

Coastal Georgia

Flood Resiliency Planning

PARTNERSHIP BETWEEN:

Georgia Sea Grant

City of St. Marys

City of Tybee Island

University of Georgia

Carl Vinson Institute of Government

Lamar Dodd School of Art

College of Environment and Design

UGA Marine Extension

Stetson University

Department of Natural Resources

St. Marys Earthkeepers

(Funded by NOAA National Sea Grant program)

GEORGIA SEA GRANT | THE UNIVERSITY OF GEORGIA

Kelly Spratt

Georgia Sea Grant

Marine Extension

University of Georgia



10.27.15

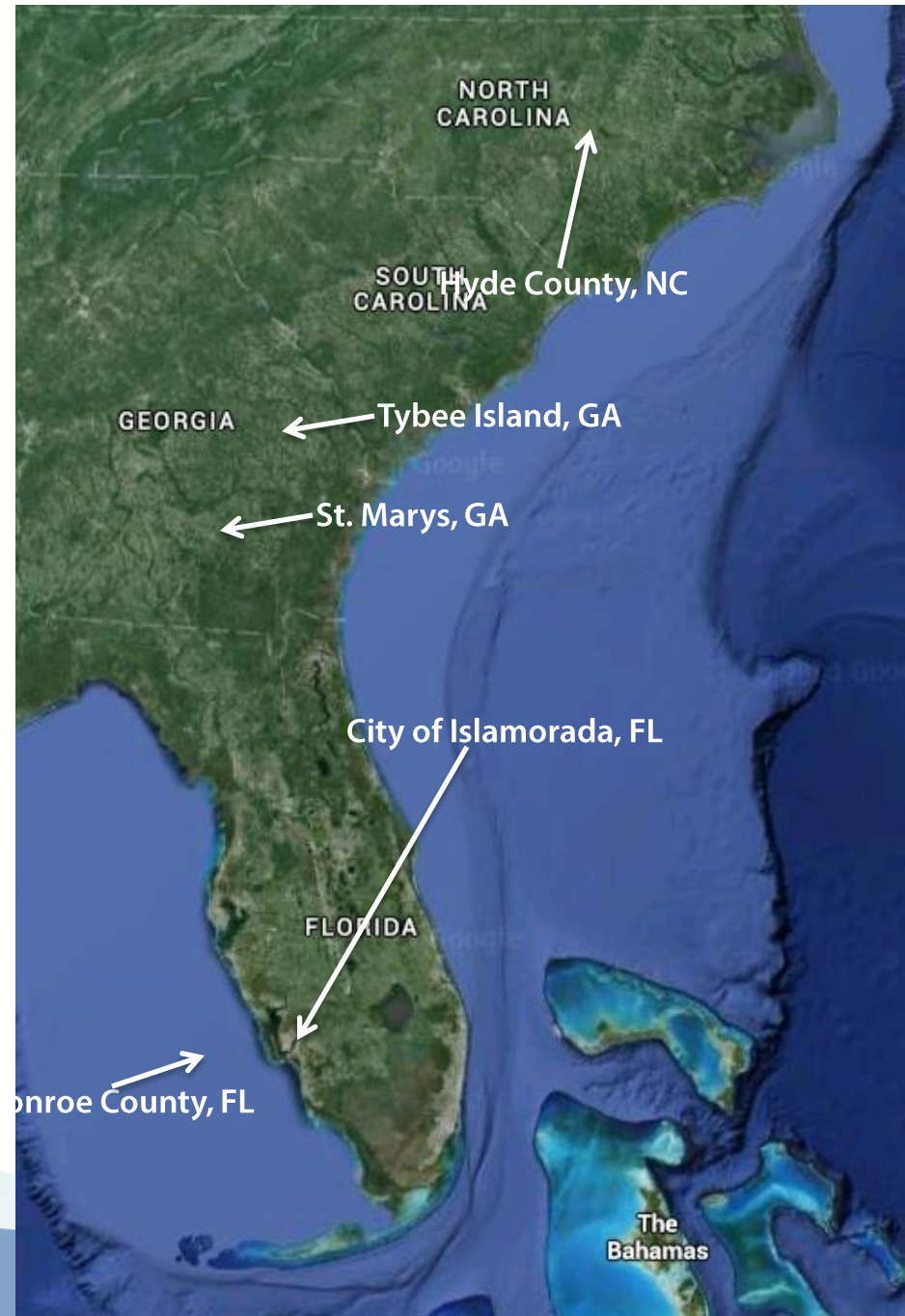
Tybee Island Causeway, U.S. 80

(photo courtesy of Tybee Island Police Department)



The Goal

Georgia Sea Grant is actively in increasing resiliency along the GA Coast. Our results are viewed as a model for stakeholder involvement in planning for both riverine and coastal flooding, and preparing for sea level rise.



