

INTENT

ADAPTATION ACTION AREA WORKGROUP

- Implemented Florida Statutes 2015 Peril of Flood legislation by establishing an Adaptation Action Area (AAA)
 - AAA – designation in the Conservation/Coastal Management Element (CCME) of the City’s Comprehensive Plan which identifies an area that experiences coastal flooding due to extreme high tides and storm surge and that is vulnerable to the impacts of sea level rise.
- Workgroup established through a Comprehensive Plan policy to review existing programs and policies in relation to the AAA to determine the need and appropriate timing for additional and financially feasible responses to the effects of coastal flooding within the AAA.
 - CCME Objective 11.5 The City has established an Adaptation Action Area (AAA) and shall consider appropriate responses to address current and future risks related to the associated impacts of sea-level-rise.
 - CCME Policy 11.5.4 The City of Jacksonville shall create a working group to review existing programs and policies in relation to the AAA to determine the need and appropriate timing for additional and financially feasible responses to the effects of coastal flooding within the Adaptation Action Area. The working group shall be established within one year of the effective date of this policy.

PROCESS

ADAPTATION ACTION AREA WORKGROUP

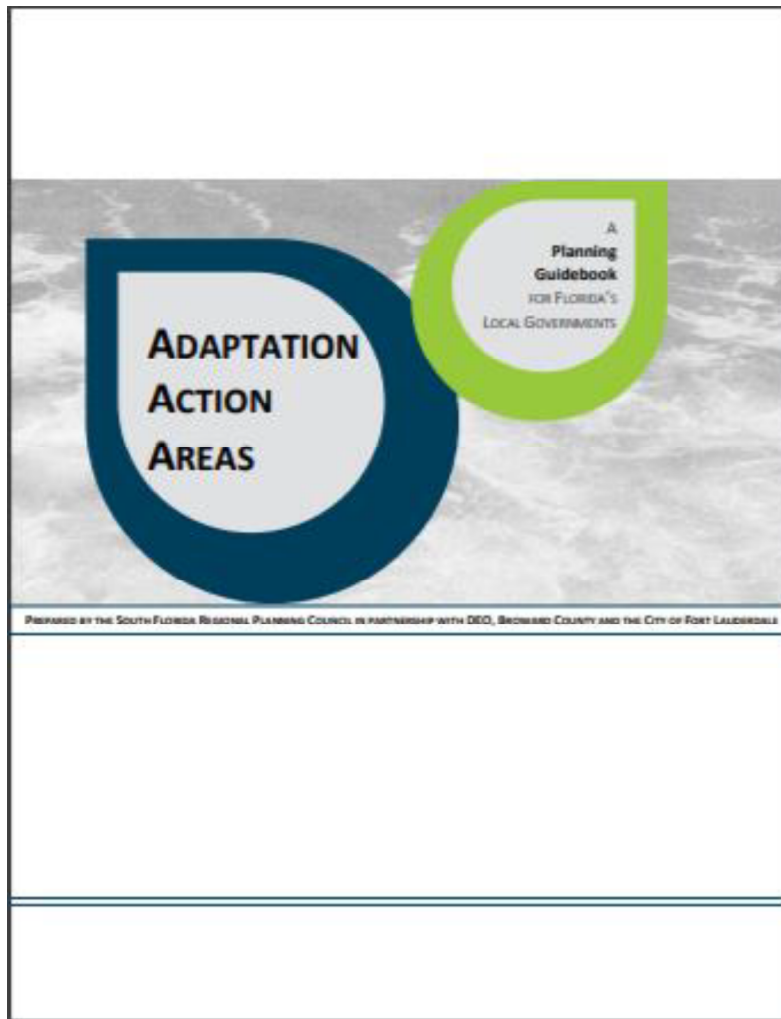
Workgroup Members

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- Vice-chair: Michelle Tappouni, Lay Member
- Shannon Blankenship, St. Johns RiverKeeper
- Chiradip Chatterjee, University of North Florida
- Shane Corbin, City of Atlantic Beach (ex officio)
- Matt Galnor, Jacksonville Chamber of Commerce
- Joseph Loretta, Northeast Florida Builders Association
- Jim Love, Insurance representative
- Jeff Martin, Jacksonville University
- The Honorable Samuel Newby, City Council Representative
- Erik Olsen, Olsen and Associates Coastal Engineers



