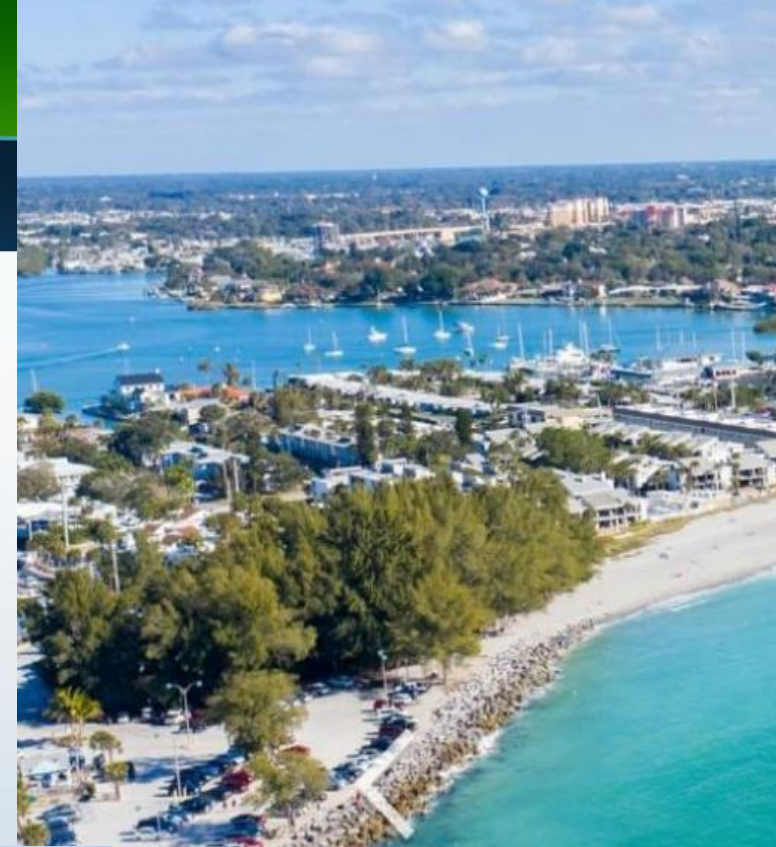


**Adapting to Change**  
**Sarasota County**  
**Resilience Planning and Projects**

**September 5, 2025**

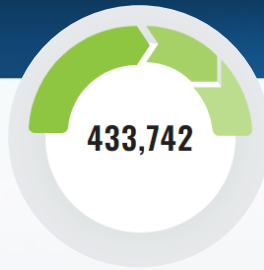
# Overview

- Sarasota County
  - Geographic Overview
  - Hurricane Seasons
- Sarasota County Sustainability & Resilience
  - Resilience Planning Overview
- Resilient Florida
- Vulnerability Assessment
- Adaptation Plan
- Nature-Based Solutions
- Projects
- Funding
- Next steps

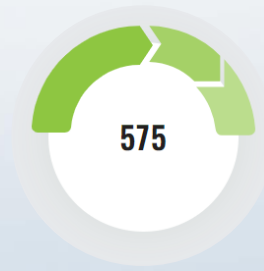


# Sarasota County

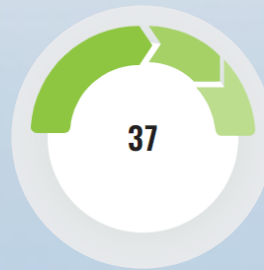
## At a glance....



Permanent Residents  
(2020 Census)



Square Miles of  
Land



Miles of Open  
Shoreline

### Quick Facts

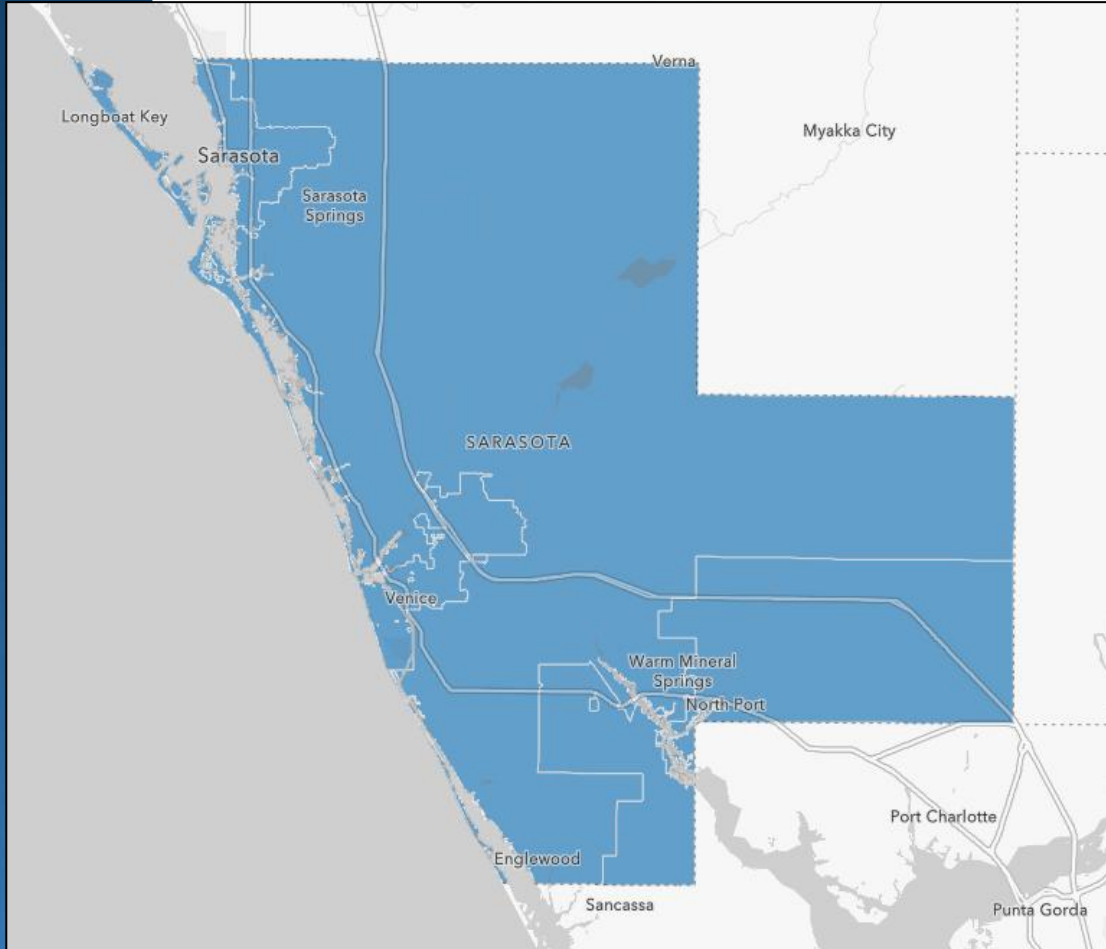
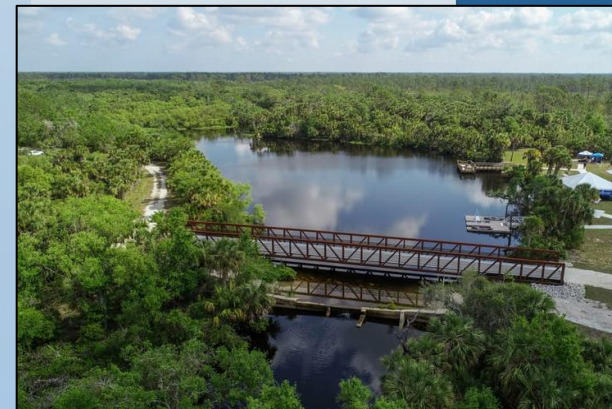
#### Four Municipalities:

- City of Sarasota
- City of Venice
- City of North Port
- Town of Longboat Key

Over 50,000 acres of  
natural area

#### Shaped and influenced by water, including:

- Gulf, Myakka River
- Numerous Bays, Creeks, Canals – Sarasota Bay, Lemon Bay, Roberts Bay, Philippi Creek, Venetian Waterway



