

# 2030 Comprehensive Plan – Wetlands, Water Quality and Listed Species/Habitat Policies

## CONSERVATION/COASTAL MANAGEMENT ELEMENT (CCME) - GOAL 4 WETLANDS POLICIES

### GOAL 4

To achieve no further net loss of the natural functions of the City's remaining wetlands, improve the quality of the City's wetlands resources over the long-term and improve the water quality and fish and wildlife values of wetlands.

**Objective 4.1** The City shall protect and conserve the natural functions of its existing wetlands, including estuarine marshes. In order to achieve this objective and its associated policies, the City shall continue to work with the applicable regional, state and federal agencies charged with these regulatory responsibilities.

#### Policies 4.1.1

The City of Jacksonville has identified three categories of wetlands, as more specifically depicted on Maps C-3 and L-5:

- Category I wetlands shall mean those wetlands classified as Saltwater Marshes;
- Category II wetlands shall mean those wetlands classified as Riverine/Estuarine; and
- Category III wetlands shall mean those wetlands not classified as Category I or II wetlands.

#### 4.1.2

The wetlands designation on the land cover and classification maps published by the St. Johns River Water Management District (SJRWMD) and Maps C-3 and L-5 shall serve as a conceptual indicator of wetlands, saltwater marshes, and riverine/estuarine marshes. The delineation and determination of these areas shall be in accordance with SJRWMD rules. The delineation of wetlands on any proposed development shall be determined prior to the issuance of development orders which permit site alteration.

#### 4.1.3

The following performance standards shall apply to all development, except public utilities and roadways, permitted within Category I, II, and III wetlands:

- (a) Encroachment  
Encroachment in Category I, II, or III wetlands is the least damaging and no practicable on-site alternative exists; and
- (b) No net loss  
Development is designed and located in such a manner that there is no net loss to the wetland functions including but not limited to:
  - i the habitat of fish, wildlife and threatened or endangered species,

- ii the abundance and diversity of fish, wildlife and threatened or endangered species,
  - iii the food sources of fish and wildlife including those which are threatened or endangered,
  - iv the water quality of the wetland, and
  - v the flood storage and flood conveyance capabilities of the wetland; and
- (c) Floodplain protection  
Buildings are built at an elevation of sufficient height to meet the designated flood zone standards as set forth by the Federal Emergency Management Agency. The design must be in conformance with Chapter 652 (Floodplain Regulations) of the Ordinance Code; and
- (d) Stormwater quality  
In the design and review of developments which will discharge stormwater into the Category I, II, or III wetlands the following performance standards shall be used to protect water quality:
- i Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 40C-4 or 40C-40, F.A.C. or a stormwater permit issued pursuant to Chapter 40C-42, F.A.C., provides assurances necessary for compliance with subsections (i) - (iv) above provided the stormwater management system is constructed in accordance with the permit; and
  - ii Regular monitoring and maintenance program on an annual basis for the performance of stormwater treatment systems
- (e) Septic tanks  
Septic tanks, drainfields and/or greywater systems are located outside the Category I, II, or III wetland area and not within 75 feet of the mean high water line of tidal bodies or within 75 feet of any wetland unless the Duval County Health Department grants a variance for a hardship case pursuant to the provisions of Section 381.0065, F.S. Where public utilities are available, development is required to connect to these facilities; and
- (f) Hydrology  
The design of the fill shall include measures to maintain the wetlands hydrology of the site.

#### **4.1.4**

Public utilities and roadways located in Category I, II, or III wetlands shall be subject to the requirements of (a), (b), and (d) as noted in the performance standards outlined in Policy 4.1.3 above.

#### 4.1.5

The permitted uses within Category I and II wetlands shall be limited to the following land uses and associated standards, provided such use is consistent with the Future Land Use Map series (FLUMs):

(1) Conservation uses, provided the following standards are met:

(a) Dredge and fill

Dredging or filling of the Category I and II wetlands shall not exceed more than 5% of the wetlands on-site; and

(b) Vegetation

For Category I wetlands:

All native vegetation outside the development area is maintained in its natural state

For Category II wetlands:

No more than 10% of the arial extent of the vegetation outside the development area may be altered or removed; and

(2) Residential uses, provided the following standards are met:

(a) Density/Dredge and fill

Where lots, except for lots of record as defined in the Future Land Use Element, are located totally within the wetlands:

i density shall not exceed one (1) dwelling unit per five (5) acres; and

ii buildings shall be clustered together to the maximum extent practicable; and

iii dredging or filling shall not exceed 5% of the wetlands on-site; and

(b) Vegetation

For Category I wetlands:

All native vegetation outside the development area is maintained in its natural state

For Category II wetlands:

No more than 10% of the arial extent of the vegetation outside the development area may be altered or removed; and

(3) Water-dependent and water-related uses, provided the following standards are met:

(a) Vegetation

For Category I wetlands:

All native vegetation outside the development area is maintained in its natural state

For Category II wetlands:

No more than 10% of the aerial extent of the vegetation outside the development area may be altered or removed; and

(b) Boat facilities siting and operation

Boat facilities are further subject to Objectives 10.1, 10.2, 10.3, 10.5 and 10.6 and their related policies of this element.

