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STATE INITIATIVES FOR COMMUNITY RESILIENCE IN FLORIDA





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DR. JOHN M. DEGROVE

MAY 4, 1924 - APRIL 13, 2012

ICON OF COMPREHENSIVE PLANNING BOTH
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- 1 CEC FOR CERTIFIED FLOODPLAIN MANAGERS
- 1 CREDIT FOR FL ENVIRONMENTAL HEALTH PROFESSIONALS
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(DBPR #0012533, PVD 151)



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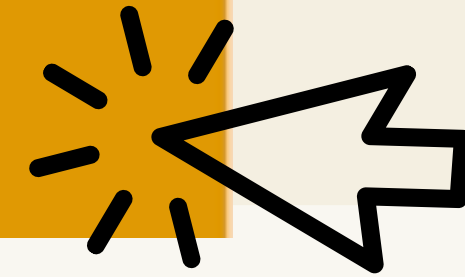
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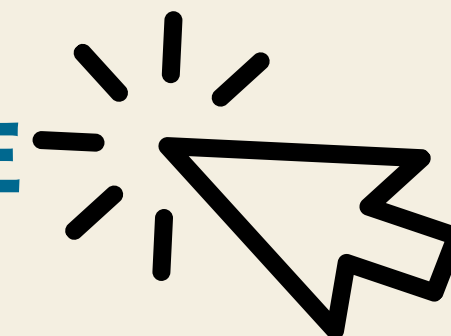


- **PREEMPTING LOCAL GOVERNMENT AUTHORITY IN FLORIDA**
WEDNESDAY, NOVEMBER 10, 2021, 12:00 P.M. – 1:30 P.M., EST
- **2022 FLORIDA LEGISLATIVE PREVIEW**
WEDNESDAY, DECEMBER 8, 2021, 12:00 P.M. – 1:30 P.M., EST
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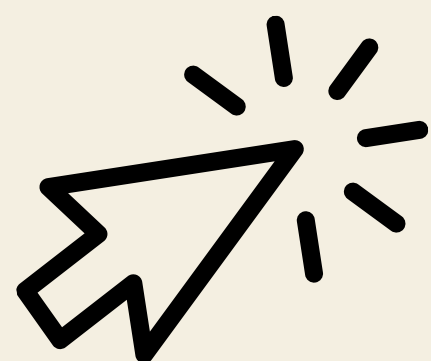
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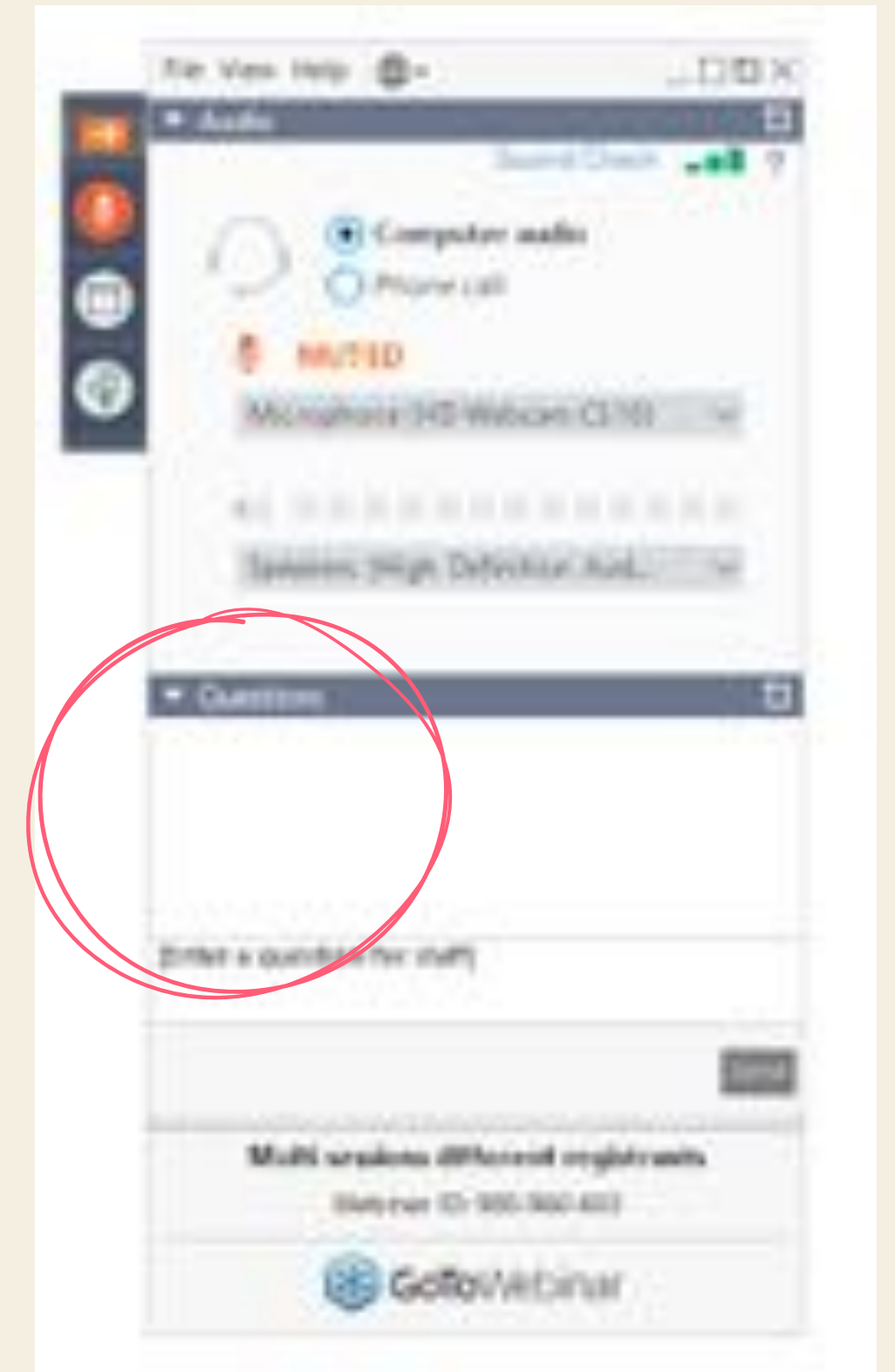
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1000 Friends of Florida Survey
Resources for Planning for Community Resilience in Florida
September 2021



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PRESENTERS





WHITNEY GRAY

RESILIENT FLORIDA PROGRAM PLANNING SECTION LEADER

Whitney Gray serves as the Planning Section Leader for the Resilient Florida Program in DEP's Office of Resilience and Coastal Protection. Prior to that, she was the Administrator for the Florida Resilient Coastlines Program. Her BS and MS are from the University of Florida where she studied zoology and systems ecology. From 2008 to 2012, Whitney worked on vulnerability assessment and adaptation planning with the Southwest Florida Regional Planning Council. From 2012 to 2015, Whitney served as Sea Level Rise Coordinator for the Florida Fish and Wildlife Conservation Commission and Florida Sea Grant, specializing in the effects of sea level rise on coastal ecosystems. Whitney is a 5th generation Florida native from the Gulf Coast.



JENNIFER Z. CARVER, AICP

FLORIDA DEPARTMENT OF TRANSPORTATION STATEWIDE COMMUNITY PLANNING COORDINATOR

Jennifer Z. Carver, AICP, serves as the Statewide Community Planning Coordinator for the Florida Department of Transportation Office of Policy Planning. Jennifer coordinates FDOT's community/comprehensive planning and resilience planning efforts and has over 20 years of experience in planning and public engagement, including land use/transportation, resilience, hazard mitigation, coastal/environmental management, and parks & recreation. She has a Bachelor's in Political Science & Spanish from Santa Clara University and a Master's in City & Regional Planning from the University of North Carolina at Chapel Hill.



MARY JANE HAYDEN, P.E.