# Storms in Sarasota County

## A Need to Adapt



*Hurricane Irma, 2017*



*Hurricane Irma, 2017*

*Hurricane Ian, 2022*



*Hurricane Ian, 2022*

*Hurricane Idalia, 2023*



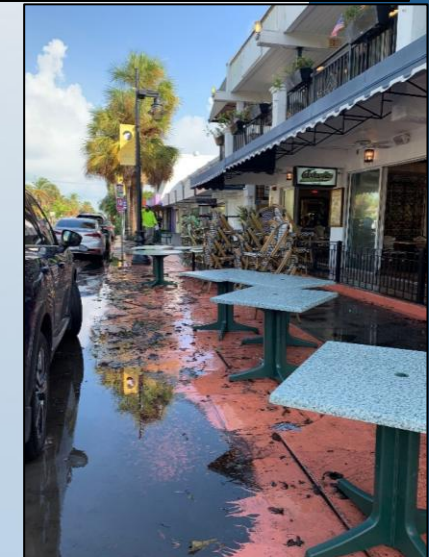
*Hurricane Irma, 2017*



*Hurricane Ian, 2022*



*Hurricane Idalia, 2023*



*Hurricane Idalia, 2023*

# 2024 Hurricane Season

## 2024 Hurricane Costs and Damages\*

### Debby

\$58M Residential / 1,047 Properties

No significant reporting on commercial damage

\$49.7M Public Assistance

### Helene

\$788M Residential / 7,644 Properties

\$317M Commercial / 5,066 Properties

\$43.8M Public Assistance

### Milton

\$446M Residential / 9,649 Properties

\$164M Commercial / 1,120 Properties

\$227.9M Public Assistance

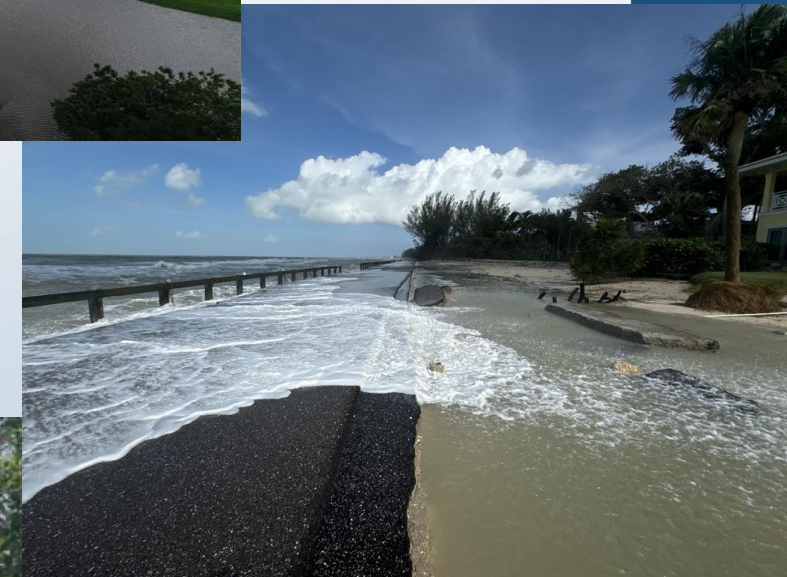
### Total for the Season

\$1.29B Residential/ 18,340 Properties

\$481M Commercial/ 6,186 Properties

\$321M Public Assistance

*\*The data was collected from unincorporated Sarasota County, City of North Port, Town of Long Boat Key, and City of Venice. City of Sarasota provided residential data only.*



# 2024 Hurricane Season

## The Reality: Record Breaking Events

*“A record daily rainfall of 11.06 inches was set in Sarasota in August 2024 from the impacts of Hurricane Debby (NWS, 2024).”*



*Hurricane Debby, 2024*



*Hurricane Debby, 2024*



*Hurricane Debby, 2024*



*Hurricane Helene, 2024*



*Hurricane Helene/Milton, 2024*



*Hurricane Milton, 2024*

## Hurricane Milton by the Numbers



Cars Assisted at the County's NPOD Locations



Cubic Yards of Cumulative Debris Recovered



Calls to 311 Contact Center

*“One month prior, the Sarasota-Bradenton Airport reported an all-time record of 3.93 inches for a one-hour event from a summer rainstorm (Bachmeier, 2024).”*

# UF/IFAS Extension & Sustainability

- Partnership between Sarasota County & University of Florida
  - One of 18 departments in the County
    - Education, outreach & consulting services
- Mitigation – Reducing Pollution
  - Energy Efficiency, Green Building, Renewable Energy, Sustainable Transportation, Waste Reduction, Green Living
- Adaptation – Becoming More Resilient
  - Reducing flooding, sea level rise, making assets less vulnerable to what we are already experiencing



Photo credit: Brilliant Harvest, LLC



## Resilience Planning








- Joined Tampa Bay Regional Resiliency Coalition, coordinating with cities
- Completed internal SLR vulnerability assessment report
- Completed Baseline coastal analysis study
- FDEP Resilient FL planning grant to complete comprehensive vulnerability assessment and resilience/adaptation plan with list of prioritized projects
  - Implementation project grants
  - Community level analysis
  - Report and story map

# Adaptation Planning

## A great investment!

*“every dollar spent on coastal hazard mitigation efforts, 5-10 USD are saved from reduced damage during disaster, lowered insurance premiums, and avoided costs of emergency response and recovery.” – Urban Land Institute*

	ADOPT CODE	ABOVE CODE	BUILDING RETROFIT	LIFELINE RETROFIT	FEDERAL GRANTS
<b>Overall Benefit-Cost Ratio</b>	<b>11:1</b>	<b>4:1</b>	<b>4:1</b>	<b>4:1</b>	<b>6:1</b>
<b>Cost (\$ billion)</b>	<b>\$1/year</b>	<b>\$4/year</b>	<b>\$520</b>	<b>\$0.6</b>	<b>\$27</b>
<b>Benefit (\$ billion)</b>	<b>\$13/year</b>	<b>\$16/year</b>	<b>\$2200</b>	<b>\$2.5</b>	<b>\$160</b>
 <b>Riverine Flood</b>	<b>6:1</b>	<b>5:1</b>	<b>6:1</b>	<b>8:1</b>	<b>7:1</b>
 <b>Hurricane Surge</b>	not applicable	<b>7:1</b>	not applicable	not applicable	not applicable
 <b>Wind</b>	<b>10:1</b>	<b>5:1</b>	<b>6:1</b>	<b>7:1</b>	<b>5:1</b>
 <b>Earthquake</b>	<b>12:1</b>	<b>4:1</b>	<b>13:1</b>	<b>3:1</b>	<b>3:1</b>
 <b>Wildland-Urban Interface Fire</b>	not applicable	<b>4:1</b>	<b>2:1</b>	not applicable	<b>3:1</b>

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**TABLE 1.** Nationwide average benefit-cost ratio by hazard and mitigation measure. BCRs can vary geographically and can be much higher in some places. Find more details in the report.

## SMART INVESTING MITIGATION SAVES



## Resilient Florida

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- May 2021 – Senate Bill 1954 signed, establishing the Resilient Florida grant program
  - Requires all municipalities in the state to develop vulnerability assessments and resilience plans in accordance with [State Statute \(380.093, FS\)](#)
- Coordinated the approach to Florida's coastal and inland resilience for the state, counties and cities
- Goal: To prepare communities for the impacts of sea level rise, intensified storms and flooding
- Grants are available for planning and implementation



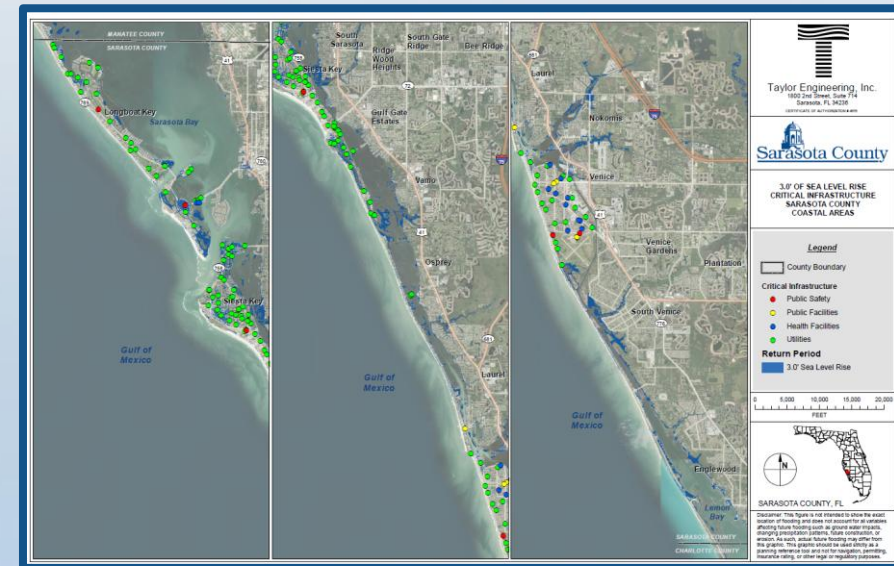
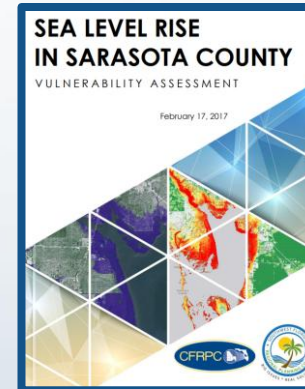
# Project Background

## Sarasota County has been proactive in resilience planning for years.

To enhance the County's Climate Resilience, applied for and awarded a **Resilient Florida Grant** in 2022 to conduct a Vulnerability Assessment and develop and an Adaptation/Resilience Plan.

