



# City-wide Vulnerability Assessment

## Public Outreach Meeting #2

*September 17, 2024 | 5:00 PM*



**JonesEdmunds** 5

YEARS 1974-2024

 TAYLOR ENGINEERING, INC.

 **WILDWOOD**  
CONSULTING INC.



CITY OF  
**St AUGUSTINE**  
EST. 1565

# Agenda

- Review Project Goals
- Resilient Florida Program
- Project Background
- Focus Areas
- Community Feedback Session



# Project Goals

- Complete a City-wide Vulnerability Assessment that satisfies FDEP Resilient Florida Program guidelines and State Statutes (F.S. 380.093).
- Identify vulnerable critical community infrastructure.
- Develop grant-fundable adaptation projects to protect the City's most vulnerable prioritized infrastructure.

ably with risk when measuring hazard impacts. NOAA provides a useful definition of vulnerability that informs the follow-on actions described later in this chapter (2010):

*"The potential for loss of or harm/damage to exposed assets largely due to complex interactions among natural processes, land use decisions, and community resilience."*<sup>6</sup>

## Why do you need a Vulnerability Assessment?

A Vulnerability Assessment helps a community determine which structural and social assets are likely to be impacted by future coastal flooding and sea level rise.

**FDEP** = Florida Department of Environment Protection

**SLR** = Sea Level Rise

**VA** = Vulnerability Assessment



# Resilient Florida Program Overview

## Florida Senate Bill 1954 (May 12, 2021)

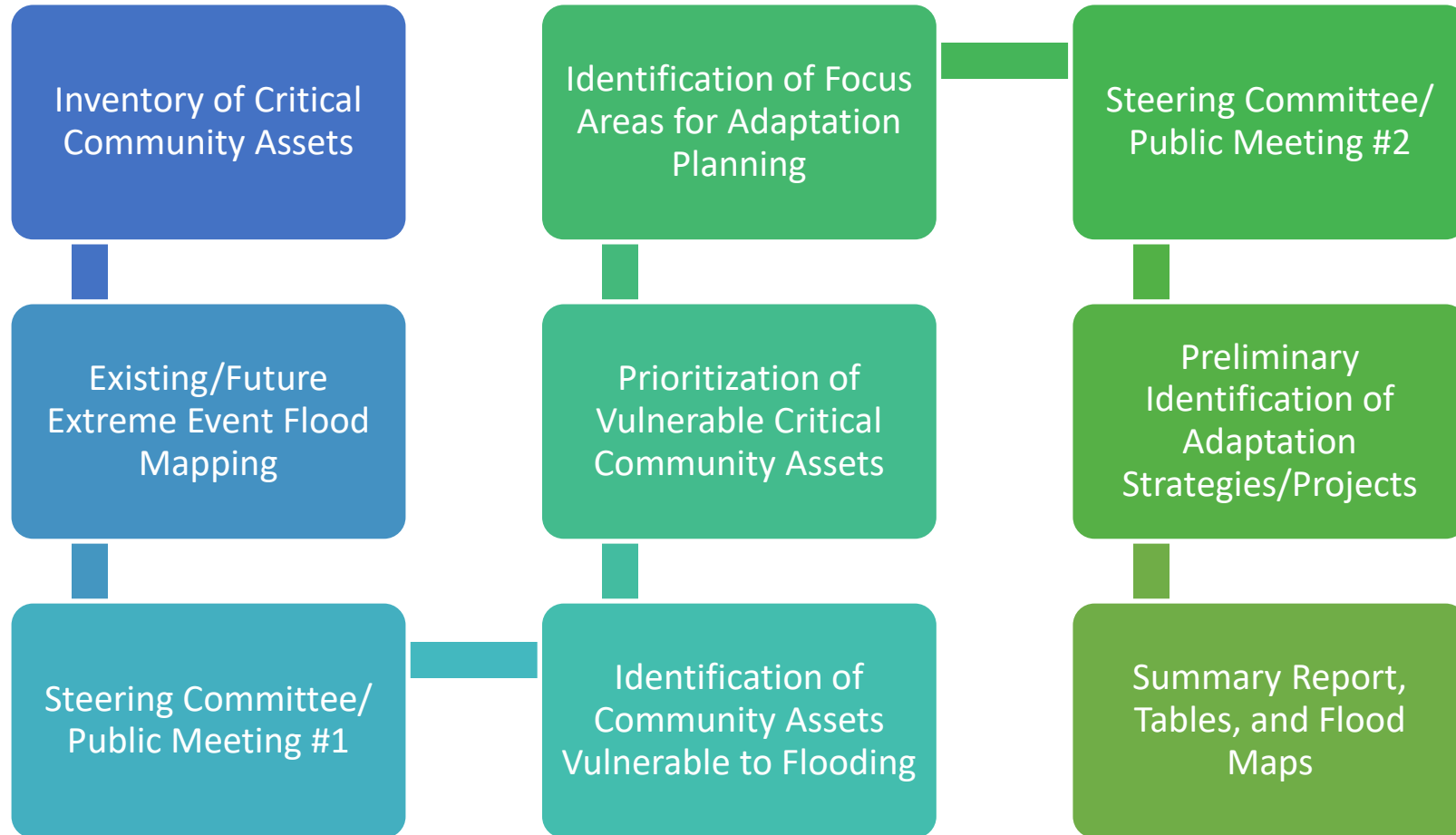
- Established Resilient Florida Grant Program.
- Directs FDEP to create a statewide Vulnerability Assessment.
- Directs FDEP to create a Statewide Flooding and SLR Resilience Plan.