FLORIDA DEPARTMENT OF TRANSPORTATION PAVEMENT DESIGN ENGINEER

Mary Jane is a licensed Professional Engineer in the State of Florida, and is currently a Pavement Design Engineer at FDOT in Tallahassee. In addition to pavement design, her duties also include being a coordinator for resiliency efforts for FDOT's Engineering and Operations. In this role, she works closely with Jennifer Carver, as they both work directly with FDOT's Chief Planner and Chief Engineer to help lead the resiliency efforts at the Department. Mary Jane received her Bachelor of Science in Civil Engineering from Florida State University, and has been working in the transportation industry since 2003.



MELISSA COLEMAN CORBETT, CFM

FLORIDA DEPARTMENT OF ECONOMIC OPPORTUNITY COMMUNITY RESILIENCE PLANNER

Melissa Coleman Corbett, CFM, is a Community Resilience Planner at the Florida Department of Economic Opportunity who works with local governments on comprehensive planning and resiliency issues. With twenty years of planning experience, one of her main tasks is providing guidance on addressing the Peril of Flood statutory requirements. She formerly worked as a local government planner and filled such roles as Local Mitigation Strategy Working Group Chair and Community Rating System Coordinator. Melissa is a graduate of Florida State University with a Bachelor of Science in the Interdisciplinary Program in Social Science and is proud to serve as a member of the Capital Region Transportation Planning Agency's Citizens Multimodal Advisory Committee.

WHITNEY GRAY





Working Together to Create More Resilient Florida Communities

Whitney Gray, Administrator
FRCP, Tallahassee

850-245-2098, Whitney.Gray@FloridaDEP.gov



Sea Level Impact Projection Studies

Section 161.551, F.S., Public Financing of Coastal Construction, and 62S-7, F.A.C.



161.551, F.S.

Sea Level Impact Projection Studies

An act relating to public financing of construction projects; creating s. 161.551, F.S.; defining terms; prohibiting state-financed constructors from commencing construction of certain structures in coastal areas after a specified date without first taking certain steps regarding a *sea level impact projection study*...



161.551, F.S.

Sea Level Impact Projection Studies

Beginning 1 year after the date the rule developed by the department pursuant to subsection (3) is finalized and is otherwise in effect,

a state-financed constructor may not commence construction of a coastal structure without:

- (a) *Conducting a SLIP study* that meets the requirements established by the department;
- (b) *Submitting the study to the department*; and
- (c) *Receiving notification from the department that the study was received and that it has been published on the department's website pursuant to paragraph (6) (a) for at least 30 days*. The state-financed constructor is solely responsible for ensuring that the study submitted to the department for publication meets the requirements under subsection (3).



62S-7.011

Requirements of the State-Financed Constructor

- 3) The state-financed constructor may not commence construction until notified by DEP that:
 - a. the SLIP study was approved as meeting the requirements of s. 161.551, F.S. and
 - b. the 30-day publication period has finished.
- 4) DEP will send such notification via the web-based SLIP study tool or email.
- 5) All SLIP studies will be maintained on DEP's website for a minimum of 10 years.

1. A state-financed constructor choosing not to use the Department's web-based tool to conduct the SLIP study required under s. 161.551, F.S., shall do all of the following:
 - a) **Show the amount of sea level rise expected over 50 years or the expected life of the structure, whichever is less.**
 - i. Use NOAA 2017 Intermediate-High + any others desired.
 - ii. Use interpolation method.
 - iii. Use NAVD 88 for all elevations.
 - iv. Figure in land subsidence.
 - b) **Show the amount of flooding, inundation, and wave action damage risk expected over 50 years or the expected life of the structure, whichever is less.**
 - i. Use the FEMA storm surge water surface elevation for the 1% annual chance (100 year) flood event.
 - ii. Add the FEMA 1% annual chance water surface elevation to the sea level rise scenario, and then compare to the project's critical elevations.
 - iii. Use the USACE Depth-Damage Curves from the 2015 North Atlantic Coast Comprehensive Study to estimate the cost of future flood damage, for vertical construction only, by assessing the approximate flood depth within the structure, using the comparison of the critical elevations to the previously calculated 1% annual chance water surface elevation added to the local sea level rise scenarios.
 - c) **Show the risk to public safety and environmental impacts** by assigning a risk category per the Florida Building Code and providing the ultimate design wind speed.
 - d) **Provide alternatives for the project's design and siting**, which take into account the SLIP study analysis and aim to reduce future flood risk to the structure and the risks and costs associated with construction, maintenance and repair of the structure.





[SLIP Studies](#)

[Section 161.551, F.S.](#)

[Adaptation](#)

Sea Level Impact Projection Study Tool

Determining risk for Florida coastline construction projects

The purpose of the Sea Level Impact Projection (SLIP) Study Tool is to facilitate the conduction of SLIP studies for state-funded construction within the coastal building zone in accordance with Section 161.551, F.S.



SLIP Studies

Learn more about SLIP Studies and how to create a report using this website

[Continue](#)



Section 161.551, F.S.

Learn more about the Florida statute that mandates SLIP studies

[Continue](#)



Adaptation

Learn about adaptation strategies for your construction projects

[Continue](#)



Use the tools below to view base maps and coastal flooding spatial data.

SLIP Study Tool

[Create Report](#)

Coastal Layers

- ☒ Sea Level Rise
- ☐ NOAA Regional Scenarios
- ☐ Flood Zones
- ☐ Storm Surge Flood Depths
- ☐ High Tide Flooding
- ☐ Wind Zones
- ☐ Tornado
- ☐ Wildlife Index
- ☐ None

Sea Level Rise

Use the vertical slider to simulate water level rise, the resulting inundation footprint, and relative depth.

Water Depth

Use long red and green to find at selected sea level rise values.

Water levels are relative to local mean higher high water datum. Areas that are hydrologically connected to the ocean are shown in shades of blue (lighter blue = greater depth).



Water Level (feet)





Use the tools below to view base map and coastal flooding spatial data.

Control Layers

- ☐ Sea Level Rise
- ☒ NOAA Regional Scenarios
- ☐ Flood Zones
- ☐ Storm Surge Flood Depths
- ☐ High Tide Flooding
- ☐ Wind Zones
- ☐ Tornado
- ☐ Wildlife Index
- ☐ None

NOAA Regional Scenarios

Click a location on the map to see the interpolated regional sea level rise for the selected scenario. Elevations are in feet MSL (FT).

Intermediate High

Virginia Key, FL
Duluth, FL

2100 - 2.00 FT

2050 - 1.01 FT

2030 - 0.00 FT

2010 - 0.27 FT

2000 - 0.00 FT





Use the tools below to view base map and coastal flooding spatial data.

SLIP Study Tool

[Create Report](#)

Coastal Layers

- [Sea Level Rise](#) (1)
- [NOAA Regional Scenarios](#) (1)
- [Flood Zones](#) (1)
- [Storm Surge Flood Depths](#) (1)
- [High Tide Flooding](#) (1)**
- [Wind Waves](#) (1)
- [Tornado](#) (1)
- [Wildfire Index](#) (1)
- [Home](#)

