



# STORM SURGE RESILIENCY IN BREVARD COUNTY



For more information about the Space Coast  
Transportation Planning Organization's resiliency planning go to  
<https://www.spacecoasttpo.com/what-we-do/planning/resiliency-planning>

# Roadways in Brevard County are impacted by storm surge today.

The Transportation Resiliency Master Plan (RMP) identifies a baseline for the impacts of storm surge and other natural hazards on roads in Brevard County. This booklet summarizes key takeaways and impacts identified in the Transportation RMP.

## What is storm surge?



### Definition

Storm surge is the rise of water along the ocean and rivers associated with tropical storms/hurricanes.



### Dangerous

Storm surge is the greatest threat to life and property from a tropical storm/hurricane.



### Severe

The strength of a storm is not linked to depth of storm surge. Even weak storms can produce high surge.



### Widespread

Storm surge can occur far away from the track of the tropical storm/hurricane. Hurricane Frances (2004) which traveled through St. Lucie County caused storm surge of 6 feet in Cocoa Beach.

## Planned projects offer opportunities to include resiliency elements to address storm surge.

**6** projects in the Long Range Transportation Plan, Cost Feasible Plan are on roads impacted by storm surge

**10** upcoming FDOT resurfacing projects are on roads impacted by storm surge

**More funding opportunities than ever before are available from the federal and state government!**

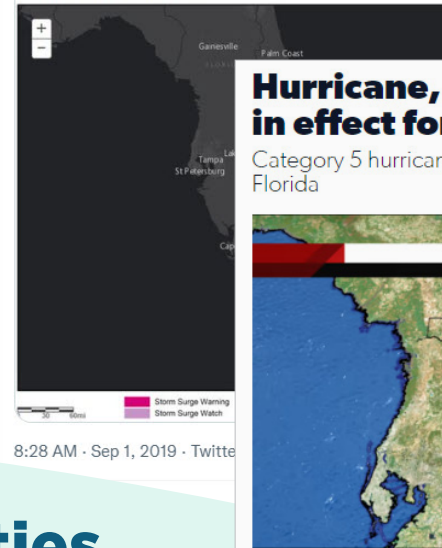
← Tweet

 NHC Storm Surge   
@NHC\_Surge

A Storm Surge Watch has been issued for the east coast of the Florida peninsula from Palm Beach north to the Volusia/Brevard County border. There is a possibility of life-threatening coastal flooding. Promptly follow all evacuation instructions from local authorities.

Storm Surge Watch/Warning Graphic\*

Hurricane Dorian  
Advisory 033 Issued: 11:00 AM EDT Sun Sep 1



8:28 AM · Sep 1, 2019 · Twitter

A hurricane watch is issued for Brevard County, Florida. - Both h  
County ahead of Hurricane Doria  
Florida in the coming days.

**27%**  
of roads in  
Brevard are  
impacted

for portions of  
from Deerfield  
ounty line for the  
loading.  
ions from local