## Resilient Florida Grant Program

- Planning Grants - \$19M (2021-22) / \$28M (2022-23)
- Implementation Grants - \$400M (2021-22) / \$275M (2022-23)
- COSA awarded ~\$27M in 2021 cycle



# Project Background: Study Products / Outcomes



# Project Background: Critical Community Assets

<u>Asset Type</u>
Affordable Public Housing
Airports
Bridges
Bus Terminals
Colleges and Universities
Communications Facilities
Community Centers
Conservation Lands
Correctional Facilities
Disaster Debris Management Sites
Disaster Recovery Centers
Drinking Water Facilities
Electric Production and Supply Facilities
Emergency Medical Service Facilities
Emergency Operation Centers
Fire Stations
Health Care Facilities
Historical and Cultural Assets
Hospitals

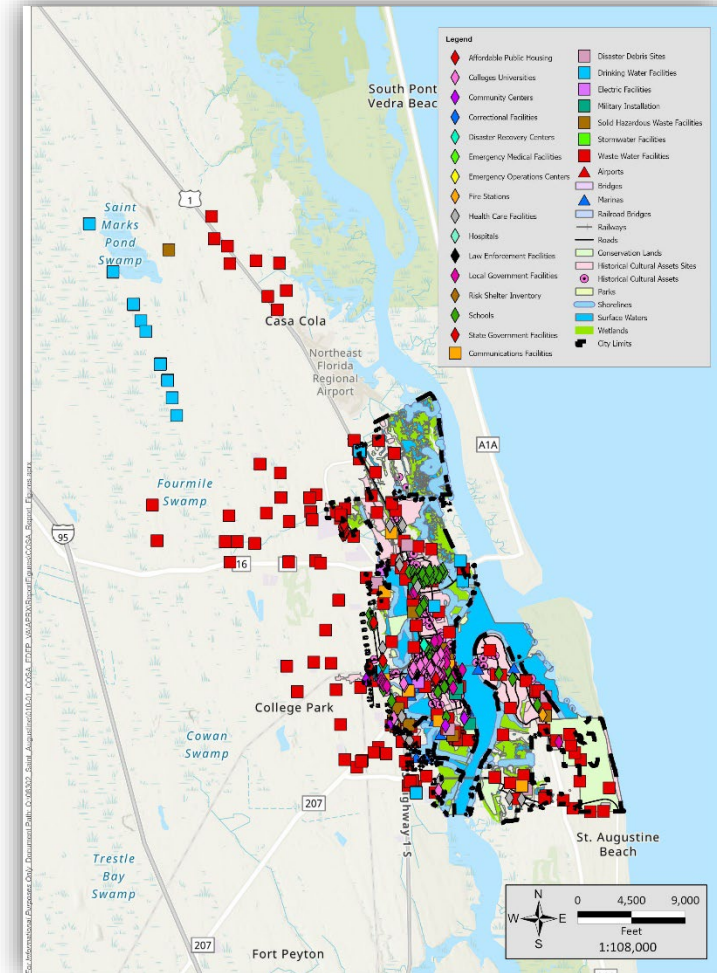
<u>Asset Type</u>
Law Enforcement Facilities
Local Government Facilities
Logistical Staging Areas
Major Roadways
Marinas
Military Installations
Parks
Ports
Rail Facilities
Railroad Bridges
Risk Shelter Inventory
Schools
Shorelines
Solid and Hazardous Waste Facilities
State Government Facilities
Stormwater Treatment Facilities and Pump Stations
Surface Waters
Wastewater Treatment Facilities and Lift Stations
Water Utility Conveyance Systems
Wetlands