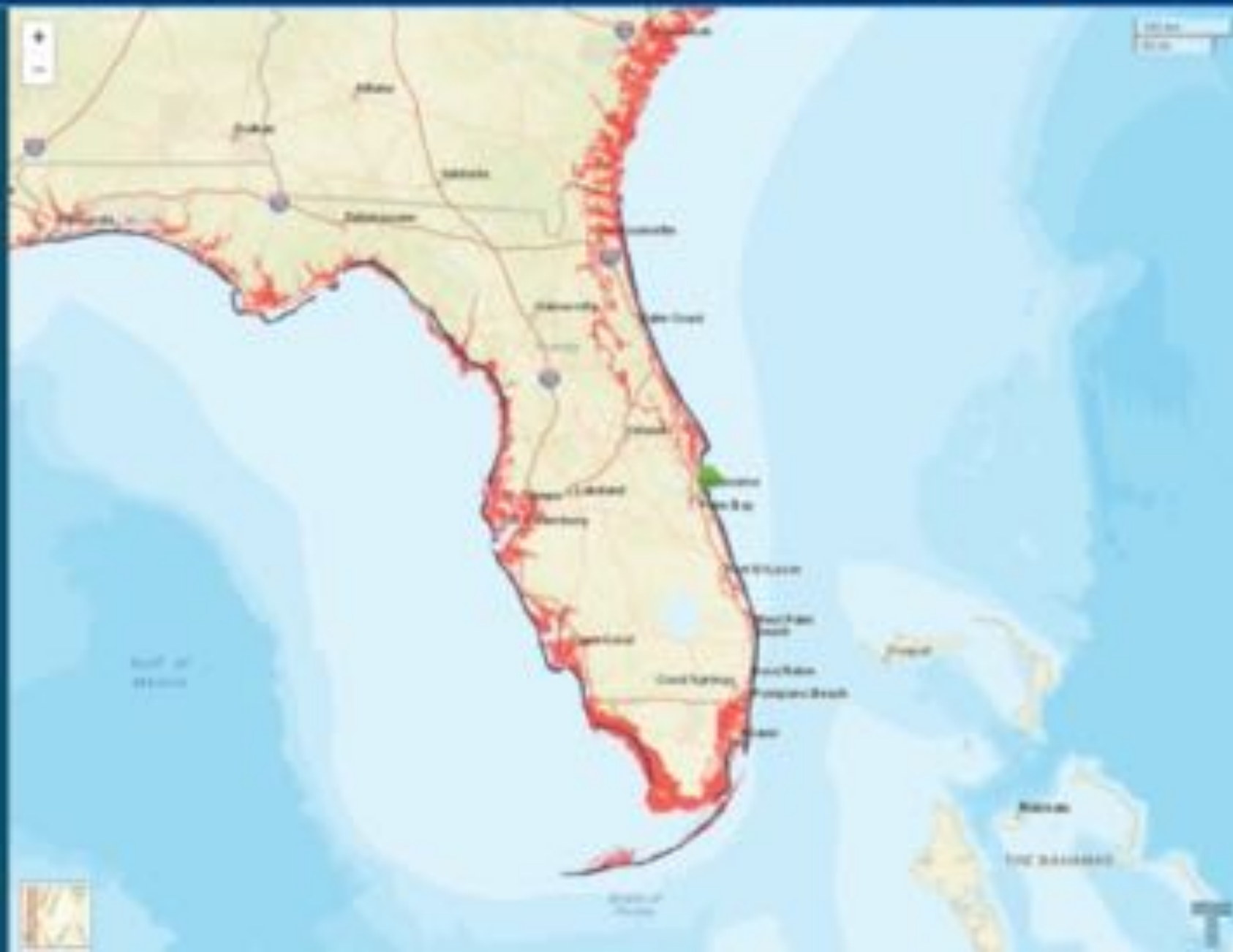
High Tide Flooding

Shallow Coastal Flooding

Annual occurrences of tidal flooding—according to local forecasts—the worst impacts to infrastructure—have increased 5- to 10 fold since the 1980s in several U.S. coastal cities. The changes in high tide flooding over time are greatest where elevation is lower, beach ridge top is higher, or summer variability is less.

In a sense, today's flood will become tomorrow's high tide, as sea level rise will cause flooding to occur more frequently and last for longer durations of time.

The red layer in the map represents areas currently subject to tidal flooding, often called "incumbent or nuisance flooding."





Use the tools below to view both map and coastal flooding spatial data.

SLIP Study Tool

[Cancel Report](#)

Coastal Layers

- Sea Level Rise ①
- WTA& Regional Scenarios ②
- Flood Zones ③
- Storm Surge Flood Depths ④
- High Tide Flooding ⑤
- Wetland Zones ⑥
- Seismic ⑦
- Wildlife Index ⑧
- None ⑨

Create Report

You have activated the "Create Report" tool. In order to create a new SLIP Study report use the map pane to the right to navigate to your project area. Click on the desired project area on the map and the "Create Report" form will pop up. Enter the required information and click "Create Report".

If you would like to cancel the "Create Report" process, click "Cancel Report" on the left side of this page.

Create SLIP Study Report

You have chosen to create a Sea Level Rise Impact Projection (SLIP) Study Report for the coastal specified below. If you wish to continue, you will be directed to a new page to input important parameters to be considered for the report.

[Create Report](#)[Close](#)



Create SLIP Study Report

Provide required values:

*Project Name:

Sandwell Park Driveway

*Category:

Horizontal (road, bridge, parking lot, etc)

*Construction type:

Risk Category 1

Critical Elevation (ft NAVD83):

1.5

*Construction Start Year:

2021

*Expected Life (years):

10

*Estimated Construction Cost (\$):

20000

Create Report

Cancel



Save Report

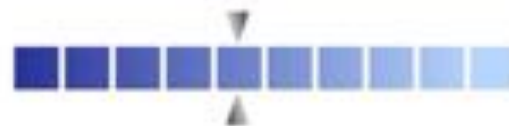
Sea Level Impact Projection (SLIP) Study Report (Demo version)

Project name	Bonsteel Park Platform
Coordinates	-80.47 W, 27.90 N
Project category	Horizontal
Construction type	Bridge
Construction start year	2021
Expected life (years)	40
Estimated Construction Cost (\$)	\$20,000
Critical elevation (ft NAVD88)	20.1
Organization	Taylor Engineering, Inc.
Report Date	5/4/2021, 10:07:14 AM



Results

Average Annual Chance of Flood Damage: **5%**

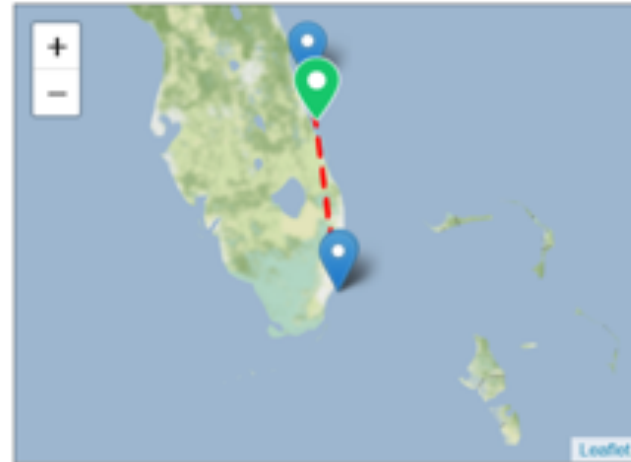


Metric	Value
FEMA Flood Hazard Zone	VE
Base Flood Elevation (ft NAVD88)	13
Int-High Sea Level Rise (year 2060) (ft NAVD88)	0.85
Wind Zone (mph)	180

The cumulative results of the SLIP Study were found to be moderate, meaning the selected location is moderately favorable when considering coastal hazards related to potential sea level impacts. More explanation will be forthcoming in future versions.