### storm surge watches for Brevard

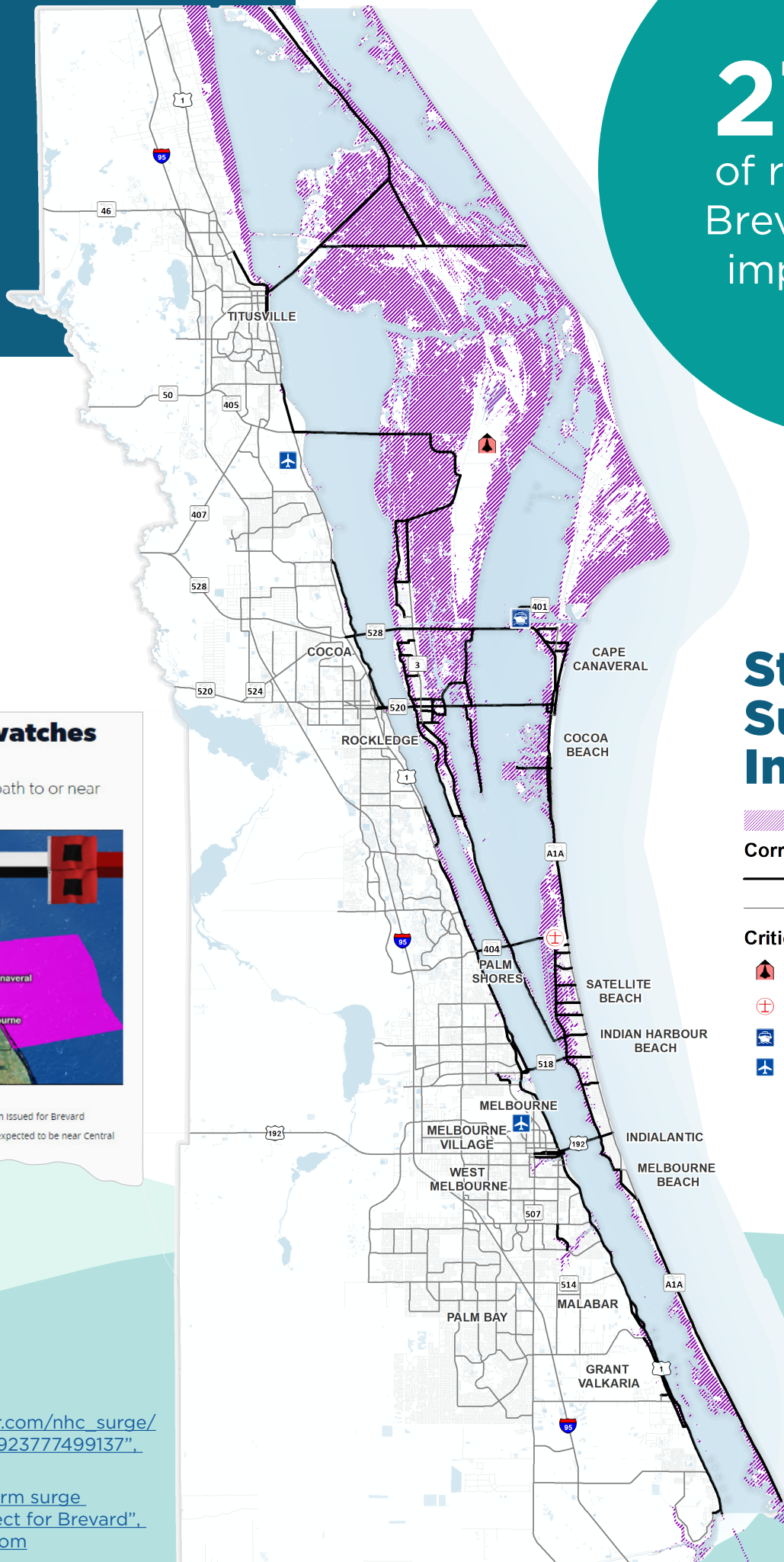
ne remains on projected path to or near

#### HURRICANE WATCH



hurricane and storm surge watches have been issued for Brevard  
in, an "extremely dangerous" storm that is expected to be near Central

the co...



## Storm Surge Impacts

- Storm Surge (Category 3)
- Corridors**
- Impacted
- Not Impacted
- Critical Regional Asset**
- Kennedy Space Center
- Patrick Space Force Base
- Port Canaveral
- Airport