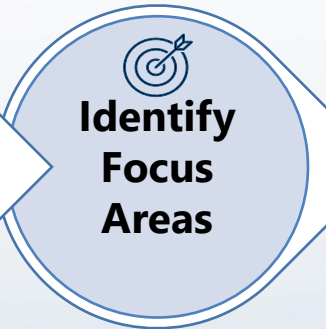
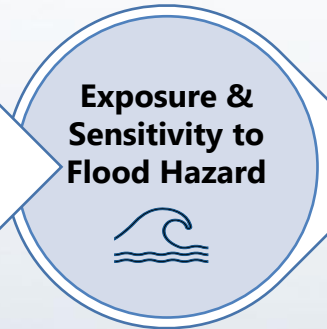
Builds on past efforts:

- 2017 – Sea Level Rise in Sarasota County Vulnerability Assessment
- 2020 - Sarasota County Sea Level Rise Working Group Report and Vulnerability Assessment
- 2021 - Sarasota County Coastal Resilience – Baseline Coastal Analysis
- 2023 – Sarasota/Manatee MPO Resiliency Vulnerability Assessment Study



# Vulnerability Assessment and Adaptation Plan

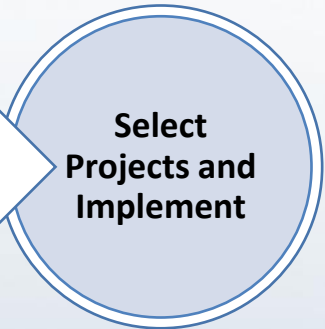
## Vulnerability Assessment



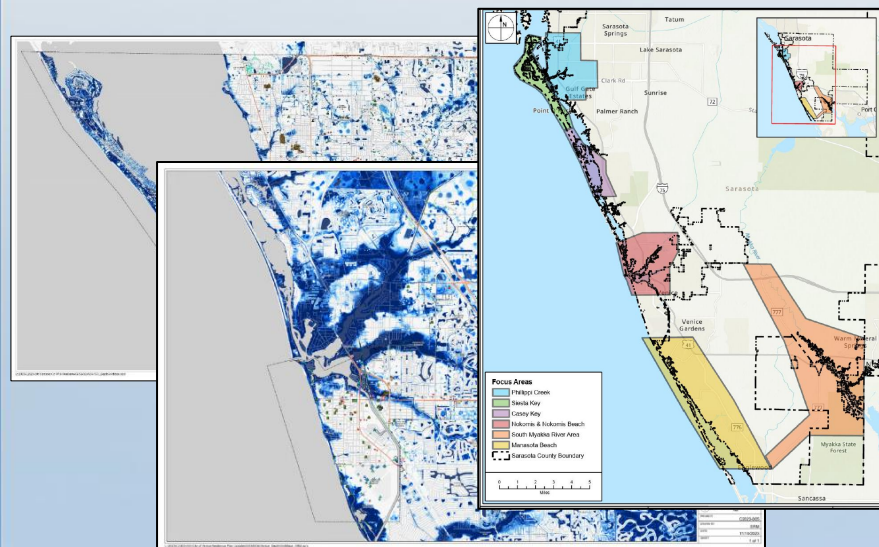
## Adaptation Plan



## Next Steps



The first steps of a multi-phased effort to increase the County's resilience to flooding and storm events



<b>Project:</b> Blind Pass Beach Park	<b>Description:</b> This project includes the following components: <ul style="list-style-type: none"> <li>Relocation of restroom building</li> <li>Shoreline protection and erosion mitigation</li> <li>Protection and elevation of amenities and enhanced stormwater management</li> <li>Enhancement/protection of water access facilities (docks, launches)</li> <li>Enhancement/protection of pedestrian access</li> <li>Utility connections/hardening</li> <li>Manasota Key Road erosion (Public Works)</li> </ul>
<b>Project:</b> Casperman Beach Park	<b>Description:</b> This project includes the following components: <ul style="list-style-type: none"> <li>Shoreline protection and erosion mitigation</li> <li>Enhancement/protection of water access facilities (fishing piers, launch)</li> <li>Elevation or hardening of restroom buildings</li> <li>Protection and elevation of amenities and enhanced stormwater management</li> <li>Utility connections/hardening</li> <li>Enhancement/protection of pedestrian access and boardwalks</li> <li>Protection, elevation and/or relocation of vehicular access including roadway and bridge</li> </ul>
<b>Project:</b> Catfish Creek Stream Restoration	<b>Description:</b> Objectives of this project include stream restoration and bank stabilization efforts to improve water quality, reduce downstream nutrient load, reduce further erosion and sedimentation, reduce maintenance cost, and improve natural systems within the stormwater conveyance and adjacent floodplain. This project includes a sediment dissipator and reintroducing native vegetation.
<b>Project:</b> Cherokee Street Park	<b>Description:</b> This project includes the following components: <ul style="list-style-type: none"> <li>Protection and elevation of amenities and enhanced stormwater management</li> <li>Enhancement/protection of water access facilities (docks, launches, fishing piers)</li> <li>Shoreline protection</li> </ul>
<b>Project:</b> Phillippi Creek Central Tributaries	<b>Description:</b> Stream restoration and bank stabilization efforts to improve water quality, reduce downstream nutrient load, reduce further erosion and sedimentation, reduce maintenance cost, and improve natural systems within the stormwater conveyance and adjacent floodplain. This project includes the addition of riprap, aquatic buffers, installation of a sediment sump, improvements to drainage ditches, and a dry pond.



# Vulnerability Assessment Overview

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# Critical and Regionally Significant Asset Inventory



## Critical Infrastructure (3,610)

Stormwater Utilities, Water/Wastewater Utilities, Drinking Water Facilities, Electric Production and Supply, Solid and Hazardous Waste Facilities, Communications Facilities



## Critical Community and Emergency Facilities (522)

Schools, Colleges/Universities, Community Centers, Libraries, Correctional Facilities, Disaster Recovery Centers, Fire Stations, Health Care Facilities, Hospitals, Law Enforcement, Local Government, Affordable Housing, State Government Facilities, EMS, Risk Shelters



## Natural, Cultural, and Historical Resources (180)

Cemetery, Conservation Lands, Parks, Shoreline, Wetlands, Historical and Cultural Resources



## Transportation Assets and Evacuation Routes (595)

Major Roadways, Evacuation Routes, Marinas, Airports, Bridges

(d) “Regionally significant assets” means critical assets that support the needs of communities spanning multiple geopolitical jurisdictions, including, but not limited to, water resource facilities, regional medical centers, emergency operations centers, regional utilities, major transportation hubs and corridors, airports, and seaports.

# Funded by the FDEP's Resilient Florida Program

Section 380.093, Florida Statutes



## Requirements for FDEP-Funded Vulnerability Assessments:

- Use most recent LiDAR digital elevation model (DEM)
- Flooding: high tide, storm surge, rainfall
- Sea Level Rise projections for years 2040 and 2070