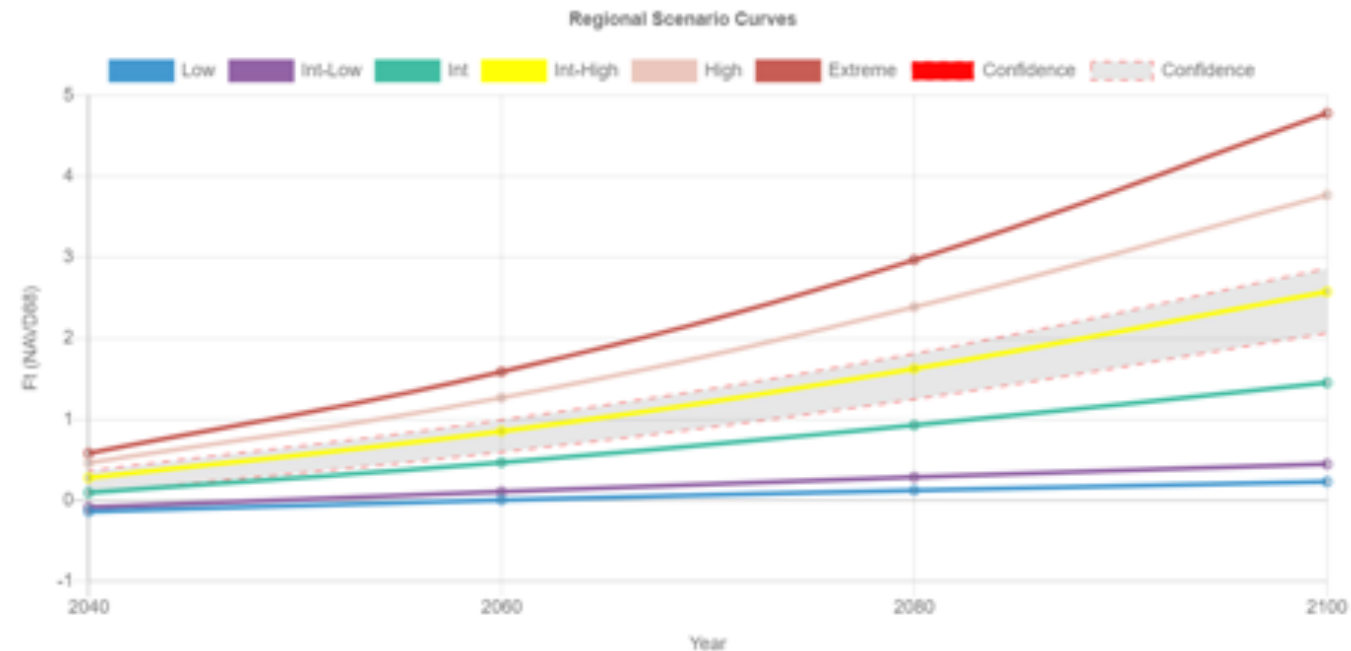


Regional Sea Level Rise Scenarios



NOAA Regional Scenarios (ft)

Scenario	2040	2060	2080	2100
Low	-0.14	0.01	0.12	0.23
Intermediate Low	-0.08	0.11	0.29	0.45
Intermediate	0.10	0.47	0.93	1.45
Intermediate High	0.28	0.85	1.63	2.58
High	0.46	1.27	2.39	3.77
Extreme	0.58	1.59	2.97	4.78





Project SLIP Study Reports

Below are the SLIP Study reports for this project.

Report	Report Date	Date Submitted	Publish Date	Action
View Report	3/29/2021 4:22:37 PM			Not Submitted
View Report	3/29/2021 3:27:40 PM			Not Submitted
View Report	3/29/2021 12:15:55 PM			Not Submitted
View Report	3/29/2021 10:42:54 AM	3/29/2021 1:52:51 PM	4/28/2021 1:52:51 PM	Approved Report



Resilient Florida

Section 380.093, F.S.



Resilient Florida

- 5 major sections:
 - “Resilient Florida Grant Program” Planning + Critical Asset Adaptation Grants (s. 380.093 (1)(3), F.S.).
 - Comprehensive Statewide Flood Vulnerability Data Set and Assessment (s. 380.093 (1)(4), F.S.).
 - Statewide Flooding and Sea Level Rise Resilience Plan (s. 380.093 (1)(5), F.S.).
 - Regional Resilience Entities (s. 380.093 (1)(6), F.S.).
 - Florida Flood Hub (s. 380.093 (2), F.S.).



Resilient Florida Grant Program

- Focused on planning:
 - Comp plan amendments, especially compliance with the Peril of Flood statute.
 - Vulnerability assessments.
 - Adaptation/resilience plans.
 - Projects to adapt critical assets.



Figure 1. Communities can follow this roadmap of steps to create an adaptation plan.



Consistent Vulnerability Assessments

- Will comprise the Statewide Vulnerability Assessment and be the basis for the Statewide Resilience Plan.
- Encompass entire city or county and all critical assets.*
- Use most recent publicly available DEM and generally accepted analysis and modeling.
- Address Peril of Flood compliance if applicable.
- Assess flooding using, at least, Intermediate Low and Intermediate High scenarios from NOAA 2017 for at least 2040 and 2070.
 - Tidal flooding, including future high tide flooding.
 - Current and future storm surge flooding.
 - Rain-fall induced flooding to the extent practicable.
 - Compound flooding.



Statewide Data Set and Vulnerability Assessment

- By July 1, 2022, DEP must complete the development of a statewide flood vulnerability and sea level rise data set sufficient to conduct a vulnerability assessment.
- The data set will include critical assets, flooding and sea level rise data, and other relevant information needed to complete the VA.
- Data will come from existing local vulnerability assessments and other data sources necessary to complete the data set.
- Compilation of the data set and completion of the vulnerability assessment will be done in coordination with the Chief Science Officer and the Flood Hub.



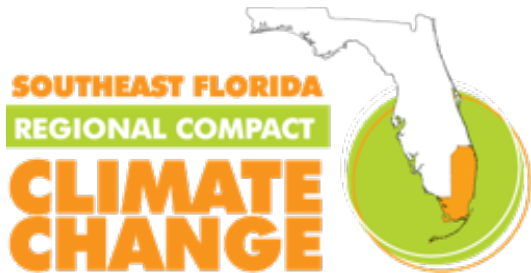
Statewide Flooding & Sea Level Rise Resilience Plan

- 3-year rolling plan of projects taken from vulnerability assessments.
- Year 1 Preliminary Plan uses already completed local vulnerability assessments.
- Year 2 will update the Year 1 plan.
- Year 3 and following will use projects identified in the Statewide Vulnerability Assessment.
- Counties and municipalities, regional resilience entities (on behalf of a member), WMDs and flood control districts may submit projects to DEP starting 9/1/21.
- Minimum 50% cost share unless the applicant is a “financially disadvantaged small community.”



Regional Resilience Entities

- Funding for regional resilience entities to assist communities and coordinate intergovernmental solutions.
 - Technical assistance.
 - Coordinate multijurisdictional vulnerability assessments.
 - Develop project proposals to go into the Resilience Plan.





Florida Flood Hub

- Designates the College of Marine Science at USF to serve as the lead institution to engage other academic and research institutions, private partners, and financial sponsors to coordinate efforts to support applied research and innovation to address the flooding and sea level rise challenges of the state.



	Resilient Florida Grant Program		Comprehensive Statewide Flood Vulnerability Data Set and Assessment		Statewide Flooding and Sea Level Rise Resilience Plan	Regional Resilience Entities	Florida Flood Hub
	Planning Grants	Resilience Projects	Data Set	Assessment			
Activities	Provides funding for comprehensive plan amendments, Peril of Flood, vulnerability assessments, adaptation plans, and projects to adapt critical assets to the effects of flooding and sea level rise. Provides a methodology for completing vulnerability assessments.	"The nonrecurring sum of \$500,000,000 from the Resilient Florida Trust Fund is appropriated in Fixed Capital Outlay for the Resilient Florida Grant Program authorized in Senate Bill 1964."	Provides for the collection and aggregation of data from vulnerability assessments that are existing, those completed from grant program, and to fill any gaps.	This section provides for the incorporation of the data collected for the data set and other analyses into a statewide sea level rise vulnerability assessment.	Statewide Flooding and Sea Level Rise Resilience Plan will be developed and submitted to the Governor and Legislature. The Plan will work on a 3-year rolling planning horizon and will consist of ranked projects that address the risks of flooding and sea level rise identified in the Statewide Flood and Sea Level Rise Vulnerability Assessment.	Provides funding to regional entities that are established by local governments to provide technical assistance on multi-jurisdictional projects.	Provides for the establishment of the Florida Flood Hub at USF's College of Marine Science. The Flood Hub will serve as the lead institution and will engage other institutions and partners to coordinate research and innovation around the flooding and sea level rise challenges facing the state.
Deadlines	Application portal opens July 1, 2021 Applications due September 1, 2021		Data Set due July 1, 2022	Assessment due July 1, 2023	Application portal opens July 1, 2021. Applications Due September 1, 2021. Plan due to EOQ/Legislature December 1, 2021. Starting December 1, 2023, the Resilience Plan will be based on the Statewide Assessment.	Application portal opens July 1, 2021. Applications due September 1, 2021	Annual Report due July 1, 2022
Annual Funding							
FY 21-22	\$20,000,000	\$500,000,000	\$4,000,000			\$2,000,000	
FY 23-23 (anticipated)	?	?	?		Up to \$100,000,000	?	



