



Captiva Panel

Sea Level Rise Committee Update: Vulnerability Assessment

June 2020

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SLR FDEP Planning Process:

Steps to Create Adaptation Plans



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

From Florida Department of
Environmental Protection
(FDEP) - Adaptation Planning
Guidebook

Coastal Science Solutions/Integral Approach

- Align closely with FDEP Guidebook and other guidelines
- Characterize geomorphology (sandy, mangrove, seawall, etc.) for whole island
- Identify hazards: storms & sea level rise (current scope only looking at SLR; submit proposal for funding to FDEP/NCRF to add storms)
- Map and categorize sectors of Captiva Assets (houses, commercial, roads, etc.) Evaluate impacts to sectors for 1', 2', 4' and 7' (Cat 1 Hurricane) of SLR
- Report outcomes of Vulnerability Assessment - April 1, 2020
 - Posted on Panel Website, available in June Handouts
 - Link to Detailed Maps Available



Aerial Source: Lee County and Pictometry International Corp. Jan-Feb, 2019

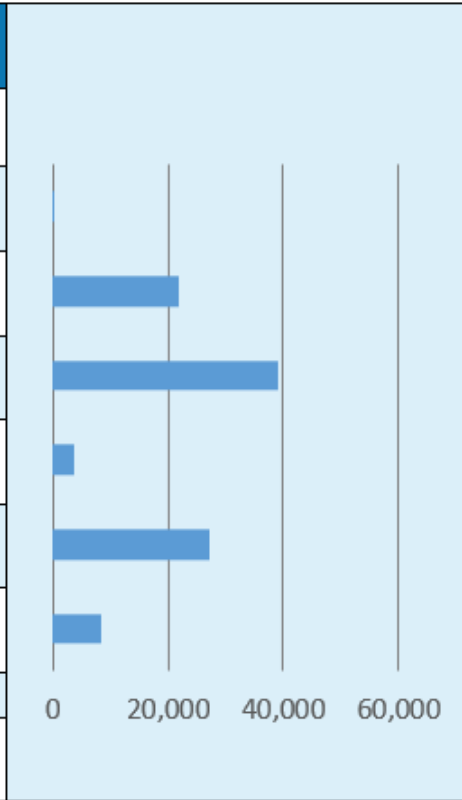
One Half Mile
0.5

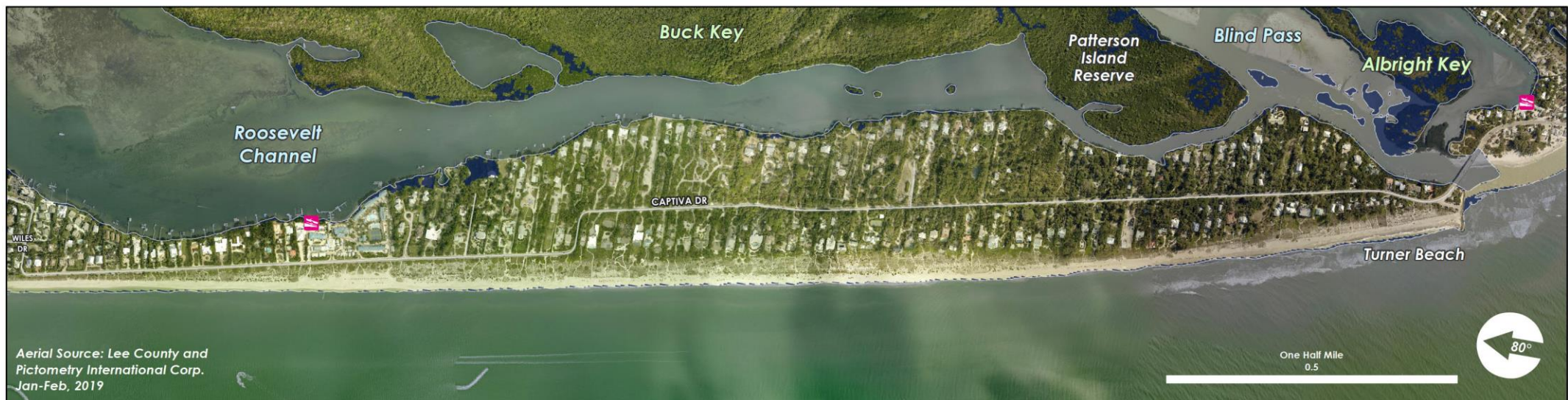


	<p>Legend</p>	<p>Backshore Character</p> <ul style="list-style-type: none"> Boat Launch Landscaping and Mangrove Mangrove Riprap/Seawall Sand 	<ul style="list-style-type: none"> Boat Ramp Roads 		
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Coastal Typology