**High Tides** – Mean Higher High Water (MHHW)

**Storm Surge** – 25-year (4% annual chance) and 100-year (1% annual chance) events

**Rainfall** – 25-year (4% annual chance), 100-year (1% annual chance) & 500-year (0.2% annual chance) events

**These requirements had to be met to pursue additional grant funding from FDEP for implementing projects.**

# Exposure Analysis

## What is the County's exposure to floodwaters?

Asset & Countywide Elevations



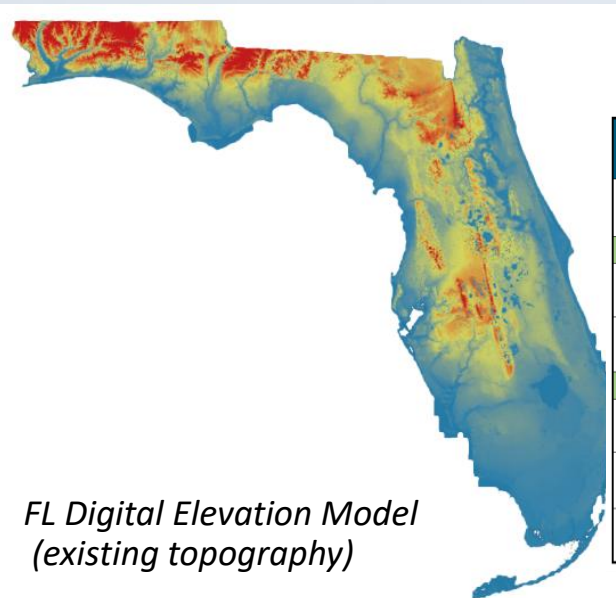
Current and Future Flood Hazards

Sea Level Rise Projections

Tidal Flooding

Storm Surge

Rainfall Induced

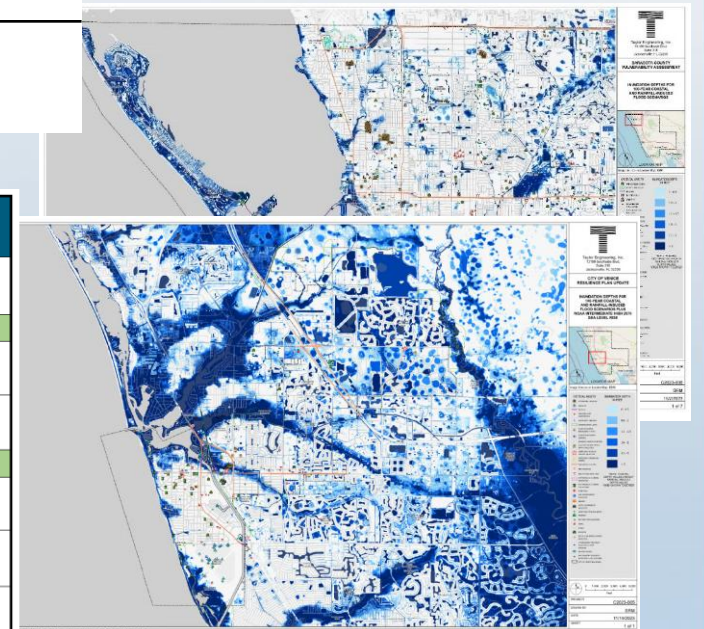


FL Digital Elevation Model  
(existing topography)

Flood Scenario Type	Current Conditions	2040 Int-Low	2040 Int-High	2070 Int-Low	2070 Int-High
Tidal Flooding (MHHW)	X	X	X	X	X
25-Year Storm Surge Flooding	X	X	X	X	X
100-Year Storm Surge Flooding	X	X	X	X	X
25-Year Rainfall Induced Flooding	X	X	X	X	X
100-Year Rainfall Induced Flooding	X	X	X	X	X
500-Year Rainfall Induced Flooding	X	X	X	X	X

## Flood Exposure Maps

Maps and Tables to illustrate the flood extents and flood depths at critical assets



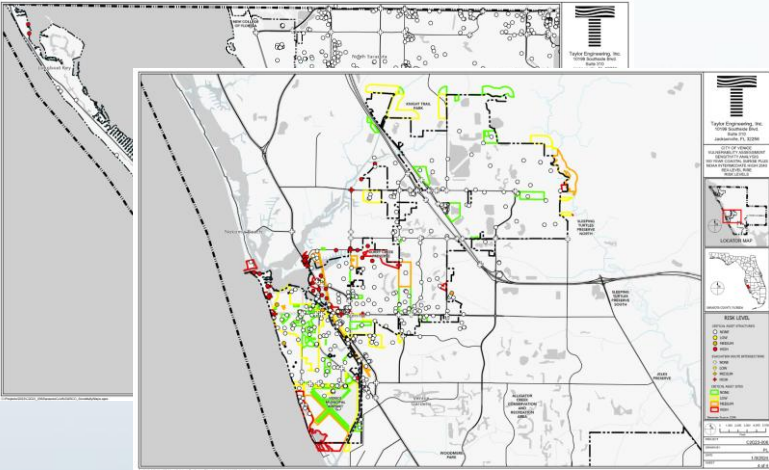
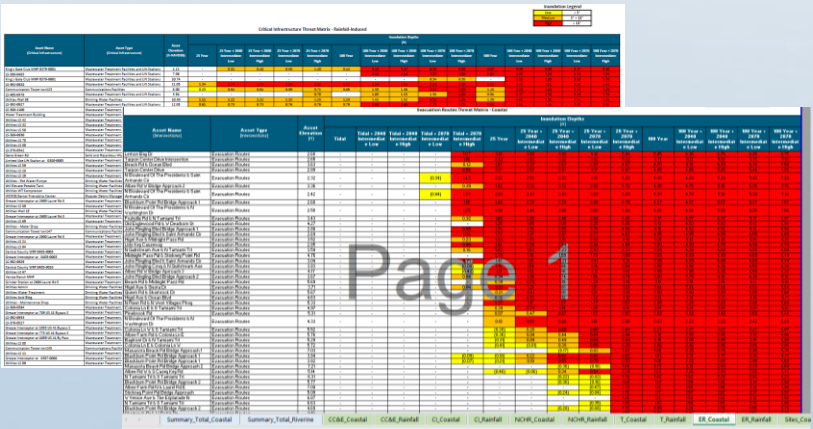
Example Exposure Analysis Maps

# Sensitivity Analysis

**How much flooding does how much damage?**

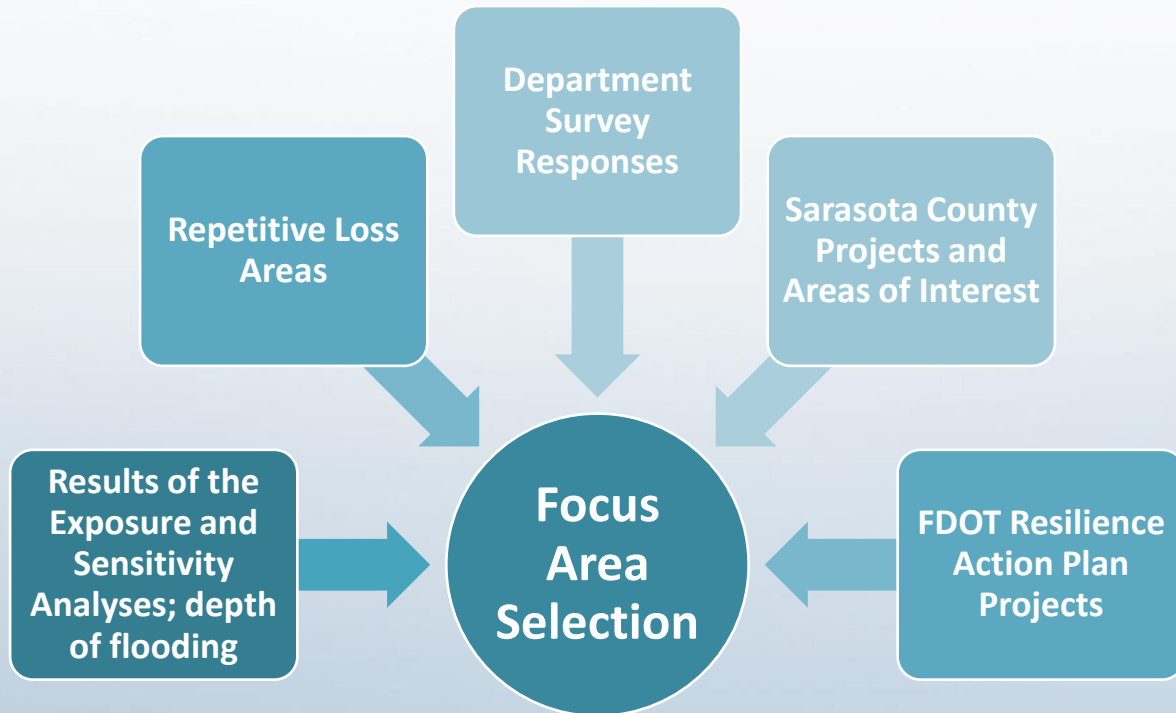
## Acceptable Flood Depths based on Asset Type

Critical Asset Group	Critical Community and Emergency Facilities	Critical Infrastructure	Natural, Cultural, and Historic Resources		Transportation and Evacuation Routes	
			Buildings	Parcels	Bus Terminals and Marinas	Roadway Intersections
Low	< 3"	< 3"	< 3"	< 25%	< 3"	0" - 3"
Medium	3" - 18"	3" - 18"	3" - 18"	25% - 50%	3" - 18"	3" - 6"
High	> 18"	> 18"	> 18"	> 50%	> 18"	> 6"