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ADAPTATION ACTION AREA





Acknowledgements

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August 2015



PROCESS

ADAPTATION ACTION AREA WORKGROUP

Mission

- Evaluate the City's existing programs and policies in relation to the Adaptation Action Area (AAA) to determine the need and timing, if appropriate, for additional and financially feasible responses to the effects of coastal flooding within the Adaptation Action Area. Recommend policy and regulatory changes deemed necessary and appropriate to protect public and private investment within the AAA.

Scope

1. Identify the Impacts of Coastal Flooding within the AAA
 - * *Expansion of AAA boundary*
2. Evaluate the City's Existing Programs and Policies
3. Recommendations

The Workgroup learned about and evaluated policies and regulations related to



ADAPTATION PLANNING FRAMEWORK

ADAPTATION ACTION AREA WORKGROUP

Adaptation Planning Framework used to help develop recommendations

1. Context

- Preliminary actions to set up the plan or planning processes
- Existing conditions
- Sets the foundation for a localized approach

2. Vulnerability Assessment

- Measures hazard exposure to an area/asset and its sensitivity to those hazards

3. Adaptation Strategies

- Protection: Directly protect vulnerable structures
- Accommodation: Stay in place but with modifications
- Managed Retreat: Voluntary, incentivized, or gradual retreat when necessary
- Avoidance: Guide new development away from vulnerable areas

4. Implementation

Education & Community Outreach

Educate and inform residents about sea level rise and its impacts



Land Development Regulations & Procedures

Improve the location and site characteristics for new development and retrofit existing development to avoid or accommodate rising water



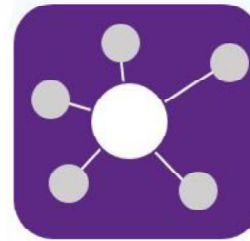
Economic & Human Resources

Ensure a vibrant economy as adaptation solutions are implemented and focus on preserving and protecting health, safety, and welfare of the population



Inter-agency Coordination

Establish or improve coordination and cooperation between and among City, Regional, and State departments, agencies, and institutions



Infrastructure

Repair and maintain infrastructure in flood-prone neighborhoods, and implement new solutions for managing stormwater and rising groundwater



Resiliency Office(r)

Vulnerability Assessment

Expand AAA Boundary

Recommendations organized into 5 Core Areas,
with 3 underlying fundamental recommendations.

FUNDAMENTAL RECOMMENDATIONS

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1. Establish a Chief Resiliency Officer position or office/authority, preferably within the Mayor's Office
 - Oversee and coordinate planning of interagency resiliency programs, projects, and policies;
 - Engage stakeholders;
 - Education and communication efforts;
 - Develop resiliency tools and/or resources; and
 - Manage and leverage funding for resiliency initiatives.

