

Ordinance 2021-732

2020B Series Text Amendment  
City of Jacksonville 2030 Comprehensive Plan  
Conservation / Coastal Management Element

**GOAL 11**

To ensure that development and redevelopment within the Coastal Area is compatible with the Coastal Area's natural character and that flood risk is managed through principals, strategies and engineering solutions.

Objective 11.1 To establish land use criteria which give priority to the siting and development of water-dependent uses within the Coastal Area, as compared with other shoreline uses.

Objective 11.2 The City shall support the Jacksonville Port Authority in the orderly development, promotion and use of the Port of Jacksonville insofar as those efforts are in compliance with the 2030 Comprehensive Plan.

~~Objective 11.3 The City shall implement development and redevelopment principles, strategies and engineering solutions to reduce or eliminate flood risk in coastal areas when opportunities arise. [Moved objective and underlying policies to Objective 14.7]~~

~~Objective 11.4 The City of Jacksonville shall be consistent with, or more stringent than, the flood resistant construction requirements of the Florida Building Code (FBC) and applicable flood plain management regulations (44 C.F.R. part 60). Construction activities seaward of the coastal construction control lines shall be consistent with Chapter 161, Florida Statutes. [Moved objective and underlying policies to Objective 14.8]~~

~~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. [Moved to objective and underlying policies to Objective 14.1]~~



## **GOAL 14**

**To ensure that development and redevelopment is resilient to flooding and the associated impacts of sea level rise.**

**Objective 11.5 14.1** The City has established an Adaptation Action Area (AAA) and shall ~~consider~~ **implement** appropriate responses to address current and future risks related to **flooding and the associated impacts of sea-level-rise.**

### **Policies**

#### **11.5.1 14.1.1**

~~The City of Jacksonville shall recognize the Coastal High Hazard Area (CHHA) identified in Map C-18 as also encompassing the Adaptation Action Area (AAA) for those low-lying coastal zones that may experience coastal flooding due to extreme high tides and storm surge and are vulnerable to the impacts of rising sea level. (§163.3177(6)(g)(10), F.S.) Land within the AAA is subject to potential high tide inundation under a horizon 2060 two foot sea level rise scenario. The AAA boundary (Map C-19) is defined as those areas within the projected limits of the Category 3 storm surge zone, those connected areas of the 100-year and 500-year Flood Zone, and additional areas determined through detailed flood risk analysis. The City shall implement adaptation strategies commensurate with the storm and flood risks to land within the AAA.~~

#### **11.5.2**

~~The City shall consider the implications of the AAA when reviewing changes to the use, intensity and density of land lying within the AAA.~~

#### **11.5.3 14.1.2**

The City shall recognize existing regulations, programs and policies that overlap with the AAA and that are currently in place to limit public investment and address appropriate development and redevelopment practices related to flooding. These regulations, programs and policies include but are not limited to the floodplain management ordinance, CHHA policies, the Local Mitigation Strategy and the Post Disaster Redevelopment Plan and shall only be applied in cases where such regulation would otherwise apply to a development or redevelopment project.

#### **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.~~

### **14.1.3**

The City shall update the Adaptation Action Area for sea level rise and infrastructure vulnerability assessments every five (5) years so that decisions regarding adaptation planning and investments can be based on best available science and data.

### **14.1.4**

The City shall fund and conduct a coastal flooding and sea level rise vulnerability assessment that includes storm surge, tidal fluctuations, and extreme rainfall events and identifies populations, habitats, infrastructure, and functions that may be most sensitive to coastal flooding and sea level rise. The vulnerability assessment should also evaluate the degree of vulnerability of critical industry sectors and business enterprises that are most central to the City's economy and functionality. A Technical Advisory Committee (TAC) of subject matter experts shall be established prior to the assessment; they will be engaged throughout the assessment to ensure the data and analysis is accurate, thorough, and consistent with the scope of the project.

**Objective 14.2 Provide residents, property owners and prospective property owners with resources and information about flood risks affecting their property and educate community members about options for mitigating flood risk, the associated impacts of sea level rise, and the potential impact of permanent inundation from sea level rise and of the storm surges in the future.**

## **Policies**

### **14.2.1**

The City shall educate, inform, and disclose flood hazards to the public through various mechanisms such as real estate and lease disclosures, public mapping resources, community or city-wide public information campaigns, or other innovative and effective approaches.

