

COJ City Council Special Committee on Resiliency Newsletter

First Edition – Introducing the Committee & Setting the Scene

Introduction

In November of 2019, Jacksonville City Council President Scott Wilson announced plans to form a *Special Committee on Resiliency* that would launch in January of 2020. The overarching objective of the Special Committee on Resiliency would be to find policy solutions that would increase the resilience of Duval County to the impacts of coastal flooding, riverine flooding, sea level rise and high intensity storm events.

The Urban Land Institute (ULI) defines resilience as,

“The ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events.”

[ULI: Returns on Resilience The Business Case](#)

In order to increase the resilience of any given community (i.e. ensure that the community can ‘bounce back’ after a disastrous event), intensive discussions need to be had amongst elected officials, subject matter experts, government staff and members of the public.

The COJ Special Committee on Resiliency itself will be comprised of City Council members who will aim to: (a) learn from local and statewide experts; (b) work towards finding the most effective policy solutions; and (c) further build off the findings of two earlier technical advisory groups:

- 2019 COJ Adaptation Action Area (AAA) Working Group
- 2019 COJ Storm Resiliency & Infrastructure Review Committee

The Special Committee on Resiliency will meet once-a-month between January and June of 2020 and will be comprised of the following City Council Members:

- Matt Carlucci – Chair
- Michael Boylan
- Aaron Bowman
- Randy DeFoor
- Garrett Dennis
- Joyce Morgan
- Scott Wilson



The Charge of the Committee

The committee will comprehensively assess the resilience and health of the beaches coastline and the St. Johns River system, including its tributaries, wetlands and riparian land. As part of this assessment, it will review city environmental, land use and infrastructure policies that affect these valuable and often vulnerable county assets and the health and safety of our citizens. The committee may propose policy recommendations for consideration by the Council and the Mayor and executive branch agencies. I am directing the committee to complement any proposals with definitive, practical actions plans. The committee may seek advice from public and private subject matter experts and will encourage maximum public participation in its work. It should consider recent work and recommendations of the planning department and its adaptation action area work group and the valuable work accomplished by the Northeast Florida Regional Council on resiliency and sea level rise. I am pleased and committed to lead this critical initiative and look forward to receiving the committee's work product as they move along.

- *Issued by Council President Scott Wilson*

Purpose

To realize implementation options, the committee needs to begin with the end in mind. The desired outcome will be effective cost-efficient actions in response to sea level rise. The meetings will allow subject matter experts to speak, followed by a question-and-answer period with Council members.

Implementation

Meetings will last two hours and fifteen minutes; those last fifteen minutes will be devoted to public comments. This proposed meeting plan will be flexible and subject to change as the committee moves forward.

Engagement Opportunities for Members of the Public

Members of the public are highly encouraged to participate in this process. Each public meeting will be held at Jacksonville City Hall and will include opportunities for public engagement. There is a dedicated online webpage for the Committee's work:
<https://www.coj.net/city-council/standing-committees/resiliency-special-committee>

Public comments can also be sent to:
resiliency@coj.net

Meeting #1 – Setting the Scene of Climate Change & Sea Level Rise

To introduce the Committee's work, the first meeting was held on Monday, January 27th between 2:00 p.m. – 4:15 p.m. in the Lynwood Roberts Room of Jacksonville City Hall. Councilman Matt Carlucci called the meeting to order and invited Committee Members to introduce themselves. Following introductions, Councilman Carlucci gave special thanks to Council President Wilson for allowing City Council Members the opportunity to form the Special Committee. In providing members of the public with an overview of what the Committee would seek to accomplish, Councilman Carlucci explained that:

- (a) Work will last for about six months, up until June of 2020, where the aim will be to have a legislative package created after findings are reached and conclusions are drawn;
- (b) The Special Committee will pay homage to the work of earlier Jacksonville efforts that were focused on resiliency, including the 2019 Adaptation Action Area (AAA) Working Group, and 2019 Storm Resiliency & Infrastructure Review Committee;
- (c) Future meetings will provide a collaborative space for organizations to share their work and for members of the public to make their voices heard.

In his introductory remarks to the public, Councilman Carlucci also made it very clear that part of the Committee's work would be to explore the idea of hiring a Chief Resilience Officer (CRO) for the City of Jacksonville. This individual would oversee operations across all departments and would act as a central liaison for all COJ resiliency efforts. Beyond the month of June, Councilman Carlucci explained that work would be continue further, allowing more opportunities for public engagement.