FUNDAMENTAL RECOMMENDATIONS

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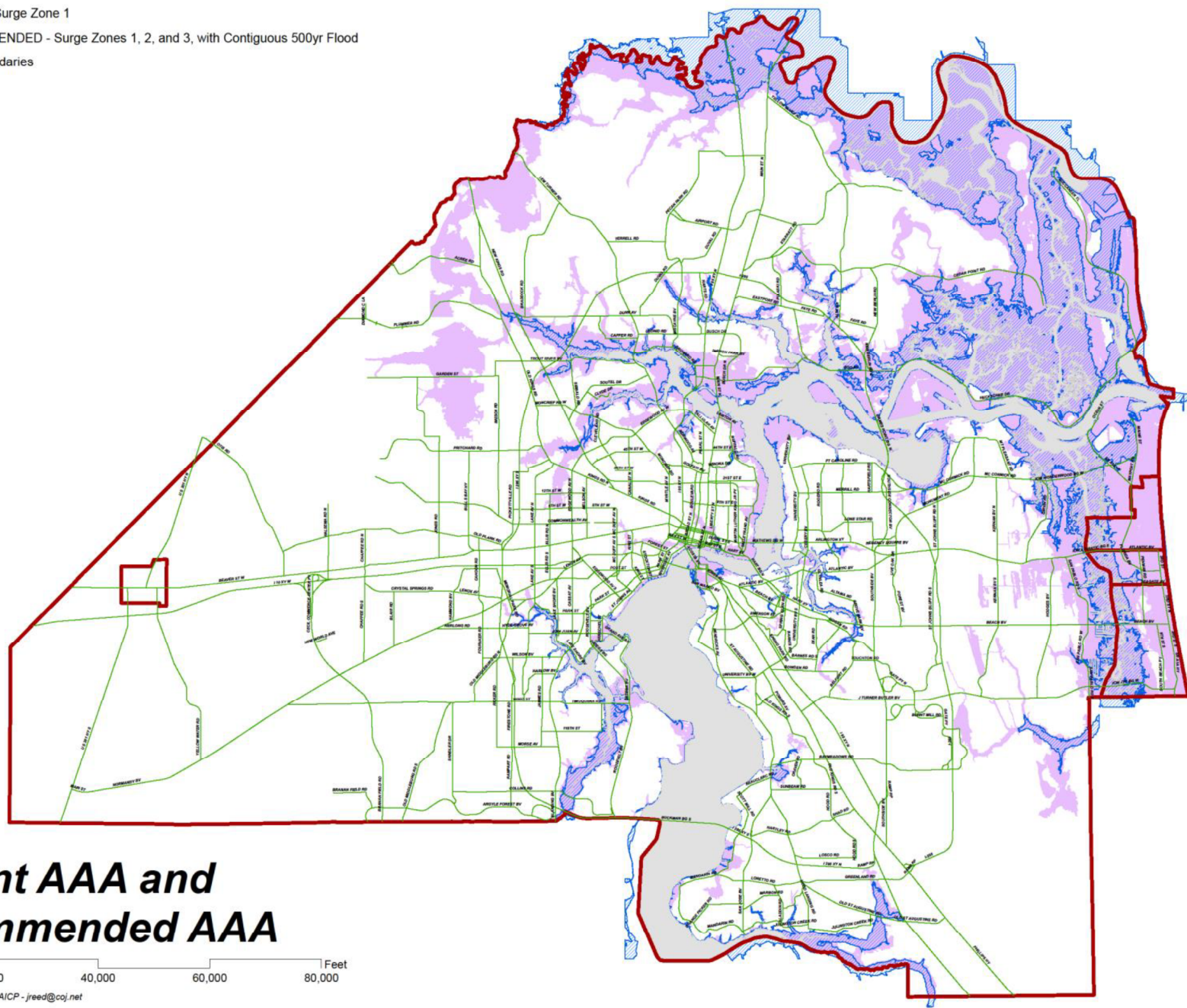
2. Conduct a coastal flooding and sea level rise vulnerability assessment to include storm surge, tidal fluctuations, and extreme rainfall events and that would identify populations, habitats, infrastructure, and functions most sensitive to coastal flooding and sea level rise.
 - Should take into consideration Jacksonville's riverine system
 - Utilize a Technical Advisory Committee (TAC)

FUNDAMENTAL RECOMMENDATIONS

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3. Expand the currently established AAA boundary to include areas that are contiguous with both the 500-year flood plain and the Category 3 storm surge
 - Current AAA boundary based on established sea rise research and assumes a medium range of impact of 2-feet of sea level rise by 2060. – this boundary had a high correlation with the existing CHHA
 - Workgroup found that traditional storm surge models are not entirely adequate for Jacksonville given our riverine system. Flooding is not modeled accurately for the City south of the Mathews Bridge to the County Line.
 - Adaptation strategies would be implemented commensurate with storm and flood risks.