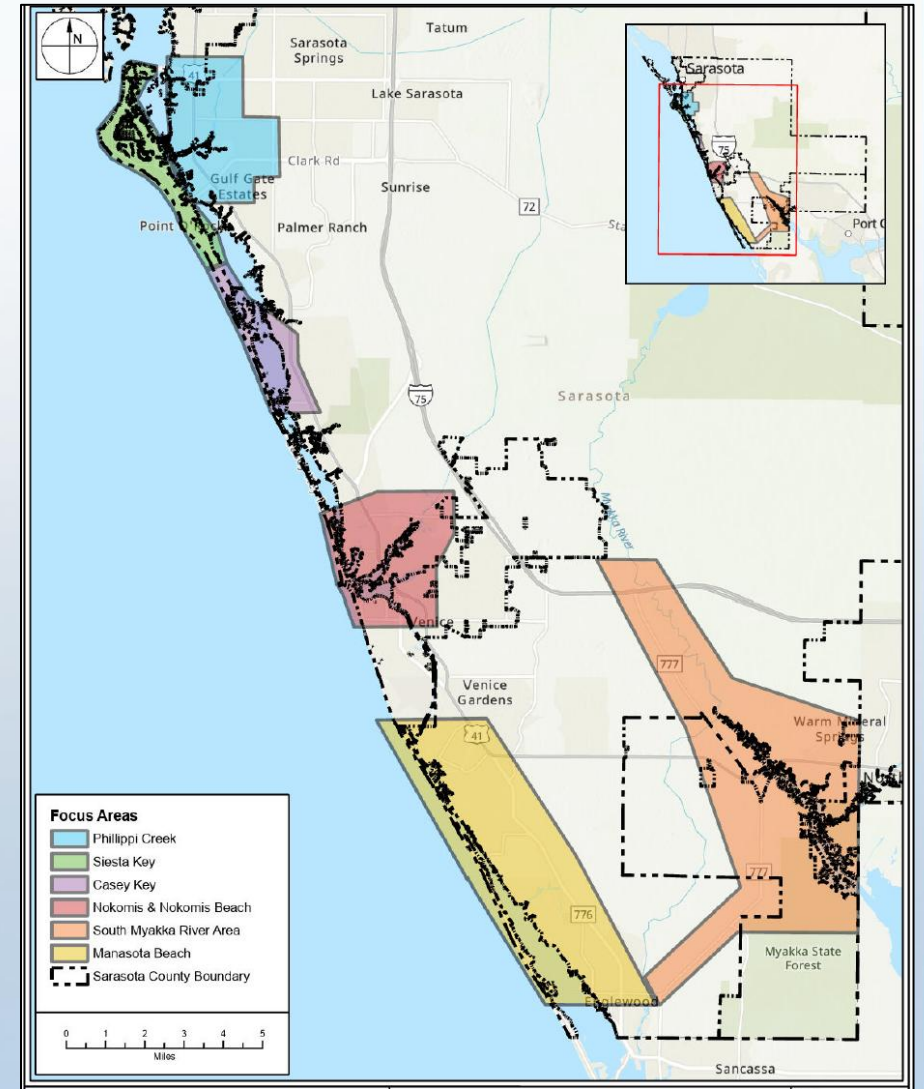
Example Sensitivity Analysis Maps & Tables

# Focus Area Selection



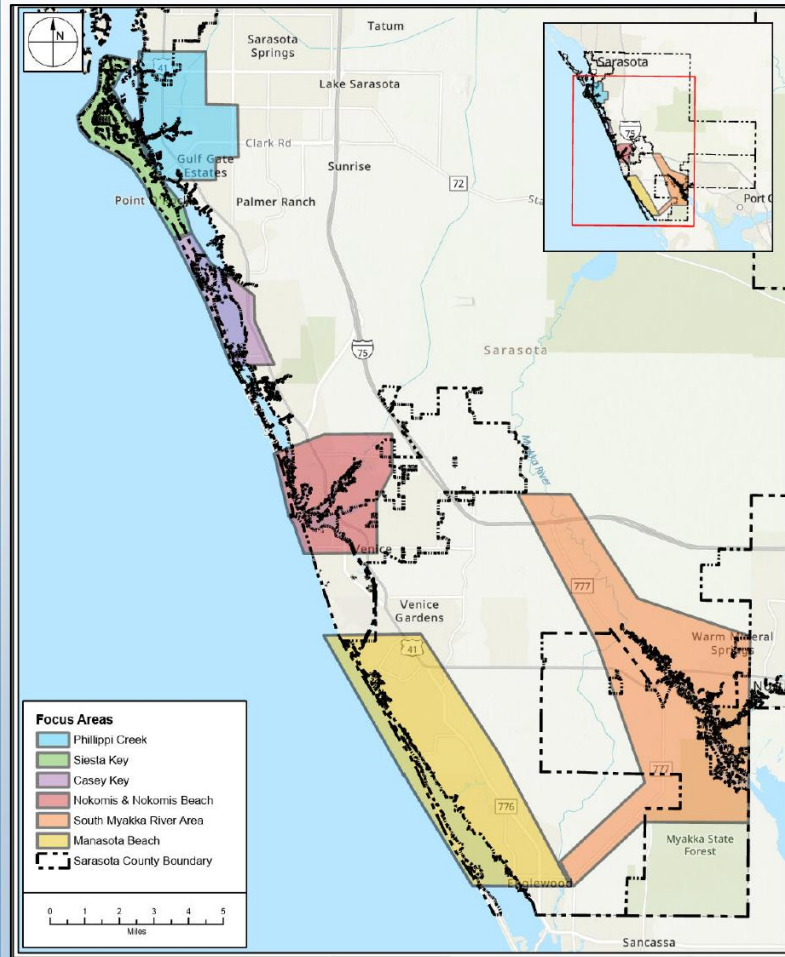
## Focus Areas Selected:

Phillippi Creek Area, Siesta Key, Casey Key, Nokomis/Nokomis Beach, South Myakka River Area, Manasota Beach