- (4) Access to a permitted use, subject to the requirements of (a), (b), and (f) as noted in the performance standards outlined in Policy 4.1.3 above.
- (5) Any use which can be shown to be clearly in the public interest, subject to the requirements of (a), (b), (d) and (f) as noted in the performance standards outlined in Policy 4.1.3 above.
- (6) For Category II wetlands only, silvicultural uses are allowed, provided the following standards are met:

Best Management Practices: Silviculture

Such activities are conducted in compliance with the provisions of the "Silvicultural Best Management Practices Manual", as may be amended, published by the Florida Division of Forestry, Department of Agriculture and Consumer Services.

**4.1.6**

The permitted uses within Category III wetlands shall be limited to the following land uses and associated standards, provided such use is consistent with the Future Land Use Map series (FLUMs)

- (1) Any use not otherwise listed below, provided all of the basic requirements outlined in Policy 4.1.3 above are met:

(a) Silvicultural uses, provided the following standards are met:

Best Management Practices: Silviculture

Such activities are conducted in compliance with the provisions of the "Silvicultural Best Management Practices Manual", as may be amended, published by the Florida Division of Forestry, Department of Agriculture and Consumer Services.

(b) Agricultural uses, provided the following standards are met:

Best Management Practices: Agriculture

Such activities are to be in compliance with Chapter 40C-44, F.A.C.

- (2) Any use that can be shown to be clearly in the public interest, subject to the requirements of (a), (b), (d) and (f) as noted in the performance standards outlined in Policy 4.1.3 above.

#### **4.1.7**

High intensity wetlands surveys shall be submitted for all land use amendments where City data indicates potential existence of wetlands on the subject site. Rezoning and site plan applications shall include high intensity wetlands surveys where City data indicates potential existence of wetlands on the subject site and where there is a high potential for wetland impact. For the purposes of this policy, a high intensity wetlands survey shall include the location, type(s), size, quality and functional value of all wetlands located within the boundaries of the application site. Land Use amendments to the Conservation Future Land Use Category are exempt from this requirement.

#### **4.1.8**

The City reserves the right to modify the wetland designation on any parcel where reliable information becomes available to the City such as a jurisdictional determination, Uniform Mitigation Assessment Method (UMAM) analysis, or permit issued by the SJRWMD depicts such area different than depicted on the overlay map Map C-3. A UMAM analysis resulting in a score of 4 or less for each of the three categories of indicators of wetland function: location and landscape support, water environment, and community structure, shall result in reclassification of Category I and II wetlands to Category III.

Before the City modifies the designation on any parcel for any reason other than a jurisdictional determination, UMAM analysis, or permit issued by the SJRWMD, the property owner and the SJRWMD shall be given an opportunity to comment on the reliability of the information provided. Failure of the property owner or SJRWMD to provide their comments within a thirty (30) day period from the date of mailing shall be considered an acquiescence that the information provided is reliable. To the extent the wetlands map is inconsistent with an on-site inspection or survey, the survey supersedes the wetlands map. However, any modification to the wetland designation shall be consistent with state and federal regulations and permits.

#### **4.1.9**

The City of Jacksonville shall modify the Land Development Regulations as follows in order to protect water quality and preserve natural wetland functions:

- The City shall require new development to provide a 15 foot minimum upland buffer between developed areas contiguous to Category I and II Wetlands;
- The City of Jacksonville shall require a Low Maintenance Zone (LMZ) to be established between developed areas contiguous to any pond, stream, water course, lake, wetland or seawall in accordance with Chapter 366, Part 6, Ordinance Code;
- All buffers shall be measured from the St. Johns River Water Management District (SJRWMD) or Florida Department of Environmental Protection Wetland jurisdictional line;
- Buffers shall consist of Florida Friendly Landscape plants or ground cover which is planted and managed in order to minimize the need for fertilization, watering and mowing;
- The aforementioned minimum buffers are required, except for those circumstances where an averaging of the buffer width, because of an unavoidable buffer reduction, achieves a greater overall upland buffer width;
- Buffers are not required for wetlands permitted for filling; and
- In all cases, the applicable buffer shall be depicted on all site plans, development plans, and other documents submitted to authorize the review for development.