[Presentation 1: USACE Considerations for Climate Preparedness & Resilience](#)

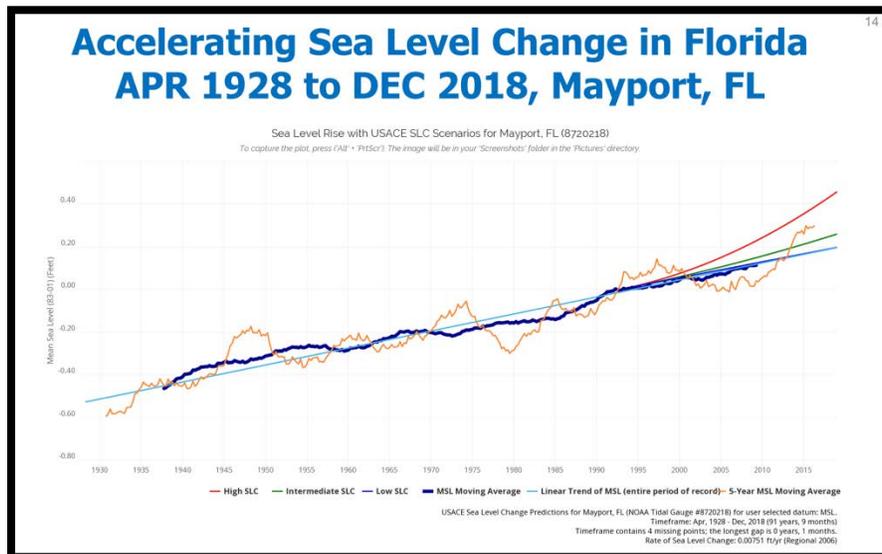
Following introductions, the Special Committee on Resiliency welcomed Glenn Landers, a sea level rise expert from the U.S. Army Corps of Engineers, to give a presentation focused on climate science, sea level rise and engineering.

Glenn Landers is a Professional Engineer with the U.S. Army Corps of Engineers. He has 35+ years of combined planning, engineering and project management experience with the USACE involving large scale water resources and civil works projects. He is the Jacksonville District technical lead for sea level change and other climate related studies for the Comprehensive Everglades Restoration Plan (CERP), is a technical advisor to the Southeast Florida Climate Compact counties and is active in developing climate adaptation guidance and strategies at local, state and national levels.

To begin his presentation, Mr. Landers provided Committee Members with an overview of climate related concerns facing the State of Florida. He noted that sea level has changed substantially over thousands of years depending on the presence or absence of glaciers that bind up or release tremendous amounts of water. He explained that Florida faces dangers from hurricanes, fires and less frequent but more intense rainfalls

as the world's climate changes. He then discussed the impacts that were being felt across the state because of sea level rise. Mr. Landers explained that, because sea level rise increases flood frequency and depth in coastal areas, it also causes other negative externalities such as increases in flood insurance costs, market value declines for at-risk properties and an increased likelihood of saltwater intrusion.

Bringing it to the local level, Mr. Landers then discussed what is known about sea level rise by referencing data made available by a NOAA (National Oceanic & Atmospheric Administration) tide gauge located at Mayport. Mr. Landers explained that two factors cause sea level rise concerns: (1) an increase in the water level and (2) subsidence (sinking) of the land. Presented data showed acceleration in sea level rise from 1928 through 2018. The highest rate curve predicts a 1.86 to 2.25-meter rise in sea level at Mayport by 2060. Sea level rise impacts include increased flood risk, salinity change in the river and saltwater intrusion into drinking water aquifers.

