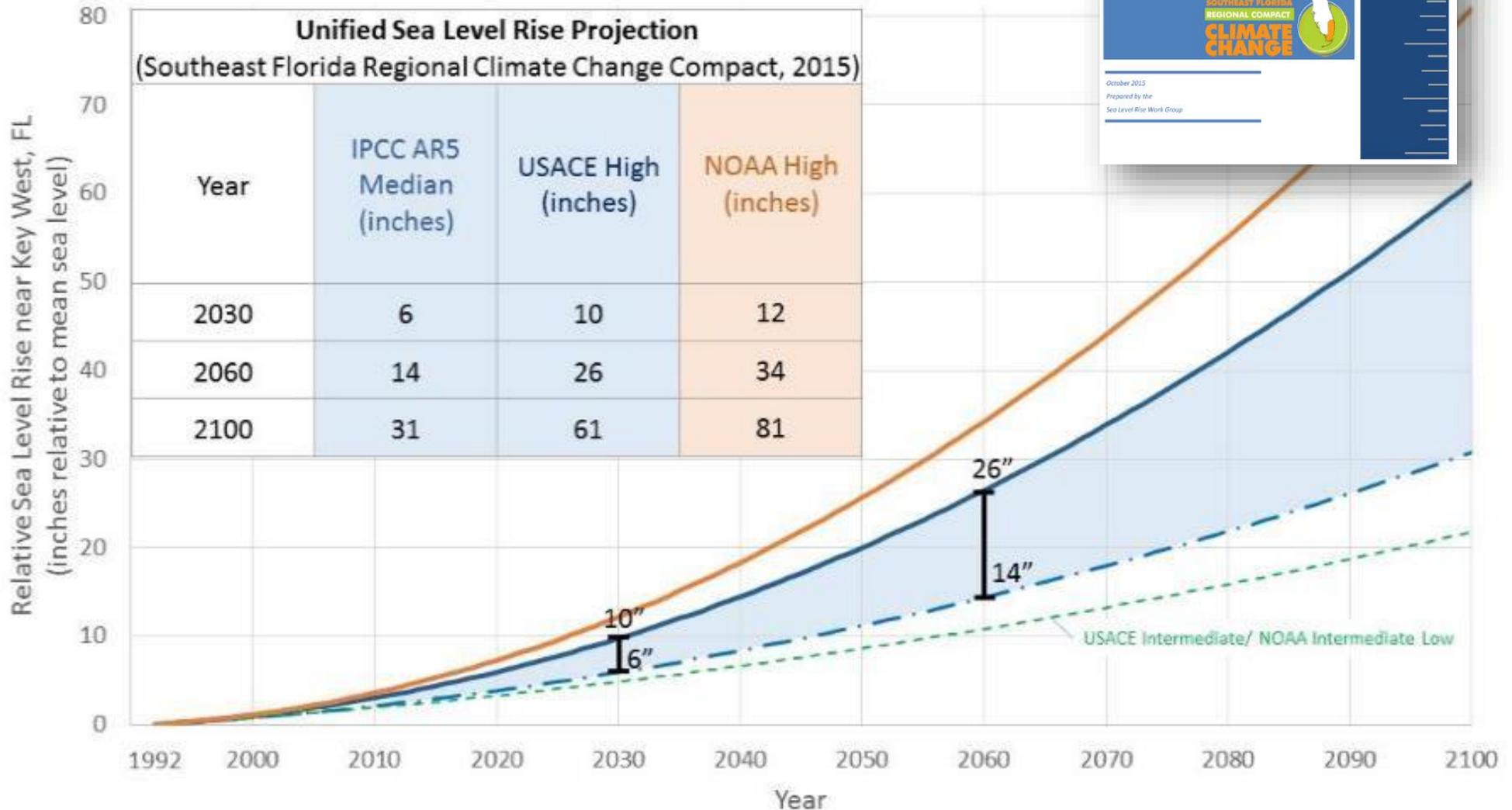
# Planning Tools

## UNIFIED SEA LEVEL RISE PROJECTION

SOUTHEAST FLORIDA

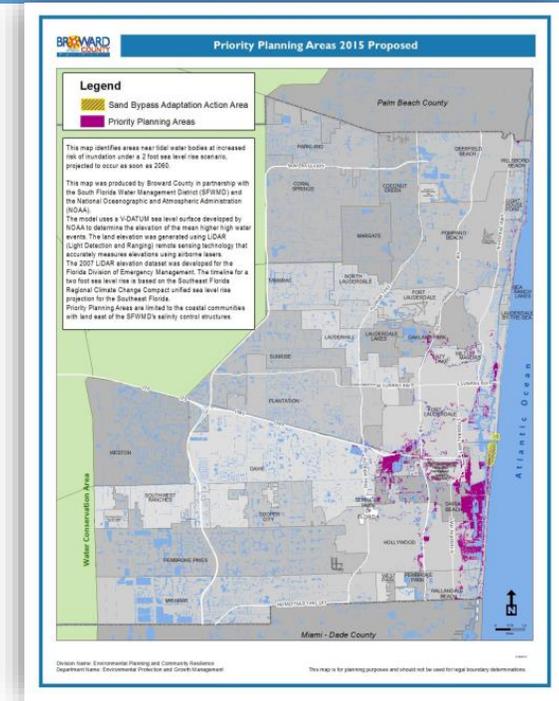


October 2015  
Prepared by the  
Sea Level Rise Work Group



# Translating Plans to Action: Broward Examples

- Progressive Policy
  - Priority Planning Areas
  - Adaptation Action Areas
  - Comp Plan/Land Use

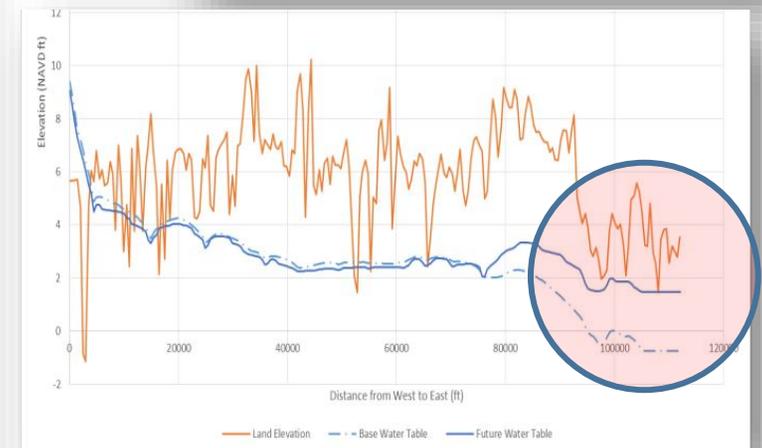
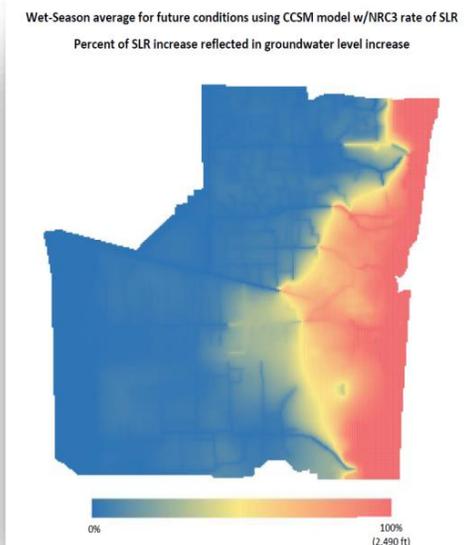
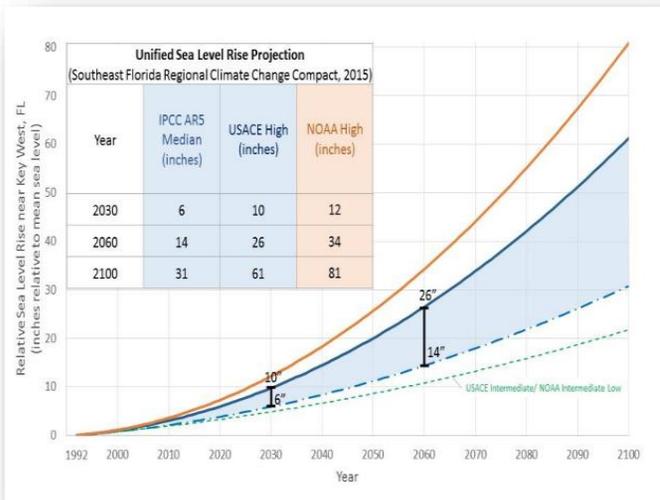
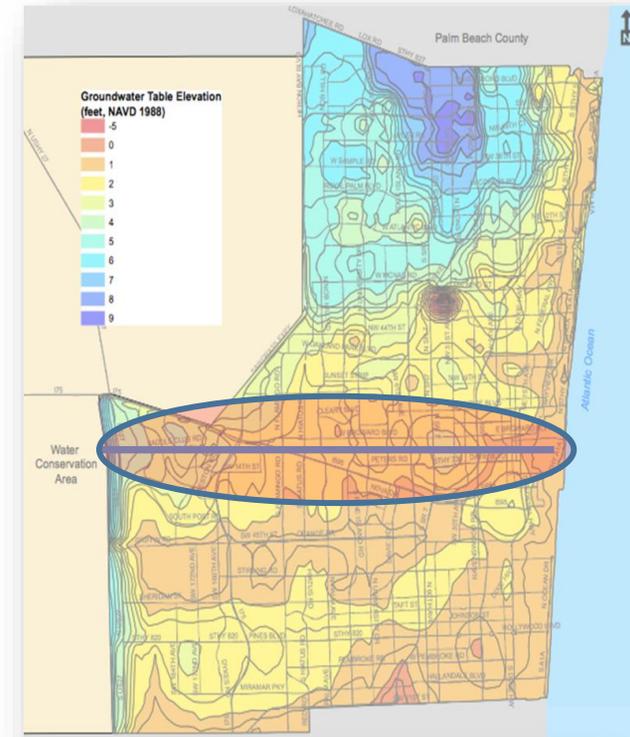


- Future conditions map series – code of ordinances (established May 2017)

- 3-year timeline
  - Drainage infrastructure (2017)
  - Coastal flood barriers (2018)
  - Flood elevations (2019)

# Application: Future Condition Average Wet Season Groundwater Table Map

- 2060-2069 average groundwater conditions
- NRC 3 SLR projection (USACE high) = 2 feet SLR
- CCSM model = 9% increase in rainfall
- Stakeholder engagement



# Our Region is Responding

Pump Stations – Miami Beach



Berms/Flood Barriers



Storm Valves – Pompano Beach



Raising Sea Walls – Fort Lauderdale



# Organizing on Economic Resilience

- Regional economics workshop
- Forum discussions
- Sustained collaboration with chambers
- Regional Action Plan Focal Area
- Engaging partnership
- Joint advocacy
- Climate Summit Collaboration
- Action items



# 2017 Compact Summit

- 2017 Summit:
  - The Business of Resilience
  - December 14-15, 2017
- Objectives:
  - Highlight Compact plan update
  - Reinforce resilience as an economic imperative
  - Strong private sector participation
  - Promote joint actions
  - Leadership commitments

<http://www.southeastfloridaclimatecompact.org/>



# Additional Regional Collaborations

- Tampa Bay Regional Planning Council - One Bay
- East Central Florida Regional Planning Council - Assist with local planning efforts
- Southwest Florida Regional Planning Council - Assist with local planning efforts
- Northeast Florida Regional Council - P2R2 Public Private Regional Resiliency





# Resiliency Statewide

- Founded in January 2017
- NFP made up of public and private partners
- Focus:
  - promoting state and regional strategies to adapt to extreme weather and sea level rise,
  - advocating for increased investment by the state and federal government in critical infrastructure to mitigate impacts and develop adaptation responses.
  - collaborative development of tools, projects and funding to implement these strategies.
- Topics:
  - Risk Assessments; Building Codes; Insurance; Financing

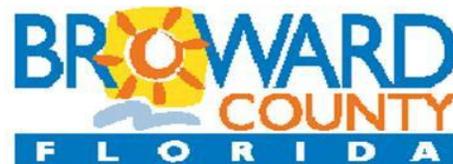


# Summary

- Severe weather and sea level rise already impact Florida communities across the State
- Local governments are responding and organizing, but lack resources and common framework
- Investments are underway, but sustained funding and cost share in resilient infrastructure is a glaring need
- Cross-sectoral implications translate to broad economic impacts: commercial activity, real estate, finance, insurance, environment
- Effective strategy hinges upon focused leadership, coordination, resilient infrastructure, and investment

# Questions?

Dr. Jennifer L. Jurado  
Chief Resilience Officer, Director  
Environmental Planning and Community Resilience Division  
Broward County  
[jjurado@broward.org](mailto:jjurado@broward.org)  
954-519-1464



# Rising Seas and Infrastructure Needs: A Road Map to a Resilient Florida

Alec Bogdanoff, Ph.D.



# What is Resilience?

*Resilience* is not about preventing a natural disaster.  
It is about how quickly we *bounce back*.



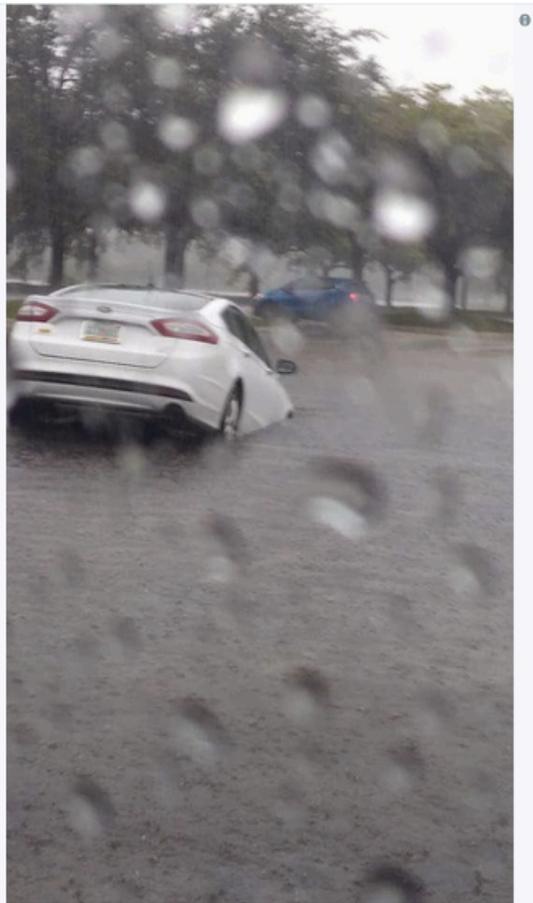
# Types of Flooding

- Tidal Flooding
- Riverine Flooding
- Storm Surge
- Heavy Rainfall
- Groundwater Inundation



# Sawgrass Mills Mall

Sunrise, Florida



**Silva Harapetian**  
@silvaharapetian



Sawgrass Mills Mall: parking lot is not caving in. "The car is actually parked in a 'drainage swale'...driver trying to exit didn't see..."

7:16 PM - Jun 6, 2017

2 15 13



**Sawgrass Mills**  
@ShopSawgrass



Due to area flooding, Sawgrass Mills will be closed today, June 7, 2017. We will continue to assess the situation throughout the day.