In 2011, Tybee Island, Georgia Sea Grant and the University of Georgia partnered to seek National Sea Grant funding for climate adaptation planning.



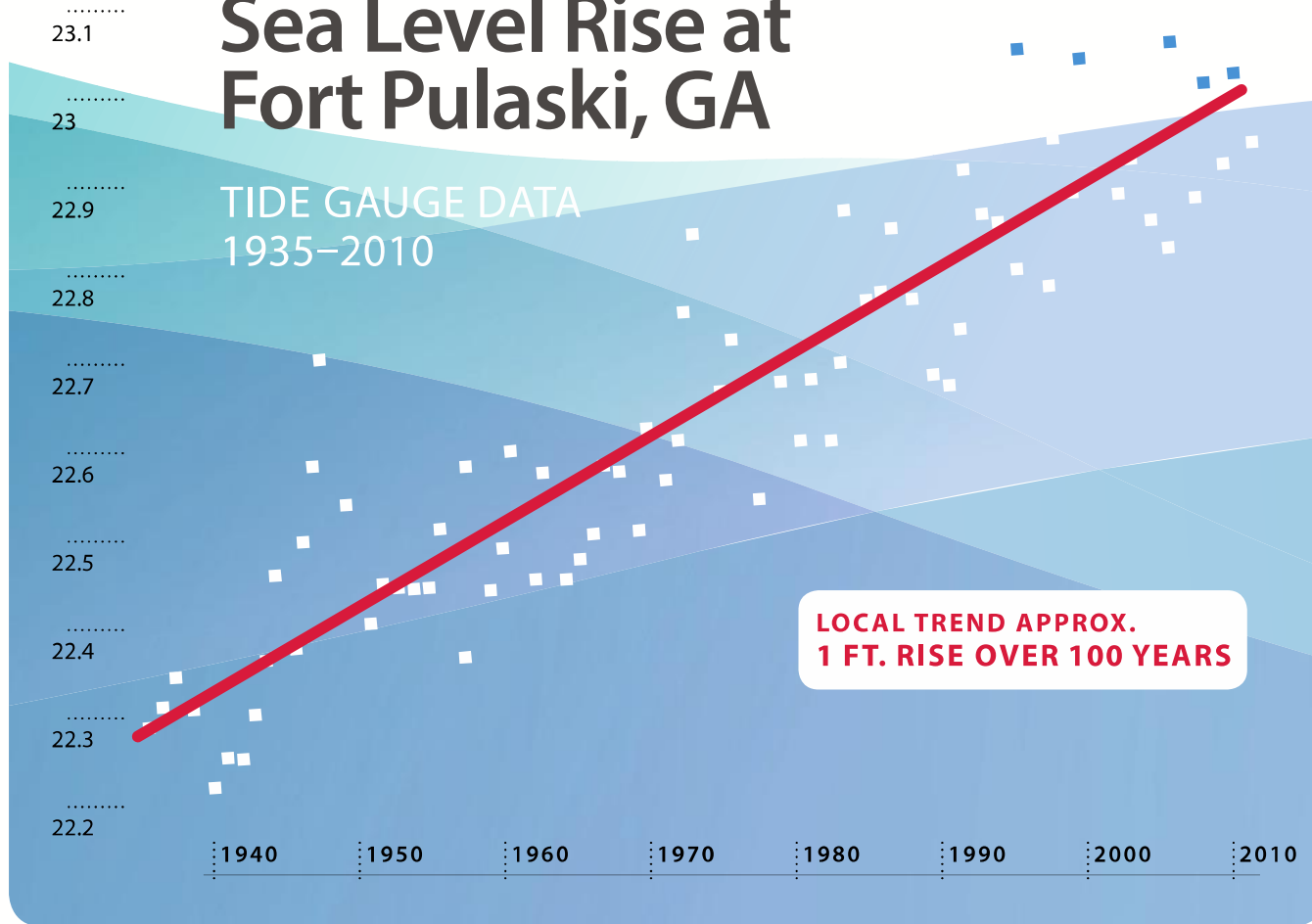
Sea Level Rise on Tybee Island



- More frequent flooding
- Stormwater drainage issues
- Beach erosion
- Saltwater intrusion
- Intensified storm surges
- Safety and emergency management concerns

Sea Level Rise at Fort Pulaski, GA

TIDE GAUGE DATA
1935-2010



**LOCAL TREND APPROX.
1 FT. RISE OVER 100 YEARS**

Local Knowledge

- Community-driven process
- Identify where is vulnerable
- Identify what is most critical and which potential actions to take