# Project Background: Critical Community Assets

- Mined from City, County, State, and Federal data sources.
- Inventory includes ~2,500 critical community assets.



# Project Background: Flood Scenarios

- 20 scenarios are required by State Statute.
- The City is providing additional scenarios to help prioritize more vulnerable areas.

Notes: **Orange** highlighted cells indicate required scenarios. MHHW = Mean Higher High Water

Flooding Type	MHHW	10-Year	25-Year	100-Year	500-Year
Tidal/Sunny-Day Flooding					
Existing	X				
2040 Int-Low	X				
2040 Int-High	X				
2070 Int-Low	X				
2040 Int-High	X				
Rainfall Induced Flooding					
Existing			X	X	X
2040 Int-Low			X	X	X
2040 Int-High			X	X	X
2070 Int-Low			X	X	X
2040 Int-High			X	X	X
Storm Surge Flooding					
Existing		X	X	X	
2040 Int-Low		X	X	X	
2040 Int-High		X	X	X	
2070 Int-Low		X	X	X	
2040 Int-High		X	X	X	





# Project Background: Asset Prioritization

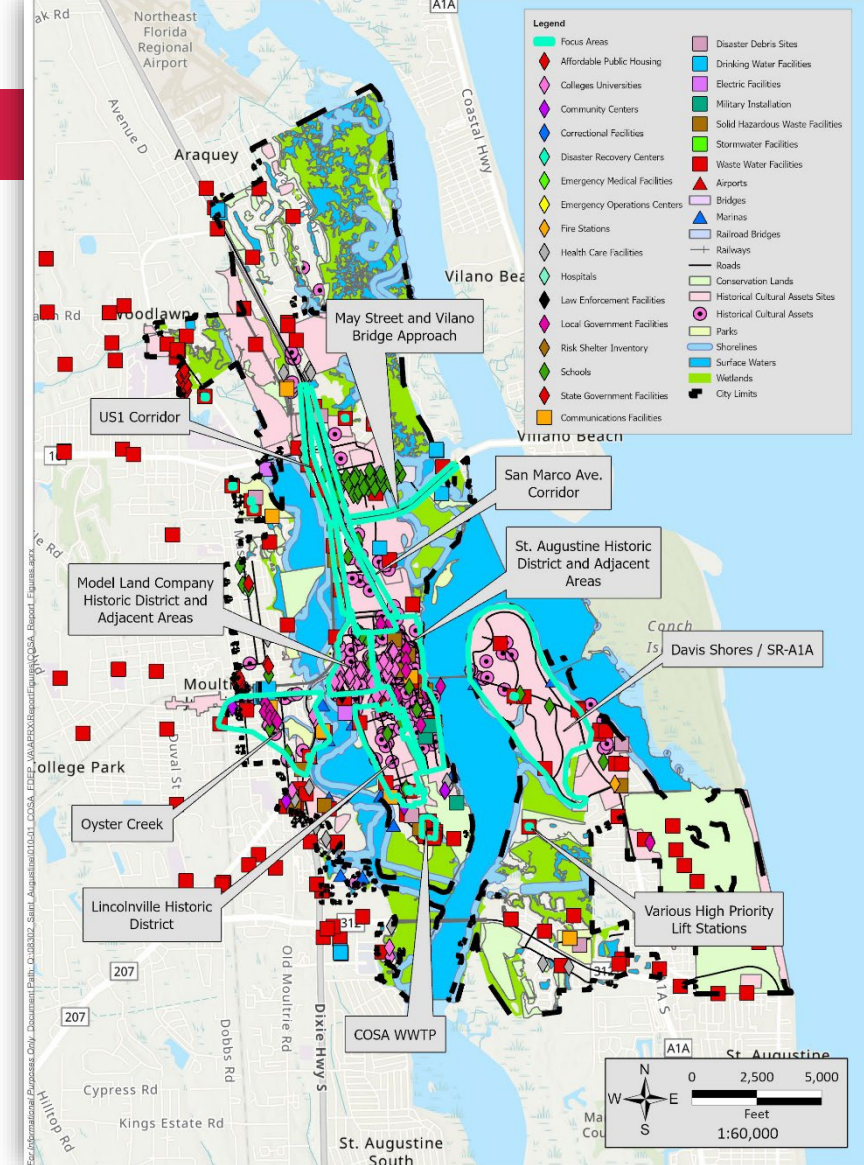
- Frequency of flooding.
- Sensitivity to the depth of flooding.
- Impact to the community.
- Regional significance.
- Community feedback survey results.