8:01 AM - Jun 7, 2017

2 53 32

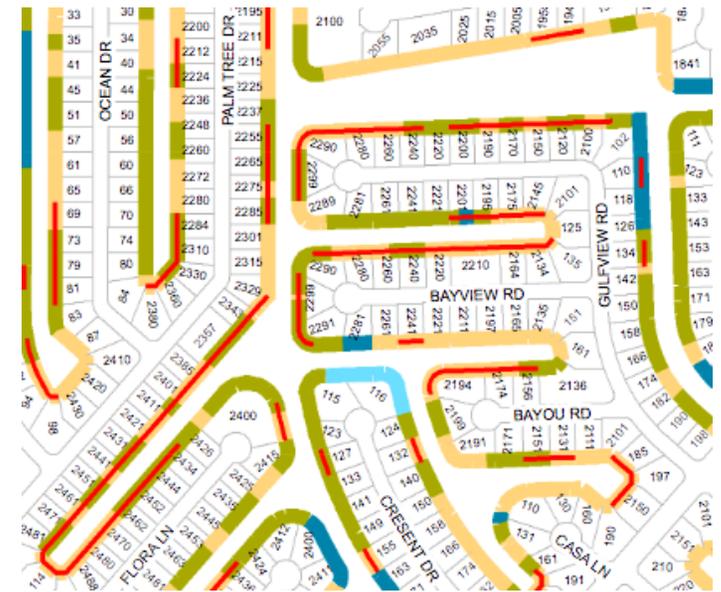


- 15" of rain in 3 days, with most in 24 hours.
- Mall closed for 3 days due to flooding.
- Approximately \$4 million in lost revenue per day (based on company-wide numbers).

# Punta Gorda Seawall Failures

Punta Gorda, Florida

- Water retreated due to offshore hurricanes winds.
- Seawalls overloaded and collapsed.
- Important component of stormwater system for coastal cities.



Images from City of Punta Gorda website.

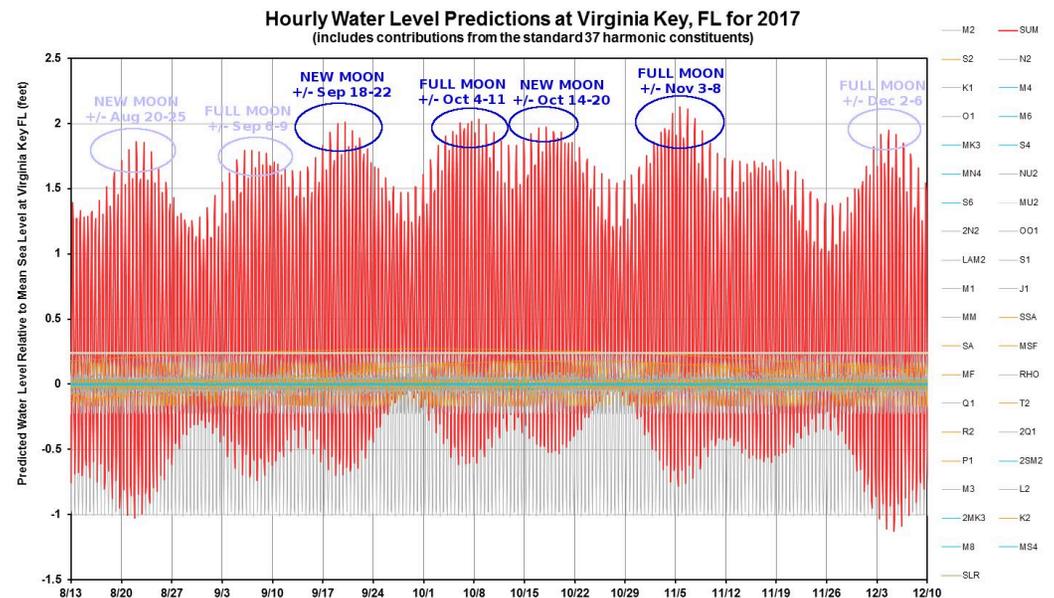
*Rising Seas* will worsen the effects  
of future flooding events.

(Our already taxed and aging stormwater systems will also be conduits for sea water.)

# Sunny Day Tidal Flooding

Miami, Florida

- Stormwater systems act as conduits for seawater (salt water).
- Our aging infrastructure is already nearing capacity in many cities.
- Typical stormwater management practices are becoming less effective.



# The Catch-22 of Sea Level Rise

Those communities that will require the most investment to adapt will also be hit the hardest financially by sea level rise.

- Potential Increases in Mortgage Defaults (Loss in Tax Revenue)
- Business Interruption from Flooding (Loss in Tax Revenue)
- Reduction in Tourism (Loss in Tax Revenue)
- Changes in Flood Insurance Premiums (Loss in Tax Revenue)
- Migration of Residents (Loss in Tax Revenue)
- Damage to Public Assets & Infrastructure (Investment Needed)
- Damage from Extreme Weather (Investment Needed)
- Substantial Investments in Adaptation (Investment Needed)
- Greater Public Health Costs (Investment Needed)
- Flood Reduction Projects (Investment Needed)

# How can infrastructure improvements help?

Investments in resilient infrastructure to reduce flooding and improve Florida's ability to bounce back from future disasters will pay off in the long run.

The cost of mitigating future flooding as it is occurring will be much greater than building resilient infrastructure now.



# Innovating Policy

- Encourage flood mitigation infrastructure projects.
- Incentivize resilient infrastructure, and consider future challenges in the design.
- Develop a consistent funding mechanism for water infrastructure needs.





[www.ResiliencyFlorida.org](http://www.ResiliencyFlorida.org)

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# Florida Department of Environmental Protection

## Water Infrastructure

October 11, 2017

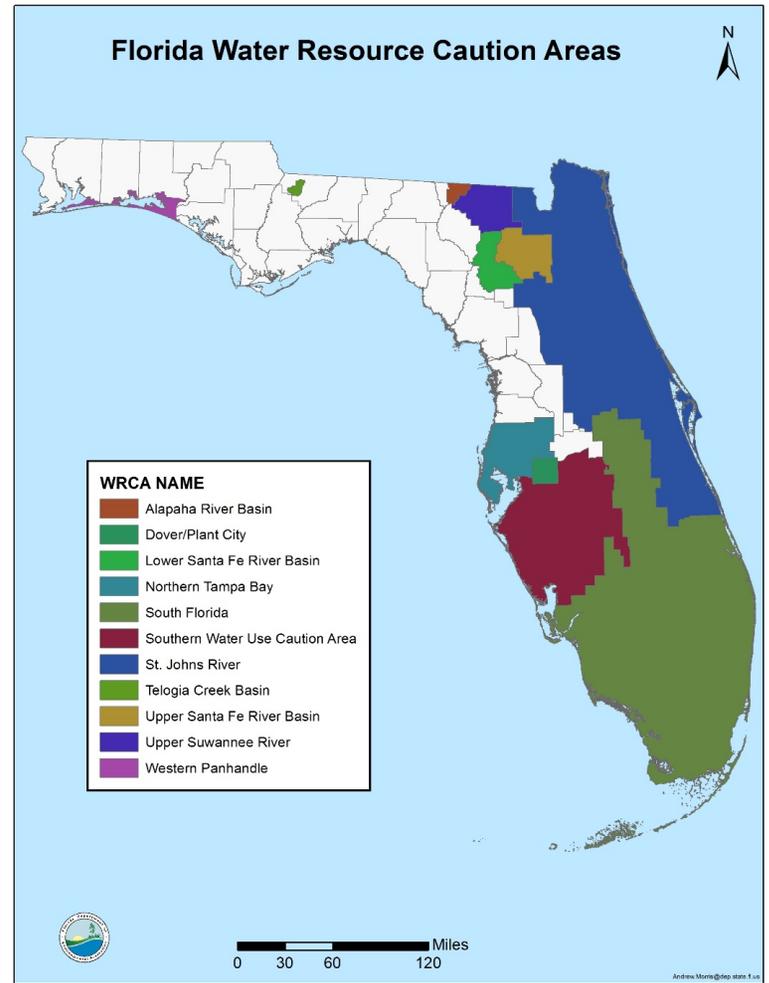
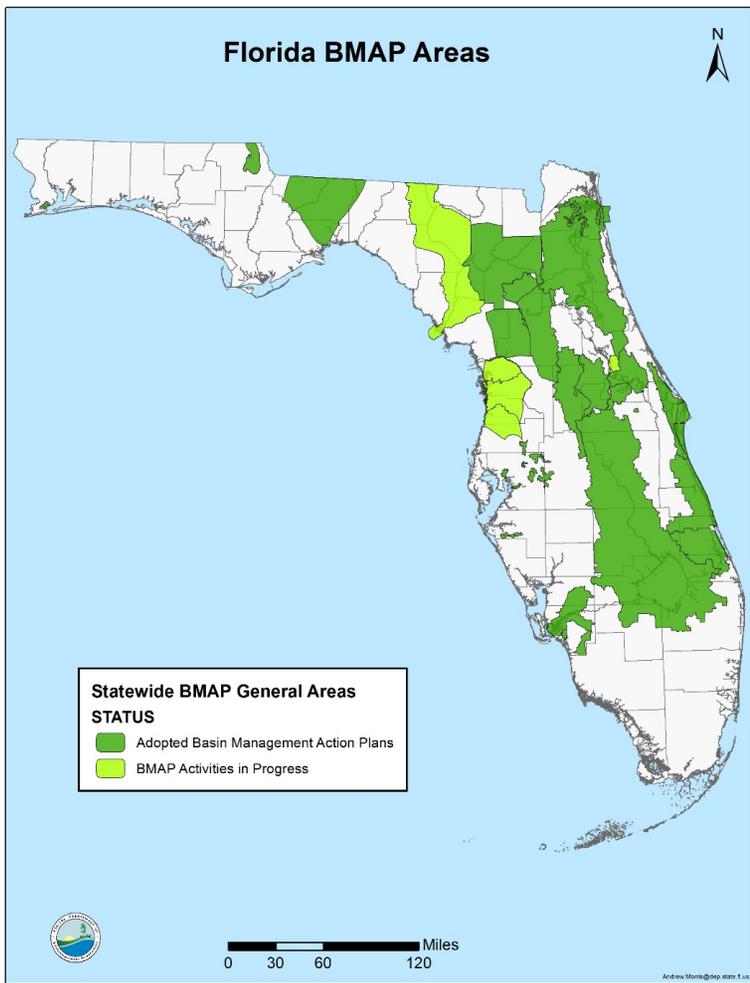
### Senate Appropriations Subcommittee on the Environment & Natural Resources

Drew Bartlett  
Deputy Secretary





# Florida Water Pressures

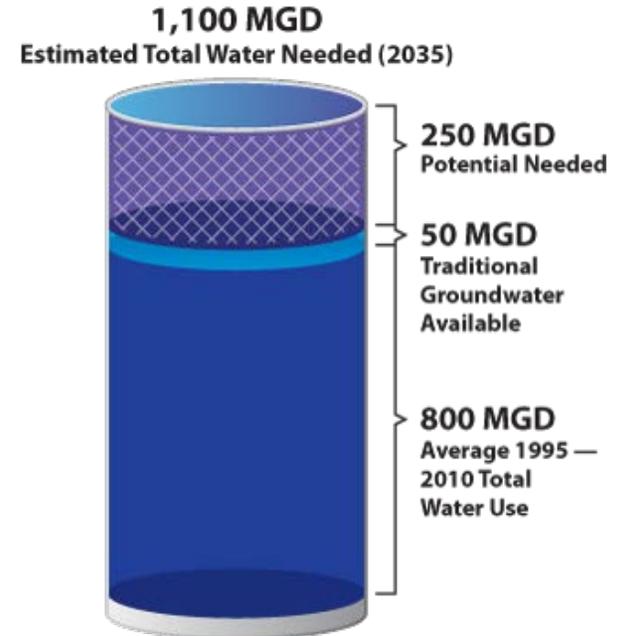




# Water Supply Challenges



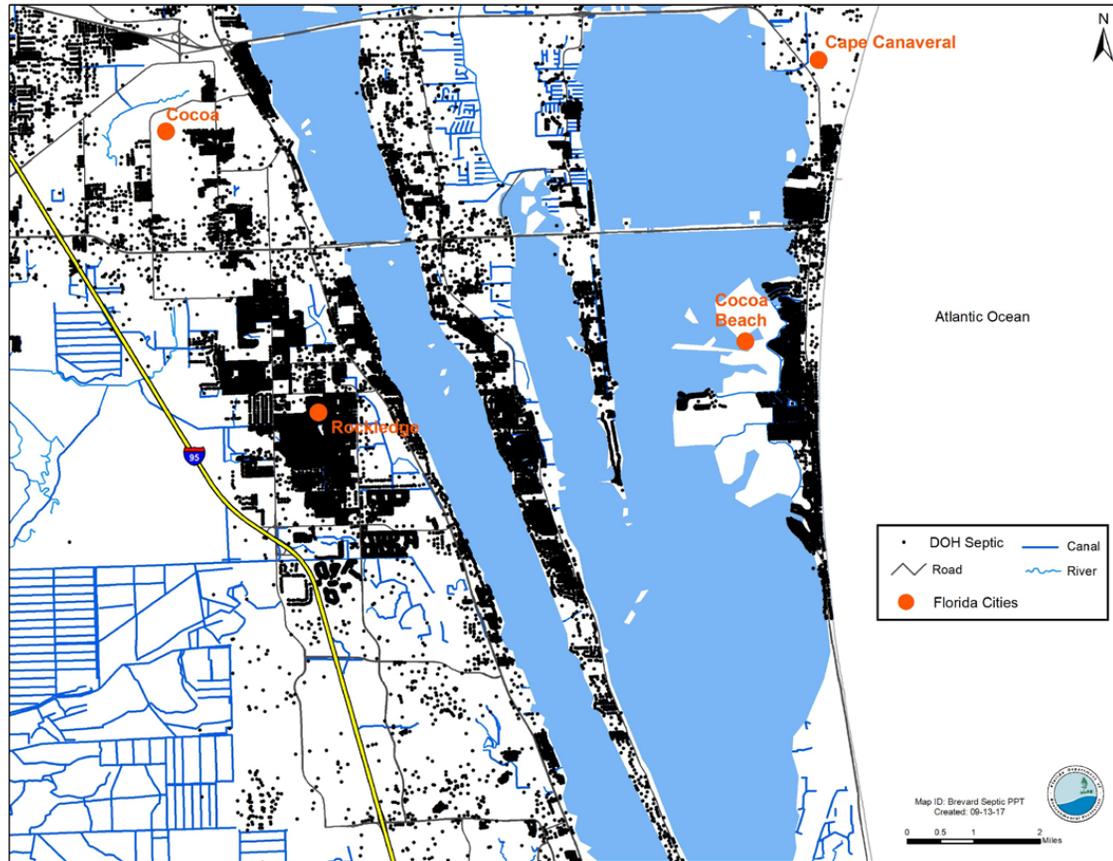
## Central Florida Water Initiative





# Wastewater Challenges

## Septic Systems





# Stormwater Challenges





# Water Infrastructure Funding

## Crystal River to Duke Energy Reclaimed Water Project

28% Reduction in Nitrogen Load to Groundwater

0.75 MGD in Water Saved



### **FY 18/19 Budget Request:**

Drinking Water State Revolving Fund: \$127,976,016

Clean Water State Revolving Fund: \$175,018,687

Water Infrastructure (incl. Water Quality and Alternative Water Supply): \$50 Million