Local Decisions



Cost-benefit analysis of potential adaptation actions:

- Renourishment of the beaches
- Raising U.S. Highway 80 by three to four feet
- Elevating the wells and lift stations out of the flood zone
- Building a sea wall
- Stormwater retrofits

St. Marys Climate Adaptation Initiative



Tapping Local Knowledge



INTERVIEWS AND PUBLIC MEETINGS

- Identify vulnerable flooding areas

FACILITATED DISCUSSIONS

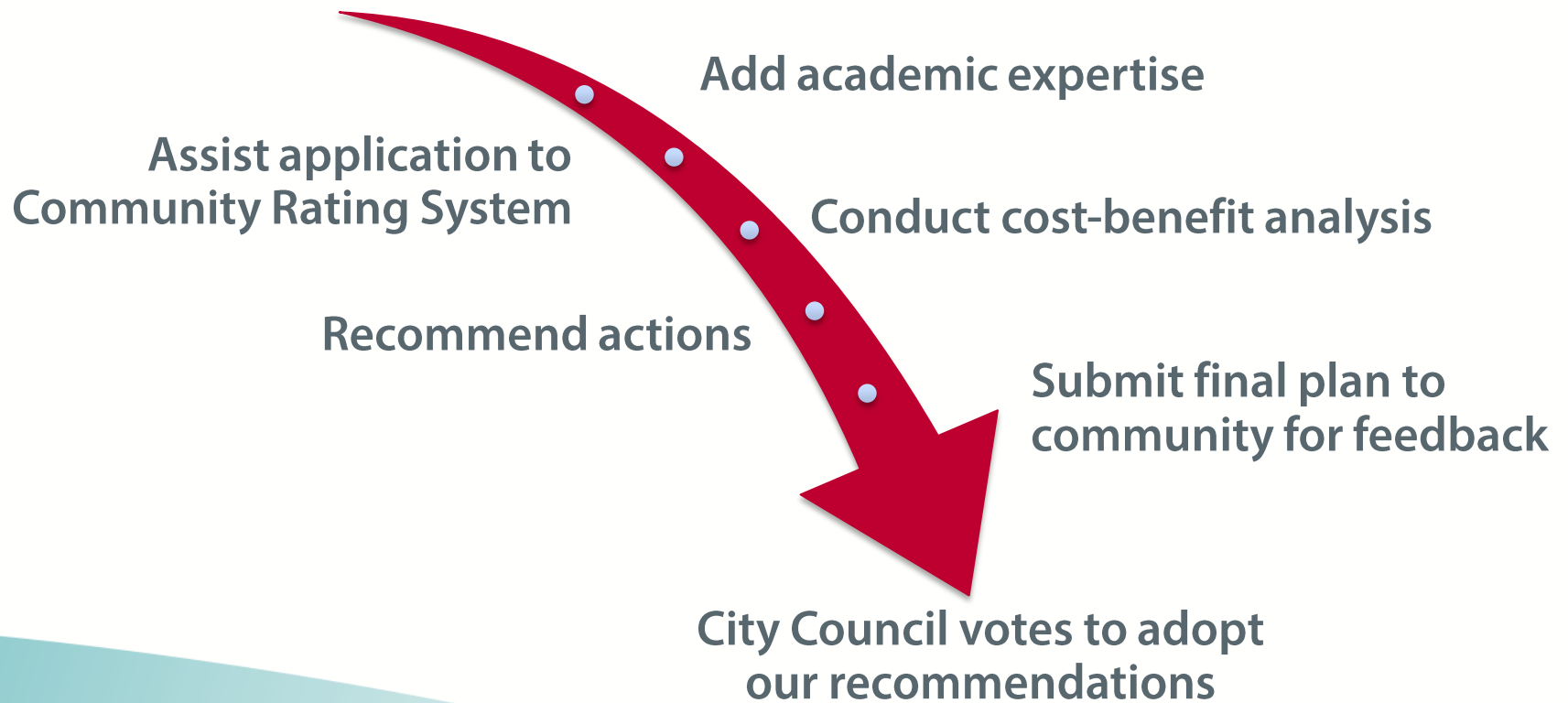
- Identify what is most critical and potential actions