Thank you!

**Contact Whitney Gray at 850-245-2098
or Whitney.Gray@FloridaDEP.gov**

**JENNIFER Z. CARVER, AICP
& MARY JANE HAYDEN, PE**





State Initiatives for Community Resilience in Florida

1000 Friends of Florida Webinar
Wednesday, October 20, 2021

Jennifer Z. Carver, AICP
Statewide Community Planning Coordinator
Florida Department of Transportation

Mary Jane Hayden, P.E.
State Pavement Design Engineer
Florida Department of Transportation

Overview

Planning and Policy

Resiliency Research

Resiliency in Engineering & Operations

Innovative Solutions

Next Steps

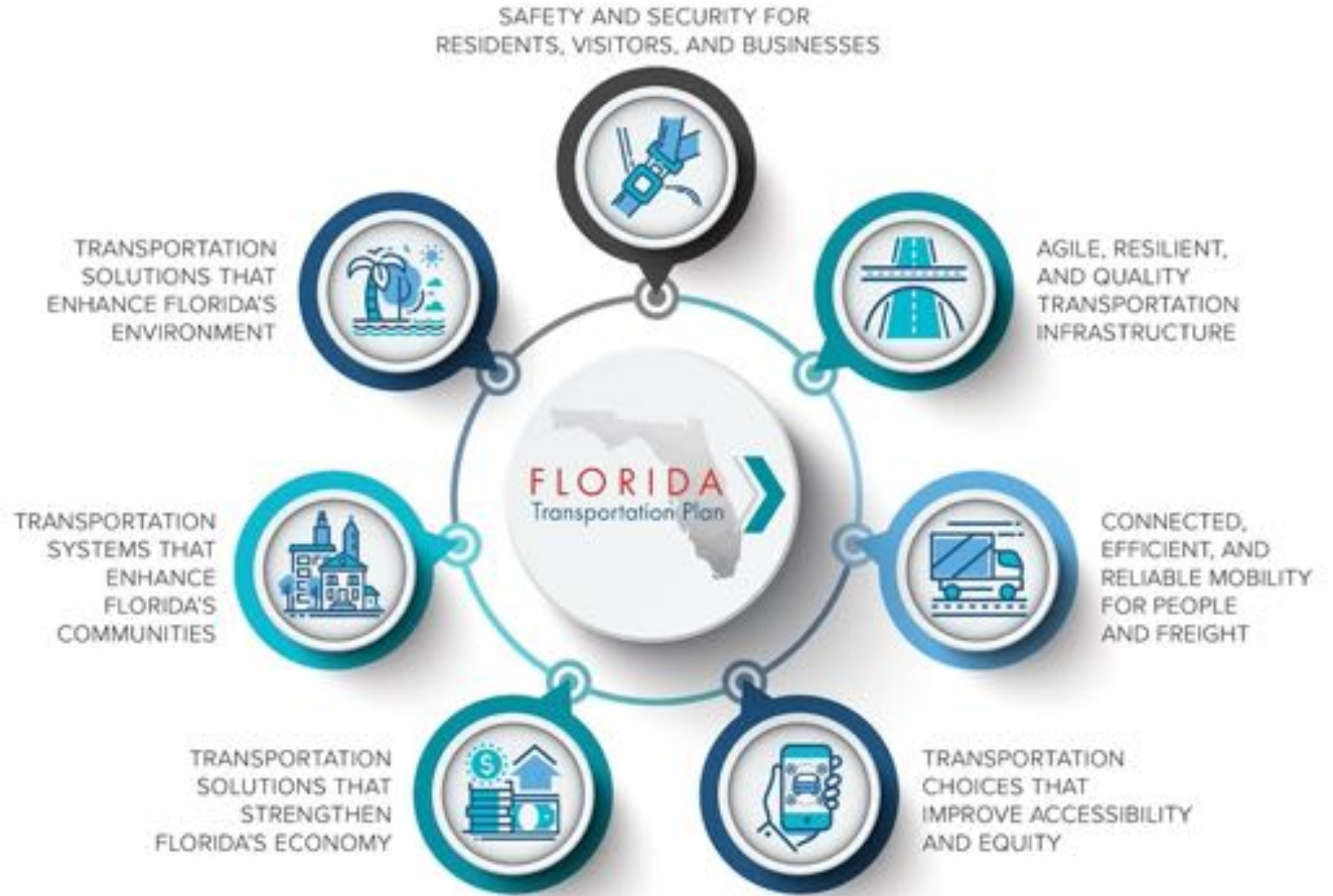




PLANNING AND POLICY



Florida Transportation Plan



FDOT Vital Few – Resiliency



Improve Safety

- Reduce impacts of transportation-related public health, safety, and security risks
- Improve emergency response and recovery times



Enhance Mobility

- Minimize vulnerabilities and disruption/damage due to extreme weather
- Improve supply chain efficiency/resilience

