

Adaptation Planning Framework Worksheet

1. CONTEXT

1A. Guiding principles and motivations for sea level rise planning.

- CCME Objective 1.5 and Policies 11.5.1 – 11.5.4

1B. Planning area and geographic context

- Recommendation by vote of the Working Group to expand the AAA boundary to the area impacted by flooding because of recent hurricanes
- **The boundary for the City of Jacksonville Adaptation Action Area should be defined by, or take into consideration the following:_____.**

1C. Define community participation opportunities and public engagement approach

- AAA Workgroup
- Efforts of proposed Chief Resiliency Office(r)
- Provide educational outreach on sanitation in relation to water use and water contact during flooding events, wildfires, algae blooms, and power outages

2. VULNERABILITY ASSESSMENT

- Complete a sea level rise vulnerability assessment that includes storm surge, tidal fluctuations, and extreme rainfall events.
- Complete a vulnerability assessment to identify specific species, habitats, landscapes, ecosystem functions, and cultural resources such as museums and historical sites that may be the most sensitive to climate change

2A. Exposure

- **The boundary for the City of Jacksonville Adaptation Action Area should be defined by, or take into consideration the following:_____.**
- Conduct floodplain mapping in areas not detailed by the flood insurance study

2B. Sensitivity

- **The following demographic, socioeconomic, and/or development data should be considered when identifying the land uses, buildings, resources, and people most affected by potential sea level rise:_____.**

2C. Adaptive Capacity

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3. ADAPTATION STRATEGIES

- Explore the use of a resilience scorecard and user guidelines to assist local planners and emergency managers to integrate disaster risk into Land Use and Zoning decisions

- Create a Shoreline Adaptation Plan that develops standards for undeveloped and reclaimed wetlands and floodplains (including buyout properties) that maximizes protection and preservation. Include land acquisition for adaptation purposes (considering sea level rise, increase in frequency of severe storms, wildfire threat, loss of wildlife and fisheries habitat)

3A. Classifications:

➤ Protection

- Significantly increase estuarine buffers and oceanfront setbacks
- Restrict hard-armoring in new development or in areas where hard armoring does not currently exist
- Provide assistance or incentives for improving hazard preparedness of homes
- Incentivize residential and commercial green infrastructure projects like natural shorelines, dune replenishment, tree planting and creation of Stormwater sinks. Place the highest priority for permitting estuarine shoreline stabilization on techniques that protect fisheries and aquatic mammals and promote biodiversity
- Protect and restore wetland ecosystems which provide natural first line of protection from storm surges and flooding
- Establish mandatory construction setbacks from the seawall, mean high water line, wetlands and waterways (currently 25-feet). Limit development on a property if sufficient setbacks cannot be met
- Require 2-feet of freeboard for structures located in tidally influenced floodplain; foundations that are more resilient to erosion and wave impacts or flood resilient construction materials in new and redevelopment project
- Investigate consequences of installing hard structural options (such as dikes, levees, floodwalls, and saltwater intrusion barriers) compared to soft structural options (such as dune restoration, living shorelines, and creation wetland restoration, periodic beach nourishment).
- Evaluate the adoption of more stringent Building Code requirements, such as elevation above base flood level, for new construction or substantial reconstruction within the AAA taking into consideration the benefits and burdens of any such requirements.

➤ Accommodation

- Increase maintenance and cleanup of gutters, drainage ditches and culverts
- Update the Stormwater Master Plan to include alternatives to storage via retention ponds and to prioritize retaining trees and natural wetlands on site; ie: 25-foot vegetated buffer along shorelines and 100-foot buffer along wetlands, parks, and other protected areas.
- Investigate consequences of installing hard structural options (such as dikes, levees, floodwalls, and saltwater intrusion barriers) compared to soft structural options (such as dune restoration, living shorelines, and creation wetland restoration, periodic beach nourishment).
- Evaluate and improve capacity of Stormwater infrastructure for high intensity rainfall events
- Manage Stormwater onsite utilizing low-impact development techniques

- Legislate a requirement for developments to capture and treat Stormwater onsite from the 10—year 24-hour storm
- Managed Retreat
 - Develop a priority list and funding source for buying out Repetitive Loss Properties (RLP), removing structures, and restoring land to its predevelopment condition
- Avoidance
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4. IMPLEMENTATION

- City should consider a resiliency officer or coordinator or a resiliency office. The position would coordinate across Planning, Public Works, and Environmental Quality and would operate out of the Mayor’s Office.
- Hire a Chief Resiliency Officer to coordinate funding and planning between federal, state, regional and City resiliency initiatives. Help coordinate and prioritize City CIP projects that involve Jax Parks, COJ Emergency Preparedness, Environmental Quality Division, Public Works, Planning, Landscape and Maintenance, and more.
- Coordinate priorities, funding and resources with the Duval County Local Mitigation Strategy

4A. Funding options

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4B. Prioritization

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4C. Scheduling/Timelines

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4D. Monitoring and evaluation

- Broward County reviews sea level rise every five (5) years; they have policies in place to analyze the data on a regular schedule. This may be an approach for Jacksonville as well.
- Develop strategy to regularly update floodplain maps
- Update the Priority Planning Area for Sea Level Rise Map and infrastructure vulnerability assessments every 5 years so that decisions regarding adaptation planning and investments can be based on best available data

OTHER RECOMMENDATIONS

Building Code

- Require publicly funded projects to maximize energy efficiency, water conservation and limit taxpayer investments in vulnerable coastal areas
- If the City adopts more stringent Building Code requirements for property within the AAA, evaluate whether the Ordinance Code should be revised to distinguish between circumstances when a structure needs to be brought into compliance with the Zoning Code requirements such as landscaping and parking versus having to be brought into

compliance with more stringent Building Code requirements which could include such requirements as elevating the structure.

- If the City adopts more stringent Building Code requirements for property within the AAA, evaluate whether the City can or should provide incentives to the owners of existing structures located within the AAA for the removal of such structures or the renovation of such structures to bring them into compliance with revised Building Codes.

Land Development

- Develop a permitting resource center where people can find out the history and risks associated with properties in Duval County, as well as all permits required or potentially required by Federal, State, Regional and City agencies for future uses prior to the sale of real estate between buyers and sellers.
- Promote land use and agricultural practices including aquaculture, saline resistant crops, and animal agriculture outside of areas likely to flood

Floodplain Management

- Coordinate City personnel around obtaining a Community Service Rating (CSR) score of 6 (2019) to 4 by following the guidance for Open Space Preservation and Building Regulations

Additional Recommendations to Sort

- Update real estate transaction disclosure requirements to include hazards related to climate change including flood risk, zone, prior flood damage including surrounding property, before closing
- Organize marine biosphere reserves and protected areas for the habitat of marine mammals to maintain critical breeding grounds
- Promote reforestation and afforestation of marginal lands to increase soil moisture retention, provide shade and increase habitat for species under stress
- Remove invasive non-native vegetation from riparian areas
- Establish a consortium of state universities to undertake continuous economic analysis to develop costs and benefits of different aspects of climate adaptation
- Explore the benefits of forming a Northeast Florida Resiliency Compact, similar to the Southeast Climate Change Compact or Tampa Bay Resiliency Group.
- In the aftermath of extreme events, prepare for additional trauma due to dispossession, mental health challenges, and post-traumatic-stress disorder
- Promote and expand urban vegetation by planting trees, installing roof gardens, and protecting existing vegetation and open space
- Ensure equity and environmental justice to prevent disparate impacts to economically challenged sectors in planning