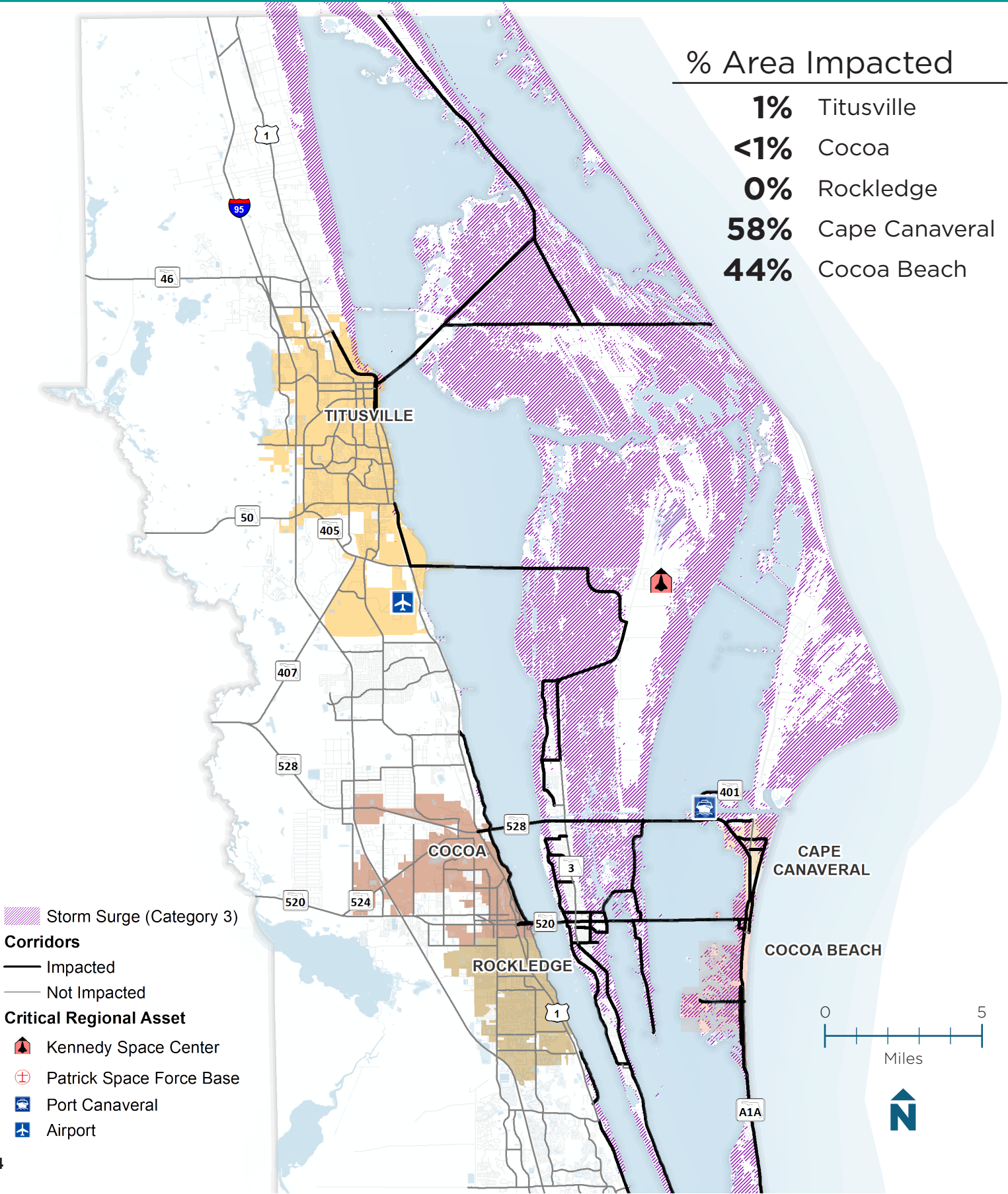


[https://twitter.com/nhc\\_surge/status/116818392377499137](https://twitter.com/nhc_surge/status/116818392377499137),  
Twitter.com  
"Hurricane, storm surge watches in effect for Brevard",  
ClickOrlando.com