## Altamonte Springs Reuse

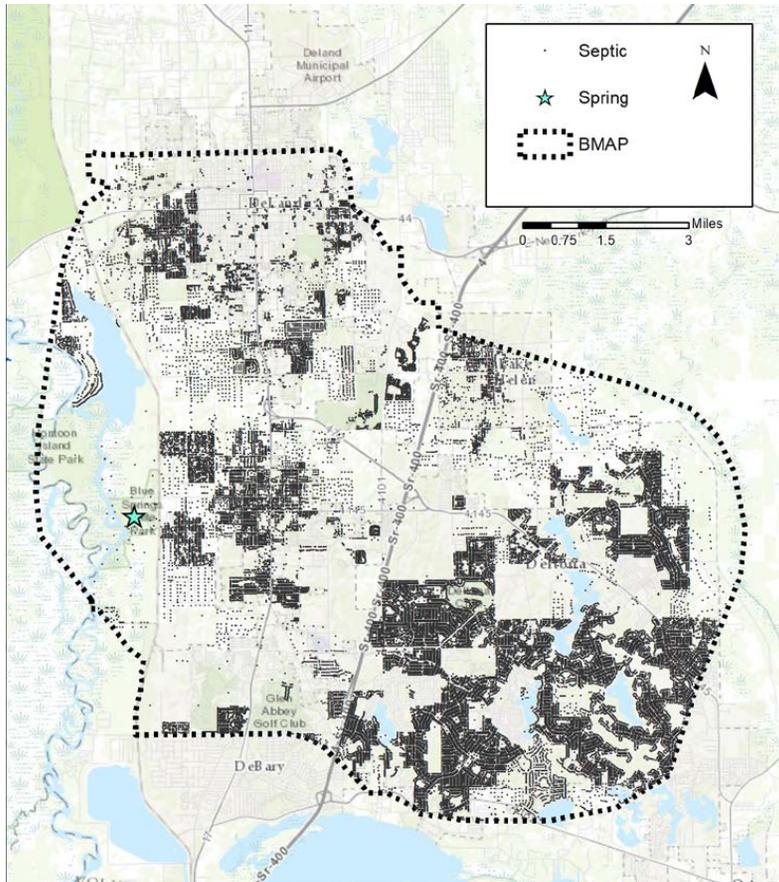
A-First: Stormwater, Wastewater, Reclaimed Water

- 4.5 MGD of Alternative Water Supply Created
- 28,000 lbs of TP removed
- 62,813 lbs of TN removed





# Springs Funding



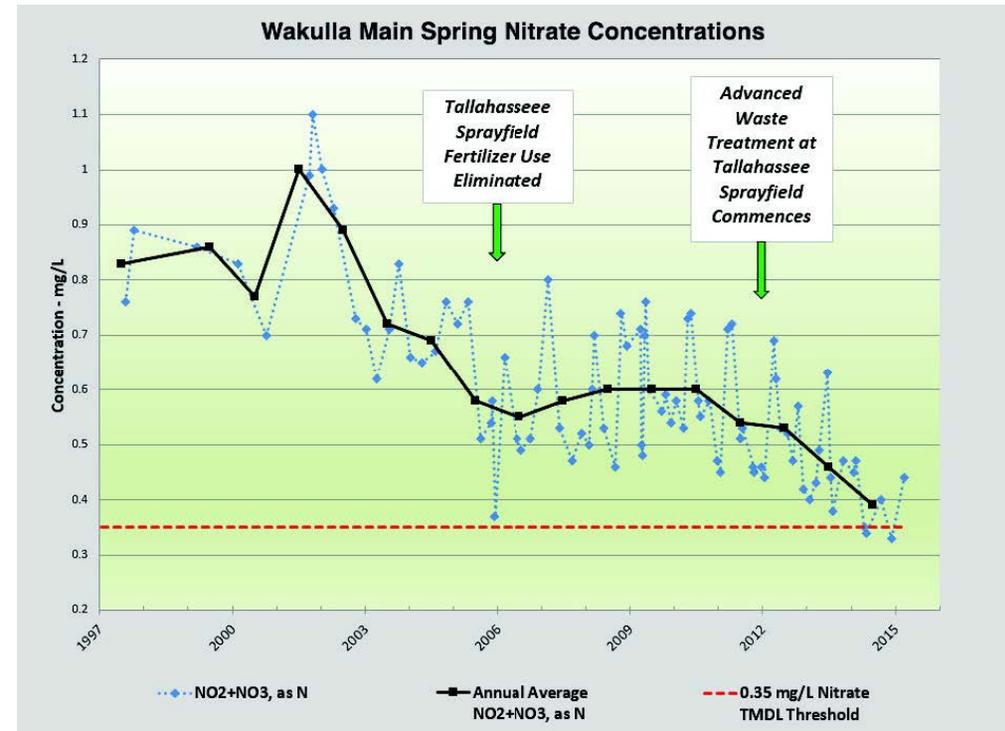
**The benefit of a dedicated funding source of at least \$50 million/year:**

- Approximately \$1.1 billion (assuming 50% local match) to address wastewater sources
  - Estimated number of septic systems: 153,000
  - Number of wastewater treatment facilities >100,000 gpd: 40
- Implement cost-share BMPs across Springs Protection Areas - \$500 million (assuming 25% owner contribution)



# Benefits

- Over \$365 million leveraged towards restoration
- More than 12 million pounds of nutrient pollution reduced
- Water savings in excess of 118 million gallons per day





# Stormwater Funding



## **FY 18-19 Budget Request:**

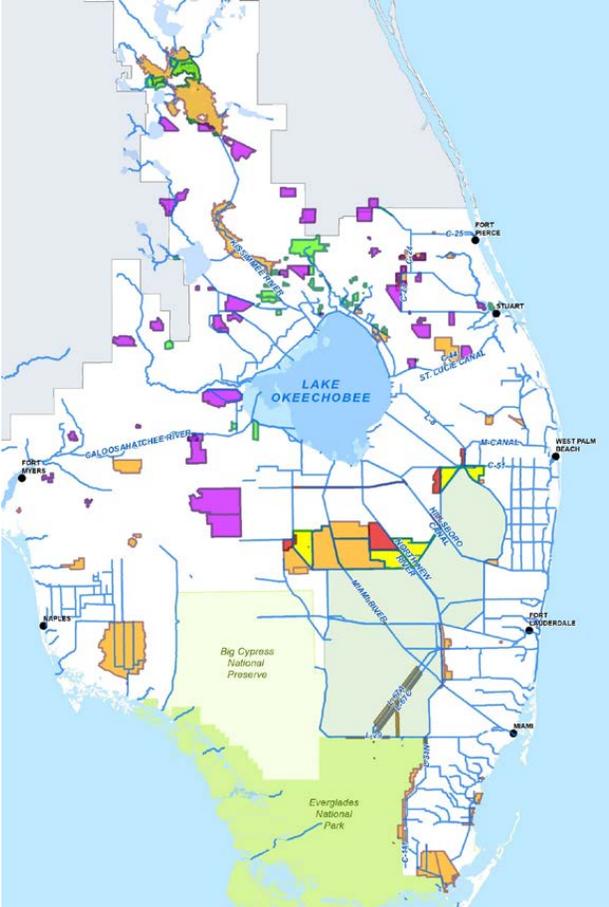
Total Maximum Daily Load: \$12,435,000

Non-Point Source: \$13,800,000

Water Infrastructure (incl. Large-Scale Stormwater): \$50 Million



# Everglades



FY	Program	Appropriation
15/16	CERP and RS	\$83,836,743
	NEEPP	\$5,000,000
	Land Acquisition	\$20,000,000
16/17	CERP and RS	\$132,000,000
	NEEPP	\$61,838,034
	Land Acquisition	\$27,700,000
17/18	CERP and RS	\$167,664,122
	NEEPP	\$40,000,000
	Land Acquisition	\$31,000,000
<b>Total</b>		<b>\$569,038,899</b>

**FY 18/19 Budget Request:**

CERP and RS (incl. SB 10): \$269,800,000

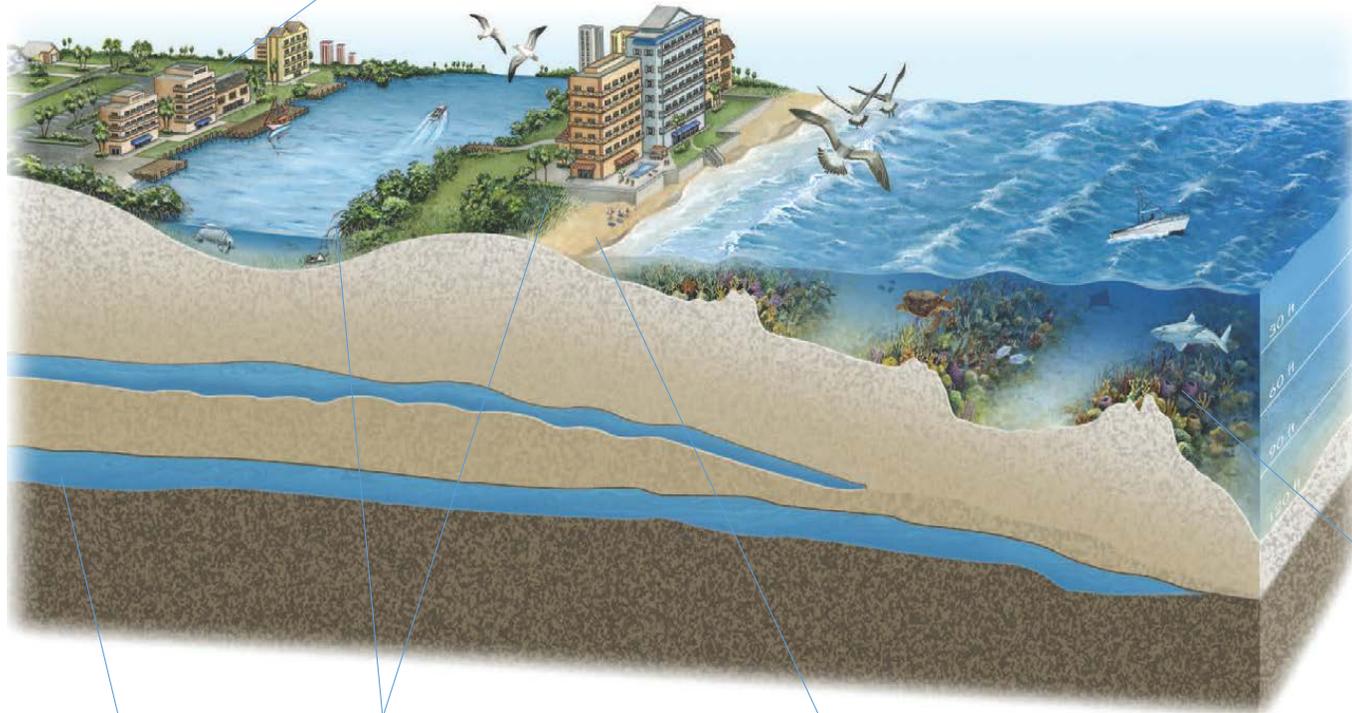
NEEP: \$36,000,000

**Total: \$305,800,000**



# Investment in Coastal Resiliency

Stormwater management



Aquifer

Living shorelines

Beach

## Florida Coastal Office

### **FY 18/19 Budget Request:**

Resiliency Planning: \$600,000

Healthy Beaches: \$50,000,000

Storm Preparedness (Beaches):  
\$2,000,000

Coral Health: \$1,000,000

Coral reefs



# Contact



Drew Bartlett

Deputy Secretary, Office of Ecosystem Restoration

[Drew.Bartlett@dep.state.fl.us](mailto:Drew.Bartlett@dep.state.fl.us)

850.245.2030

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10/11/2017

Meeting Date

Bill Number (if applicable)

Topic Rising Seas & Infrastructure Needs

Amendment Barcode (if applicable)

Name Alec Bogdanoff

Job Title President, Brizaga, Inc

Address 908 S Andrews Ave

Phone 954 834 3533

Street

Fort Lauderdale

FL

33314

Email alec@brizaga.com

City

State

Zip

Speaking:  For  Against  Information

Waive Speaking:  In Support  Against  
(The Chair will read this information into the record.)

Representing Residency Florida

Appearing at request of Chair:  Yes  No

Lobbyist registered with Legislature:  Yes  No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

THE FLORIDA SENATE  
**APPEARANCE RECORD**

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10-11-17

Meeting Date

Bill Number (if applicable)

Topic Flood insurance

Amendment Barcode (if applicable)

Name LISA Miller

Job Title CEO Lisa Miller + Associates

Address 331 N Monroe St

Phone 850 289 229

Street  
Tallahassee FL 32301

City State Zip

Email lisa.miller@lisa.miller.associates.com

Speaking:  For  Against  Information

Waive Speaking:  In Support  Against  
(The Chair will read this information into the record.)

Representing Various insurance companies writing flood insurance

Appearing at request of Chair:  Yes  No

Lobbyist registered with Legislature:  Yes  No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/14/14)