ASSESSING OPTIONS

- Cost benefit analysis

Planning Process

Gather local and technical knowledge



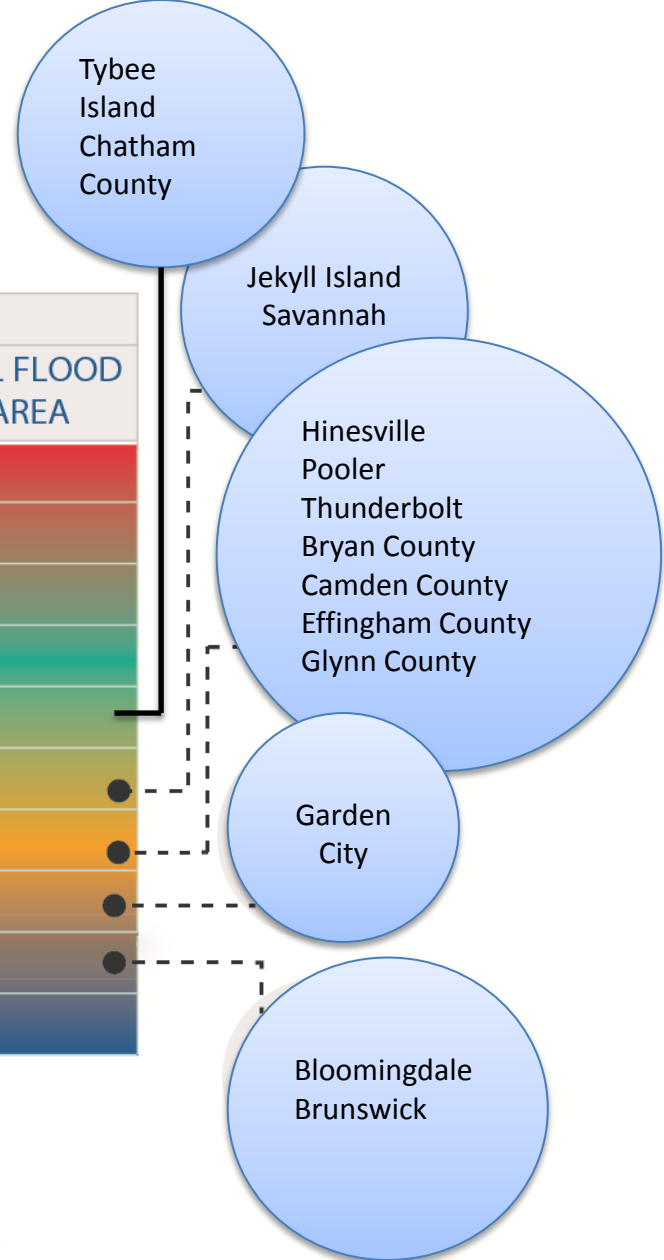
Community Rating System

The Community Rating System (CRS) recognizes communities who take steps to reduce their flood risk and provides flood insurance discounts for residents.



COMMUNITY RATING SYSTEM (CRS)
CLASSIFICATION AND PREMIUM REDUCTION
 Participation can lower community flood insurance rates

CREDIT POINTS	CLASS	PREMIUM REDUCTION	
		SPECIAL FLOOD HAZARD AREA	NON-SPECIAL FLOOD HAZARD AREA
4,500+	1	45%	10%
4,000 – 4,499	2	40%	10%
3,500 – 3,999	3	35%	10%
3,000 – 3,499	4	30%	10%
2,500 – 2,999	5	25%	10%
2,000 – 2,499	6	20%	10%
1,500 – 1,999	7	15%	5%
1,000 – 1,499	8	10%	5%
500 – 999	9	5%	5%
0 – 499	10	0	0



CRS ISO Inspection Visit



Adaptations



Next Steps:



Verizon LTE VPN 2:20 PM 76%

Help Sea Level Capture Tools Reset

Georgia Oct 2015 mapping

GPS signal

0% 50% 100%

GPS coordinates
31°8'17"N, 81°29'39"W, alt:6m

History
No points have been captured

Legal

Add a Note Take a Photo

Save Data

News Map Tools Photos Projects

The image shows a mobile application interface for sea level capture. At the top, there is a status bar with Verizon LTE VPN, the time 2:20 PM, and a 76% battery level. Below the status bar are navigation buttons for "Help", "Sea Level Capture Tools", and "Reset". The main heading is "Georgia Oct 2015 mapping". A progress bar for "GPS signal" is shown, currently at 0% with a green bar extending to 50%. Below this, the "GPS coordinates" are displayed as "31°8'17"N, 81°29'39"W, alt:6m". A "History" section indicates "No points have been captured". The central part of the screen shows an aerial satellite view of a building complex with a blue location pin overlay. A "Legal" label is visible in the bottom left corner of the satellite image. Below the satellite image are two buttons: "Add a Note" and "Take a Photo". At the bottom of the screen is a large green "Save Data" button. The bottom navigation bar contains icons for "News", "Map", "Tools", "Photos", and "Projects".



Questions?

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