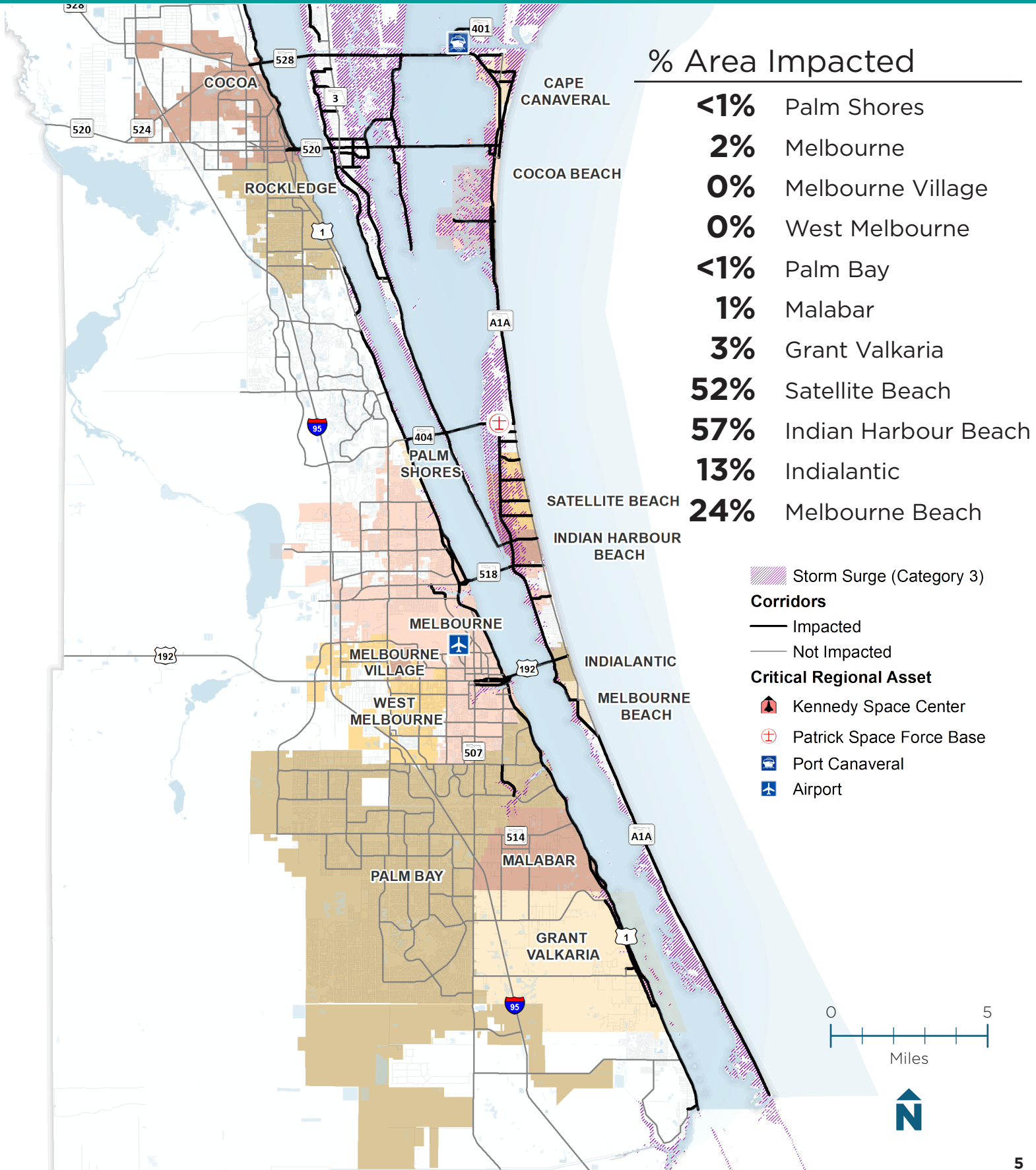
# Percentage of Incorporated Area Impacted by Storm Surge

## % Area Impacted

<b>1%</b>	Titusville
<b>&lt;1%</b>	Cocoa
<b>0%</b>	Rockledge
<b>58%</b>	Cape Canaveral
<b>44%</b>	Cocoa Beach



Want to zoom in? Turn layers on and off?  
 Try the online map at <https://arcg.is/OTvOq8>