**Florida Department of Environmental Protection**

# **Hurricane Irma Impacts**

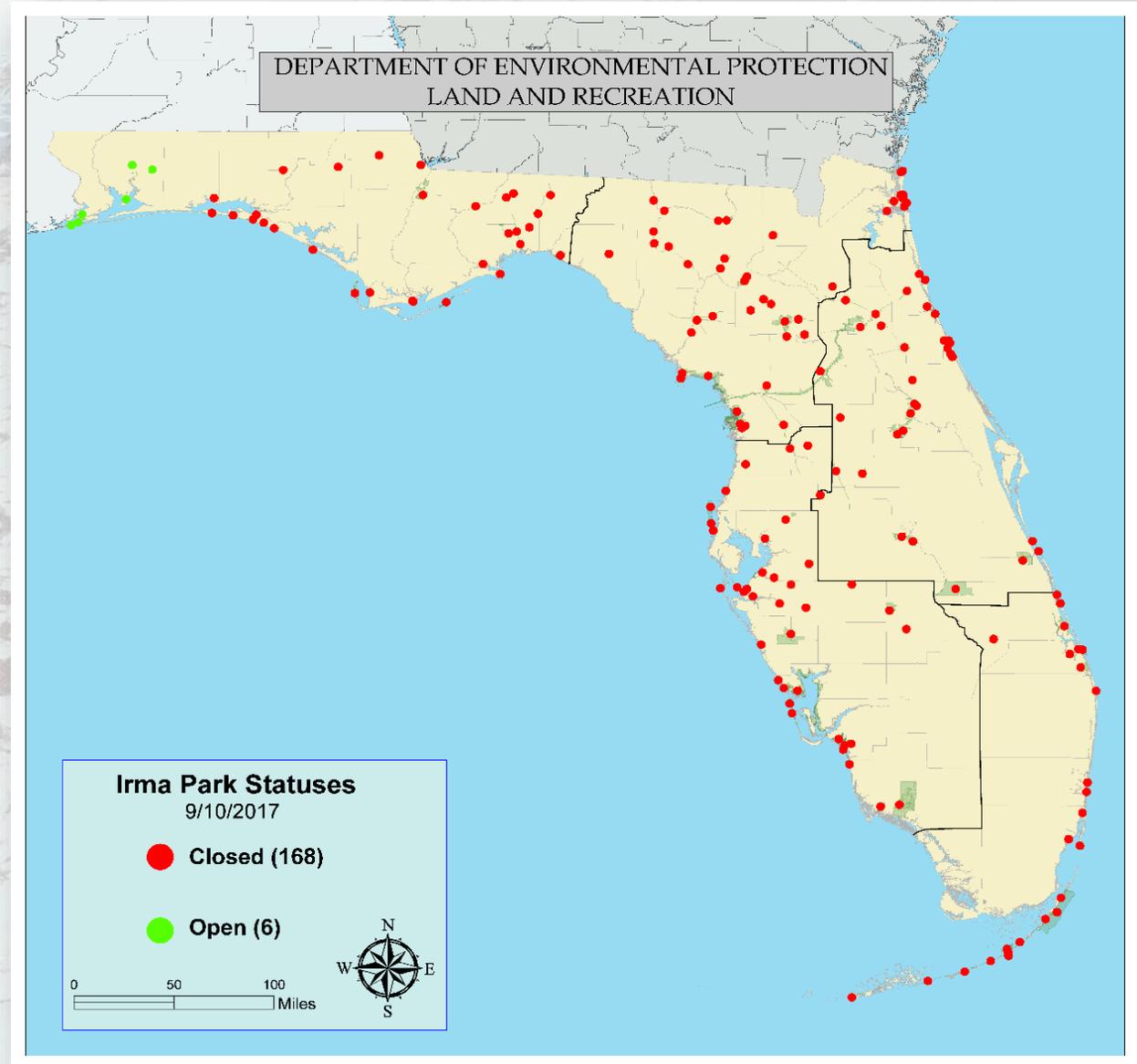
**October 11, 2017**





# Agency Impacts

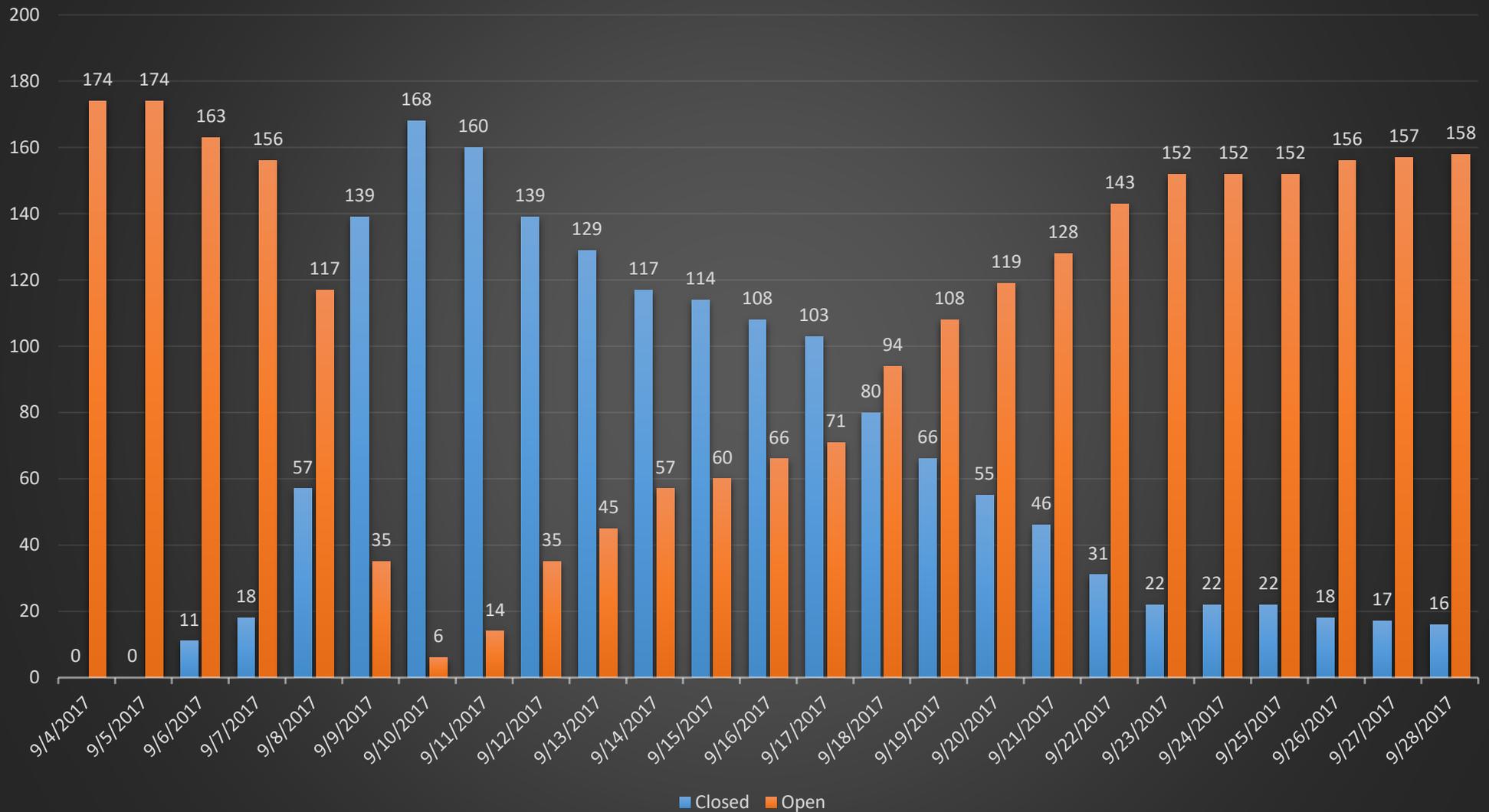
**168 Parks  
closed on  
September 10  
prior to  
landfall**





# Agency Impacts

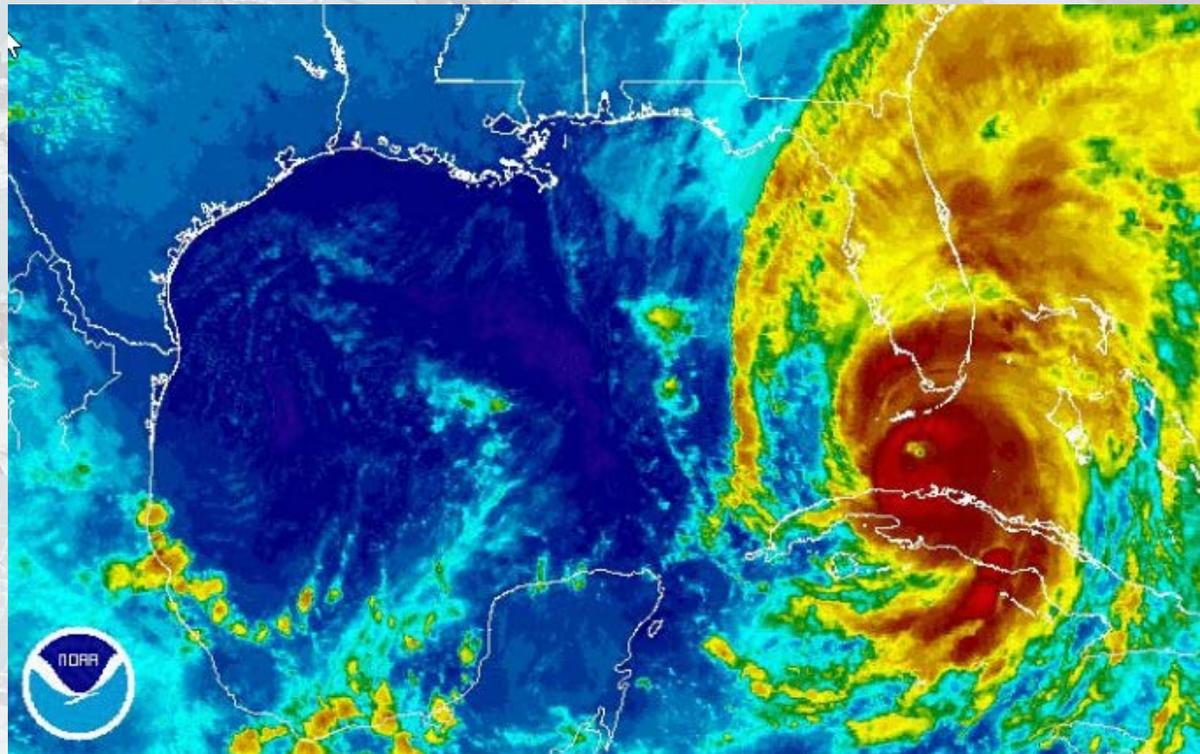
## Florida State Park Open/Closures for Hurricane Irma - 2017





# Impacts

- Impacts along SW to NE Florida
- Most significant submerged lands debris cleanup efforts are in Monroe, Brevard, St. Johns, Putnam, Clay, and Duval Counties





# Submerged Impacts



**Fallen trees in  
submerged lands**



# Park Impacts



**BEFORE**



**Bahia Honda State Park**



**AFTER**



# Park Impacts

## Curry Hammock State Park





# Park Impacts

## Long Key State Park





# Park Impacts

## Collier-Seminole State Park



BEFORE



AFTER



# Park Impacts

## Hillsborough River State Park





# Park Impacts

## Caladesi Island State Park





# Cleanup Efforts

## Dade Battlefield Historic State Park





# Cleanup Efforts



Submerged Lands Cleanup in Brevard County



# Cleanup Efforts



Submerged Lands Impacts, Brevard County



# Fiscal Impacts

**As of October 3<sup>rd</sup>**

**Approximately \$1.7 million revenue loss in overnight cancellations**

**Approximately \$20k Camping fees waived**



# Estimated Cost to Repair/Rebuild



Bahia Honda State Park



Bahia Honda State Park



The Barnacle Historic State Park



Washington Oaks Gardens State Park



**Florida Department of Environmental Protection**

# **Initial Hurricane Irma Coastal Damage Assessment**

**Alex Reed**

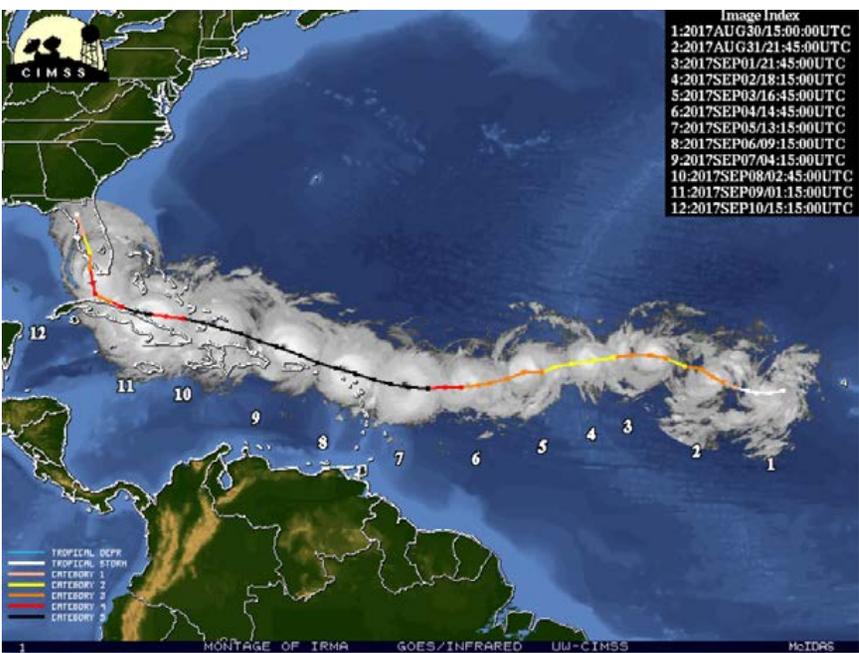
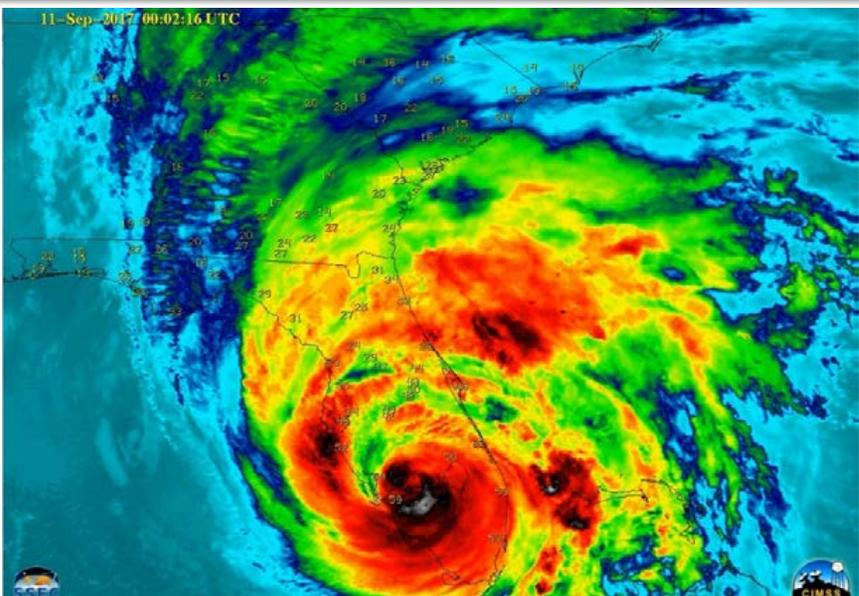
**Deputy Director, Division of Water Resource Management**

**October 11, 2017**





# Overview: Hurricane Irma



- Made landfall as Category 4 on September 10, 2017, in the Florida Keys, and again on the Florida mainland at Marco Island
- Florida's first landfall of a major hurricane since Hurricane Wilma (near Marco Island, 2005)
- Northerly track up the peninsula - most of the state impacted by winds, rain, and/or storm surge

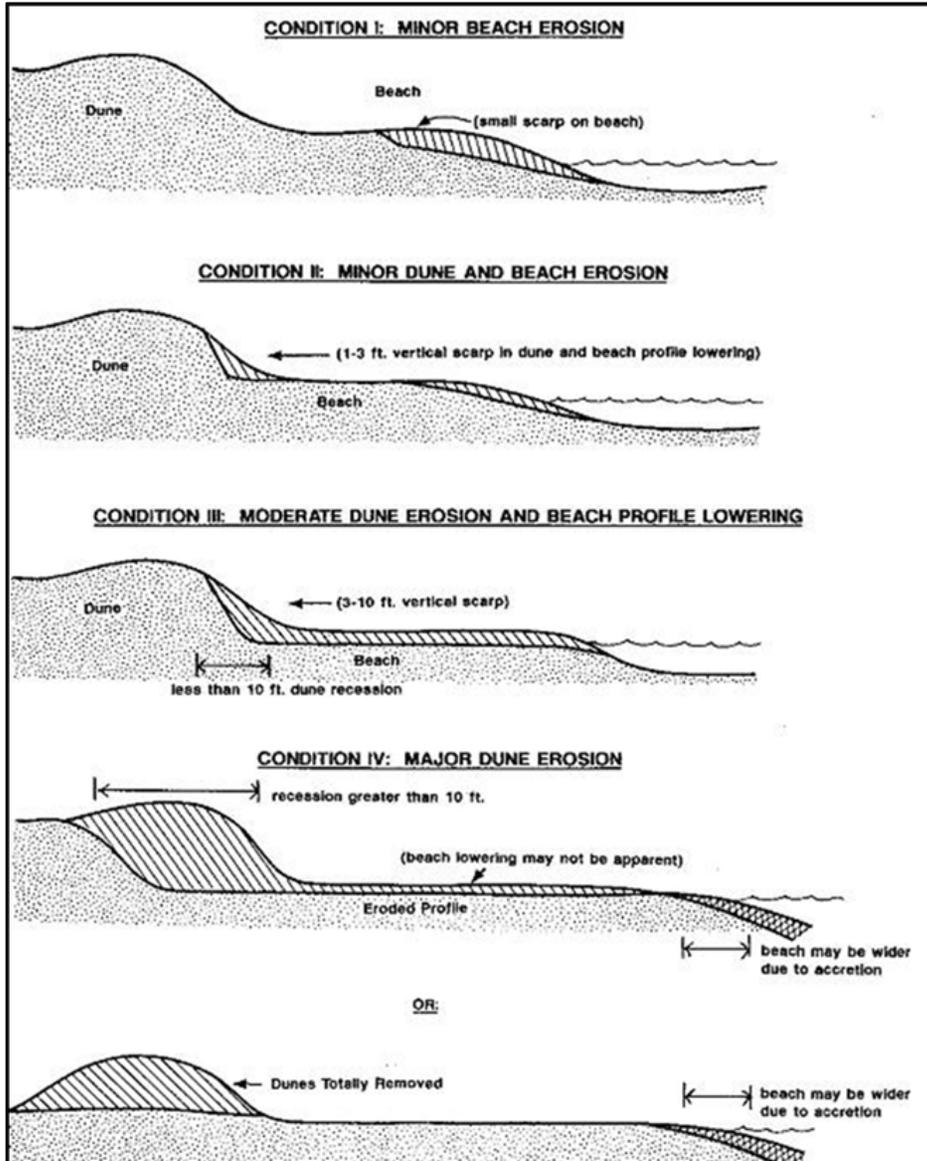


# Coastal Impact Evaluation

- 18 DEP staff deployed to conduct windshield surveys statewide
- Two structural damage assessment teams deployed immediately following the storm
- Detailed damage assessments conducted in Collier, Lee, Charlotte, Sarasota, Manatee, St. Johns, Flagler, Volusia, Brevard, Indian River, and Martin counties
- A total of 273 miles of coastline were assessed by DEP
- Monroe County has not yet been evaluated