### **14.2.2**

The City, through educational campaigns, promotional materials, and partnerships with non-profit and for-profit entities, should promote and implement flooding mitigation strategies within the AAA. Such strategies may include but are not limited to green infrastructure solutions; the repair and maintenance of private or public sea walls/bulkheads that are critical protection mechanisms; and/or soft shoreline stabilization solutions in non-urban areas or environments with low wave energy.

### **14.2.3**

Following a major storm event, the City should immediately collect data including the spatial limits of upland flooding and property damage due to wind, flooding or related storm activity. A post-storm report and map should be created and made publicly available.

#### **14.2.4**

The City should seek partnership opportunities with agencies such as the United States Geological Survey (USGS), the National Oceanic and Atmospheric Administration (NOAA), the United States Coast Guard (USCG), and the United States Army Corps of Engineers (USACE) to deploy additional active tide gauges citywide to ensure that accurate data is recorded and validated.

#### **14.2.5**

The City of Jacksonville should establish a technical advisory committee (TAC) to provide expertise regarding the different aspects of sea level rise adaptation and to review existing programs and policies in relation to the AAA. The TAC shall determine the need and appropriate timing for additional and financially feasible responses to the effects of coastal flooding within the Adaptation Action Area.

The City shall consider appointing a member of the technical advisory committee as an ex-officio member from the Downtown Investment Authority (DIA), Downtown Development Review Board (DDRB), Planning Commission (PC) or similar organization in order to advise regarding the effects of sea level rise and storm surge effects on proposed projects and abutting properties in the AAA.

**Objective 14.3 The City shall guide and regulate development and redevelopment to avoid or accommodate rising water due to flooding, the associated impacts of sea level rise, and the potential impact of permanent inundation from sea level rise and of the storm surges in the future.**

#### **Policies**

##### **14.3.1**

The City shall consider the implications of the AAA when reviewing changes to the use, intensity and density of land lying within the AAA.

##### **14.3.2**

The City shall, for properties located within the AAA that are subject to more stringent and costly regulatory standards, consider revising the calculation for property improvements (renovation, repair and maintenance) permitted that require the property to be brought into full code compliance.

##### **14.3.3**

The City should explore the use of resilience scorecards, matrices, rating systems, or similar approaches to evaluate disaster risk. These approaches can inform, at a minimum:

- Hazard mitigation projects;
- Public infrastructure projects;
- Land Use and Zoning decisions; and
- Green infrastructure solutions or incentives.

#### **14.3.4**

The Land Development Regulations should be evaluated and revised to encourage and increase protection strategies for new development and redevelopment within the AAA. Such protection strategies should consider nuisance flooding, tidal fluctuations, sea level rise, cloud burst events, sunny day flooding and storm surge and may include, but are not limited to, increasing buffers and setbacks; requiring or limiting (as appropriate) storm hardening or green infrastructure solutions; increasing freeboard requirements; requiring more stringent design standards for stormwater facilities; and exploring the use of a resilience scorecard, matrix, rating system, or similar approach and user guidelines.

#### **14.3.5**

The City should safeguard natural environments and ecosystems that are identified in vulnerability assessments. Measures should include, but not be limited to promoting preservation, reforestation, and afforestation to increase soil moisture retention; preventing erosion; providing shade and increased habitat for species under stress; and removing invasive non-native vegetation within the AAA to benefit shoreline stabilization.

#### **14.3.6**

In order to guide development away from the Adaptation Action Area (AAA) towards areas that are already high, dry, and connected, the Planning and Development Department shall explore the feasibility of offering density bonuses, transfers of development rights, clustering development entitlements, or other strategies to limit new development within the AAA or environmentally sensitive or special flood hazard areas, or as an incentive for a development's use of low impact development stormwater solutions.

**Objective 14.4 The City shall improve, or establish as necessary, coordination and cooperation between and among City, regional, and state departments, agencies, and institutions in order to advance the City's resiliency to flooding and the associated impacts of sea level rise.**

### **Policies**

#### **14.4.1**

The City should coordinate with permitting agencies regarding resiliency initiatives and strategies, inclusive of but not limited to, the repair and maintenance of private sea walls/bulkheads that are critical in the protection of private property, significant resources, or public infrastructure.

#### **14.4.2**

The City shall coordinate and participate in state and regional resiliency efforts.