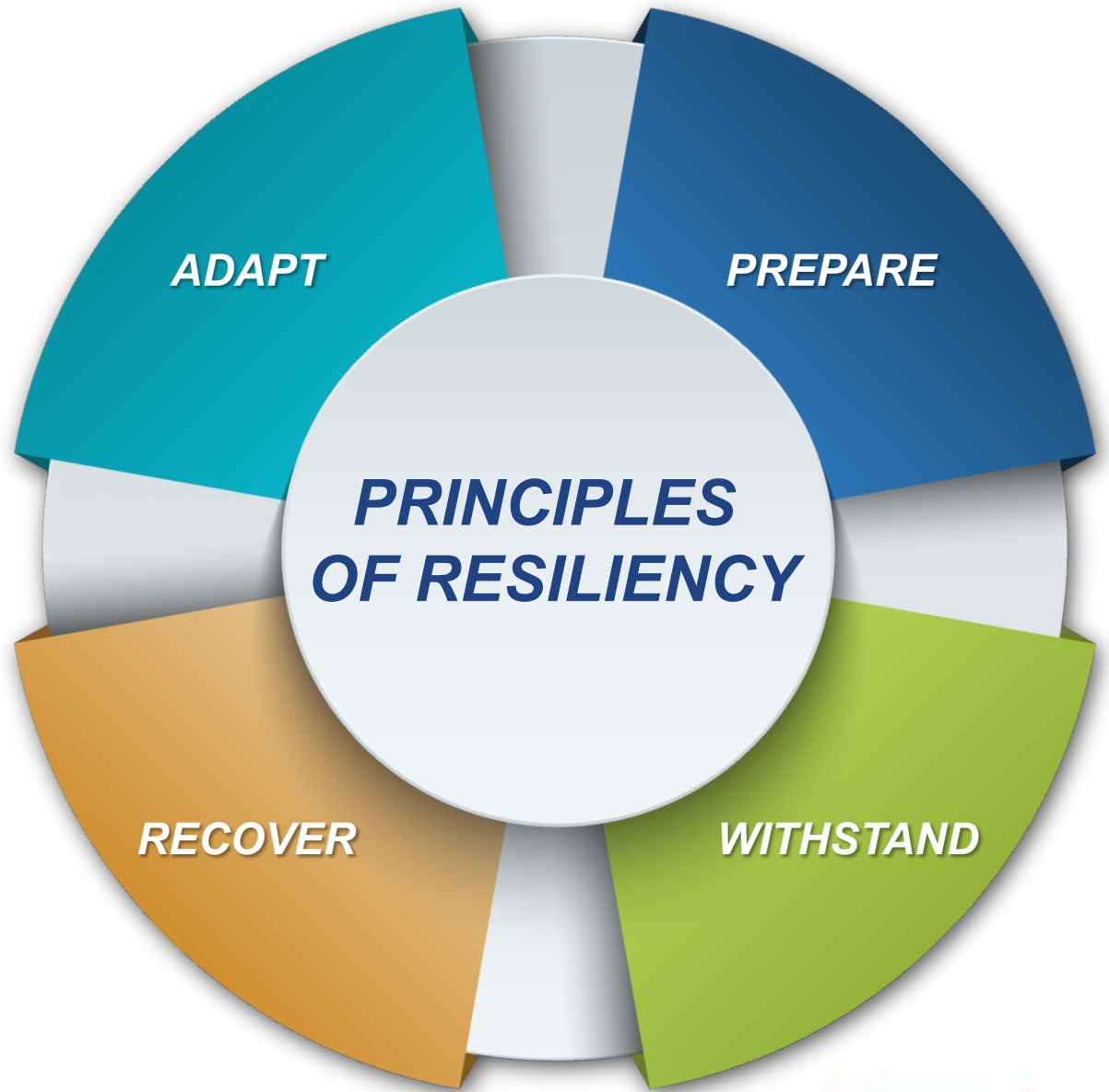


Inspire Innovation

- Support resilient and diverse economy
- Innovate to adapt and enhance infrastructure resilience

Resiliency Policy

- Ability to **adapt** to changing conditions and **prepare** for, **withstand**, and **recover** from disruption
- Identify risks, particularly related to:
 - *Storms*
 - *Flooding*
 - *Sea level rise*
- Assess potential impacts
- Employ strategies to avoid, mitigate, or eliminate impacts



Strategic Intermodal System Policy Plan



DESIGNATION POLICIES

Consider vulnerabilities
in SIS community and
environmental screening process



NEEDS & PRIORITIZATION POLICIES

Identify resilience strategies as part
of capacity needs and projects

Expand SIS funding eligibility
for adaptation/retrofit
of existing infrastructure

Expand definition of capacity
to include increasing redundancy
or providing alternatives
to mitigate vulnerabilities



PLANNING & COLLABORATION POLICIES

Expand collaboration with MPOs,
RPCs, water management districts,
local governments, regional
collaboratives, industry
on resilience strategies

Strengthen coordination with other
state agencies (DEO, DEM, DEP) to
leverage programs and funding



RESILIENCY RESEARCH



Resiliency Research

- State Materials Office
 - Resiliency of Asphalt & Rigid Pavements due to Flooding
- Office of Policy Planning
 - Sea Level Scenario Sketch Planning Tool
 - Resiliency Index
 - Transportation Resiliency & Vulnerable Populations
 - Incorporating Uncertainty into Planning & Design





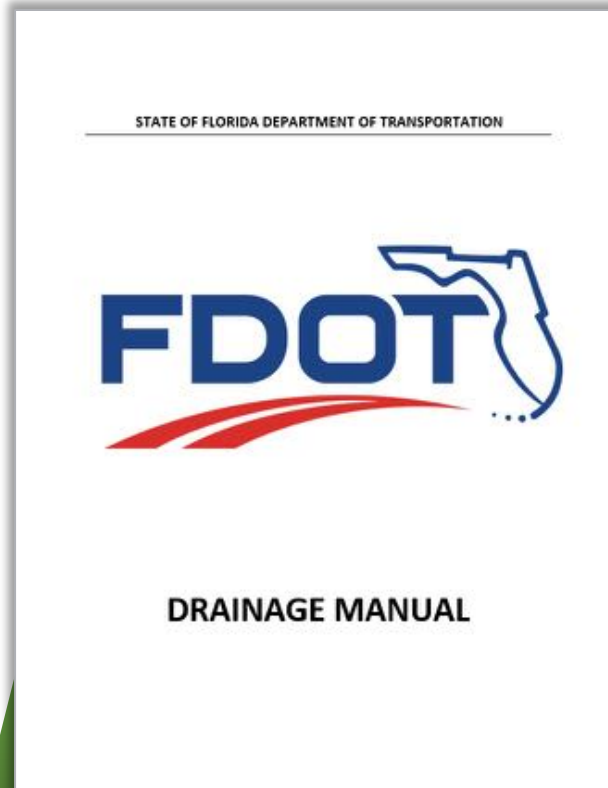
RESILIENCY IN ENGINEERING & OPERATIONS



Manual Updates

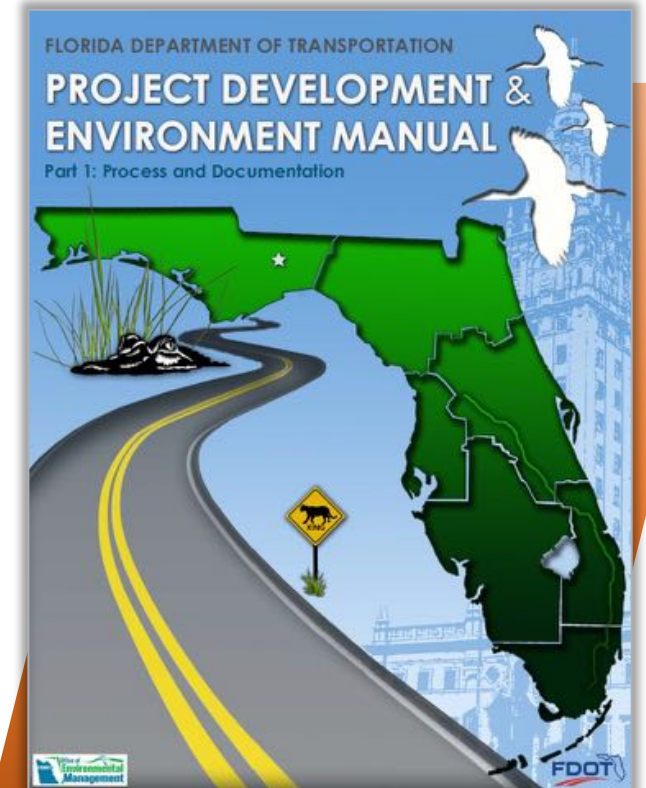
Drainage Manual

- Include a section on Resiliency Considerations
- Identify multiple ways we are inherently resilient in our drainage designs



PD&E Manual

- Provide guidance on new statutory requirement to perform Sea Level Impact Projection (SLIP) Study if within Coastal Building Zone



Inherent Resiliency in Design

- Traffic Signals
- Pavement Markings
- Roundabouts
- High Mast Lighting
- Materials
- Pavements
- Drainage



Emergency Management & Resiliency

- All Hazard approach in all phases of an incident/event
 - *Planning, operations & response, recovery, and mitigation*
- Mass evacuation planning and implementation of the Emergency Shoulder Use
- Roadway debris removal operations, repairs, and betterments