# Coastal Impact Evaluation Report



- Report provides assessment of storm impacts, beach and dune erosion, and structural damage to coastal regions
- Beach erosion conditions classified under four conditions:
  - Condition I – Minor beach erosion
  - Condition II – Minor dune and beach erosion
  - Condition III – Moderate dune erosion and beach profile lowering
  - Condition IV – Major dune erosion
- Structural damage assessment includes coastal armoring, single family and multi-family dwellings, and major structures (commercial buildings)



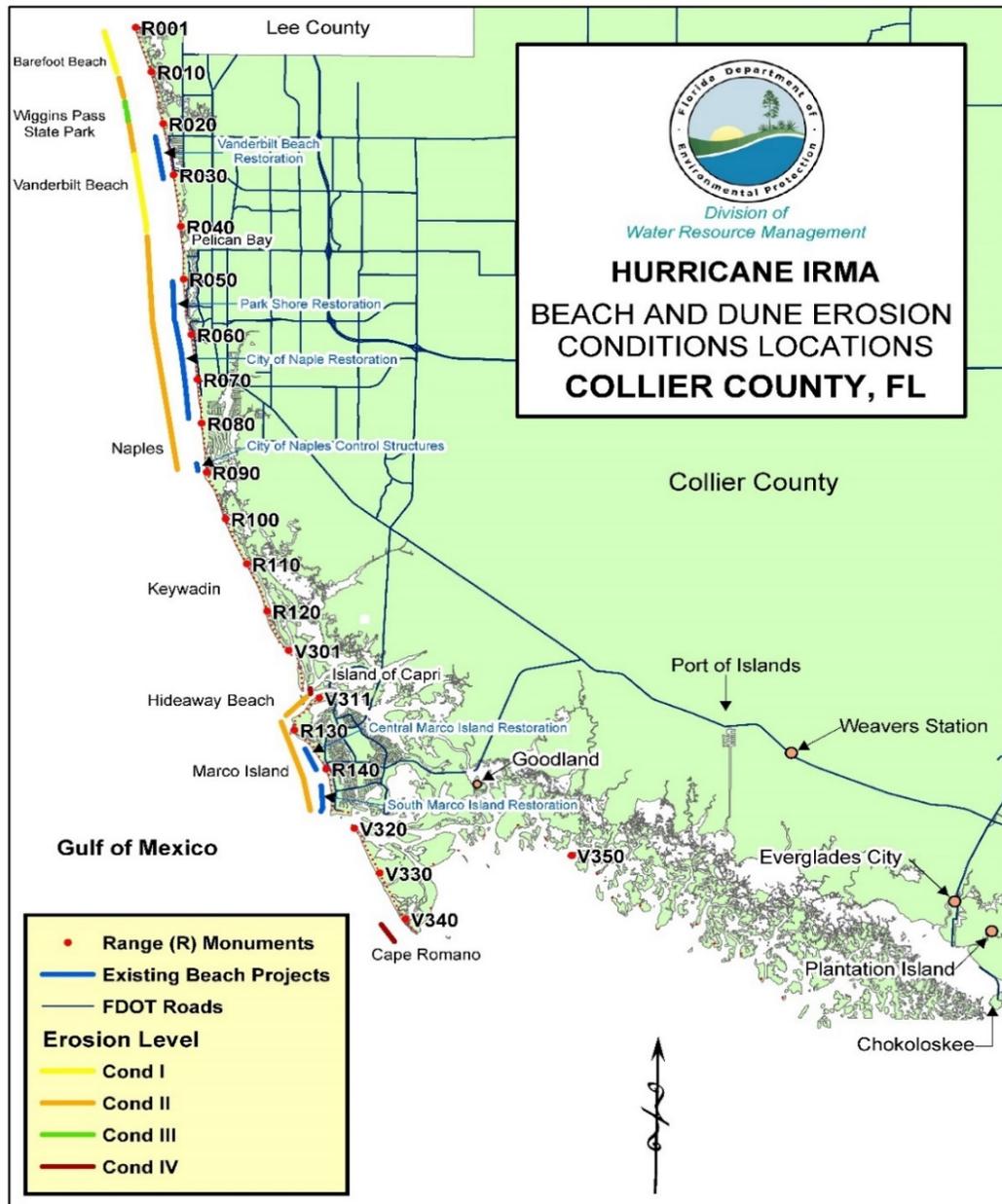
# Structural Damage

- 812 structures along the surveyed coastline damaged or destroyed \*
- 7,445 feet of coastal armoring along the surveyed coastline damaged or destroyed \*
- St. Johns, Flagler, Volusia and Brevard counties had the greatest structural damage in the northeast and central Atlantic
- Most severe structural damage occurred in Florida Keys (based on DEP District staff windshield surveys) and four coastal communities adjacent to Ten Thousand Islands
- Structural damage assessment team will travel to Monroe County in late October

\* As of October 6, 2017 and not including Monroe County



# Collier County



- 34.1 miles of shoreline county-wide
- 14.8 miles of previously designated critically eroded shoreline
- 5.1 miles of non-critically eroded shoreline



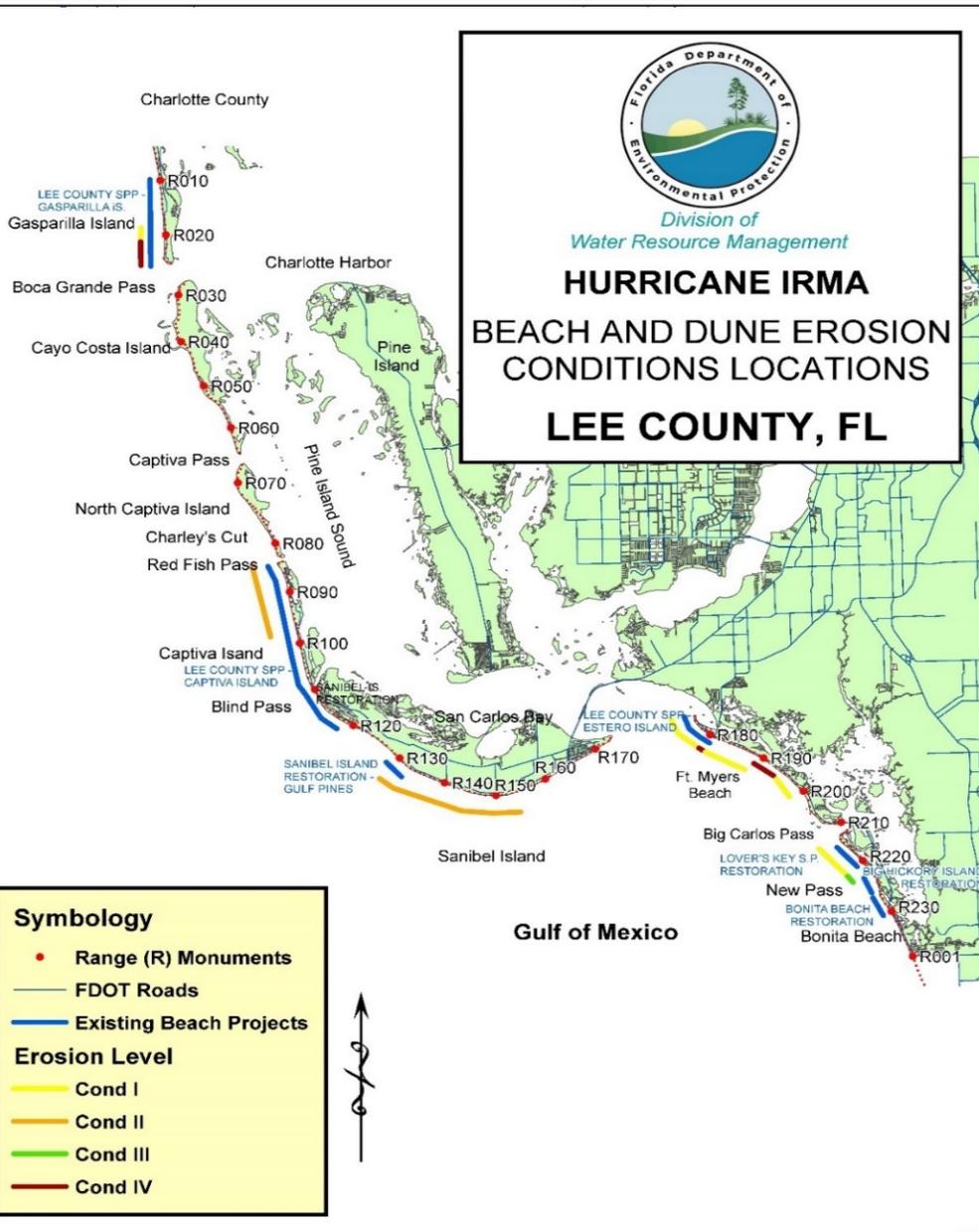
# Collier County



- Eye of Irma crossed Marco Island as Category 3
- Countywide damage includes minor to major beach and dune erosion
- Major erosion along shorelines of Delnor Wiggins State Park and adjacent Pass
- Significant erosion at the north end of Marco Island
- Major damage to 231 major structures (worst damage other than the Keys)
- 3,575 feet of armoring damaged or destroyed, including 3,000 feet of revetment at south end of Marco Island



# Lee County



- 47.3 miles of shoreline county-wide
- 22.4 miles of previously critically eroded shoreline
- 5.3 miles of non-critically eroded shoreline



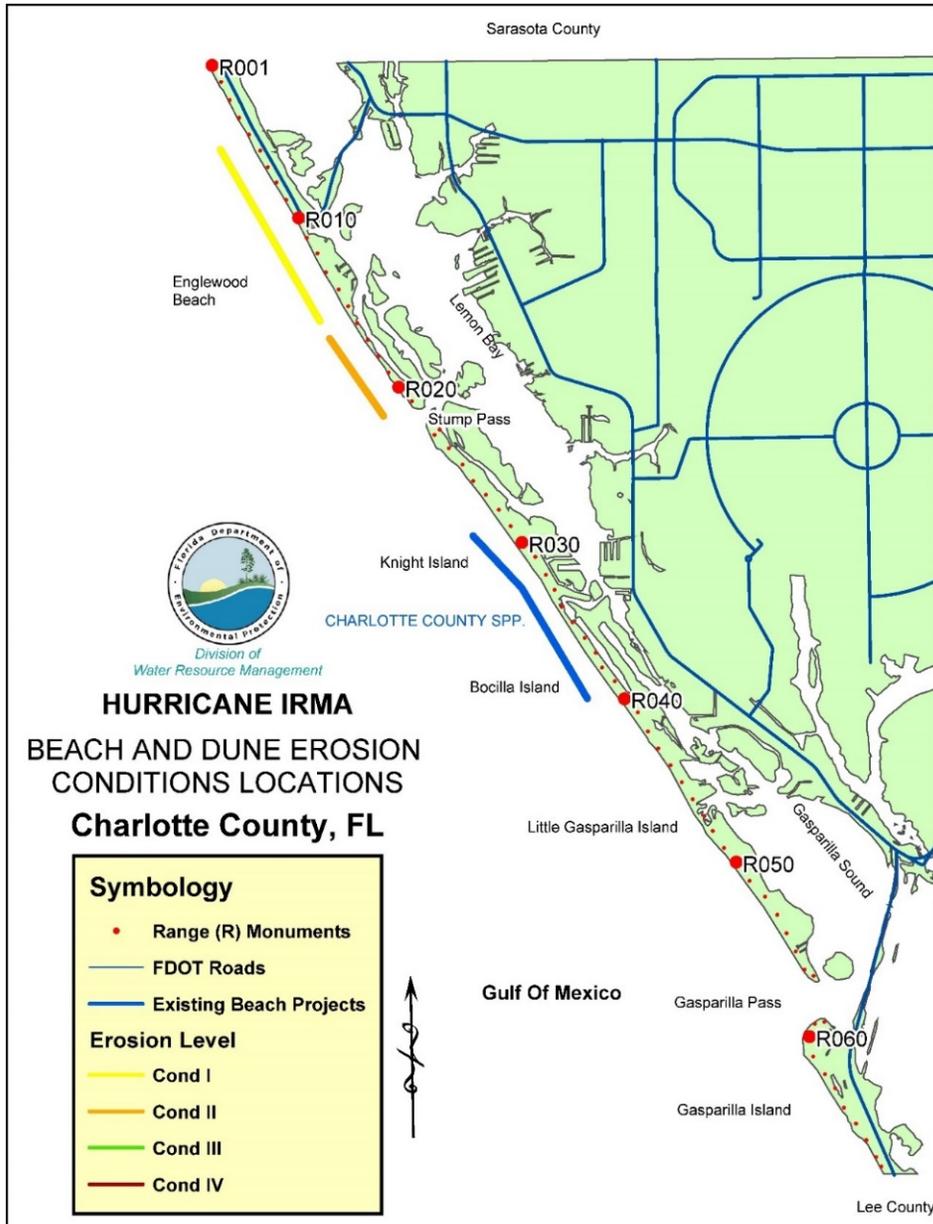
# Lee County



- Major beach and dune erosion at Gasparilla Island State Park
- 30 feet of boulder rock revetment damaged at Gasparilla Island State Park
- Minor dune and beach erosion along Sanibel and Captiva
- Minor dune erosion along Estero Island and most of Lovers Key
- Major damage to 6 major structures



# Charlotte County



- 12.2 miles of shoreline county-wide
- 6.5 miles of previously designated critically eroded shoreline