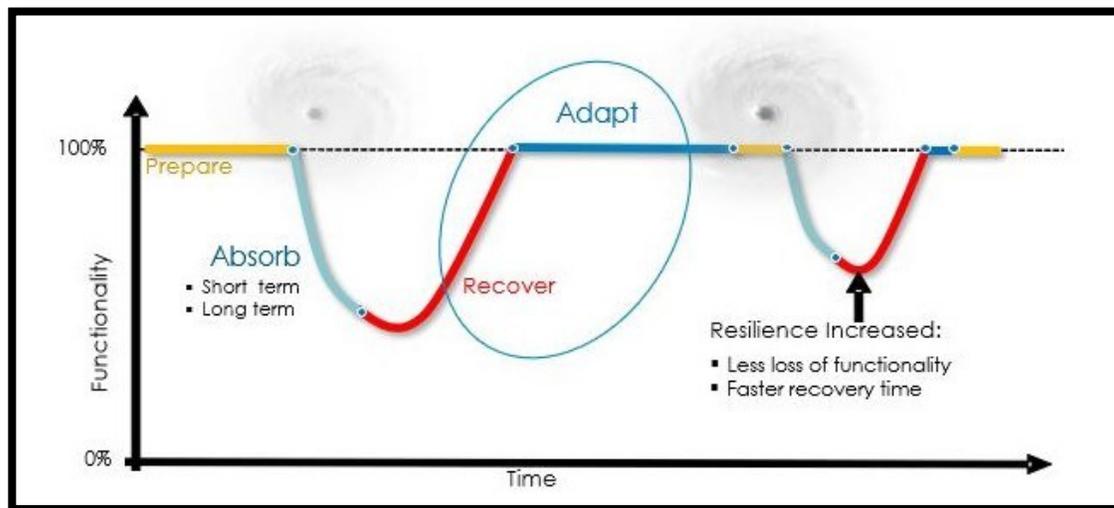


Sea Level Rise at Mayport 1928-2018

Delving beyond context alone, Mr. Landers provided Committee Members with information about technology tools that are helping other municipalities better determine risk. One example of this was the mobile [LIDAR technology](#) that is being utilized by City of Ft. Lauderdale, Florida to determine the first-floor elevations of different structures.

He also discussed a wide array of approaches to resilience planning and suggested that different approaches should be used for different projects. When taking future sea level rise projections into account, for instance, the design lifespan of a bridge will be accounted for differently than the design lifespan of a smaller civil engineering project. In providing another illustration, he noted the vulnerability of hospitals in Northeast Florida and pointed to the public safety problems that would arise if local medical facilities were to become inaccessible due to flooding.

One of the overarching takeaways from the presentation came when Mr. Landers painted a clear picture of what was at stake: *sea level rise permanently increases coastal flood risks, and by the end of the century, there is projected to be a three-foot increase in sea level rise, with possibly more due the accelerating melting of land-based ice.* Mr. Landers maintained that, preparing for sea level rise will require taxpayer dollars to be spent on solutions, and community dialogue will have to take place so that those investment decisions are well-informed and supported by the public.



In charting a path forward, Mr. Landers concluded his presentation with a few closing thoughts: every dollar spent on preparedness will save \$4 to \$5 dollars in recovery; septic tank systems should be included in discussions related to resiliency; and community dialogue needs to take place before resiliency can be fully addressed.

Q&A with Committee Members followed this presentation. Made available in minutes.

Presentation 2: FDEP Resilient Coastlines Program

Moving forward, Committee Members welcomed Whitney Gray, Administrator of the FDEP Resilient Coastlines Program, to give a presentation focused on efforts taking place at the state level to address resiliency related planning issues.

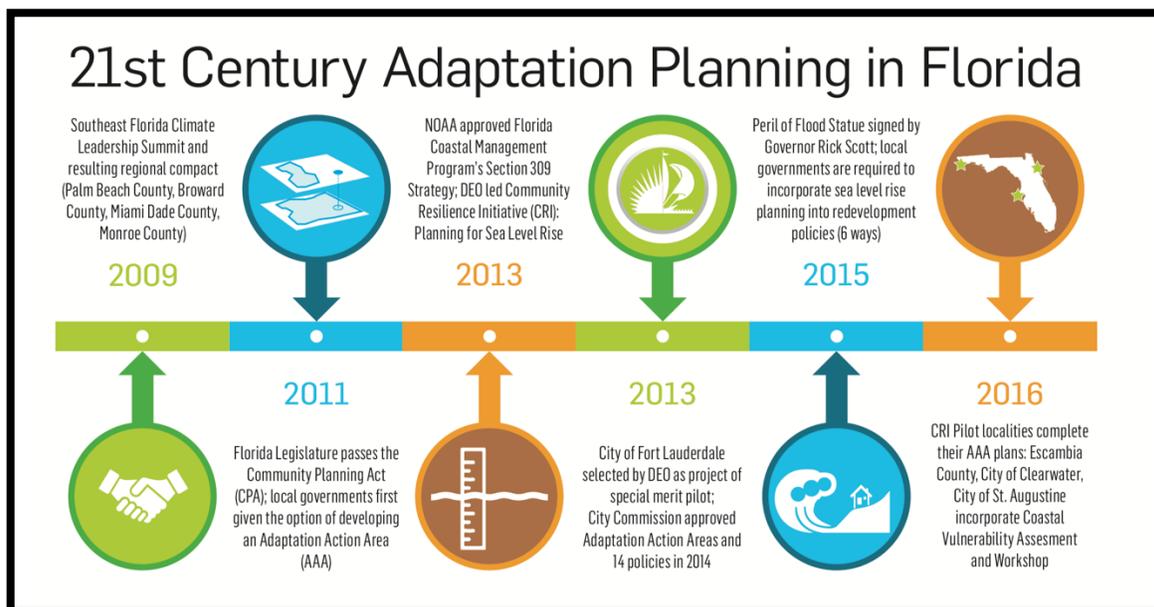
Whitney Gray has been the Administrator of the Florida Resilient Coastlines Program in the Office of Resilience and Coastal Protection of DEP since December 2017. Her bachelor's and master's degrees are from the University of Florida where she studied zoology and systems ecology. She first worked on climate change vulnerability assessment and adaptation planning with the Southwest Florida Regional Planning Council. From 2012 to 2015, Whitney served as Sea Level Rise Coordinator for both