The City shall allow administrative approval by the Director of Planning for the purposes of unavoidable wetlands impacts upon finding that all of the following criteria are met:

- a. All required valid and unexpired permits from state and federal regulating agencies have been issued and are provided with the Development application or will be made a contingency for approval.
- b. The request is limited to one of the following:
  1. A road crossing;
  2. Public infrastructure and utility crossings or rights-of-way that are related to transmission or conveyance of a service;
  3. A driveway on a Legal Lot of Record to a single-family residence;
  4. Reasonable access to waterways; and
  5. Circumstances where there could be no reasonable use of the property.
- c. Administrative approval shall not be allowed for self-created hardships such as, but not limited to:
  1. Placing a road crossing, utility crossing, rights-of-way, driveways, or other features in wetlands instead of uplands for the sole purpose of providing additional upland area for Development.

Marinas, public access including riverwalks and boardwalks, and structures necessary for the public health and safety are exempt from the buffer requirements and administrative approval procedure.

#### **4.1.10**

In determining whether an encroachment in the wetland is the least damaging to the wetland and that no practicable on-site alternative exists, the City shall evaluate the following prior to the issuance of a final development order:

- (a) the land use category according to the Future Land Use Map series (FLUMs) and existing zoning of the site and surrounding parcels; and
- (b) alternative designs which could accomplish the purposes of the development including the encroachment on the wetland of such alternative designs; and
- (c) the wetland functions being served by the area proposed to be encroached upon.

#### **4.1.11**

Mitigation shall be considered only as a last resort, and only if it is determined that encroachment in the wetland is the least damaging alternative and no practicable on-site alternative exists. Such mitigation activities should replace similar habitat and function, and shall result in no net loss of wetland functions and shall be subject to all applicable local, State and Federal permitting and regulations.

#### **4.1.12**

The City shall consider cumulative impacts when reviewing proposals for construction within wetlands.

In deciding whether to grant or deny a development order for construction in wetlands which will affect wetlands, the City shall consider:

- A. The impact of the development for which the development order is sought.

- B. The impact on developments which are existing, under construction, or for which land development orders have been previously issued.
- C. The impact of developments which are under review, approved, or vested pursuant to Section 380.06, F.S., or other developments which may reasonably be expected to be located within wetlands based upon applications for final development orders pending at the time of the review.

#### **4.1.13**

The City's Environmental Protection Board (EPB) established pursuant to Chapter 73, Ordinance Code, shall have the authority to promulgate appropriate rules by which it may exempt or waive specific provisions of Policies 4.1.1 - 4.1.12 above for i) developments with alternative designs which can be shown to be the least damaging and that no practicable on-site alternative exists and which results in no net loss of the wetland functions, ii) public facilities/utilities/roadways or iii) in the case of hardships. The EPB shall uphold the policies of the City of Jacksonville's 2030 Comprehensive Plan. Any waiver granted by the Environmental Protection Board shall be a development order or permit subject to challenge under Section 163.3215, F.S. In determining exemptions or waivers, the EPB rules shall consider the following:

- A. wetland functions being served by the wetland proposed to be impacted, including, but not limited to:
  - i the habitat of fish, wildlife and threatened or endangered species,
  - ii the abundance and diversity of fish, wildlife and threatened or endangered species,
  - iii the food sources of fish and wildlife including those which are threatened or endangered,
  - iv the water quality of the wetland, and
  - v the flood storage and flood conveyance capabilities of the wetland; and
- B. compliance with the following stormwater quality standards which are used to protect water quality in wetlands in the design and review of developments which will discharge stormwater into the wetland:
  - i Stormwater runoff shall be subjected to best management practices prior to discharging into natural or created mitigation wetlands. Best management practices shall mean a practice, or combination of practices determined by the local government to be the most effective, practical means of preventing or reducing the amount of pollution generated by the development to a level compatible with Florida Surface Water Quality Standards found in Chapters 17-301 and 17-302, F.A.C.
  - ii No site alteration shall result in violation of State and local water quality standards caused by siltation of wetlands or pollution of downstream wetlands, or reduce the natural retention of filtering capability of wetlands.

- iii No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.
- iv All site alteration activity shall provide for such water retention, filtration, and settling structures, and flow attenuation devices as may be necessary to ensure that the foregoing standards and requirements are met.

#### **4.1.14**

The City shall assess and evaluate the success or failure of the 2030 Comprehensive Plan to protect the natural functions of wetlands as part of the evaluation and appraisal report required pursuant to Section 163.3191, F. S. The City shall amend the 2030 Comprehensive Plan as needed, including reformulated objectives, policies and standards to protect the natural functions of the wetlands.