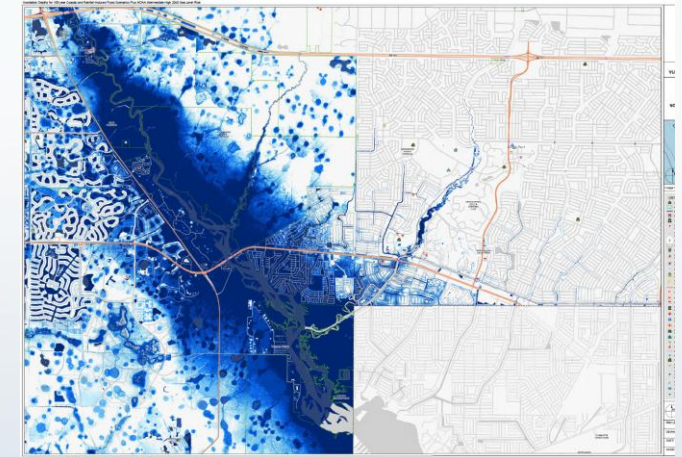


# Vulnerability Assessment Results

## Focus Area Maps and Critical Assets:



## Flood Exposure and Sensitivity Maps:



## Lists of Flood Depths at the Critical Assets for all flood scenarios and sensitivity rating:

Asset Name (Critical Infrastructure)	Asset Unique ID	Asset Type (Critical Infrastructure)	Asset Elevation (ft)	Inundation Depths (ft)															
				25 Year	25 Year + 2040 Intermediate Low	25 Year + 2040 Intermediate High	25 Year + 2070 Intermediate Low	25 Year + 2070 Intermediate High	100 Year	100 Year + 2040 Intermediate Low	100 Year + 2040 Intermediate High	100 Year + 2070 Intermediate Low	100 Year + 2070 Intermediate High	500 Year	500 Year + 2040 Intermediate Low	500 Year + 2040 Intermediate High	500 Year + 2070 Intermediate Low	500 Year + 2070 Intermediate High	
LS-447-0823	1724	Wastewater Treatment Facilities and Lift Stations	8.73	-	-	-	-	-	-	-	0.62	0.62	0.88	0.90	0.55	2.16	2.16	2.46	2.47
LS-447-0826	1337	Wastewater Treatment Facilities and Lift Stations	9.65	-	-	-	0.19	0.20	0.27	1.32	1.32	1.28	1.28	1.21	1.60	1.60	1.68	1.68	
LS-447-0831	1338	Wastewater Treatment Facilities and Lift Stations	10.57	-	-	-	-	-	-	-	-	-	-	-	0.32	0.32	0.62	0.63	
LS-450-0818	1330	Wastewater Treatment Facilities and Lift Stations	8.12	-	-	-	-	-	-	-	-	-	-	-	1.70	1.70	2.00	2.04	
LS-460-0849	1619	Wastewater Treatment Facilities and Lift Stations	13.97	-	-	-	-	-	-	-	-	-	-	-	0.08	0.08	0.14	0.14	
LS-461-0852	1395	Wastewater Treatment Facilities and Lift Stations	14.36	-	-	-	-	-	-	-	0.07	0.07	0.11	0.11	0.06	0.37	0.37	0.45	0.45
LS-471-0856	1319	Wastewater Treatment Facilities and Lift Stations	14.08	-	-	-	-	-	-	-	0.03	0.03	0.08	0.08	0.01	0.32	0.32	0.37	0.37
LS-756-0897	1158	Wastewater Treatment Facilities and Lift Stations	14.79	-	-	-	-	-	-	-	-	-	0.26	0.26	-	2.34	2.34	2.92	2.92
LS-757-0914	1807	Wastewater Treatment Facilities and Lift Stations	9.59	-	-	-	-	-	-	-	-	-	-	-	0.47	0.47	0.64	0.64	
Manatee County 0185-0001	1603	Wastewater Treatment Facilities and Lift Stations	29.75	-	-	-	-	-	-	-	0.26	0.26	0.38	0.38	0.23	0.92	0.92	1.04	1.04
Manatee County 0187-0038	1948	Wastewater Treatment Facilities and Lift Stations	27.37	-	0.39	0.39	0.45	0.45	0.46	0.81	0.81	0.87	0.87	0.79	1.29	1.29	1.40	1.40	
Manatee County 0189-0001	1606	Wastewater Treatment Facilities and Lift Stations	27.91	-	-	-	-	-	-	-	-	-	-	-	0.19	0.19	0.29	0.29	
Master Campsite	2255	Wastewater Treatment Facilities and Lift Stations	11.96	-	-	-	-	-	-	-	-	-	0.14	0.16	0.64	0.64	0.69	0.69	
Meadowood WRF 0033-0001	1857	Wastewater Treatment Facilities and Lift Stations	24.23	-	0.76	0.76	0.84	0.84	0.86	1.58	1.58	1.73	1.73	1.55	2.62	2.62	2.82	2.82	
Meadowood WRF 0034-0012	1829	Wastewater Treatment Facilities and Lift Stations	24.61	-	0.21	0.21	0.28	0.28	0.30	1.00	1.00	1.16	1.16	0.96	2.10	2.10	2.32	2.32	
Meadowood WRF 0034-0021	1937	Wastewater Treatment Facilities and Lift Stations	25.18	-	-	-	-	-	-	-	0.44	0.44	0.60	0.60	0.40	1.54	1.54	1.75	1.75
Meadowood WRF 0035-0012	1892	Wastewater Treatment Facilities and Lift Stations	24.94	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	0.25	
Meadowood WRF 0039-0002	1852	Wastewater Treatment Facilities and Lift Stations	21.04	-	-	-	-	-	-	-	-	-	0.02	0.02	0.41	0.41	0.70	0.70	
Meadowood WRF 0040-0021	1860	Wastewater Treatment Facilities and Lift Stations	19.57	-	-	-	-	-	-	-	0.44	0.44	0.68	0.68	0.38	1.84	1.84	2.14	2.14
Meadowood WRF 0040-0021	1859	Wastewater Treatment Facilities and Lift Stations	20.19	-	-	-	-	-	-	-	-	-	0.06	0.06	1.22	1.22	1.52	1.52	
Meadowood WRF 0040-0023	1961	Wastewater Treatment Facilities and Lift Stations	20.75	-	-	-	-	-	-	-	-	-	-	-	0.66	0.66	0.96	0.96	

# Adaptation Plan Overview

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# Adaptation Plan

The **Adaptation Plan** will take the risks presented by the Vulnerability Assessments and provide Adaptation Strategies, including structural and non-structural efforts, for community response to specific hazards.

- **Phase 1** – Recommendations by Focus Areas and Asset Groups  
*Focus Areas are geographic which allows prioritization to be given to specific vulnerable areas and regions.*
- **Phase 2** – Project Prioritization by common themes and goals to align County Departments  
*This phase encourages collaboration between the departments and making projects multifunctional and multi-beneficial.*



# High Level Adaptation Projects and Examples



▶ **Avoid**  
Prevent new development in flood-prone areas



▶ **Accomodate**  
Adjust land use to accommodate flooding (building on piles, agriculture to aquaculture)



▶ **Protect**  
Use hard structures (sea walls) or soft solutions (dunes) as protection (expensive)



▶ **Retreat**  
Relocate or abandon at-risk assets and move landward



▶ **Procedure**  
Regulations, education, and policies that enforce limits to using vulnerable areas

## STORMWATER MANAGEMENT

Joint-Use Stormwater Storage and Recreational Areas	Enhanced Drainage Infrastructure
Drainage System Maintenance	Natural Flood Management
Permeable Pavement	On-Site Storage
Redundant Pump Systems	Backflow Prevention

## NATURE-BASED SOLUTIONS

Green Infrastructure – Bioswales, Rain Gardens, etc.	Preserve Wetlands
Monitor Environmental and Water Quality	Increase Tree Canopy
Artificial Reefs and Living Shorelines	Green Spaces and Pocket Parks
Sponge Park Design	Floodplain Restoration
Restore Mangroves and Native Vegetation	

## WATERFRONT

Beach/Dune Nourishment	Boat Storage Plans
Seawalls, Revetments, Retaining Walls	Secure Mooring Systems
Elevate Marine Structures	Elevate Canal Banks
Floating Docks	Levees and Floodwalls

## TEMPORARY STRATEGIES

Sandbags
Temporary Flood Barriers

## ASSET SPECIFIC

Elevate Critical Components	Elevate Access Routes
Asset/Facility Relocation	Wet and Dry Flood Proof Assets
Backup Power Systems and Generators	Elevate Structures and Components
Flood and Corrosion Resistant Materials	Lift and Pump Station Solutions

## NON-PHYSICAL

Redundant Communication Channels	Alternate Evacuation Routes
Proper Safety Protocols	Stock Emergency Supplies
Information and Education	Early Warning Systems
Debris Monitoring Programs	Land Use Planning and Zoning
Buyout Programs	Relocation plans
Cost Share Programs & Incentives for Property Owners	Post Disaster Redevelopment Plan

# High Level Adaptation Projects and Examples

<b>Project Name:</b>	<b>Elevate and Safeguard Wastewater Lift Stations</b>
<b>Description:</b>	Numerous wastewater facilities, including lift stations, are estimated to flood due to storm surge, sea level rise, and rainfall induced flooding. Over 800 lift stations lost power during Hurricane Milton. The County has already identified this concern and is working towards protective measures and projects to enhance a resilient sanitary sewer collection system.
<b>Key Recommendation:</b>	<p>Continue to floodproof and elevate lift stations, along with electrical components and backup systems.</p> <p>Identify and inventory any lift stations in the system that are not elevated, protected with fencing, or are not submersible.</p> <p>Remove low hanging tree limbs or other vegetation that could become debris and damage infrastructure during storms.</p> <p>Develop a power outage contingency plan.</p> <p>Prioritize lift stations that require control panel elevation and that are expected to experience inundation first based on the analyses.</p>



**Photo 15.** Public Utilities removing debris after Hurricane Helene



**Photo 16.** Elevated lift station, with proper safety railings and security fence (Source: Excel Fluid Group)

## Transportation Assets, Roadways, and Evacuation Routes

A combination of engineering, planning, and environmental measures is necessary to make roadways, intersections, and evacuation routes more resilient to floodwaters. Elevating roadways and critical intersections above anticipated flood levels can prevent them from becoming inundated, ensuring they remain passable during flood events. Installing robust drainage systems, such as stormwater retention basins and improved culverts, helps to quickly divert water away from these critical pathways. Utilizing permeable pavement materials allows water to infiltrate the ground, reducing surface runoff and the risk of flooding. For evacuation routes, clear signage and real-time monitoring systems are essential to provide timely information and alternative routes in case of flooding. Additionally, incorporating green infrastructure, such as vegetated swales and rain gardens, enhances the natural absorption of stormwater, further mitigating flood risks. Regular maintenance of these systems is crucial to ensure their effectiveness during flood events.



**Photo 21.** Roadway under water from Hurricane Debby in August 2024

Additionally, incorporating green infrastructure, such as vegetated swales and rain gardens, enhances the natural absorption of stormwater, further mitigating flood risks. Regular maintenance of these systems is crucial to ensure their effectiveness during flood events.