FWC and Florida Sea Grant, specializing in the effects of sea level rise on coastal ecosystems. She coordinated an internal climate change seminar series (“Florida Adapts”) and served as a subject-matter expert on Species Action Plans during the Imperiled Species Management Planning process. Originally from Florida’s Gulf Coast, Whitney has seen first-hand how sea level rise has changed the state, from critical erosion to “ghost forests.”

Ms. Gray introduced herself and then expressed how happy she was to see Jacksonville taking a proactive approach to resilience planning. She made it clear that FDEP was here to support Jacksonville in its efforts to become more resilient.

The focus of her presentation was on the [FDEP Resilient Coastlines Program](#) and the benefits that the program has produced for local communities across the state. To begin her presentation, Ms. Gray provided examples from other parts of the Florida where: (a) [an octopus was floating in a parking garage](#); and (b) [king tides](#) flooded a marina in Hollywood, Florida. She used these examples to show committee members the widespread nature of resiliency related issues. Her message to Committee Members was that Jacksonville is not alone in Florida when it comes to these problems.

In highlighting the work that was being accomplished by the FDEP Resilient Coastlines Program, Ms. Gray explained that FDEP has been providing local governments with [grant funding opportunities](#) that help with a broad range of planning activities related to resiliency – ranging from compliance with the [“Peril of Flood” statute](#), to conducting vulnerability assessments and producing adaptation plans.

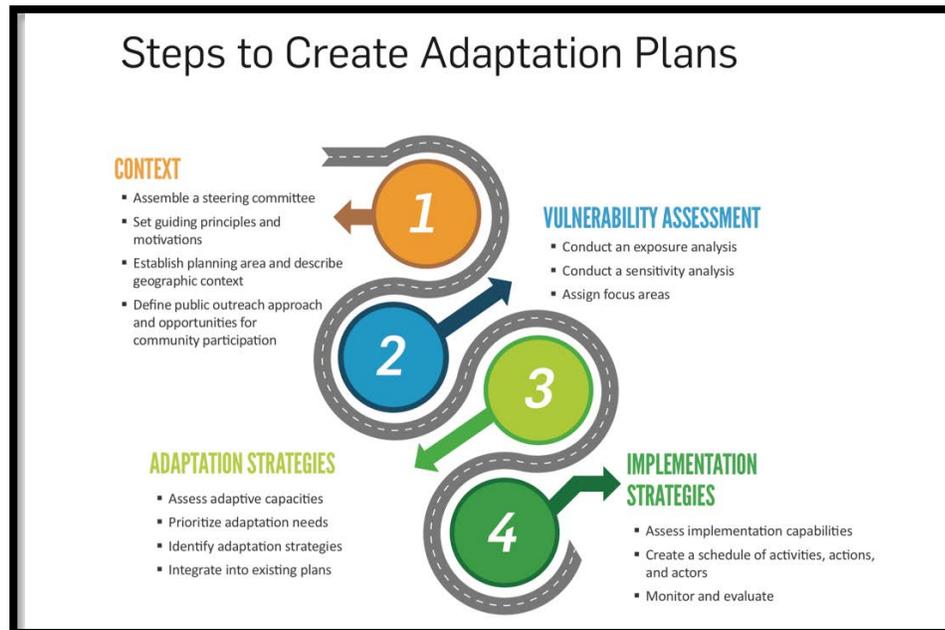


Adaptation Planning in Florida

In providing Committee Members with a framework for approaching resilience planning in the State of Florida, she utilized the [FDEP Adaptation Guide Book](#) as a resource for

Committee Members to refer to. Utilizing approaches from the Guidebook, she proposed a series of actions steps for resiliency planning that Jacksonville could take:

- 1) Conduct a vulnerability assessment to identify weaknesses and challenges;
- 2) Figure out what can be done to address those vulnerabilities;
- 3) Prioritize and implement strategies.