#### **4.1.19**

The City shall sponsor placing “Environmentally Sensitive Lands” into Conservation land use category and zoning district and/or conservation easement, where there is a willing property owner.

**Objective 4.3** The City shall regulate land development activities in wetlands so as to complement and not duplicate existing wetland protection programs of the Florida Department of Environmental Protection DEP , St. Johns River Water Management District (SJRWMD) and the U.S. Army Corps of Engineers (USACOE).

#### **Policies 4.3.1**

The City's Environmental and Compliance Department shall review all DEP, SJRWMD and USACOE dredge and fill, management and storage of surface waters and stormwater permit applications within the City and comment where appropriate. The Environmental and Compliance Department shall review and comment on all permit applications which involve locally adopted standards involving such matters.

#### **4.3.2**

The City shall require all applications for final development orders to include a listing of those Florida Dredge and Fill, U.S. Dredge and Fill and Florida Management and Storage of Surface Waters permits that will be required for the site. All applications for final development orders shall include a delineation of all existing jurisdictional wetlands on-site. All permits shall be submitted prior to the final approval of the development plan.

#### **4.3.3**

The City's wetland protection program shall not duplicate existing federal, State, or water management district programs. Issuance of a Management and Storage of Surface Waters permit pursuant to Chapter 373, F.S., a dredge and fill permit pursuant to Chapter 403, F.S., or a dredge and fill permit pursuant to the Federal Clean Water Act provides the assurances necessary that the encroachment, no net loss, stormwater treatment, hydrology, cumulative impacts and mitigation standards have been complied with but shall not include assurances as to the permitted land uses within each wetland classification or the following related standards (i) septic tanks, (ii) dredge and fill percentage, (iii) density, (iv) vegetation and (v) boat facilities siting and operation, which the City shall review independently.



**Objective 4.4** The City shall consider incentives and other market-based programs to protect high functional valued wetlands and environmentally sensitive lands that are critical to the health of the City's waterways and water quality.

**Policies 4.4.1**

The City shall encourage the placement of all watercourses, water bodies, buffer areas, and wetlands having high functional values to be placed in a Conservation land use category, Conservation zoning district and/or conservation easement as part of an application for a land use amendment, rezoning and/or site plan approval process.

**4.4.3**

The City shall act as applicant for property owners who voluntarily place their high functional valued wetland into the Conservation land use category and/or Conservation zoning district.

**4.4.4**

The City shall consider density bonuses and/or cluster development in appropriate areas of the City to encourage placement of high functional wetlands and other environmentally sensitive lands to Conservation.

**FUTURE LAND USE ELEMENT (FLUE) - WETLANDS POLICIES**

**Policies 1.5.9**

Revise the Land Development Regulations to include provisions designed to protect wetland functions in connection with development in and adjacent to wetlands.

**4.1.10**

The City hereby incorporates Map L-5 that depicts Salt Water Marshes, Riverine/Estuarine Wetlands and All Other Wetlands. Notwithstanding the permitted land uses according to the Future Land Use Map series (FLUMs), the permitted land uses within such areas shall be limited to the permitted land uses and associated standards of Objectives 4.1, 4.2, 4.3 and 5.1 and related policies of the Conservation/Coastal Management Element.

**7.1.1**

The Planning and Development Department shall consider the land use impact on the St. Johns River and its tributaries by reviewing the future land use designation and land development regulations of those properties that are contiguous with and immediately adjacent to a water body. The following concerns will be considered for those properties:

- Wetlands
- Impervious surface potential
- Coastal High Hazard Area (CHHA)
- Septic Tank Failure Areas
- Environmentally Sensitive Areas
- Flood zones
- Aquifer recharge zones
- Wellhead protection areas

### 7.2.1

The City shall allow the transfer of residential densities between contiguous parcels under a common site plan and controlled zoning district in all land use categories. Development may be clustered on a site in accordance with the following standards:

- a) Both the development and the remaining undeveloped environmentally sensitive land must be part of a site-plan-controlled zoning district (PUD) which stipulates that the maximum allowable density credit for the entire subject site has been transferred to the area of cluster development and may not be subsequently rezoned to the contrary without a comprehensive plan amendment.
- b) Units may not be clustered at densities which would exceed the threshold for wells, septic tanks and other such services, where applicable.

Wetlands and water bodies for which density credit is given shall be recorded in perpetuity as preservation or conservation areas or easements.