# Types of Adaptation Strategies

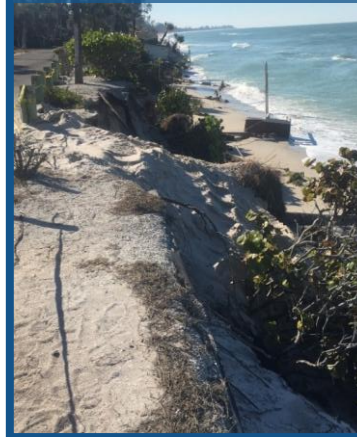
Mangroves Living Shoreline



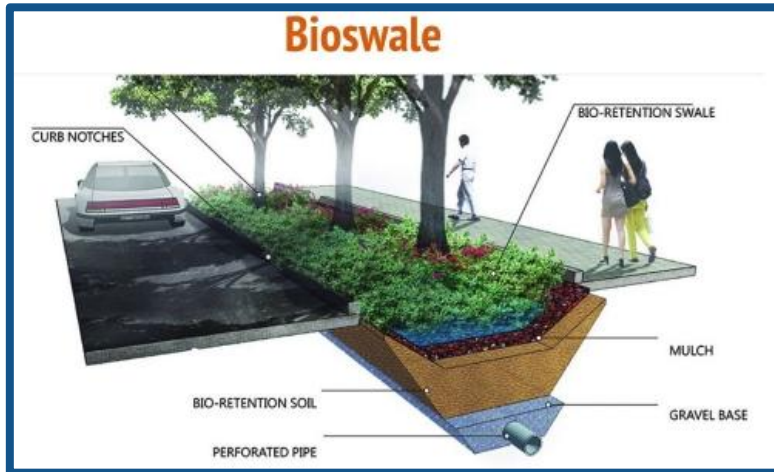
Flood Vents on a Park Restroom



Before (left) and After (right) the Casey Key Shoreline Stabilization



Bioswale



# Types of Adaptation Strategies



**Low Impact Development  
Guidance Document**



## Sarasota County continues commitment to environment with new land acquisition

*Sarasota County's Land Acquisition and Management Program, which encompasses the Environmentally Sensitive Lands Protection Program (ESLPP) and the Neighborhood Parkland Acquisition Program (NPP), continues to preserve natural lands.*

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# Nature-Based Solutions Focus

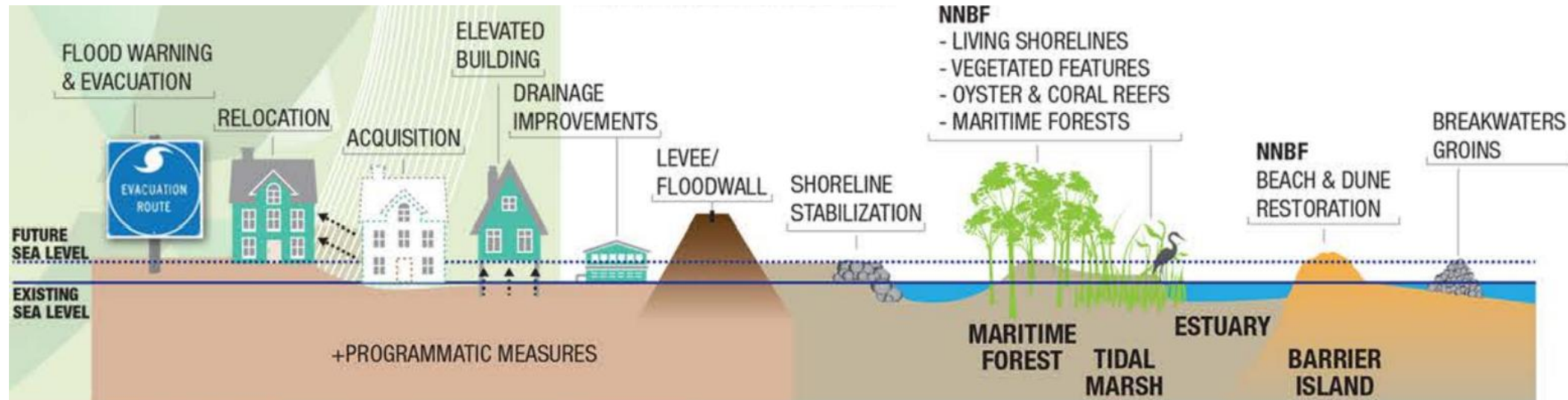
Prepare • Resist • Recover • Adapt



## Benefits of NBS

- Reduces erosion
- Improves water quality
- Acts as a natural barrier
- Enhances habitats for marine life
- Can provide additional stormwater retention

Source: USACE Engineering with Nature

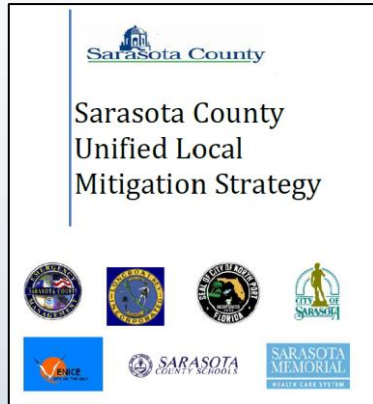


*Multiple lines of defense in the face of coastal storms and sea level change*

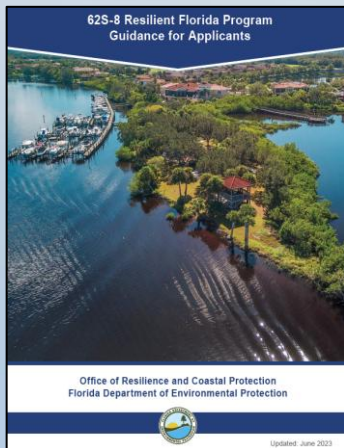
# Project Prioritization Template



## Sarasota County Local Mitigation Strategy



## Resilient Florida Program Project Criteria



## Resilient SRQ Infrastructure

Resilient SRQ Infrastructure & Public Facilities  
Sarasota County Public Entities Scoring Criteria

**Minimum Eligibility Criteria (Public Entities)**  
Applicants must meet all of the minimum eligibility criteria listed below to be considered for CDBG-DR funding.

- Proposed project benefits low to moderate income (LMI) persons, preventing or eliminating slums or blight, or urgent need in accordance with the United States Department of Housing and Urban Development (HUD) National Objectives.
- The proposed project must be an eligible activity. Eligible activities include:
  - Flood control
  - Storm water
  - Restoration
  - Demolition
  - Acquisition
  - Acquisition

3. Project includes one of the following:

Criteria Category	Criteria	Points
LMI National Objective	Proposed project benefits low to moderate income (LMI) persons, preventing or eliminating slums or blight, or urgent need in accordance with the United States Department of Housing and Urban Development (HUD) National Objectives.	2
	The proposed project must be an eligible activity. Eligible activities include: Flood control, Storm water, Restoration, Demolition, Acquisition, Acquisition.	2
Financial Plan	Project includes one of the following: Flood control, Storm water, Restoration, Demolition, Acquisition, Acquisition.	2
	Proposed project benefits low to moderate income (LMI) persons, preventing or eliminating slums or blight, or urgent need in accordance with the United States Department of Housing and Urban Development (HUD) National Objectives.	2
Leverage of Funding	Proposed project benefits low to moderate income (LMI) persons, preventing or eliminating slums or blight, or urgent need in accordance with the United States Department of Housing and Urban Development (HUD) National Objectives.	2
	The proposed project must be an eligible activity. Eligible activities include: Flood control, Storm water, Restoration, Demolition, Acquisition, Acquisition.	2
Project Readiness	Proposed project benefits low to moderate income (LMI) persons, preventing or eliminating slums or blight, or urgent need in accordance with the United States Department of Housing and Urban Development (HUD) National Objectives.	2
	The proposed project must be an eligible activity. Eligible activities include: Flood control, Storm water, Restoration, Demolition, Acquisition, Acquisition.	2
Project Impact	Proposed project benefits low to moderate income (LMI) persons, preventing or eliminating slums or blight, or urgent need in accordance with the United States Department of Housing and Urban Development (HUD) National Objectives.	2
	The proposed project must be an eligible activity. Eligible activities include: Flood control, Storm water, Restoration, Demolition, Acquisition, Acquisition.	2
Project Timeline	Proposed project benefits low to moderate income (LMI) persons, preventing or eliminating slums or blight, or urgent need in accordance with the United States Department of Housing and Urban Development (HUD) National Objectives.	2
	The proposed project must be an eligible activity. Eligible activities include: Flood control, Storm water, Restoration, Demolition, Acquisition, Acquisition.	2
<b>Total Maximum Points Available</b>		<b>20</b>