# Charlotte County

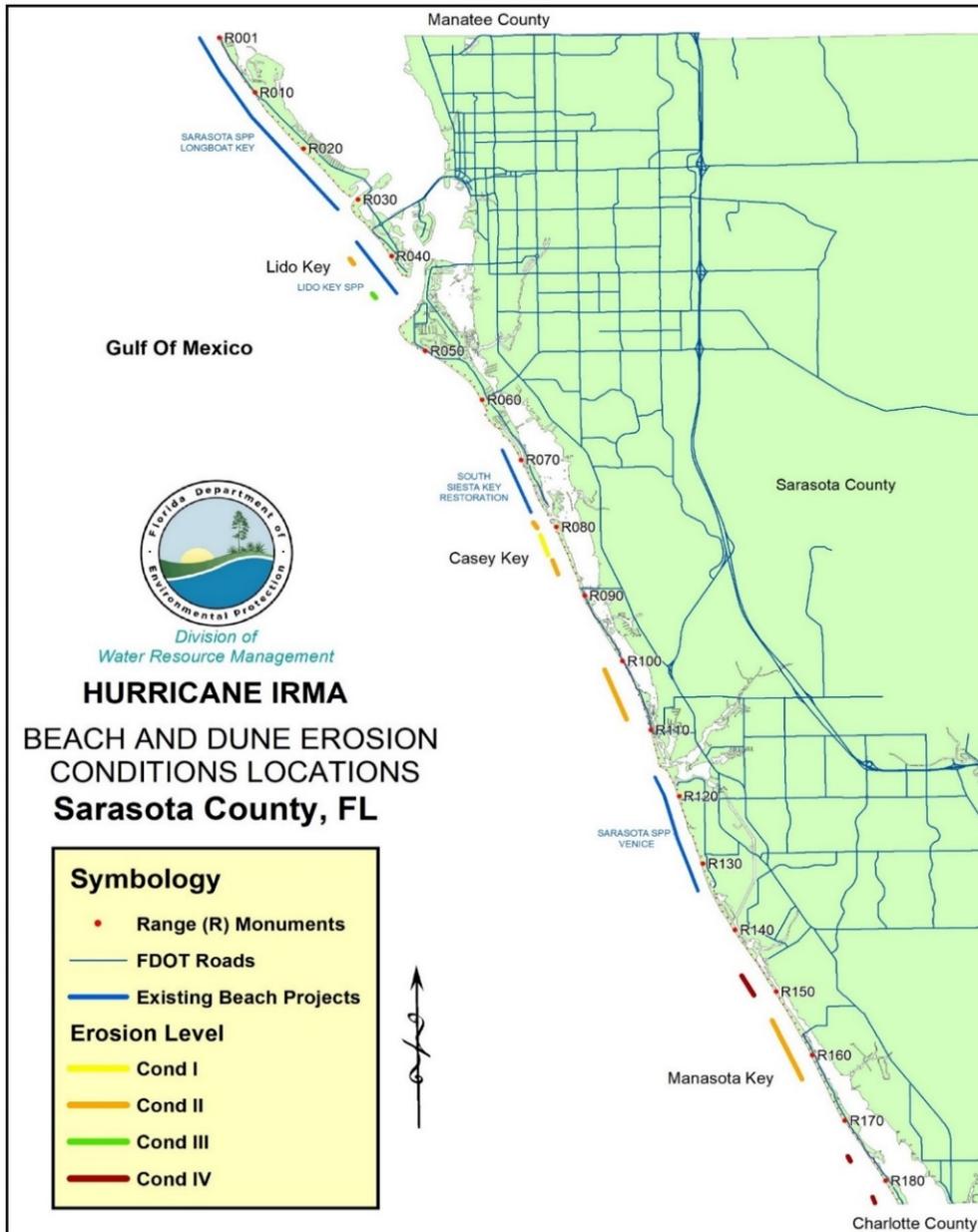


- Charlotte County was not significantly impacted by Irma
- Minor erosion conditions countywide
- A single family home sustained major damage on Little Gasparilla Island





# Sarasota County



- 34.7 miles of shoreline county-wide
- 24.2 miles of previously designated critically eroded shoreline
- 0.7 miles of non-critically eroded shoreline



# Sarasota County



- Sarasota County was not significantly impacted by Irma

- Minor beach and dune erosion countywide

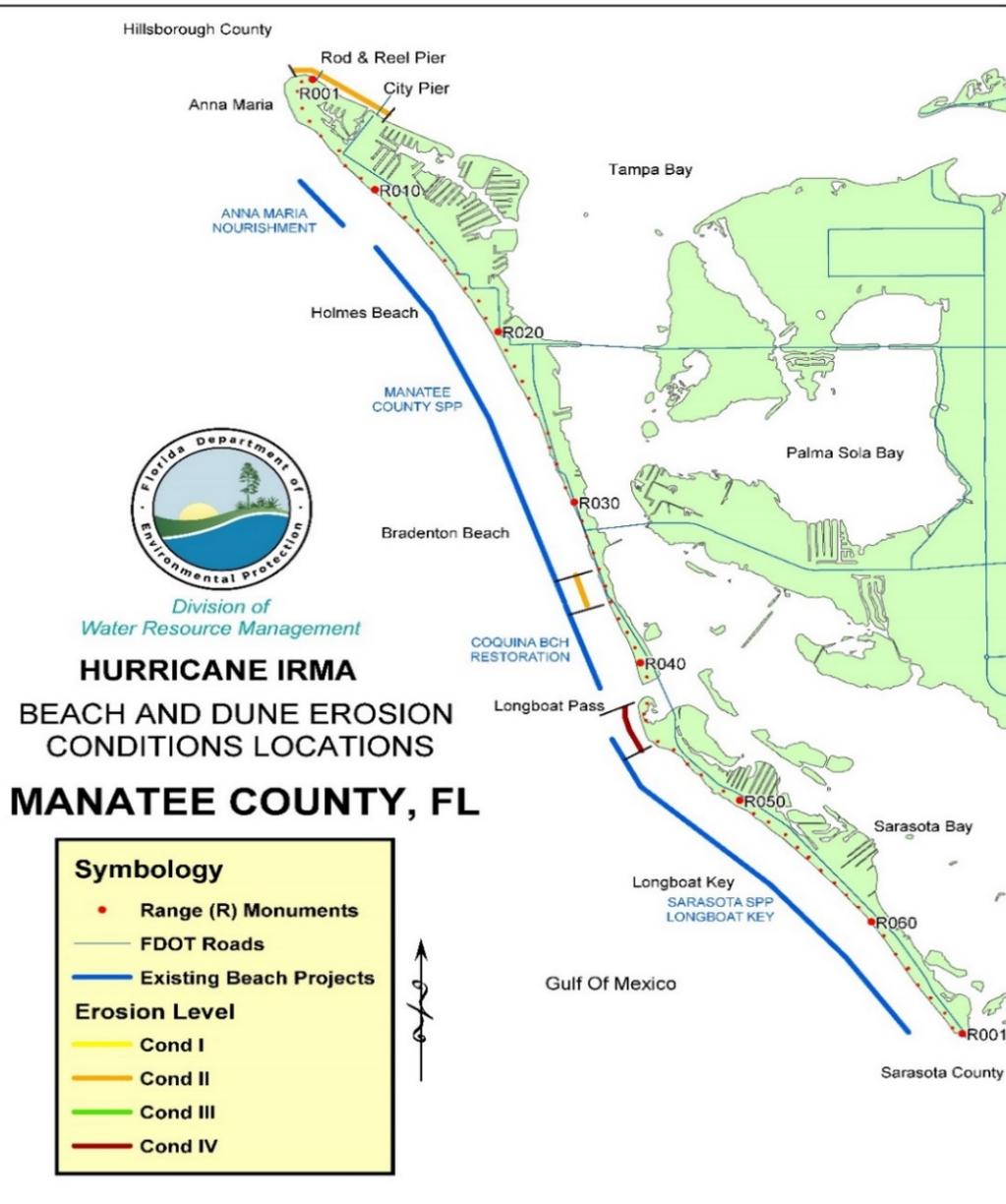


- 100 feet of Manasota Key Road sustained major damage

- 1 single family dwelling threatened



# Manatee County



- 12.3 miles of shoreline county-wide
- Entire shorelines of Anna Maria Island and Longboat Key previously designated critically eroded



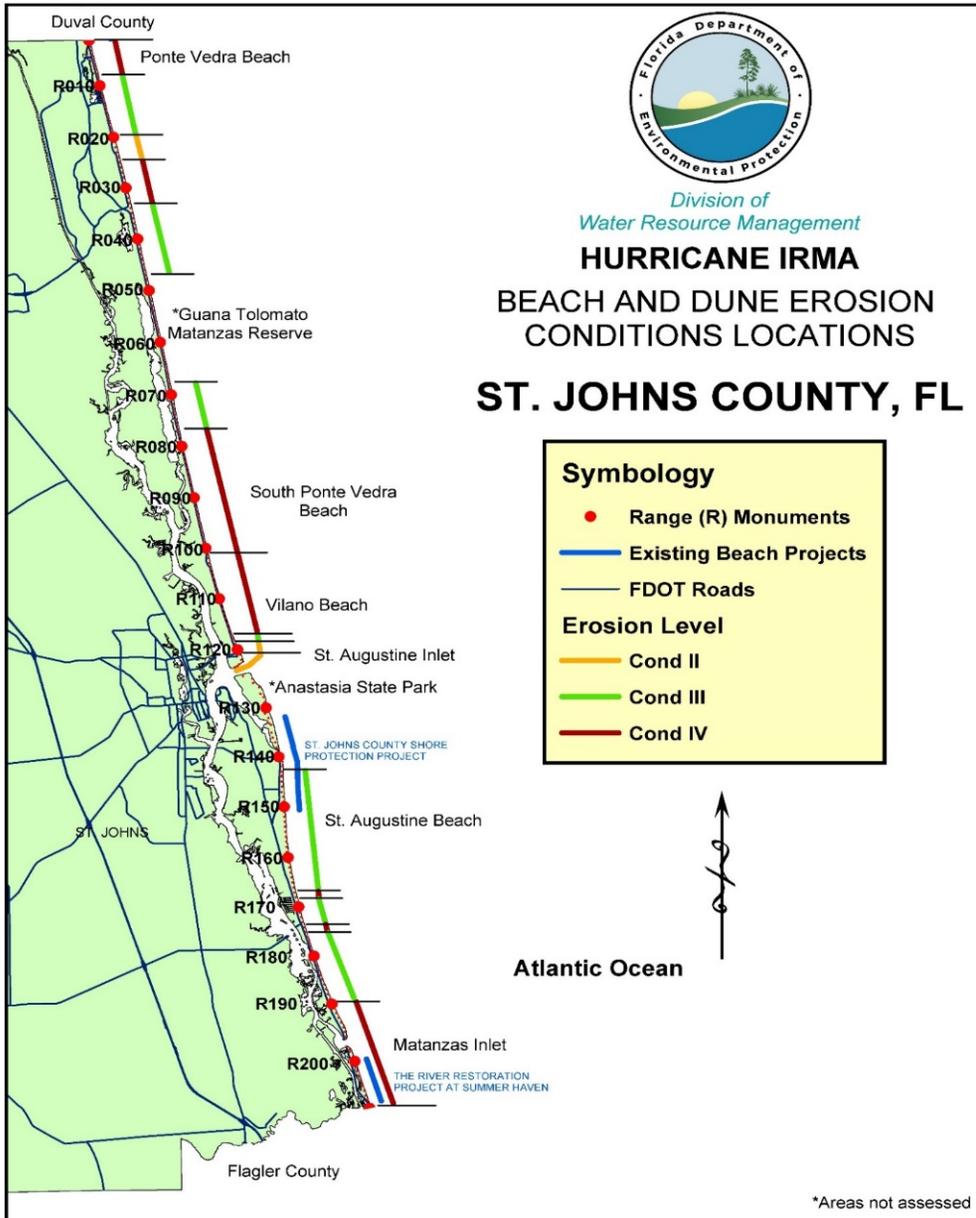
# Manatee County



- Minor beach and dune erosion at the north end of Anna Maria Island
- Major structural damage to the City of Anna Maria Island's pier
- Minor beach erosion at Coquina Beach
- Major Beach and dune erosion on Greer Island



# St. Johns County



- 41.1 miles of shoreline county-wide
- 15.3 miles previously designated critically eroded shoreline
- 0.5 miles of non-critically eroded shoreline



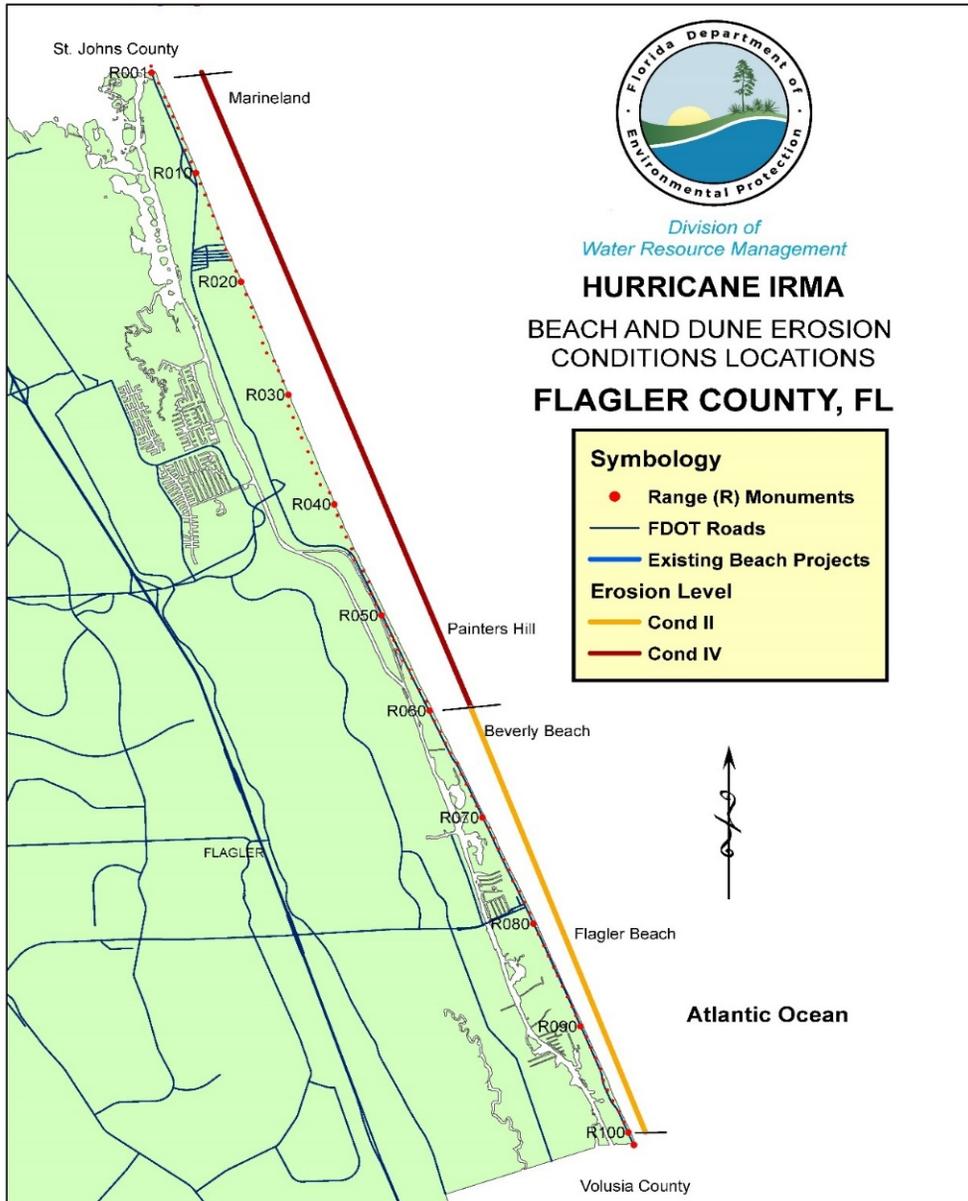
# St. Johns County



- Countywide damage includes minor to major beach and dune erosion
- Severe impacts north of St. Augustine Inlet
- Moderate to major impacts on Anastasia Island and Summer Haven community
- Major damage to 171 major structures (15 destroyed)
- 115 buildings in imminent danger from future storms
- 3,470 feet of armoring damaged or destroyed



# Flagler County



- 18.1 miles of shoreline county-wide
- 6.5 miles of previously designated critically eroded shoreline
- 0.6 miles of shoreline in southern Flagler Beach designated critically eroded following Hurricane Matthew