# Communities in Brevard County are impacted differently by storm surge.

## A resilient transportation system serves everyone in Brevard County.

### In Brevard County:



**1 in 4**

**(137,000) residents are over the age of 65**



**1 in 3**

**(66,000) households include someone with a disability**



**1 in 3**

**(175,000) residents live below or near the poverty line**



**1 in 20**

**(11,000) households do not have a car**

Source: 2019 American Community Survey

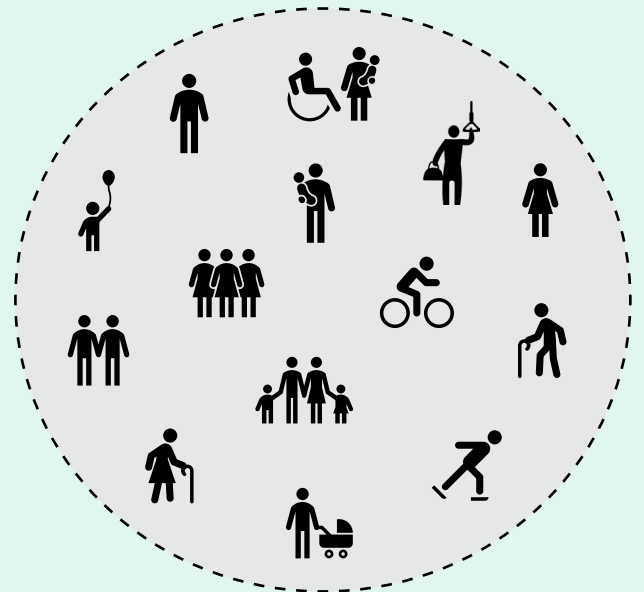


**585,507**

people live in 230,417 households



Resiliency projects consider the needs of **everyone**



## Methodology

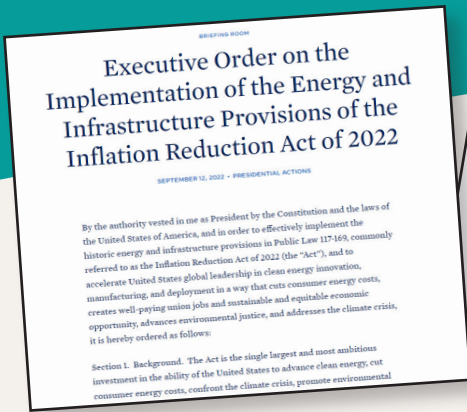
The Transportation RMP followed a two-step process to identify roads impacted by storm surge in Brevard County.

**1 Identify Impacted Areas:** The National Oceanic and Atmospheric Administration (NOAA) identifies areas expected to be inundated by the worst possible storm surge from a Category 3 hurricane.

**2 Identify Impacted Roads:** Roads that go through impacted areas are identified as being impacted by storm surge.

A more detailed explanation of the analysis methodology can be found in the Transportation RMP documentation.

# Funding for Transportation Resiliency is Available for Brevard County.



Over \$200 Million in New Grants Beyond Programmed Funding

**The Inflation Reduction Act** contains \$2.6 billion for nature-based coastal resilience projects, such as wetlands and seagrass restoration. The BIL's investment and focus on resilience continues the policy set in 2015's Fixing America's Surface Transportation (FAST) Act, requiring MPOs to consider resiliency in the transportation planning process.

**FHWA National Highway Performance Program (NHPP):** Added eligibility for measures that increase resiliency to the impacts of sea level rise, extreme weather events, flooding, wildfires, and other natural disasters

**Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Formula Program:** MPOs in coastal states are eligible for at-risk coastal infrastructure grants for strengthening, stabilizing, hardening, elevating, relocating, or otherwise enhancing the resilience of highway bridges, roads, pedestrian walkways, and bicycle lanes, and associated infrastructure.

**Rebuilding American Infrastructure with Sustainability & Equity (RAISE):** Opportunity to incorporate resiliency strategies to help urban and rural communities move forward on projects that modernize roads, bridges, transit, rail, ports, and intermodal transportation.

## PROGRAMMED RESILIENCY FUNDING OPPORTUNITIES

Funding Sources with Added Focus/Eligibility for Resiliency

**Resilient Florida: Planning Grants**  
 Prioritizes the most vulnerable infrastructure to adverse impacts from flooding of rainfall events, storm surge, and sea level rise.