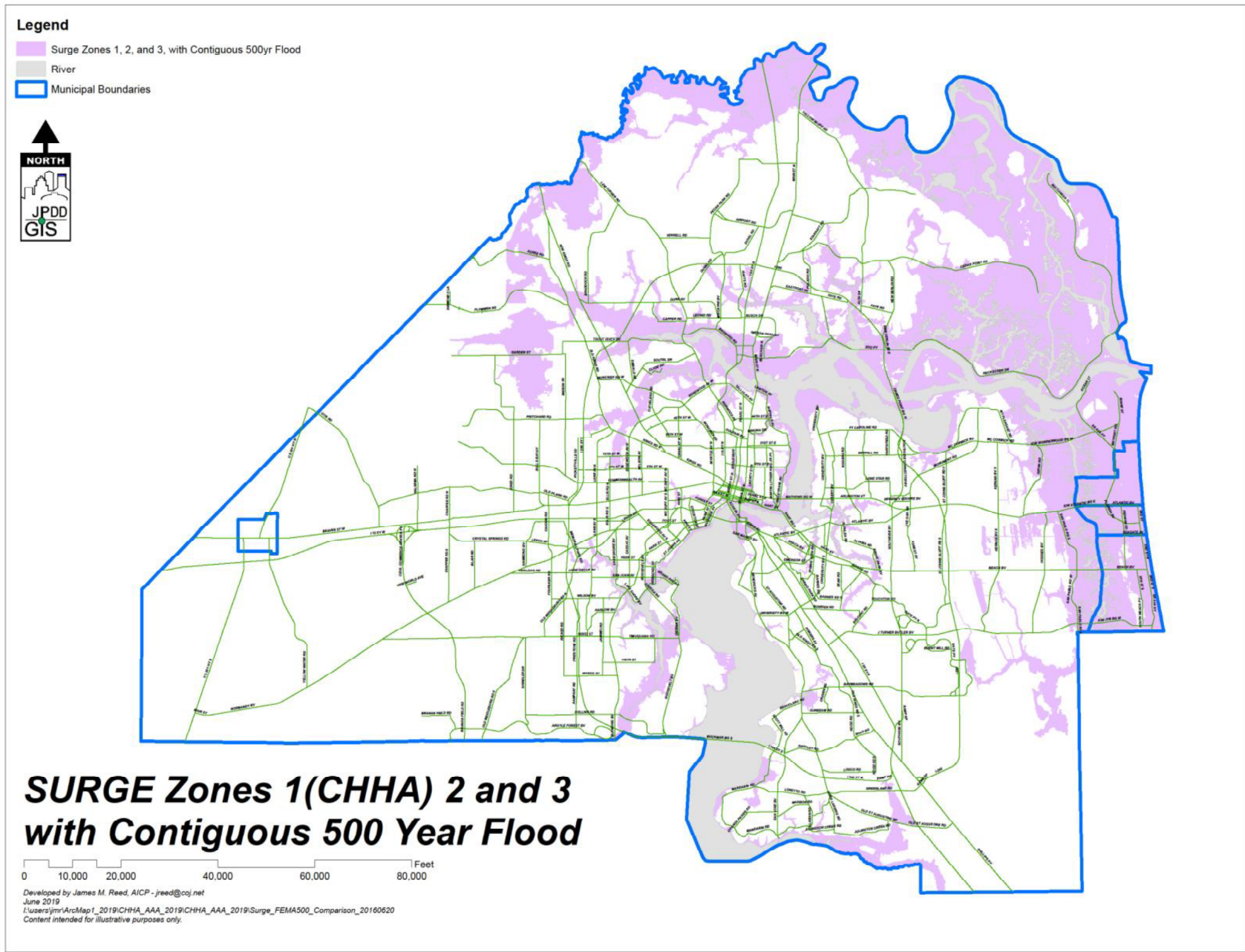
- Current AAA - Surge Zone 1
- AAA RECOMMENDED - Surge Zones 1, 2, and 3, with Contiguous 500yr Flood
- Municipal Boundaries
- River



Current AAA and Recommended AAA

0 10,000 20,000 40,000 60,000 80,000 Feet

Prepared by James M. Reed, AICP - jreed@coj.net
 2019
 j:\m\ArcMap1_2019\CHHA_AAA_2019\CHHA_AAA_2019\Surge_FEMA500_Comparison_20160620
 This map is intended for illustrative purposes only.