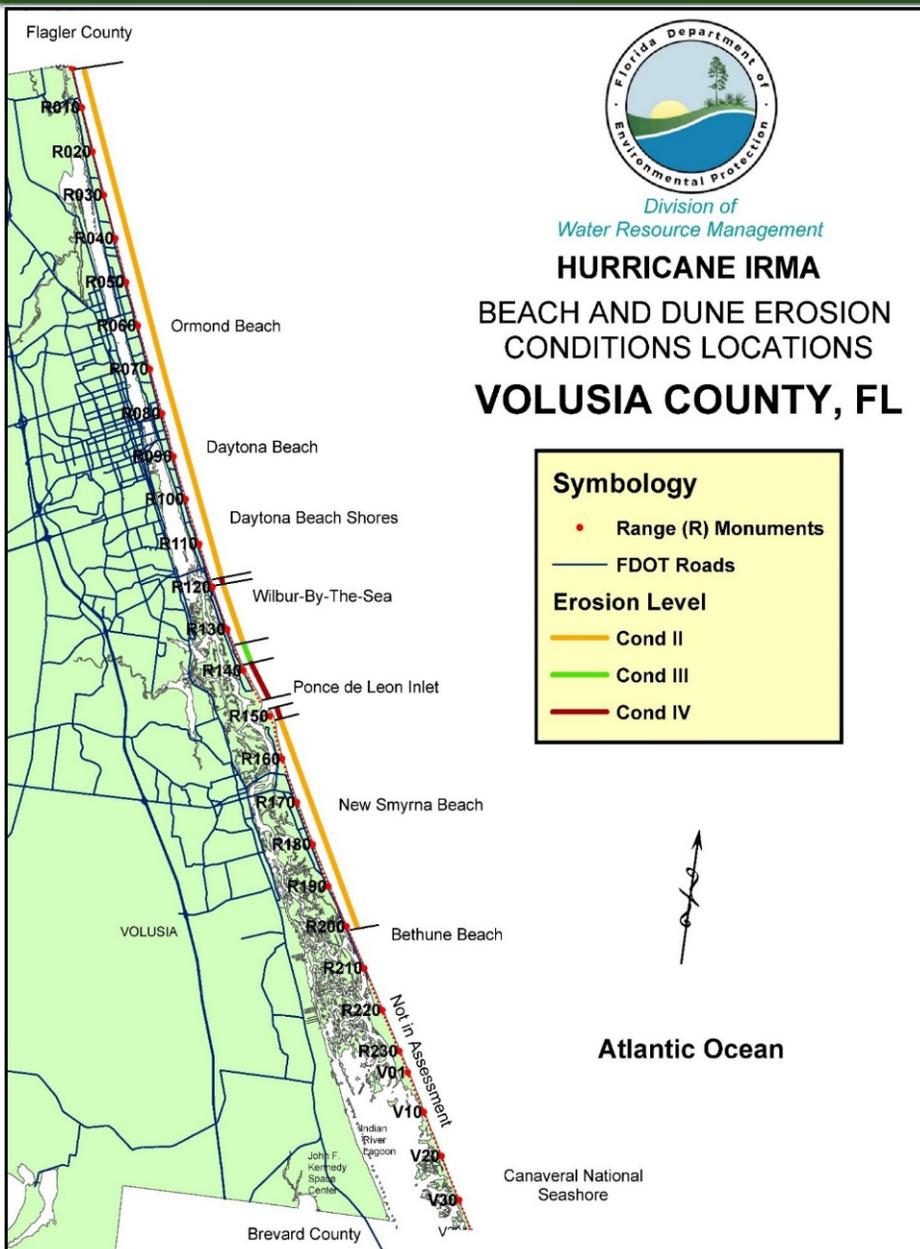
# Flagler County



- Countywide damage includes minor to major beach and dune erosion
- Severe impacts along the northern coast of county
- Dune breach at Washington Oaks State Park
- Major damage to 78 major structures
- 33 buildings in imminent danger from future storms
- 160 feet of armoring in northern Flagler damaged
- No further damage to A1A or armoring along A1A as experienced in Matthew



# Volusia County



- 48.8 miles of shoreline county-wide
- 21 miles of previously designated critically eroded shoreline
- 1.6 miles of shoreline in northern Volusia County designated critically eroded following Hurricane Matthew



# Volusia County

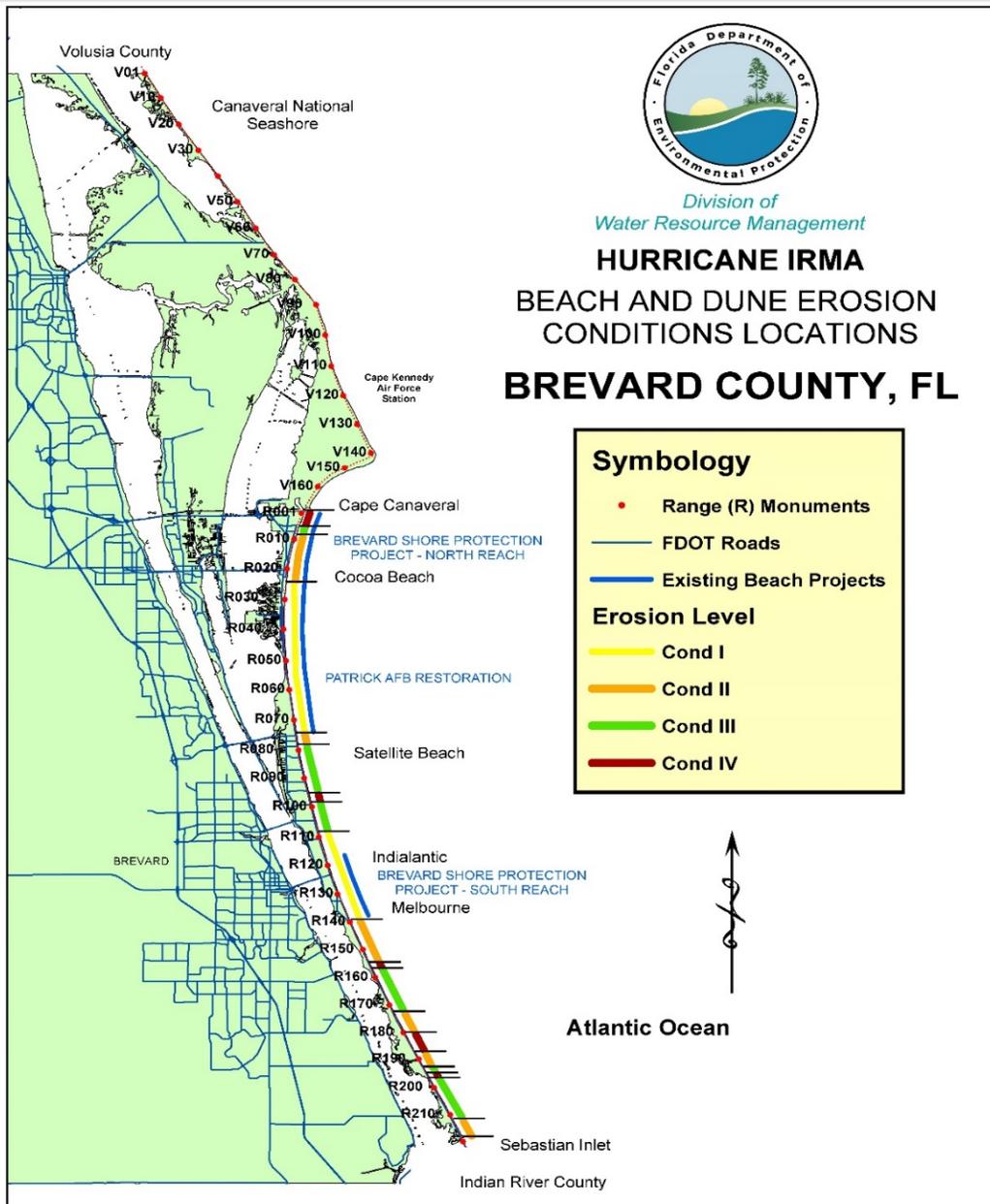


- Substantial recovery countywide post-Matthew
- County sustained mostly wind damage from Irma
- Damages to the beach and dune ranged from minor in the northern Volusia County to major south of Ponce Inlet
- Major damage to 106 major structures
- 100 feet of armoring destroyed
- 225 feet of major damage to boulder mound on the Ponce Inlet north jetty





# Brevard County



- 71.6 miles of shoreline county-wide
- 41.2 miles of previously designated critically eroded shoreline
- 12.1 miles of non-critically eroded shoreline



# Brevard County



- Some natural beach recovery has occurred post-Matthew
- Minor dune to major beach and dune erosion countywide
- Wind caused major damage to 217 major structures (only 3 damaged by Matthew)
- Multiple tornados impacted area
- 50 feet of coastal armoring damaged or destroyed





# Sand Losses

- Multi-agency assessment teams were deployed along Atlantic Coast and Southwest Gulf
- DEP, U.S. Army Corps of Engineers, and local community staff assessed sand losses for engineered beaches
- Corps will quantify storm losses and estimate replacement costs for federal and nonfederal projects
- Estimates will be used by the Corps for Flood Control and Coastal Emergencies repairs and by FEMA for Category G repairs



# Response Efforts

- Approximately 10,000 cubic yards of sand was placed along several vulnerable segments of State Road A1A in Flagler, St. Johns and Volusia counties prior to the storm making landfall
- Sand placement commenced 9/13/2017 following the storm and is ongoing in St. Johns, Volusia and Flagler Counties
  - St Johns: 21,356 cubic yards
  - Volusia: 9,994 cubic yards
  - Flagler: 31,238 cubic yards
  - Manasota Key: plan to place 5,000 cubic yards
- Three Emergency Final Orders issued to provide regulatory relief
- DEP has begun outreach to assist local communities with recovery efforts



# Beach Management

## Along restored beaches

No major damage to upland habitable structures from waves, surge, or tides in either Matthew or Irma

- Plan emergency and maintenance strategies for each segment of shoreline
- Identify sand sources and regional sediment management opportunities
- Dedicated long term funding with annual budget and reserves
- Permits and easements in place
- Dedicated staff and collaboration with residents

Beaches Funding Program can cost share in aspects of  
Beach Management Planning



# Questions?

Alex Reed

Deputy Director

Division of Water Resource Management

Florida Department of Environmental Protection

[Alex.Reed@dep.state.fl.us](mailto:Alex.Reed@dep.state.fl.us)

850-245-8675

# HURRICANE IRMA

## BEACH RECOVERY NEEDS, DAMAGE ASSESSMENTS & PRELIMINARY PROJECT COST ESTIMATES

---

Senate Appropriations Subcommittee on the  
Environment and Natural Resources  
Senator Lauren Book, Chair

Presented by Deborah Flack, President  
Florida Shore & Beach Preservation Association



October 11, 2017

# Setting the Stage



## Florida's Beaches Statewide Status

825 miles Florida's Sandy beaches

416 miles Critically eroded beaches (in red)

229 miles Critically eroded managed beaches

187 miles Eroded beaches w/o projects

# Statewide Program Projects

## Two Groups / Categories of Projects

### 1) Federally Authorized Projects

- 25 Active Projects: 134 miles, 59% of total miles of managed beaches
- Federal share: 62% average (range 100% to 46.6%)
- Non-federal share: 50-50% State and local Government Sponsor

### 2) State/Local Only Projects

- 50-50% State and Local Government Sponsors

# 65 Projects Reported Post Hurricane Irma Impacts

## 1) 18 Federally Authorized Projects (88 miles)

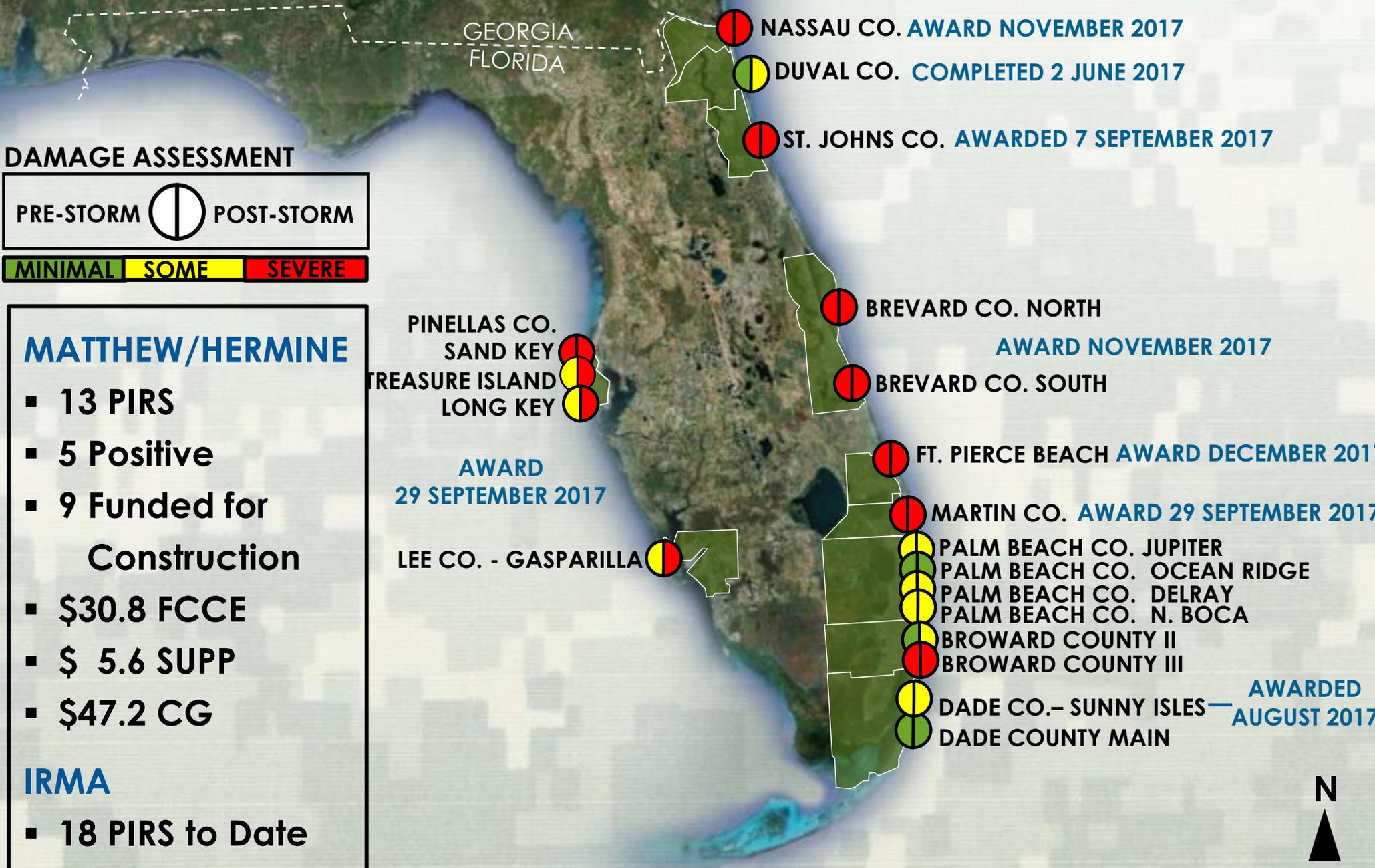
- 100% Federal funding for sand losses (FCCE), construction (CG) cost share remainder between Federal and Non-Federal Sponsor

## 2) State/Local Only Projects

- 47 separate Preliminary Damage Assessments for possible FEMA Category G Funding (sand losses only for maintained, existing projects)

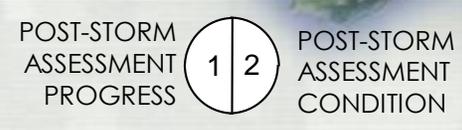
(75% Federal, 12.5% each State and local)

# IRMA STORM RESPONSE: FEDERAL PROJECTS



# Nonfederal Beaches FEMA Post-storm Damage Assessments

	1	2
	Complete	Minimal degradation
	Ongoing	Some degradation
	Requested	Severe degradation
	No Action	Pending



GEORGIA  
FLORIDA

## Nassau County

- South Amelia Island

## St. Johns County

- Anastasia Island
- Summer Haven

## Brevard County

- Mid Reach Dune Restoration
- South Beaches Dune Project

## Indian River County

- Ambersand Beach – Sec. 1
- Wabasso Beach – Sec. 3
- City of Vero Beach – Sec. 5
- Indian River County – Sec. 7

## St. Lucie County

- South St. Lucie Beach

## Marlin County

- Bathtub Beach/Sailfish Point
- Jupiter Island

## Broward County

- Hillsboro Beach
- Deerfield Beach
- Hollywood Beach

## Miami-Dade County

- Key Biscayne

## Palm Beach County

- Coral Cove
- Jupiter/Carlin SPP
- Juno Beach
- Singer Island
- Lake Worth Inlet IMP Placement
- Mid-town Beach
- Phipps Ocean Park
- Town of Palm Beach – Reach 8 Dunes
- Central Boca Raton
- South Boca Raton

## Citrus County

- Fort Island Gulf Park

## Pinellas County

- Honeymoon Island SP

## Manatee County

- North Anna Maria Island
- Coquina Beach
- Longboat Key (shared w/ Sarasota Co.)

