

Community Resiliency in the City of Satellite Beach
Proposed Policy Recommendations for Adaptation Action Areas
For the City of Satellite Beach, Florida

Prepared by the East Central Florida Regional Planning Council for the City of Satellite Beach and the Florida
Department of Environmental Protection

These Policies are considered proposed and are presented to the City of Satellite Beach for further development and public input.

Definition Policies

Proposed Policy: The Inland Flooding Adaptation Action Area is a designation to be used as a tool for assisting the City in the prioritization of infrastructure funding and policy implementation for flood alleviation improvement and mitigation projects, to protect public and private property, and to protect the safety, health and welfare of the City’s citizens. The Inland Flooding Adaptation Action Area includes those areas west of South Patrick Drive, including the roadway itself, that are also:

1. located within the Coastal High Hazard Area or FEMA 100 Year Flood Zone; or
2. vulnerable to periodic flooding from tidal and rain events, storm surge category 3 MOM, or sea level rise by the year 2070. **Vulnerable to sea level rise is defined as the areas which are expected to be inundated with water using the best available data and the range of impact between the USACE medium and high curve projections (USACE document EC-1165-2-212 or ER 1100-2-8162) for the determined planning horizon (current 2040 and 2070) and the following parameters: MHW for the Atlantic Coast, MHHW for River Coast.**

Proposed Policy: Map XX depicts the Inland Flooding Adaptation Action Area.

Proposed Policy: During the City’s comprehensive plan update period ending in 20XX, the City shall determine if the Adaptation Action Area has functioned as a viable tool for the City. If the City deems the AAA has not been beneficial to the City, the City may remove the designation or modify its boundary. Criteria for determination may include, but is not limited to: a Cost Benefit Analysis; project implementation and success in mitigating flood impacts and others to be determined by the City.

Horizon and Projection Policies

Proposed Policy: The City shall utilize a 2040, 2070 and 2100 planning horizon as well as the range of inundation associated with those years between the USACE medium and high curve for sea level rise, where applicable to the life span of the infrastructure and decision process. 2070 year projections shall be utilized for new infrastructure with life spans over 50 years and anticipated to be built by 2025. These ranges and projection curve model shall be updated based upon the newest data projection curves, when available, or at least every 5 years.

Proposed Policy: Collaborate with stakeholders at least every 5years or earlier to analyze the best available data, to maintain the designated Inland Flooding Adaptation Action Areas’ alignment with, to the extent possible, relevant and current coastal hazard vulnerability projections and maintain the City’s

efforts to identify and understand the risks, vulnerabilities and opportunities for strategies within the 25 to 100 year planning horizons.

Implementation Policies

Proposed Policy: By 2018, the City shall update city processes and city-wide plans to incorporate the Inland Flooding Adaptation Action Area where appropriate.

Proposed Policy: The City shall determine how to identify the circumstances, timeframe or other indicators in which the City will only maintain infrastructure within the AAA and will not utilize public funds to improve or enhance infrastructure.

Proposed Policy: Develop a methodology for prioritizing infrastructure project expenditures based on a cost-benefit analysis, feasibility, determination of applicability to City policies and short- versus long-term benefits associated with projects located within and external to the AAA.

Proposed Policy: Determine a procedure to review vulnerable critical facilities and assets and rank them relative to importance, level of vulnerability, and life expectancy.

Proposed Policy: Pursue private and public funding sources for the implementation of adaptation strategies both internal and external to the AAA to move forward adaptation projects and strategies identified by the City and its stakeholders.

Proposed Policy: Work with floodplain managers and stakeholders to identify areas within the Inland Flooding AAA which may benefit from inclusion in Floodplain Management Plan projects, identify initiatives within the Brevard County Local Mitigation Strategy that focus on Inland Flooding AAA areas, and educate property owners about mitigation strategies they can implement to protect their property.

Proposed Policy: The City shall adopt a mechanism to evaluate and recommend new design and development standards for infrastructure projects proposed for implementation within the designated Inland Flooding Adaptation Action Area. From 20XX onward, all public infrastructure projects shall be required to meet the Federal Flood Risk Management Standard.

Proposed Policy: Sea level rise, based upon current planning horizon and inundation ranges, and the Federal Flood Risk Management Standard shall be included in all infrastructure projects within the Inland Flooding Adaptation Action Area and considered among design strategies for all storm water management projects.

Proposed Policy: New development within the AAA will be required to meet new building standards as determined by the City and or State as applicable.

Proposed Policy: The City shall develop a strategic plan to address recurring flooding issues within the AAA which takes into account an anticipated increase in flooding from excess rainfall, storm surge, and sea level rise.