Asset Type	Highest	High	Medium	Low	Lowest	Not Vulnerable	Total
Affordable Public Housing					3	16	19
Bridges		3	1		1	7	12
Colleges and Universities	8	6	7	14	11	3	49
Community Centers				1		4	5
Conservation Lands			62	36	5		103
Disaster Debris Management Sites			1	2	2		5
Disaster Recovery Centers			2				2
Electric Facilities	1	1					2
Fire Stations			2				2
Ground Storage Tanks					1	1	2
Health Care Facilities				2	9	7	18
Historical and Cultural Structure	5	5	12	48	55	11	136
Historical and Cultural Structure - High Priority	11	45	34	45	41	17	193
Historical Cultural Site	1	20	17	10	6	2	56
Historical Cultural Site - High Priority	101	40	13	7	2		163
Law Enforcement Facilities		1					1
Lift Stations		22	13	18	27	57	137
Local Government Facilities		3	4	4	5	4	20
Logistical Staging Areas		1					1
Marinas		1	8	3	1		13
Military Installations		2	1			2	5
Parks	1	1	10	23	12	2	49
Radio Communications Towers			3	2		3	8
Rail Facilities		1		2	4	2	9
Roads	207	243	138	114	97	82	881
Schools	2	8	7	13	24	5	59
Solid and Hazardous Waste Facilities			4	1	3	5	13
Surface Waters						67	67
Traffic Signal		5	5	5	8	7	30
Waste Water Facilities	1	4	6	5	5		21
Water Distribution Pumps					2	3	5
Water Supply Wells						16	16
Water Treatment Plants		3			2	19	24
Wetlands						337	337
<b>Total</b>	<b>338</b>	<b>415</b>	<b>350</b>	<b>355</b>	<b>326</b>	<b>679</b>	<b>2463</b>



# Focus Areas

- Clusters of vulnerable critical assets.
- Used for identifying regional-scale problem areas and improvements.
- Does not preclude areas outside of the focus areas.



# Community Feedback Session

- Review Poster Boards
  - Critical Asset Priorities
  - Focus Areas
- Do you agree with the results? Yes/No
- Response cards provided for detailed feedback.
- Presentation and materials will be posted to the link below.
- Submit follow-up questions to [stormwater@citystaug.com](mailto:stormwater@citystaug.com)

COSA VA Webpage: <http://www.citystaug.com/VA>