#### **14.4.3**

The City should encourage federal, state and regional agencies to evaluate the potential for publicly funded projects to create flood impacts on adjacent properties and to

mitigate these hazards as necessary.

**Objective 14.5 The City shall repair and maintain public infrastructure in flood-prone neighborhoods, and implement new solutions for managing stormwater and rising groundwater.**

**Policies**

**14.5.1**

The City should assess and consider protection mechanisms, such as hard structural options like sea walls or other physical barriers and soft structural options like living shorelines and dune or wetland restoration, when designing and engineering such systems for capital improvement projects located within the AAA. Factors to compare and consider include, but may not be limited to, a cost/benefit analysis and an analysis of the short and long-term impacts of these systems to the surrounding areas.

**14.5.2**

The City should promote and encourage the repair and maintenance of private sea walls/bulkheads that are critical in the protection of private property, significant resources, or public infrastructure. Additionally, in non-urban areas or low wave energy environments, the City should encourage soft solutions to stabilize shorelines and consider the replacement of bulkheads with soft solutions where appropriate.

**14.5.3**

The City should consider the repair, maintenance, and improvement of drainage infrastructure projects based on their location within the AAA and the frequency of nuisance flooding within the area. Planning for the probable occurrence of nuisance flooding in the future should also be considered.

**14.5.4**

Updates to the Master Stormwater Management Plan should prioritize add mapping floodplains in areas of the City not yet mapped to the list of priorities.

**14.5.5**

The City should evaluate, and encourage innovation in, alternative stormwater storage solutions and natural groundwater storage solutions such as, but not limited to, low impact development features, trees, and wetland systems and evaluate and improve stormwater infrastructure to consider extreme storm events.

#### **14.5.6**

The City should evaluate the potential for city funded projects to create flood impacts on adjacent properties and shall mitigate these flood hazards as necessary.

**Objective 14.6**     **The City shall foster a resilient economy as adaptation solutions are implemented and focus on preserving and protecting the health, safety, and welfare of the population.**

#### **Policies**

##### **14.6.1**

The City shall consider demographic, socioeconomic, and development data such as, but not limited to, age (elderly and children); income; lack of personal transportation or transit-dependent; number of historic properties; government-owned properties; and locations connected to centralized water/sewer when evaluating the city's sensitivity to coastal flooding and sea level rise within the AAA.

##### **14.6.2**

The City's Emergency Preparedness Division shall consider collaborating with relevant entities and non-profit organizations in order to prepare for trauma associated with displacement and post-traumatic stress disorder following an extreme weather event.

##### **14.6.3**

The City shall consider the impact of AAA strategies and regulations on economically distressed communities and seek opportunities to mitigate negative impacts in an equitable manner. The City shall continue to strengthen its efforts towards equity and environmental justice with regards to communities living within the AAA. The City should monitor demographic, socioeconomic, and housing data to promote resilient and equitable outcomes.

##### **14.6.4**

The City shall pursue adequate provision of housing options and affordable housing opportunities that are located on land that is high, dry, and connected and outside of the AAA.

**Objective 14.3 14.7**     **The City shall implement development and redevelopment principles, strategies and engineering solutions to reduce or eliminate flood risk in coastal areas when opportunities arise.**

#### **Policies**

##### **14.3.1 14.7.1**

The City shall protect coastal areas for the public benefit and restore degraded floodplain areas by methods such as land acquisition or conservation easement acquisition; regulation, including setbacks, buffer zones, designated wildlife corridors; low density zoning, performance standards and open space requirements and through engineering solutions adopted in the floodplain management ordinance and the Florida Building Code.(CCME 2.7.3)

**11.3.2 14.7.2**

Utilizing such programs as the Flood Mitigation Assistance Program (FMAP), Repetitive Flood Claims (RFC) and Severe Repetitive Loss (SRL), the City will continue to work with the State of Florida Division of Emergency Management (DEM), the Federal Emergency Management Agency (FEMA) and the National Flood Insurance Program (NFIP) to mitigate flooding hazards through the acquisition, elevation or relocation mitigation alternatives (Local Mitigation Strategy).

**11.3.3 14.7.3**

The City will create and maintain data and information to support redevelopment efforts which will include the following inventories: non-conforming land uses, vacant lands, high hazard areas, potential property acquisition/reuse, critical priority redevelopment areas and industrial preservation areas (Post Disaster Redevelopment Plan).