RECOMMENDED AAA BOUNDARY

RECOMMENDATIONS – CORE AREAS

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Education & Community Outreach

Educate and inform residents about sea level rise and the impacts that it may have on where they live, work, and play

Recommendations include, but are not limited to:

- Education, information, and disclosure of flood hazard to the public.
- Creating and distributing a post-storm report/mapping after a major storm event.
- Establishing a TAC to provide expertise about the different aspects of sea level rise adaptation.
- Updating the AAA and related assessments every 5 years to ensure decisions are made using best available data.

RECOMMENDATIONS – CORE AREAS

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Land Development Regulations & Procedures

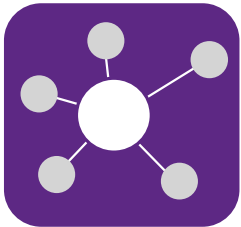
Improve the location and site characteristics for new development and retrofit existing development to avoid or accommodate rising water

Recommendations include, but are not limited to:

- Consider using a resilience scorecard, matrix, or similar approach to better integrate disaster risk and vulnerability into Land Use and Zoning decisions.
- Evaluate, and revise as necessary, the City's Ordinance Code and other relevant Land Development Regulations to encourage and increase protection strategies for new development and redevelopment of properties within the AAA.
- Evaluate the potential for providing owners of properties within the AAA with incentives for the removal or renovation of such structures.
- Consider offering density bonuses, transfers of development rights, or similar strategies to limit new development within the AAA.

RECOMMENDATIONS – CORE AREAS

ADAPTATION ACTION AREA WORKGROUP



Inter-agency Coordination

Establish or improve coordination and cooperation between and among City, Regional, and State departments, agencies, and institutions

Recommendations include, but are not limited to:

- Coordinate with all applicable agencies to mitigate flood hazards on adjacent properties that may occur due to publicly funded actions.
- Discourage the permitting of bulkheads where bulkheads do not currently exist, and instead, encourage soft solutions to shoreline stabilization.
- Evaluate/prioritize land acquisition opportunities within major stormwater basins that can serve as recreation/open space and flood water storage capacity during major storm and high tide events.
- Collaborate with relevant entities and non-profit organizations to prepare for trauma associated with extreme weather events.

RECOMMENDATIONS – CORE AREAS

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Infrastructure

Repair and maintain infrastructure in flood-prone neighborhoods, and implement new solutions for managing stormwater and rising groundwater

Recommendations include, but are not limited to:

- Assess and compare protection mechanisms, both hard structural options and soft structural options, when designing and engineering such systems for capital improvement projects located within the AAA.
- Consider options for repair and maintenance of private sea walls/bulkheads that are critical in the protection of private property, significant resources, or public infrastructure.
- Evaluate alternative stormwater storage solutions and natural groundwater storage solutions and improve stormwater infrastructure to consider extreme storm events.

RECOMMENDATIONS – CORE AREAS

ADAPTATION ACTION AREA WORKGROUP



Economic & Human Resources

Ensure a vibrant economy as adaptation solutions are implemented and focus on preserving and protecting health, safety, and welfare of the population

Recommendations include, but are not limited to:

- Consider the impact of AAA strategies and regulations on economically distressed communities and seek opportunities to mitigate negative impacts in an equitable manner.
- Consider various demographic, socioeconomic, and development data when evaluating the City's sensitivity to coastal flooding and sea level rise within the AAA.

NEXT STEPS - TIMELINE

ADAPTATION ACTION AREA WORKGROUP

- Workgroup has requested that the 3 fundamental recommendations be submitted for adoption prior to the Comprehensive Plan update:
 - Expansion of AAA Boundary
 - Establish Chief Resiliency Officer or Office/Authority
 - Require a Vulnerability Assessment to be conducted on the AAA

- Report and Recommendations approved by Resolution 2019-893 on January 28th.

- Majority of the recommendations to be included into the update amendment package of the Comprehensive Plan.