### **Wetlands Future Land Use Element Plan Category Description**

Wetlands generally include swamps, marshes, bogs and similar areas. Both freshwater as well as saltwater wetlands are shown on the FLUMs. The location and boundaries of wetlands on the FLUMs are based on a variety of sources, including St. Johns River Water Management District and generalized United States Geological Survey (USGS) mapping. Accordingly, the location and boundaries of these areas are not precise, but are rather intended to serve as a guide in identifying sites that may be subject to regulatory mechanisms. Exact boundaries will be established for regulatory purposes using detailed site surveys completed prior to the issuance of development orders. These areas therefore are depicted on the FLUMs under the appropriate land use category for which areas around these can be used/developed subject to applicable local, regional, State and federal regulations.

## **CONSERVATION/COASTAL MANAGEMENT ELEMENT (CCME) - WATER QUALITY AND LISTED SPECIES/HABITAT POLICIES**

### **Objective 2.3 Reduce the potential for water quality degradation from stormwater runoff.**

#### **Policies 2.3.1**

Increase cooperation with the SJRWMD in the permitting of new, urban non-point sources of pollution by taking the following actions:

- A. The City will implement SJRWMD rule changes as set out in Chapter 40C-42, F.A.C., regarding more stringent treatment standards for stormwater facilities discharging to water quality limited streams.
- B. The City shall provide the SJRWMD with copies of the "Duval County Surface Water Quality Summary Report."

### **2.3.2**

The City shall require new development to adhere to the erosion and sediment controls for construction sites set forth by the Water Quality Branch (WQB) of the EQD. Construction sites will be inspected by the City's Nonpoint Source Section to ensure minimal impacts of erosion on water quality of the City.

### **2.3.3**

The City will continue to update the Master Stormwater Management Plan (MSMP) and coordinate with the Water Sewer Expansion Authority (WSEA) to ensure that the necessary stormwater system infrastructure is in place within the 22 targeted septic tank phase-out areas.

### **2.3.4**

The Public Works Department shall continue to implement non-structural stormwater best management practices (pavement sweeping, etc.) in existing areas where stormwater retrofitting is proposed in the Master Stormwater Management Plan.

### **2.3.5**

The City will continue to maintain the inventory of herbicides and pesticides used on City owned or maintained areas, including those used to control mosquitoes.

### **2.3.6**

The City will require implementation of Best Available Treatment designs achieving no less than 30% total nitrogen reduction for urban retrofit projects and promote new projects to achieve no net increase in nutrient runoff from pre-existing conditions.

### **2.3.7**

The City will require the use of "River Friendly" BMPs, as published in the *Florida Green Industries: Best Management Practices for Protection of Water Resources in Florida* and outlined in Chapter 366, Ordinance Code. This will include the establishment of new, "Florida Friendly" turf and landscapes and the care of existing turf and landscapes, including construction activities, irrigation, nutrient management, and pest management.

**Objective 2.7 The City shall protect the hydrological and ecological benefits of flood plain areas, such as water quality, fish and wildlife habitat, and prevention of downstream flooding.**

#### **Policies 2.7.1**

The City shall continue to define the surface hydrology of the area to determine flood plain vulnerability and sensitivity, and will determine appropriate protection measures.

#### **2.7.2**

A land acquisition program for appropriate flood plain areas to be purchased shall continue to be included in the City's Special Management Areas Program, with funding provided through The Preservation Project Jacksonville.

### 2.7.3

The City shall protect appropriate floodplain areas for the public benefit and restore degraded floodplain areas by:

- A. Land acquisition or conservation easement acquisition;
- B. Regulation, including setbacks, buffer zones, designated wildlife corridors, low density zoning, performance standards and open space requirements; and
- C. Incentives, including tax benefits and transfer of development rights.

## GOAL 3

**Manage, preserve and enhance viable native ecological communities in order to protect and improve the functions of natural systems and the distribution, productivity and diversity of native plants, animals and fisheries, particularly those species which are endangered, threatened, of special concern, or have high ecological, recreational, scientific, educational, aesthetic, or economic value.**

**Objective 3.1 To develop a current high-quality database on vegetation and wildlife within the City.**

### **Policies 3.1.1**

The City will meet with the SJRWMD to set up a timeline to complete the Wetlands Vegetation Inventory and to determine the type of assistance needed to complete the project. The City will then provide the necessary assistance as requested by SJRWMD.

### **3.1.2**

The Parks Advisory Board on the Preservation Project shall regularly assess environmentally sensitive lands, including those in the Special Management Areas Program and other Environmentally Sensitive Lands identified per Policy 4.1.9. The Commission, through its staff, will evaluate those lands and make recommendations to the Mayor for purchase and management. Attention shall be given to identifying areas that have suffered environmental damage and show promise for restoration to all or part of their past productivity.