**11.3.4 14.7.4**

The City will develop and support public and private projects and programs to retrofit, relocate or acquire properties susceptible to repetitive flooding.

**14.7.5**

The City should evaluate and prioritize opportunities to acquire lands located within major stormwater basins that can serve as both recreation and open space and flood water storage capacity during major storm and high tide events.

**11.3.5 14.7.6**

The City shall meet the requirements of the National Flood Insurance Program for community participation as set forth in the Title 44 Code of Federal Regulations, Section 59.22 in order to reduce flood losses and achieve flood insurance premium discounts for residents. (*Ordinance Code*, § 652.103(h))

**11.3.6 14.7.7**

The City will continue to participate in the National Flood Insurance Program (NFIP) and will make all reasonable efforts to maintain a Community Rating System score of 6 or ~~higher~~ better.

**11.3.7 14.7.8**

The City's Emergency Preparedness Division shall maintain a Local Mitigation Strategy which will be reviewed and updated in accordance with state and federal requirements to remain eligible for pre- and post-disaster funding assistance.



**11.3.8 14.7.9**

The City shall minimize public and private losses due to flooding by implementing the following regulations:

- A. Requiring the use of appropriate construction practices in order to prevent or minimize future flood damage and managing development practices which may increase flood damage or erosion potential through implementation of the floodplain management ordinance. (*Ordinance Code*, § 652.103(b and c))
- B. Designating a Floodplain Administrator to enforce the provisions of Chapter 652, *Ordinance Code*, the City's floodplain management ordinance.

**11.3.9 14.7.10**

The City has adopted and shall maintain a floodplain management ordinance that establishes engineering requirements to safeguard the public health, safety, and general welfare and minimizes public and private losses due to flooding through regulation and development of flood hazard areas. The ordinance shall include development and redevelopment regulations that:

- A. Minimize unnecessary disruption of commerce, access and public service during times of flooding;
- B. Require the use of construction practices that will prevent or minimize future flood damage;
- C. Manage filling, grading, dredging, mining, paving, excavation, drilling operations, storage of equipment or materials, and other development which may increase flood damage or erosion potential;
- D. Manage the alteration of flood hazard areas, watercourses, and shorelines to minimize the impact of development on the natural and beneficial functions of the floodplain;
- E. Minimize damage to public and private facilities and utilities;
- F. Help maintain a stable tax base by providing for the sound use and development of flood hazard areas;
- G. Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and
- H. Meet the requirements of the National Flood Insurance Program for community participation as set forth in the Title 44 Code of Federal Regulations, Section 59.22.

**11.3.10 14.7.11**

Engineering solutions shall be included in the floodplain management ordinance and shall apply to all development that is wholly within or partially within any flood hazard area, including but not limited to the subdivision of land; filling, grading, and other site improvements and utility installations; construction, alteration, remodeling, enlargement, improvement, replacement, repair, relocation or demolition of buildings and structures; placement, installation, or replacement of manufactured homes and manufactured buildings; installation or replacement of tanks; placement of recreational vehicles; installation of swimming pools; and any other development.

**11.3.11 14.7.12**

The Floodplain Administrator shall review permit applications and engineering plans to determine whether proposed development sites will be reasonably safe from flooding. If a proposed development is in a flood hazard area, all site development activities, (including grading, filing, utility installation and drainage modification), all new construction and substantial improvements shall be designed and constructed with engineering methods, practices and materials to minimize flood damage in accordance with the city Floodplain Management Ordinance.

**11.3.12 14.7.13**

The Federal Emergency Management Agency (FEMA) Flood Insurance Study for the City of Jacksonville, Duval County, Florida and Incorporated Areas and the accompanying Flood Insurance Rate Maps (FIRM), and all subsequent amendments and revisions to such maps, shall be adopted by reference as a part of the floodplain management ordinance and shall serve as the minimum basis for establishing flood hazard areas, along with the supporting data and flood hazard areas included in the Master Stormwater Management Plan. Flood zones shall also be depicted on Future Land Use Element Map L-4.

The flood hazard areas and base flood elevations contained in the Flood Insurance Study and shown on Flood Insurance Rate Maps (FIRM) and the requirements of Title 44 Code of Federal Regulations, Sections 59 and 60 may be revised by the Federal Emergency Management Agency, requiring revision to the floodplain management regulations to remain eligible for participation in the National Flood Insurance Program.