Risk Management & Infrastructure



Environmental and Infrastructure Enhancement



Cost-Effectiveness and Funding

Procedural and Regulatory Compliance

Innovation and Economic Impact



Community and Social Impact



# Project Prioritization Examples

- **Phillippi Creek Focus Area**
  - Vacuum Sewer Rehabilitation
  - Phillippi Creek NW Tributaries
- **Siesta Key Focus Area**
  - SK Force Main and Flow Diversion Evaluation
  - Siesta Beach Access #7
- **Casey Key Focus Area**
  - Turtle Beach Park and Campground
  - Palmer Point Beach Park
- **Nokomis Focus Area**
  - Laurel Rd Force Main Upgrades
  - Nokomis Beach and Island Shoreline Restoration
- **South Myakka River Focus Area**
  - Englewood Sports Complex Generator
  - Snook Haven
- **Manasota Beach Focus Area**
  - Caspersen Beach Park
  - Blind Pass Beach Park



# Project Examples

## Celery Fields Regional Stormwater Facility Expansion

Acquisition, excavation and plantings for additional flood storage in Phillippi Creek basin

- Possible expansion areas include the current Celery Fields surrounding areas and other areas in the west, in the Phillippi Creek neighborhood

Celery Fields Flooding across Palmer Boulevard – Adjacent to Celery Fields Regional Stormwater Facility



*Image courtesy of 96.5 WSLR Sarasota Community Radio*

# Project Examples

## Sanitary Sewer System Inflow Reduction Program

Installing watertight lockable composite manhole covers for sanitary sewer systems

- Reduces volume of storm surge and flood water that inflows into the sewer collection system
- Inundation of the system causes sewer overflows and overloads to the County's regional sewer treatment plants causing operational failures



Credit: Composite Access Products (CAP)

## Next Steps – Seek Funding for Implementation

### Resilience-Related Funding Applied For/Awarded:

- AmeriCorps Team
- FDEM Hurricane Loss Mitigation Program
- Flood Management Assistance
- Building Resilient Infrastructure and Communities (BRIC)
- Water Quality Implementation Grants
- Wetlands Restoration and Protection Grants
- Safe Streets and Roads for All
- Community Wildfire Defense Grant Program
- State and Local Cybersecurity Grant Program
- Community Development Block Grant – Disaster Recovery (Resilient SRQ)
- FEMA Hazard Mitigation Grant Program

## Next Steps – Seek Funding for Implementation

### **Future Opportunities for Resilience Related Funding:**

- Coastal and Heartland National Estuary Partnership (CHNEP)
- Resilient Florida implementation grants
- Flood Mitigation Assistance
- Water & Groundwater Storage and Conveyance
- Local Mitigation Strategy (LMS) ranked projects

### **Goals/Best Practices:**

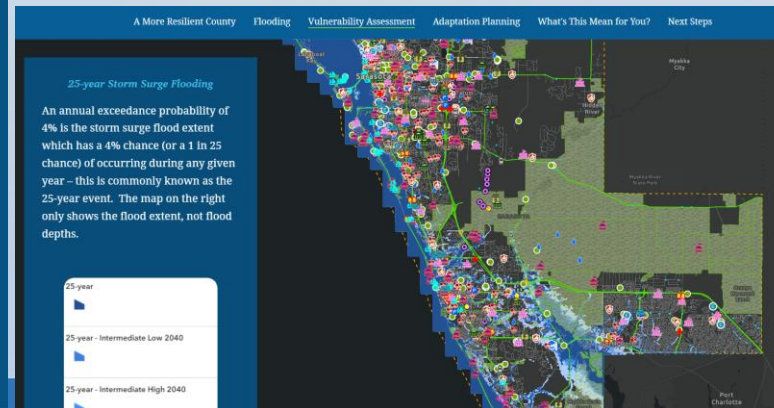
- Reduce duplication of effort across funding opportunities and apply for highly ranked, prioritized projects
- Enable planning for matching funds in budgets ahead of time
- Assist departments with applications and apply for comprehensive projects that affect regional areas and multiple departments
- Have committee and ongoing communication

# Next Steps – Communicate Results

## Sarasota County Vulnerability Assessment Web-based Story Map



Due to its coastal location and low-lying topography, the County is no stranger to the impacts of flooding caused by storms and sea level rise. The County is proactively planning for a resilient future and making its infrastructure more sustainable in the face of flooding. Sarasota County Government defines sustainability as *satisfying our present needs without compromising the ability of future generations to meet their needs*. The County is committed to environmental, social, and economic sustainability and has taken steps to prepare through numerous initiatives, including the Vulnerability Assessment and Resilience Plan, discussed in this Story Map.



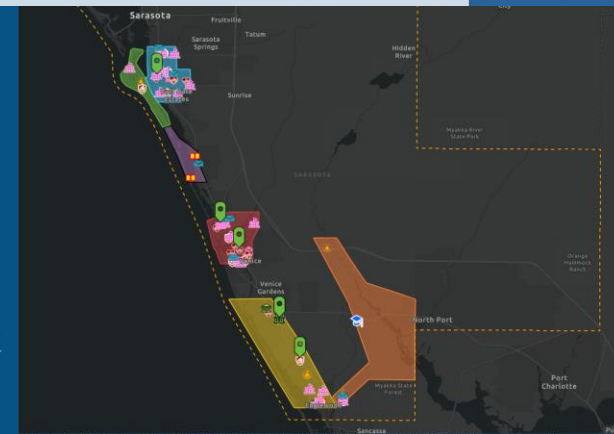
**Schools**  
A key place to daily life, schools are essential to protect from flooding. For schools that are built and currently in use, dry floodproofing is...

**Fire Stations**  
Many fire station buildings, especially close to the coast, are built completely elevated. However, if not recommendations would also includ...

**Healthcare Facilities**  
Not all residents can leave during a weather event. Healthcare facilities, including nursing homes, are examples of such. Taking this into...

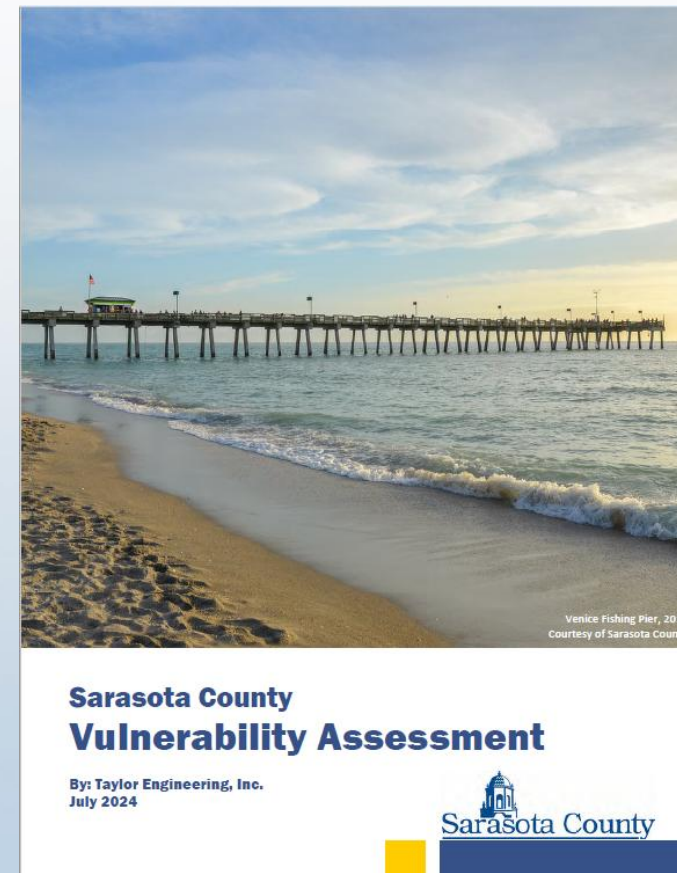
**Government Facilities**  
Government facilities include a range of social services including the DMV and courthouses. Due to the varied age of government buildings, each one...

**Law Enforcement Facilities**  
Similar to fire stations, law enforcement facilities tend to be spread out...



# Next Steps

- Communicate Results
  - [Webpage with combined VA and AP reports](#)
  - Story map
  - Social media campaign
  - Fact sheets
- Continue working with departments on prioritizing projects and applying for funding opportunities
  - New Stormwater department, Public Utilities, Parks Recreation & Natural Resources
- Implement adaptation projects and strategies
  - Focus on nature-based solutions



# Questions and Discussion

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