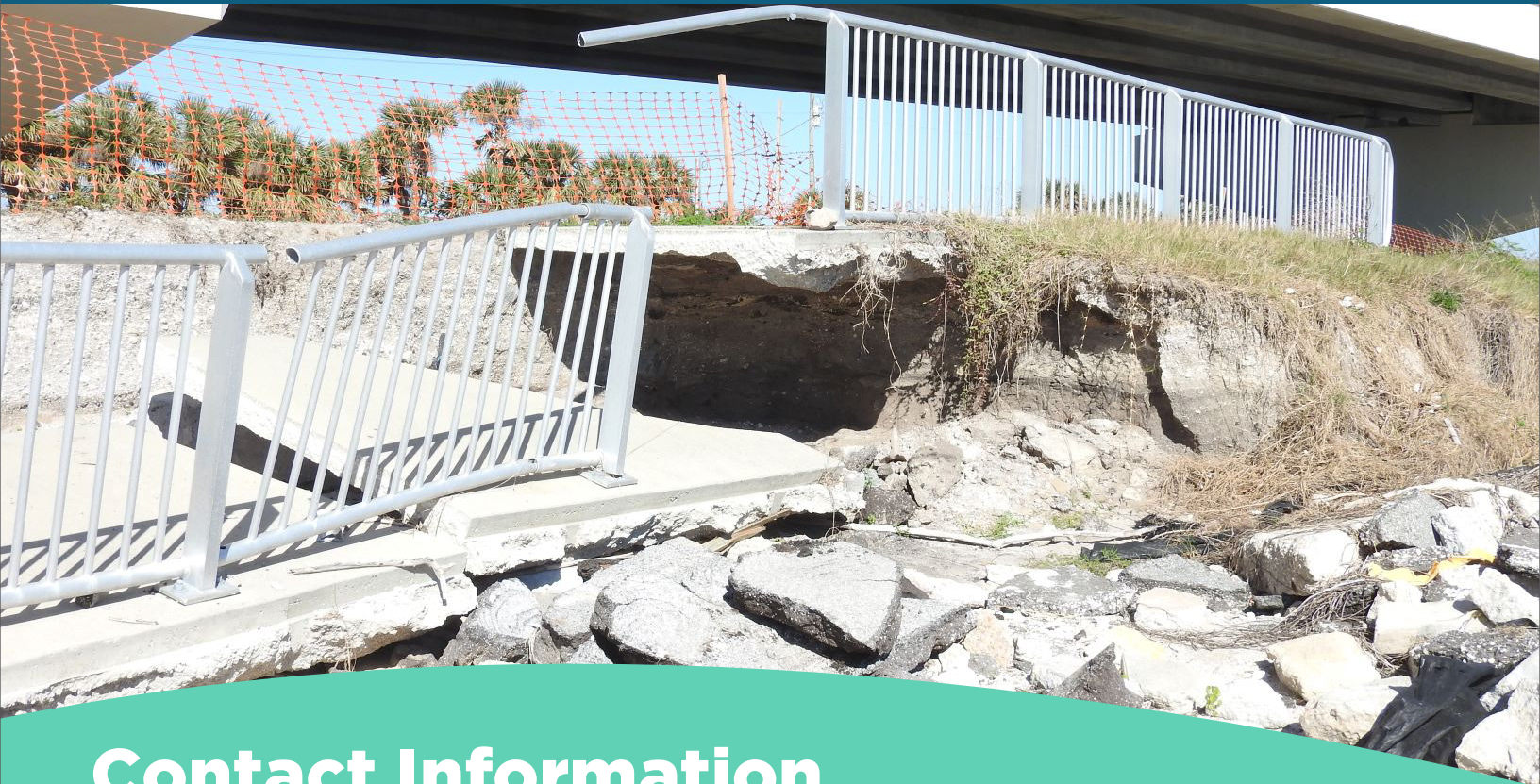


**Florida Resilient Coastlines Program (FRCP)** Grant funding for both Planning and Implementation projects that further coastal resilience.



**Community Planning Technical Assistance Grants**  
 Used to assist with disaster recovery, resiliency, and economic development planning for rural and suburban areas.





## Contact Information

 Sarah Kraum, Senior Transportation Planner

 (321) 690-6890

 sarah.kraum@sctpo.com

 [https://www.spacecoasttpo.com/what-we-do/  
planning/resiliency-planning](https://www.spacecoasttpo.com/what-we-do/planning/resiliency-planning)