### **3.1.3**

The City shall utilize its computerized Geographic Information System (GIS) to map and analyze natural resource conditions.

### **3.1.4**

The City shall provide appropriate assistance to the University of Florida Biological Diversity Project for Duval County in exchange for an inventory database. The City shall also work in cooperation with the U.S. Department of Forestry to determine the natural inventory of Duval County lands by photo interpretive methods.

**Objective 3.2 Increase the public knowledge of environmental problems, solutions and goals of the City, especially in relation to environmentally sensitive areas, native Florida wildlife, listed species, and their habitat.**

### **Policies 3.2.1**

The City shall assist the Florida Department of Community Affairs, the Florida Fish and Wildlife Conservation Commission, and the U.S. Fish and Wildlife Service in developing an education program to increase public knowledge of the existence, habitat, and survival requirements of

this area's native wildlife, including listed species and other rare Florida animals. The City shall continue efforts to educate the public, landowners, developers, and agency representatives on the wildlife and wildlife habitat of Northeast Florida, including good management practices for native species and vegetative communities.

### **3.2.2**

The City will assist the Duval County School Board with the inclusion of a significant organized environmental education program such as Project Wild sponsored by the Florida Fish and Wildlife Conservation Commission FFWCC, in the curriculum of the Duval County public schools.

### **3.2.3**

The City shall continue to support staff within EQD to increase public knowledge and awareness of local environmental issues such as the St. Johns River cleanup, non-point pollution, air quality and air toxins, hazardous materials disposal, wetlands values, native species, rule changes, and new regulatory requirements. This staff will continuously work with other public agencies, environmental organizations, the Duval County School Board, and the Jacksonville Chamber of Commerce to facilitate the public education process.

**Objective 3.3** The City shall conserve, appropriately use, protect and manage environmentally sensitive lands (native plant communities and wildlife habitat) to maintain the natural ecological community types and sustainable populations of wildlife native to the City.

### **Policies 3.3.1**

The Preservation Project Jacksonville shall continue to consider the acquisition of environmentally sensitive lands in order to preserve at least one example of each native plant community occurring in the City so that each will remain a viable ecological community.

### **3.3.2**

The City shall promote wildlife preservation and conservation of natural systems and the long-term maintenance of natural systems through such means as establishing wildlife sanctuaries, refuges, riverine preserves, wildlife management areas, parks and open space by buying or acquiring other interests in the land.

### **3.3.3**

The City shall encourage landowners and developers to protect or preserve Environmentally Sensitive Lands within developments, where feasible. Developers will be informed, through development review processes, and provided options for preservation of these areas.

### **3.3.4**

The City will continue to inform landowners and developers of the availability of technical assistance from State and federal fish and wildlife agencies concerning the on-site status of the following native communities: beach dunes and coastal strands, dry prairies, maritime hammocks, scrubs, shell mounds, sand hills, mesic flatwoods.

### **3.3.5**

The City shall continue to ensure the preservation of native habitat vegetation during land development activities, either through maintenance of natural vegetation on any project site, or through the planting of native vegetation. 50% of all plantings incorporated in an approved landscape plan for any project site after development consists of native vegetation suitable to that site, and by requiring that at least 60% of all post development vegetation is indigenous to the City.

### **3.3.6**

The City has amended the Jacksonville Landscape and Tree Protection Regulations to increase the penalties for violation thereof, which penalties include mitigation, jail sentences, severe fines and withholding of building and development permits.

### **3.3.7**

The City shall implement the programs specified in the Wetlands Policies, Special Management Areas and Environmentally Sensitive Lands Policies in this element in order to ensure the protection and restoration of the ecological functions of wetlands.

### **3.3.8**

The Planning and Development Department shall encourage innovative site planning techniques such as clustering of development to preserve unique natural site features.

### **3.3.9**

The Planning Department, in coordination with EQD and the Recreation and Community Services Department, shall provide an annually updated list identifying and prioritizing Special Management Areas and Environmentally Sensitive Lands for acquisition when funds are available. This list will include and give priority to Special Management Areas that are not publicly owned and will be provided to the Preservation Project Jacksonville for review.

**Objective 3.4 The City will protect conserve and appropriately use native ecological communities shared with or adjacent to State and federal lands and other local governments.**

#### **Policies 3.4.1**

The City shall develop a process by which to protect unique communities located along the City's border by enforcing land use and development regulations with regard thereto.

#### **3.4.2**

The City shall, with the appropriate counties, meet as necessary to discuss upcoming land development projects that would have an impact on native ecological communities in more than one jurisdiction.