Adaptation Planning Process

In addressing the question of what types of solutions could possibly be implemented to make Jacksonville more resilient, Ms. Gray provided Committee Members with a selection of adaptation strategies that could be pursued. Types of adaptation strategies include: 1) **protection** – eliminate the water; 2) **accommodation** – build to tolerate some water; 3) **managed retreat** – evacuate away from the water; 4) **avoidance** – don't build in wet areas to start with. The strategies have to be applied to the whole community to achieve the fullest benefit – remediating or protecting one property at a time doesn't get the job done and can make things worse for adjoining properties.

Following her summary of strategies, Ms. Gray's presentation specifically highlighted local projects completed in Duval County that were made possible because of grant funding from FDEP, including [a vulnerability assessment that was conducted by the City of Atlantic Beach](#), a vulnerability assessment that is currently being conducted by Jacksonville Beach and a critical facilities assessment that is being conducted by COJ.

Q&A with Committee Members followed this presentation. Made available in minutes.

Public comments are also made available in minutes.



Protect Example – Backflow Valves



Accommodate Example – Living Shorelines



Managed Relocation Example – Voluntary Buyouts



Avoid Example – Limiting Development in Flood-Prone Areas

Relevant Definitions from the [FDEP Adaptation Planning Guidebook](#)
Source: Florida Department of Environmental Protection (FDEP)

Adaptation: Adjustment in natural or human systems in response to actual or expected stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Coastal flooding: Flooding which occurs when water is driven onto land from an adjacent body of water. This generally occurs when there are significant tropical storm events, such as hurricanes.

Flood: An overflow of water onto normally dry land. The inundation of a normally dry area caused by rising water in an existing waterway, such as a river, stream, or drainage ditch. Flooding is a longer-term event than flash flooding – it may last days or weeks.

King tide: The highest predicted high tide of the year at a coastal location.

Mean sea level: The height of the sea surface averaged over all stages of the tide over a period of time, typically computed over a 19-year period.

Sea level rise: An observed increase in the average local sea level or global sea level trend. The two major causes of global sea level rise are thermal expansion caused by the warming of the oceans (since water expands as it warms) and the loss of land-based ice (such as glaciers and polar ice caps) due to melting.

Storm surge: An abnormal rise of water generated by a storm over and above the predicted astronomical tides. Storm surge should not be confused with storm tide, which is defined as the water level rise due to the combination of storm surge and the astronomical tide.

Stormwater runoff: Is generated when precipitation flows over land or impervious surfaces and does not percolate into the ground. As the runoff flows over the land or impervious surfaces (paved streets, parking lots, and building rooftops), it accumulates pollutants that could adversely affect water quality if the runoff is discharged untreated.



Meeting Minutes

[Meeting #1 Minutes \(COJ\)](#)

Meeting Media Coverage

[City Council resiliency panel starting look at Jacksonville flooding](#)

[Several City Council Members Say They Want A Chief Resilience Officer in Jacksonville](#)

[With new City resiliency committee, Carlucci aims to mitigate flooding](#)

[City Council Committees Pass Sea Level Rise Task Force Recommendations](#)

[Report: Jacksonville could see 100-year floods in 30 years due to rising sea-levels](#)

Staying Informed with Monthly Newsletter Updates

In order to keep members of the public informed to the greatest extent possible, a monthly newsletter, summarizing the results and findings of each meeting, will be sent out to a mailing list. This newsletter is made possible through a partnership with assistance from the [Northeast Florida Regional Council \(NEFRC\)](#). To have your email added to this list, please send a message to: resiliency@coj.net

Next Meeting Date:

Thursday, February 27th, 2020 2:00 p.m. – 4:15 p.m. | Lynwood Roberts Room,
117 West Duval Street, 1st Floor of City Hall, St. James Building, Jacksonville, FL 32202

Featured Speakers at February Meeting:

Mr. Bill Killingsworth, City of Jacksonville Planning Director

Reporting on Findings from the [Adaptation Action Area \(AAA\) Working Group](#)

Mr. John Pappas, City of Jacksonville Public Works Director

Reporting on Findings from the [Storm Resiliency & Infrastructure Review Committee](#)