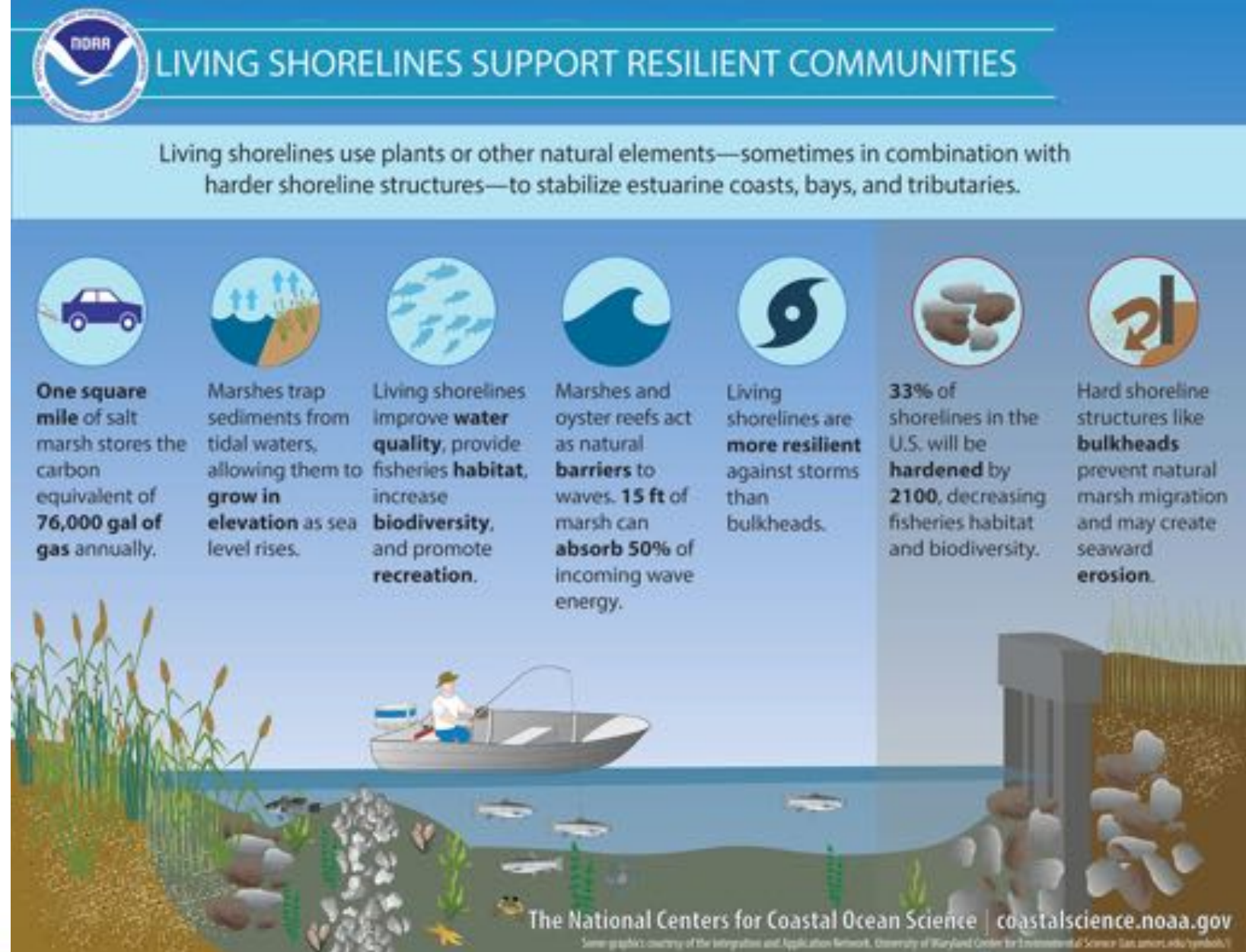




INNOVATIVE SOLUTIONS



Innovative Solutions – Erosion & Extreme Events



Source of Figure:
<https://oceanservice.noaa.gov/facts/living-shoreline.html>

Innovative Solutions – Living Shoreline

Barracuda Bridge Replacement New Smyrna Beach, FL

- Oysters on rip-rap
- Environmental commitments to NMFS
 - *Relocate oysters where possible*
 - *Facilitate USACE permit*
- Partnering with FFWCC and local Marine Discovery Center
- Marsh restoration support
 - *Oysters will help maintain created tidal creeks*



Innovative Solutions – Living Shoreline

US 1 Erosion Study

Melbourne, FL

- US 1 experiencing severe erosion
 - *Embankment being undermined by wave action*
 - *Roadway at risk*
- Indian River Lagoon
 - *Environmentally sensitive area*



Innovative Solutions – Living Shoreline

US 1 Erosion Study

Melbourne, FL

- Existing rip-rap along the corridor
- “Voids” created where no rip-rap exists
 - *Wind driven system*
 - *Little natural shoreline left*
- Feasibility study to examine all options:
 - *Additional armoring*
 - *WADs*
 - *Living shorelines*
 - *Hybrids*



Next Steps

- Policy Implementation
- Training & Capacity Building
- Resiliency Information in GIS Tools
- Further Updates to Manuals & Guidance
- Collaboration and Partnerships
- Innovative Solutions in Projects





Questions?

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Florida Department of Transportation

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Planning for Community Resilience

Melissa Coleman Corbett, *Community Resilience Planner*
Bureau of Community Planning and Growth



October 20, 2021



Planning for Community Resilience

Melissa Coleman Corbett, *Community Resilience Planner*
Bureau of Community Planning and Growth



October 20, 2021

Community Planning and Growth Resilience Efforts

- Provide guidance to address “Peril of Flood” requirements within Comprehensive Plans.
- Administer funds for the Community Planning Technical Assistance grant program.

Chapter 163

- Section 163.3178(2)(f)1-6, Florida Statutes (F.S.) was adopted in 2015.
- Requires inclusion of a redevelopment component in the Coastal Management Element.
- Intended to eliminate inappropriate and unsafe development “*when opportunities arise*”.



Damage from Hurricane Michael in 2018

Statute Requirements: Part One

The first part of the “Peril of Flood” requirements are outlined below:

1. “Include development and redevelopment principles, strategies, and engineering solutions that **reduce the flood risk in coastal areas**, which result from high-tide events, storm surge, flash floods, stormwater runoff **and the related impacts of sea-level rise.**”
2. “Encourage the use of best practices development and redevelopment principles, strategies and engineering solutions that will result in the **removal of coastal real property from flood zone designations** established by the Federal Emergency Management Agency (FEMA).”
3. “Identify site development techniques and best practices that may **reduce losses due to flooding** and claims made under flood insurance policies issued in Florida.”

Section 163.3178(2)(f), Florida Statutes

Statute Requirements: Part Two

The second part of the “Peril of Flood” requirements are outlined below:

4. “Be consistent with, or more stringent than, the flood-resistant construction requirements in the Florida Building Code and applicable flood plain management regulations **set forth in 44 C.F.R. part 60.**”
5. “Require that any construction activities seaward of the coastal construction control lines established **pursuant to section 161.053, F.S., be consistent with chapter 161.**”
6. “Encourage local governments to participate in the **National Flood Insurance Program Community Rating System** administered by FEMA to **achieve flood insurance premium discounts for their residents.**”

Section 163.3178(2)(f), Florida Statutes

Mitigating Flood Risks

The Element must include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas that are the results of:

- High-tide events;
- Storm surge;
- Flash floods;
- Stormwater runoff; and/or
- Related impacts of sea-level rise (future projections).



Beach in Miami-Dade County

Policy Example: Titusville

Policy 2.1.2:

“The City shall prohibit the location of new hospitals, nursing homes, and assisted living facilities in the CHHA* and the area inundated by a category 2 hurricane as depicted by the SLOSH** model, as reflected in the Sea Level Rise Vulnerability Assessment prepared by the East Central Florida Regional Planning Council. The locations shall be determined by a site-specific survey, which will be required if at least twenty (20) percent of any parcel is depicted in the CHHA.”

Ordinance 45-2018

* CHHA = Coastal High Hazard Areas

** SLOSH = Sea, Lake, and Overland Surges from Hurricanes

Policy Example: Boca Raton

Policy CM.1.5.6:

“To mitigate the impacts of development and redevelopment in the City’s Coastal Area, the City shall consider, when an opportunity arises, cooperating with strategic partners to obtain funding to purchase, for recreational and open space use, “repetitive loss properties” most vulnerable to storm surge and repetitive flooding.”