#### **3.4.3**

The City shall cooperate with and assist adjacent local governments to assure compliance with all State and federal regulations pertaining to endangered and rare species living in such "shared" ecological systems, by meeting as necessary to discuss any new State or federal regulations.

**Objective 3.5** Protect and manage endangered and threatened species and species of special concern so there is no reduction in numbers of species that are found in the City and no significant loss of population size. Conserve and protect the functional values of areas of native wildlife habitats which require special protection efforts.

#### **Policies 3.5.1**

The City shall continue programs for the protection of listed and non-listed species of interest as part of The Preservation Project Jacksonville, the Special Management Areas Program and other Environmentally Sensitive Lands designated per Policy 4.1.9.

#### **3.5.2**

Following the production of the environmentally sensitive lands database, a study will be completed, to analyze the data obtained to determine what regulatory programs are needed to protect listed plants and animals and other wildlife. The study will include a specific review of those plant species listed by the State of Florida, which are not also federally listed plant species to determine whether they require additional protection. Upon completion of the study, the 2030 Comprehensive Plan shall be amended to reflect the data and analysis and the goals, objectives and policies shall be reviewed for consistency with the additional information, and if necessary, be appropriately amended.

#### **3.5.3**

The City shall continue to establish additional Conservation land use designations and/or ordinances or rules as needed to conserve and protect sustainable populations of listed animal species and other significant wildlife, federally listed plant species and those state-listed plant species as determined in the referenced study. Where compatible uses are allowed, mitigation may be required on or off-site to help compensate for adverse impacts. Positive incentives, as described in Policy 3.3.7 will be part of this regulatory program.

The City will continue to review agency regulations and best management practices of silviculture and agriculture operations to determine whether these operations are adversely impacting those species referenced in Policy 3.5.2 and the upland habitats listed in Policy 3.3.7. The City will request assistance in this review from the Division of Forestry and wildlife agencies. If detrimental impacts are occurring, EQD shall implement EPB rules for agriculture and silviculture BMPs which specifically include practices for the protection of these species and upland communities.

In addition, the City shall monitor the Division of Forestry's review of the best management practices as they relate to wildlife and propose amendments to the 2030 Comprehensive Plan based on the review by the Division of Forestry.

#### **3.5.4**

The City shall continue to implement a program which: (1) defines those areas of native wildlife habitat in need of special protection efforts but not otherwise subject to regulation and protection by State and U.S. agencies and (2) requires either preservation of a portion of the wildlife habitat in need of special protection or equivalent preservation by means of on-site or off-site mitigation. The program shall include provision for transfer of land use density credits from those areas being preserved to areas of the site proposed for development, and other compensation measures as appropriate. The Land Development Regulations will be subsequently amended. This policy does not preclude additional regulatory and incentive measures for the conservation and management of wildlife habitat and native plant communities from being developed per policy 3.3.7.

### 3.5.5

The City shall maintain a land development review process for the assessment and protection of listed species and their habitat, which shall apply to issuance of development permits and land clearing, excluding bona fide silvicultural and agricultural activities. Projects which contain areas identified for protection shall be required to incorporate creative project designs through utilization of such measures as clustering, mixed land use designations and transfer of development rights programs. For purposes of Policy 3.5.5, the term listed species shall be limited to listed animal species as defined in the Definitions Section of this Element.

- A. All proposed developments or land clearing, with the exception of bona fide silvicultural or agricultural activities, which are located on all or part of a parcel or contiguous parcels of land containing 50 acres or more under common ownership shall be reviewed by the City to determine if the site contains listed species.
  
- B. A listed species survey shall not be required for:
  - 1. lands depicted on the most recent Land Cover Map published by the St. Johns River Water Management District (SJRWMD) to be:
    - a. barren land
    - b. agriculture
    - c. urban land
    - d. transportation and utilities, and/or
    - e. tree plantations
  
  - 2. areas identified as wetlands where a listed species survey was required through other local, State, regional or federal regulations or programs or those wetlands which will be protected in their natural state through such regulations or programs.

The City reserves the right to modify the land cover designation of any site where reliable information available to the City indicates that the land cover is different than the land cover depicted on the most recent Land Cover Map published by the St. Johns River Water Management District (SJRWMD). Before the City modifies the land cover designation on any site, the property owner and the SJRWMD shall be given an opportunity to comment on the reliability of the information provided. Failure of the SJRWMD to provide their comments within a 30 day period from the date of mailing shall be considered an acquiescence that the information provided is reliable. To the extent the Land Cover Map is inconsistent with an on site inspection or survey, the survey controls.