Proposed Policy: Adaptation tools the City will consider for use within the Inland Flooding Adaptation Action Area may include, but are not limited to:

- Public infrastructure planning, siting, construction, replacement, operation and maintenance
- Stormwater Management
- Green Streets
- Rain Gardens/Bioswales
- Vernacular Streetscapes and Plant Placement (Water-Dependent Species)
- Grass Pavers (Driveways; Main Streets; Ponding Areas)
- Ecological Asset Preservation (Dunes, Natural Areas, Mangroves, Plants, Animals)
- New Building Code Standards/Form-Based Codes
- Land Development Regulations
- Comprehensive Planning

Erosion Adaptation Action Area

Definition Policies

Proposed Policy: The Erosion Adaptation Action Area is a designation to be used as a tool for assisting the City in the prioritization of infrastructure funding and policy implementation for erosion control and adaptation projects, to protect public and private property, and to protect the safety, health and welfare of the City's citizens. The Erosion Adaptation Action Area includes those areas east of A1A that are:

- 1- located within or surrounded by Coastal High Hazard Area;
- 2- located within the FEMA 100 Year Flood Zone or eastward of the Coastal Construction Control Line, or
- 3- is a beach front parcel prone to erosion, in an area identified as "critically eroded" by the State or is susceptible to the impact of sea level rise by the year 2040, 2070, or 2100. Vulnerable to sea level rise is defined as the areas which are expected to be permanently inundated with water using the best available data and the range of impact between the USACE medium and high curve projections for the determined planning horizon (current 2040 and 2070) and the following parameters: MHW for the Atlantic Coast, MHHW for River Coast.

Proposed Policy: Map XX depicts the Erosion Adaptation Action Area.

Horizon and Projection Policies

Proposed Policy: Collaborate with stakeholders at least every 5 years, or earlier, to analyze the best available data, to maintain the designated Erosion Adaptation Action Area's alignment with, to the extent possible, relevant and current coastal hazard vulnerability projections and maintain the City's efforts to identify and understand the risks, vulnerabilities and opportunities for strategies within the current 25 to 100 year planning horizon.

Implementation Policies

Proposed Policy: By 2018, the City shall update city processes and city-wide plans to incorporate the Erosion Adaptation Action Area where appropriate.

Proposed Policy: During the City's comprehensive plan update period ending in 20XX, the City shall determine if the Erosion Adaptation Action Area has functioned as a viable tool for the City. If the City deems that the AAA has not been beneficial to the City, the City may remove the designation or modify its boundary. Criteria for determination may include, but is not limited to: a Cost Benefit Analysis; project implementation and success in erosion reduction and others to be determined by the City.

Proposed Policy: Projects involving public funding within the Erosion Adaptation Action Area that utilize natural systems and features shall be considered for priority for funding purposes.

Existing Policy: Objective 1.3- In order to direct development and population concentrations away from the Coastal High Hazard area, the City will continue to prevent use of public funds and discourage use of funds by other levels of government as financial assistance for new, private development or redevelopment that result in increased densities or intensities.

Existing Policy: Policy 1.3.2 - The City shall coordinate with service providers to replace and mitigate damaged infrastructure, as appropriate within the Coastal High Hazard Area.

Existing Policy: Policy 1.3.1 - No public infrastructure or public buildings will be constructed east of the Coastal Construction Control Line (CCCL), with the exception of minor structures. Such structures are customarily provided to support recreation and open space activities, pedestrian access facilities (in accordance with dune protection design standards), and infrastructure and roadway improvements within already developed public rights-of way as required to meet minimum level of service standards.

Proposed Policy: Armoring or other shoreline stabilization efforts by property owners shall not disrupt or harm adjacent or nearby properties.

Proposed Policy: The City shall partner with appropriate entities, agencies, non-profits, and others to obtain input from and educate citizens about the interconnectedness of human activity and natural processes and how to best balance private property rights and the public interests of all citizens within the City.

Proposed Policy: The City shall work with stakeholders to pursue private and public funding sources for the implementation of adaptation strategies both internal and external to the AAA that advance adaptation projects and strategies identified by the City and its stakeholders.

Proposed Policy: The City shall engage stakeholders, county departments and other agencies to increase planning and implementation of natural erosion prevention and hazard mitigation.

Proposed Policy: Funding for the protection and restoration of natural coastal features (e.g. reef, beach, dune and vegetation) adjacent to and within the Erosion AAA shall be included in the funding prioritization as they provide the first natural line of protection from coastal erosion, storm surge and flooding.

Proposed Policy: The City shall require beach front property owners to maintain a viable amount of sea oats, and other natural vegetation approved by the City in an effort to reduce impacts on infrastructure, private property and human life. The City, in collaboration with the County, IFAS and other agencies, shall establish a program to assist property owners with planting and maintenance of these areas.

Proposed Policy: The City shall identify City projects within the Erosion Adaptation Action Area to be prioritized for project funding based on project goals to reduce coastal erosion and improve the long-term integrity of the Atlantic coastal area of the City.

Proposed Policy: An Erosion AAA prioritization project list will be implemented in the City's CIP, in collaboration with coastal resource managers, by 2018, in an effort to obtain specialized resiliency grant funding.

Proposed Policy: Adaptation strategies supported within the Erosion Adaptation Action Area include but not limited to:

- Public infrastructure planning, siting, construction, replacement, operation and maintenance
- Increase of Set Back Line for Coastal Properties
- Increase of Base Flood Elevations
- Natural Dune Restoration
- Vernacular Plant Placement
- Building Codes
- Land Development Regulations
- Comprehensive Planning
- Water Flow Diversion Strategies
- Grass Pavers (Parking Lots)
- Rain Garden Building Buffers

Proposed Policy: The City shall adopt a mechanism to evaluate and recommend new design and development standards for infrastructure projects proposed for implementation within the designated Erosion Adaptation Action Area.