**11.3.13 14.7.14**

All public utilities and facilities such as sewer, gas, electric, communications, and water systems are to be located and constructed to minimize or eliminate flood damage. All new and replacement sanitary sewage facilities, private sewage treatment plants (including all pumping stations and collector systems), and on-site waste disposal systems shall be designed in accordance with the standards for onsite sewage treatment and disposal systems in Chapter 64E-6, F.A.C. and ASCE 24 Chapter 7 to minimize or eliminate infiltration of floodwaters into the facilities and discharge from the facilities into flood waters, and impairment of the facilities and systems. All new and replacement water supply facilities shall be designed in accordance with the water well construction standards in Rule 62-532.500, F.A.C. and ASCE 24 Chapter 7 to minimize or eliminate infiltration of floodwaters into the systems.

**11.3.14 14.7.15**

No development, including but not limited to site improvements, and land disturbing activity involving fill or regrading, shall be authorized in the regulatory floodway unless the floodway encroachment analysis required in the Floodplain Management Ordinance demonstrates that the proposed development or land disturbing activity will not result in any increase in the base flood elevation.

~~11.3.15~~ 14.7.16

Development within flood hazard areas shall be required to include vulnerability reductions measures such as additional hardening, higher floor elevations or incorporation of natural infrastructure for increased resilience.

~~11.3.16~~ 14.7.17

The City shall continue to implement the Florida Building eCode and land development regulations to enhance flood mitigation measures in vulnerable areas to reduce future risks associated with high tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea level rise.

~~11.3.17~~ 14.7.18

The City's Land Development Regulations shall include standards and criteria for drainage and stormwater management in all types of development based on Level of Service Standards established in the 2030 Comprehensive Plan. (FLUE Policy 1.2.15)

~~11.3.18~~ 14.7.19

The City shall require all development within the 100 year flood-plain to be in strict conformance with all applicable federal, State, regional and local development regulations. (FLUE Policy 1.4.4)

14.7.20

The City shall consider providing 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 City Ordinance Codes revised for adaptation and resiliency.

**Objective 11.4 14.8** The City of Jacksonville shall be consistent with, or more stringent than, the flood resistant construction requirements of the Florida Building Code (FBC) and applicable flood-plain management regulations (44 C.F.R. part 60). Construction activities seaward of the coastal construction control lines shall be consistent with Chapter 161, Florida Statutes.

~~11.4.1~~ 14.8.1

The Floodplain Management Ordinance (*Ordinance Code*, Chapter 652) shall be administered and enforced in conjunction with the Florida Building Code and shall be consistent with the requirements of the Federal Emergency Management Agency (FEMA) and Title 44 Code of Federal Regulations. Additionally, floodplain development permits or approvals shall be issued pursuant to Chapter 652 for any development activities not subject to the requirements of the Florida Building Code. (*Ordinance Code*, § 652.402)

~~11.4.2~~ 14.8.2

Limit new construction to areas landward of the primary dune line, except as provided for by Florida's Coastal Construction Control Line regulation pursuant to Chapter 161,

F.S. Prohibit the use of non-emergency or maintenance vehicles on the City's primary dune system except as provided pursuant to an approved beach management plan. (FLUE Policy 1.5.8)

**11.4.3 14.8.3**

If extending, in whole or in part, seaward of the coastal construction control line and also located, in whole or in part, in a flood hazard area:

- A. Buildings and structures shall be designed and constructed to comply with the more restrictive applicable requirements of the Florida Building Code, Building Section 3109 and Section 1612 or Florida Building Code, Residential Section R322.
- B. Minor structures and non-habitable major structures as defined in F.S. § 161.54, shall be designed and constructed to comply with the intent and applicable provisions of this Chapter and ASCE 24.  
(Ordinance Code, § 652.1004)



**Definitions**

Adaptation Action Area or AAA – is a designation in 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 related impacts of rising sea levels for the purpose of prioritizing funding for infrastructure needs and adaptation planning. The City of Jacksonville AAA is specifically defined as those areas within the projected limits of the Category 3 storm surge zone, those connected areas of the 100-year and 500-year Flood Zone and additional areas determined through detailed flood risk analysis.

**Adaptation Action Area Map**  
**Map C-19**