Ordinance 5490 (2019)

Policy Example: Mary Esther

Policy 11.A.9.6:

“The City shall continue to upgrade its stormwater infrastructure where appropriate through drainage improvements and seawall repair, in addition to sustainable flood management actions such as installation of bioswales, recharge through drainage wells, use of pervious pavement, and maintenance of naturally preserved areas (refer to Chapter 10 Infrastructure Element).”

Ordinance 18-02

Community Planning Technical Assistance Grant Program

- Funding is appropriated by the Florida Legislature.
- Provides cost reimbursement grants for counties, municipalities, and regional planning councils.
- Projects implement the requirements of the Community Planning Act.

CPTA Grant Example: City of Pompano Beach

2020-2021 State Fiscal Year Project

- Created a Quantitative Baseline, Greenhouse Gas Inventory, and Goals Report.
- Focused on six areas:
 1. Climate and Resilience
 2. Resource Conservation
 3. Materials Management
 4. Land Use and Transportation
 5. Equity and Outreach
 6. Policy and Economics

2021-2022 State Fiscal Year Project

- Received funding for a Sustainability Project Portfolio and Implementation Plan.

CPTA Grant Example: City of Sanford

- Developed a Comprehensive Plan Resilience Element.
- Addresses potential vulnerabilities and includes methods to increase resiliency.
- Included a public outreach meeting and online survey.



Example of an elevated structure in the floodplain.

Contact



Thank You.

If you have questions or comments about this presentation or need to discuss a future project; please contact our office.



Office: Bureau of Community Planning and Growth

Phone: 850-717-8505

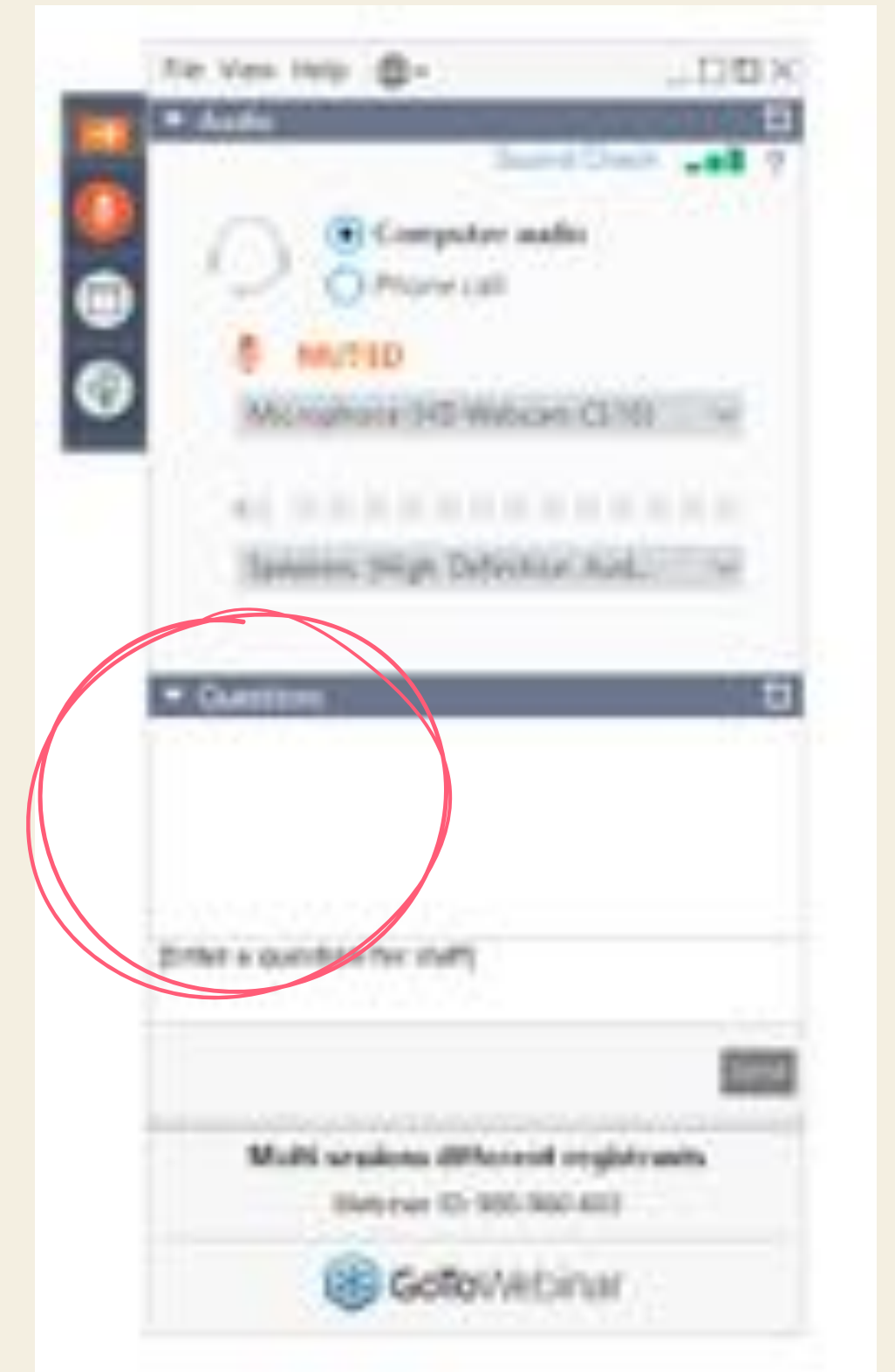
Email: Melissa.Corbett@deo.myflorida.com

QUESTIONS & ANSWERS



PLEASE ASK QUESTIONS!

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What is YOUR Vision?

Photo by Marc Stone

Saving Special Places • Building Better Communities

Find Out More . . .

What's New?

1000 Friends of Florida

Model Property Rights Element

See Our Model Property Rights Element

With the passage of HB 59 during the 2021 session, each community in Florida is required to adopt a property rights element into its comp plan.

Find out more

1000 Friends' Model Property Rights Element

Seminole County 2070

2022 Legislative Hearings Happening Now!

Free DeGrove Webinars

New Special Report: Golf Course Redevelopment

Welcome Intern Sam Braverman

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Four Star Charity

GUIDESTAR PLATINUM

Did you know?

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- 2 CLE FOR FLORIDA ATTORNEYS (#2106328N)
- 1 CEC FOR CERTIFIED FLOODPLAIN MANAGERS
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SURVEY: WE WANT TO KNOW HOW YOUR COMMUNITY IS ADDRESSING RESILIENCY



1000 Friends of Florida Survey
Resources for Planning for Community Resilience in Florida
September 2021



[WWW.SURVEYMONKEY.COM/R/FLRESILIENCE](https://www.surveymonkey.com/r/flresilience)

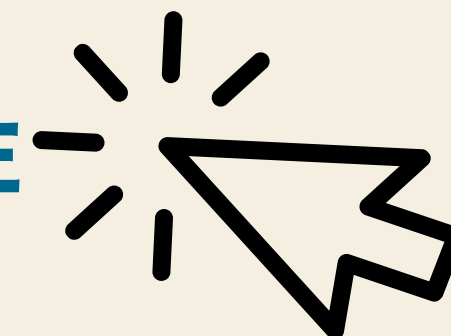
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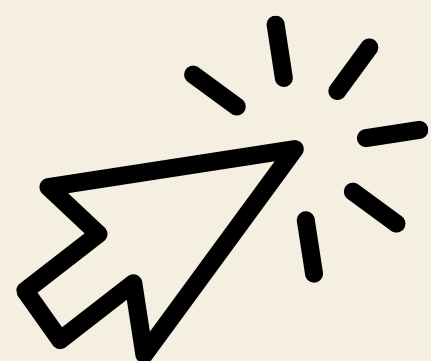
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