Backshore Character	Location			
	Bayside	Inlets	Open Coast	Grand Total
<i>Units in Linear Feet</i>				
Boat Launch	56			56
Lawns, Landscaping, or Mangrove	21,946			21,946
Mangroves	39,105			39,105
Revetments	1,402	2,355	61	3,819
Beach/Sand	878	404	25,844	27,125
Sea Walls	8,531			8,531
Grand Total	71,919	2,759	25,905	100,582





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Legend

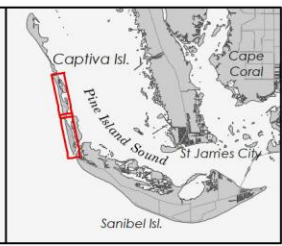
Coastal Hazard Zones
Rising Tide (feet)

1'

1 ft of Sea-level rise 2030 - 2050

Boat Ramp

Roads





Aerial Source: Lee County and Pictometry International Corp. Jan-Feb, 2019

	<p>Legend</p> <p>Coastal Hazard Zones Rising Tide (feet)</p> <p>2'</p> <p>2 ft of Sea-level rise 2055-2080</p>	<p> Boat Ramp</p> <p> Roads</p>		
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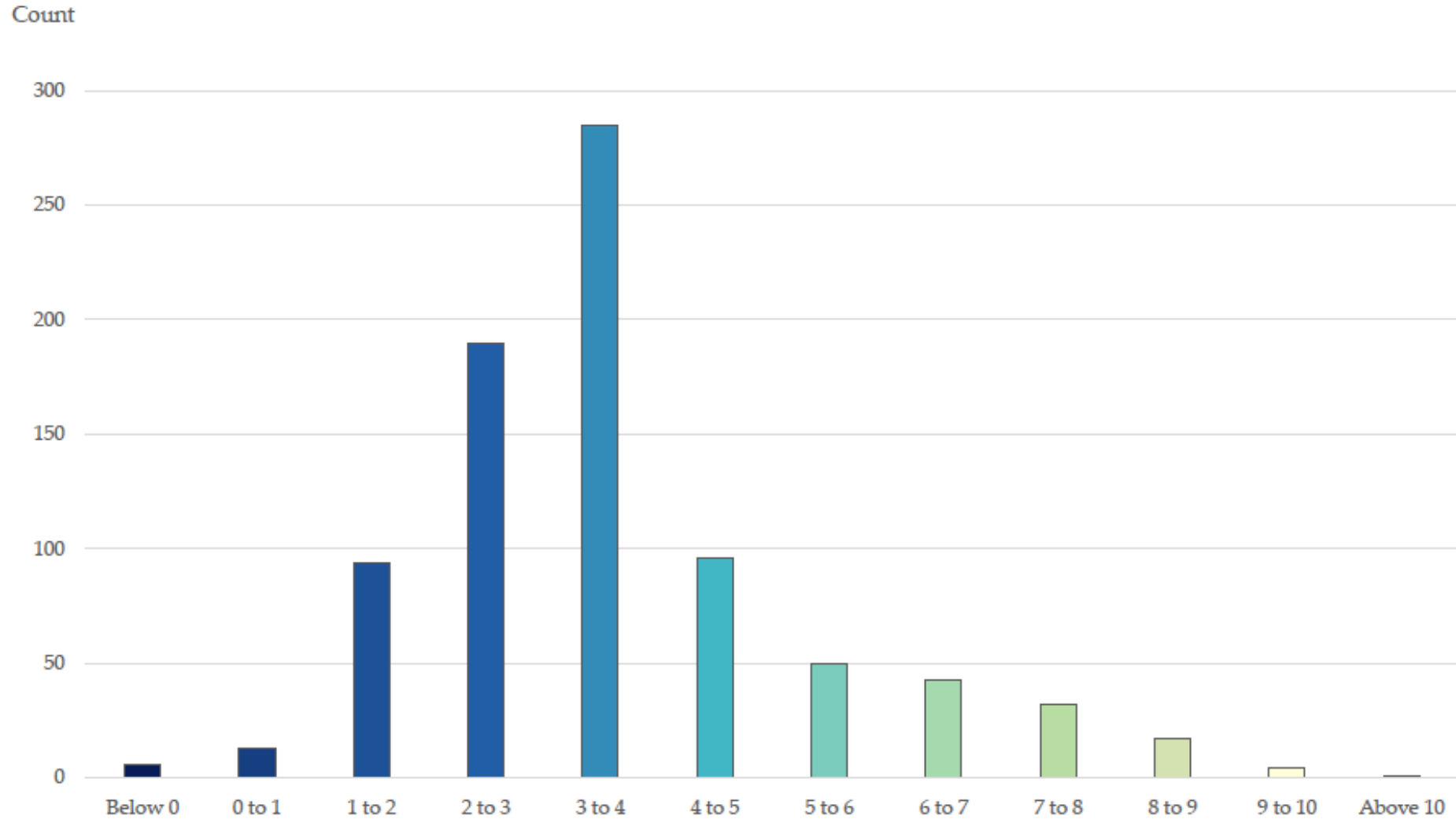
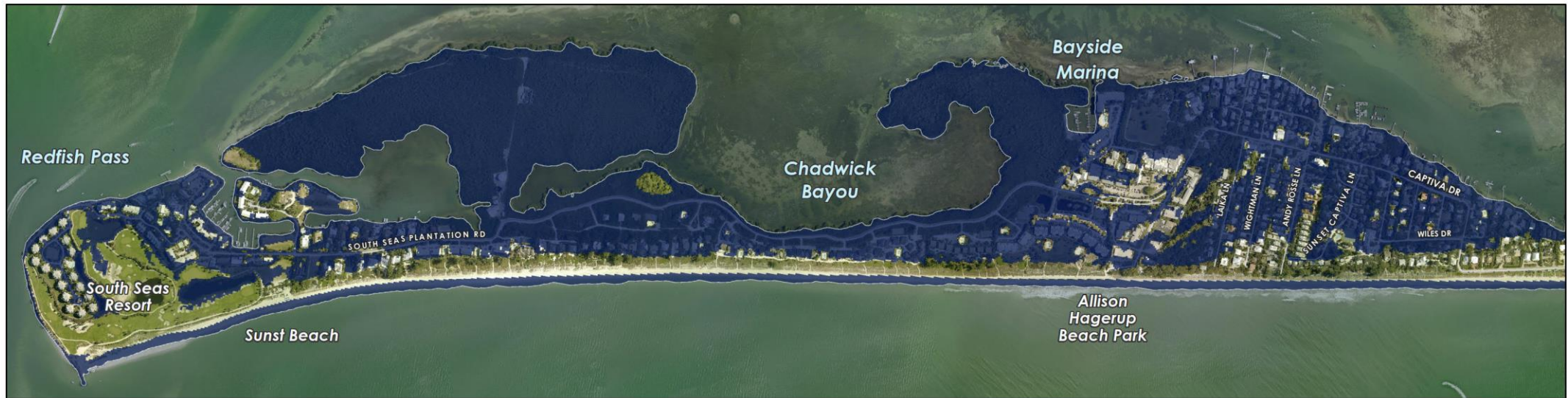


Figure 12. Number of Structures Potentially Affected at 1-foot Increments



Significant Findings - Without Storm Surges

- At 1 Foot
 - Threats to (most?) Bayside Properties
 - Threats to South Seas:
 - Sewer treatment, roads
 - Threat to Septic Fields
- At 2 Foot
 - Serious Flooding in Village east of Captiva Drive
 - South Seas
 - Roads, Bayside Marina, Sewer Treatment have serious issues



Aerial Source: Lee County and Pictometry International Corp. Jan-Feb, 2019

One Half Mile
0.5



6/10/2020

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Legend

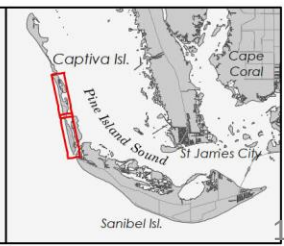
Coastal Hazard Zones
Rising Tide (feet)

4'

4 ft of Sea-level rise

Boat Ramp

Roads



Next Steps

1. Review Vulnerability Assessment Results
 - Panel
 - Infrastructure Providers: Electric, Water, Communications
 - South Seas
 - Community At Large (November)
2. Determine Vulnerability Priorities with Stakeholders
3. Begin Working on Solutions