## Sarasota County

- Longboat Key (shared w/ Manatee Co.)
- Lido Key
- South Siesta Key

## Charlotte County

- Charlotte County Beach Rest. - Stump Pass
- Charlotte County Beach Rest. - Knight Island

## Lee County

- Bonita Beach
- Lovers Key SP
- Estero Island
- Sanibel Island
- Captiva Island
- Gasparilla Island

## Collier County

- Vanderbilt Beach
- North Park Shore
- Park Shore Beach
- Naples Beach
- South Marco Island



**BUILDING STRONG®**

# Lessons Learned

- **Performance:** Florida's nourished beaches did an outstanding job absorbing storm impacts. No major structures suffered substantial damage by erosion.
- **Ensuring timely project maintenance:** It is so important to not only replace sand losses from the storm but also to quickly reestablish the planned nourishment interval of our projects with traditional program funding.
- **The importance of healthy dunes:** We must insure dune enhancement is part of every nourishment project. They add more upland protection and reduce coastal flooding.
- **The role of emergency sand placement:** Recent (pre and post-Irma) efforts by the State, and thru long-standing FEMA Cat B program funding, for emergency berm repair are not intended to restore a beach, they only provide protection from immediate threats by reestablishing the pre-storm profile—the key word is temporary.

# What Now

- Anticipate a Congressional Supplemental Appropriations Bill that will allow for funding consideration of all or part of the 18 Federally-authorized Corps projects impacted by Hurricane Irma. Expected to include FCCE dollars to cover 100% of the sand losses, supplemental project specific funding, and CG matching dollars according to contractual cost-shares.
- FEMA funding for its various programs will to be in same Supplemental. It should include Category G funding. Then the 45 (plus or minus) **State/Local only projects** under review must wait on individual Worksheets from FEMA.
- With so many Florida projects in the mix, the **savings in mob/demob** of equipment will be considerable.

# Final Thoughts

- While most feel they were comparable events, we can't separate Matthew and Irma on the east coast because the impacts of Matthew were largely unaddressed.
- Every Florida beach project has a local government sponsor. Program success rests in the statutory emphasis on being equal partners. That has not been the case over the past decade.
- The challenge from recent storm impacts is how to sustain the statewide program's emphasis on adequately maintaining all existing beach projects. It bears repeating how important it is to reestablish the project's nourishment interval, post storm.
- Perhaps an even greater challenge is how best to accommodate those segments of critically-eroded beachfront not currently part of the state's program while sustaining the program's emphasis on locally-sponsored and managed projects, equal state and local cost-sharing, and the statutory framework of the statewide program.

THE FLORIDA SENATE  
**APPEARANCE RECORD**

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

Oct 11  
Meeting Date

\_\_\_\_\_  
Bill Number (if applicable)

Topic Trma Impacts to Beaches

\_\_\_\_\_  
Amendment Barcode (if applicable)

Name Deborah E. Flack

Job Title President

Address 1961 Chatsworth Way  
Street

Phone 850-510-5409

Tallahassee FL 32309  
City State Zip

Email floridabeaches@fsbpa.com

Speaking:  For  Against  Information

Waive Speaking:  In Support  Against  
(The Chair will read this information into the record.)

Representing FLORIDA SHORE & BEACH PRESERVATION ASSOCIATION

Appearing at request of Chair:  Yes  No

Lobbyist registered with Legislature:  Yes  No

*While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.*

**This form is part of the public record for this meeting.**

# Derelict Vessel Investigation and Removal Process & Storm Related Vessel Removal Process



Senate Appropriations Subcommittee on the  
Environment and Natural Resources

October 11, 2017



Florida Fish and Wildlife Conservation Commission

# What is a Derelict Vessel?

A Derelict Vessel is defined in section 823.11, *Florida Statutes*, and includes a vessel as defined by s. 327.02, F.S., which is, every description of watercraft used or capable of being used as a means of transportation on water.

This does not include:



Sea Planes  
Floating structures  
Unightly vessels



## What is a Derelict Vessel? *continued*

Furthermore, a Derelict Vessel is any vessel that is left, stored, or abandoned and meets any of the following criteria:

1. Vessel is in a wrecked, junked, or substantially dismantled condition upon any public waters of this state
2. Vessel is at any port in this state without the consent of the agency having jurisdiction thereof
3. Vessel is docked; or grounded at; or beached upon the property of another without the consent of the owner of the property



# Derelict Vessel (DV) Investigations

Derelict vessels, under normal conditions, are either called in by the public or observed by a law enforcement officer conducting water patrol. An officer conducts a vessel assessment to determine whether or not the vessel is derelict. If a vessel is determined to be derelict, an investigation begins.

All investigation information is entered into the Statewide Derelict Vessel Database, and includes:

1. Incident number
2. Supporting photos
3. Findings of fact and other investigative details



## DV Investigations *continued*

Owner Notification is required in section 705.103, *Florida Statutes*.

The Officer completes the following steps to provide owner notification:



1. Makes a diligent effort to identify and locate the owner
2. If the Officer can meet with owner:
  - a) owner is issued a derelict vessel citation
  - b) owner is given a DV letter and a rights notification packet
3. If the Officer cannot meet with owner:
  - a) DV letter and rights notification packet is mailed by certified mail
  - b) Vessel is posted with a derelict vessel notice
4. A 45 day waiting period begins to ensure due process rights



# Removal of Vessel from State Waters

Once the investigation is complete, the Area Captain reviews all investigation information and authorizes the removal of the derelict vessel.



1. The city or county governmental partner is given a letter of authorization to remove and destroy the derelict vessel
2. If state grant funds are available, the city or county is notified of such funding opportunities
3. The city or county partners contract for the removal
4. Restitution for the state and county is pursued



# Derelict Vessel Grant Program

As required by sections 206.606 and 376.15, *Florida Statutes*, FWC established a program to provide grants to local governments for reimbursement for the removal of derelict vessels from the public waters of the state.



1. Grant is advertised for a period of 45 days
2. Grant applications received are scrutinized for accuracy and eligibility; Due process procedure is verified
3. All applications received will be funded until grant funds are exhausted
4. Local governments are expected to provide a 25% match for each DV removed
5. Removal is verified, county is reimbursed, and contract is closed



# Derelict Vessel Grant Program

## Funding

Fiscal Year (FY)	Appropriation (General Revenue)	Number of Derelict Vessels Removed
FY 2016-17	\$ 1,400,000	134
FY 2017-18	\$ 1,488,550	150 (Expected)

FWC is requesting an additional \$1 million for FY 2018-19 to continue the Derelict Vessel Grant Program



# Hurricane Irma

Hurricane Irma created the worst storm-related maritime disaster that Florida has seen in recent times.

Over 1,500 vessels were displaced upon the waters of the state, with hundreds more washed upon dry land by storm surge and flooding



# Storm Related Displaced Vessels

## Funding

- Partnerships with EPA and U.S. Coast Guard have been made using federal funds to aide in the decontamination and removal of vessels
- EPA and Coast Guard have committed \$30M for this mission until the end of November
- FWC is responsible for a 25% cost share of this federal commitment
- FWC is finalizing a request for funding pursuant to Executive Order 17-235



# Storm Related Displaced Vessels

- Displaced Vessels will be processed using a modified derelict vessel protocol.
- Due to the humanitarian hardship associated with these vessels, owners will not be charged.
- State, Federal, and Local Government agencies have partnered to deal with the monumental environmental impacts.



## Displaced Vessel Removal Process

An agreement between FWC, EPA, and U.S. Coast Guard is being used to decontaminate and remove vessels. Once removed, these vessels will be properly stored in temporary storage locations. FWC will make a diligent effort to find the owners and return the vessels.



# Stored Vessels

The vessel is properly placed in a storage location and FWC takes possession of the vessel from the U.S. Coast Guard.



## Vessel Return Procedures

- Owners will have 30 days to claim their vessel
- Vessels not claimed by their owners or if owner is unidentified after specified period of time, will be destroyed
- Understanding that some vessel owners will not have the financial resources to claim and repair their vessels, FWC will offer owners the opportunity to release all interest in the vessel and all property within, by signing a waiver of ownership



# Contact Information

Major Robert Rowe  
Boating and Waterways Section Leader  
(850) 481-3324  
[robert.rowe@myfwc.com](mailto:robert.rowe@myfwc.com)



Florida Fish and Wildlife Conservation Commission

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

10/11/17

Meeting Date

Bill Number (if applicable)

Topic Derelict Vessels

Amendment Barcode (if applicable)

Name Robert Rowe

Job Title Section Leader for Boating & Waterways

Address 620 S. Meridian Street

Phone (850) 487-3795

Street

Tallahassee

FL

32399

Email Robert.Rowe@myfwc.com

City

State

Zip

Speaking:  For  Against  Information

Waive Speaking:  In Support  Against

(The Chair will read this information into the record.)

Representing Florida Fish & Wildlife Conservation Commission

Appearing at request of Chair:  Yes  No

Lobbyist registered with Legislature:  Yes  No

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## THE FLORIDA SENATE

Tallahassee, Florida 32399-1100

**SENATOR DEBBIE MAYFIELD**  
17th District

October 6, 2017

Chair Lauren Book  
202 Senate Office Building  
404 South Monroe Street  
Tallahassee, FL 32399-1100

Re: Appropriations Subcommittee on the Environment and Natural Resources

Dear Chair Book,

I am respectfully requesting an excused absence from the Appropriations Subcommittee on the Environment and Natural Resources meeting on October 11, 2017, scheduled from 10:00am to 12:30pm.

I appreciate your consideration of this request and I look forward to working with you and the Appropriations Subcommittee on the Environment and Natural Resources in the future. If you have any questions or concerns, please do not hesitate to call me directly.

Thank you,

A handwritten signature in cursive script that reads "Debby".

Senator Debbie Mayfield  
District 17

Cc: Giovanni Bette, Lisa Waddell, Zoraida Druckman, John Piskadlo, Laura McLeod

REPLY TO:

- 900 E. Strawbridge Avenue, Melbourne, Florida 32901 (321) 409-2025
- 1801 27th Street, Vero Beach, Florida 32960 (772) 226-1970
- 324 Senate Office Building, 404 South Monroe Street, Tallahassee, Florida 32399-1100 (850) 487-5017

Senate's Website: [www.flsenate.gov](http://www.flsenate.gov)

JOE NEGRON  
President of the Senate

ANITERE FLORES  
President Pro Tempore

# CourtSmart Tag Report

Room: SB 301

Case No.:

Type:

Caption: Senate Appropriations Subcommittee on Environment and Natural Resources

Judge:

Started: 10/11/2017 10:03:11 AM

Ends: 10/11/2017 12:24:16 PM Length: 02:21:06

10:03:11 AM

10:03:12 AM Meeting called to order

10:04:05 AM Chair Book, opening remarks

10:04:49 AM Presentations on Water Infrastructure Needs

10:04:49 AM Frank Bernardino, Florida Water Advocates

10:19:04 AM Chair Book

10:19:08 AM Sen. Hutson

10:19:34 AM F. Bernardino

10:19:46 AM Hutson

10:19:56 AM Bernardino

10:20:19 AM Hutson

10:20:57 AM Bernardino

10:21:59 AM Chair Book

10:22:01 AM Sen. Hukill

10:22:36 AM Bernardino

10:23:08 AM Hukill

10:23:19 AM Chair Book

10:23:27 AM Dr. Jennifer L. Jurado, Chief Resilience Officer and Director, Environmental Planning and Community Resilience Division, Broward County

10:35:58 AM Chair Book

10:36:11 AM Sen. Stewart

10:37:10 AM Dr. Jurado

10:38:08 AM Sen. Stewart

10:38:39 AM Chair Book

10:39:05 AM Sen. Garcia

10:39:17 AM Dr. Jurado

10:41:12 AM Sen. Garcia

10:41:18 AM Dr. Jurado

10:42:20 AM Chair Book

10:42:45 AM Dr. Jurado

10:44:21 AM Chair Book

10:44:30 AM Alec Bogdanoff, Ph.D., Brizaga, Inc.

10:58:40 AM Chair Book

10:58:48 AM Dr. Bogdanoff

10:58:57 AM Chair Book

10:59:22 AM Dr. Bogdanoff

11:00:04 AM Chair Book

11:00:15 AM Drew Bartlett, Deputy Secretary, Office of Ecosystem Restoration, DEP

11:13:29 AM Chair Book

11:13:37 AM Sen. Garcia

11:14:05 AM D. Bartlett

11:15:34 AM Sen. Garcia

11:15:36 AM Bartlett

11:16:29 AM Sen. Garcia

11:16:39 AM Chair Book

11:16:49 AM Lisa Miller, CEO Lisa Miller & Associates

11:19:41 AM Chair Book

11:20:04 AM Presentations on State Parks and Beaches

11:20:09 AM David Clark, Acting Deputy Secretary of Land and Recreation, DEP

11:26:52 AM Chair Book

11:27:12 AM Alex Reed, Deputy Director, Division of Water Resource Management, DEP

11:40:20 AM Sen. Hukill

11:40:28 AM A. Reed  
11:42:27 AM Chair Book  
11:42:30 AM Sen. Hutson  
11:43:30 AM A. Reed  
11:44:18 AM Sen. Hutson  
11:44:33 AM A. Reed  
11:44:37 AM Sen. Hutson  
11:44:46 AM A. Reed  
11:44:55 AM Chair Book  
11:44:59 AM Debbie Flack, President, Florida Shore and Beach Preservation Association  
12:00:39 PM Chair Book  
12:00:50 PM Presentation by the Fish and Wildlife Conservation Commission on Derelict/Displaced Vessels  
12:00:50 PM Major Robert Rowe, Boating and Waterways Section Leader, FWC  
12:10:51 PM Chair Book  
12:11:06 PM Major Rowe  
12:11:41 PM Sen. Hukill  
12:12:02 PM Major Rowe  
12:12:22 PM Sen. Hukill  
12:12:26 PM Major Rowe  
12:12:51 PM Sen. Hukill  
12:13:19 PM Major Rowe  
12:14:01 PM Sen. Hukill  
12:14:04 PM Major Rowe  
12:14:13 PM Sen. Hukill  
12:14:18 PM Major Rowe  
12:15:00 PM Sen. Hukill  
12:15:05 PM Major Rowe  
12:15:28 PM Sen. Hukill  
12:15:35 PM Major Rowe  
12:15:55 PM Sen. Hukill  
12:16:04 PM Major Rowe  
12:16:23 PM Chair Book  
12:16:32 PM Major Rowe  
12:19:17 PM Sen. Hukill  
12:19:30 PM Major Rowe  
12:20:15 PM Sen. Hukill  
12:20:20 PM Major Rowe  
12:21:02 PM Sen. Hutson  
12:21:37 PM Major Rowe  
12:22:13 PM Sen. Hutson  
12:22:26 PM Major Rowe  
12:22:59 PM Chair Book, closing remarks, meeting adjourned