- C. The City shall make a determination as to whether or not the proposed development or land clearing, not otherwise exempt from the provisions of Policy 3.5.5, is located in an area which contains listed species requiring the procedures set forth in Paragraph E of this Policy.
  - 1. The City shall review its database, which shall consist of Land Cover Maps, known occurrences of listed species, and results of properly



conducted surveys.

- a. If the database does not reflect any known occurrences of listed species on the site and the site contains only exempt land cover, then the protection measures of Paragraph E of this Policy shall not apply.
- b. If the database indicates that the development or land clearing site contains listed species, then the protection measures of Paragraph E of this Policy shall apply.
- c. If the database indicates nonexempt land cover is present on the development or land clearing site, the protection measures of Paragraph E of this Policy shall be applied as follows:
  1. If the survey shows a listed species, then the provisions of Paragraph E of this Policy applies (see chart titled Proposed Development or Land Clearing located in the Wildlife Inventory and Analysis section).
  2. If the survey does not show a listed species, then the provisions of Paragraph E of this Policy do not apply.
  3. An applicant may provide a listed species survey conducted by the FFWCC, USFWS, or a professionally qualified private consultant in accordance with Paragraph 1 of this Policy, to amend the database.
  4. The City may grant exemptions from the survey requirements and the protection measures of Paragraph E of this Policy in individual cases where reliable information available to the City indicates that the proposed development or land clearing contains no listed species or habitat for listed species. Before the City grants an exemption from survey or protection measures, the FFWCC and the USFWS shall be given an opportunity to comment on the reliability of the information provided. Failure of the FFWCC and the USFWS to provide their comments within 30 days from the date of mailing shall be considered an acquiescence that the information provided is reliable.
  5. An applicant may accept the database without conducting a survey and comply with the protection measures of Paragraph E of this Policy.
  6. For purposes of this Policy, the results of a properly conducted survey are considered more conclusive than the database if conducted by the provisions of Paragraph 1 of this Policy.

The City reserves the right to verify any information submitted by an applicant.

- D. The land encompassed in the listed species survey shall be as follows:
1. For proposed developments or land clearing, not otherwise exempt, containing 50 acres or more, the entire area to be developed or cleared shall be surveyed.
  2. For proposed developments or land clearing, not otherwise exempt, containing less than 50 acres, which are part of a parcel or contiguous parcels of land containing 50 acres or more which was under common ownership on the effective date of the 2010 Comprehensive Plan, a minimum of 50 acres shall be surveyed inclusive of the proposed development area to be cleared. However, no land owner will be required to survey land they do not own.
- E. When a site proposed for development or land clearing is determined to contain listed species, those listed species and their habitat shall be protected in a manner which ensures the achievement of Objectives 3.3 and 3.5 and related policies, unless the proposed development or land clearing is otherwise exempt from the provisions hereof. The method of protection required by the City shall be determined on a case by case basis and shall be directly related to: the number and types of listed species present or presumed to be present on the site as determined by Paragraph C of this Policy; the size, type, quality and location of habitat; the life cycle needs supplied by the habitat, i.e., nesting, roosting, breeding, foraging, etc.; the size of the habitat in relation to the size of the site proposed for development or land clearing; the location of the site and the habitat in relation to existing or proposed wildlife corridors, Special Management Areas and other Environmentally Sensitive Lands designated as per Policy 4.1.16, Conservation land use designated properties; lands upon which a conservation easement already exists.
1. The City shall require a habitat management plan which demonstrates how the listed species will be protected from the impacts of the proposed development or land clearing. The plan must be prepared by a qualified professional, reviewed by the FFWCC or USFWS and approved by the City prior to the City issuing a development order. The FFWCC or the USFWS must complete this review within 30 days from the date of mailing. Failure of the FFWCC or the USFWS to provide their review within the 30 day period shall be considered an acquiescence that the management plan is acceptable. Under the requirements of a habitat management plan, the landowner may be required to protect up to 10% of the total gross acreage of the site proposed for development or land clearing.
  2. When the City determines that alternative off site measures will provide equivalent or better protection to achieve Objectives 3.3 and 3.5 and their related policies, then in lieu of the requirements of Subsection 1 above, the City may require one of the following; i) a monetary contribution to a trust fund for the acquisition of environmentally sensitive areas, or ii) off

site mitigation measures such as species relocation which must be approved by the FFWCC or the USFWS, or other State or federal agency with jurisdiction over the species to be protected or iii) land acquisition within or adjacent to existing or proposed wildlife corridors or areas within the region with existing habitat for the listed species to be protected or iv) contribution to the Northeast Florida Regional Mitigation Park and/or the Preservation Projects Jacksonville (PPJ). The monetary contribution shall provide funds sufficient to replace or the land to be dedicated shall replace the habitat functions of the acreage that would otherwise be protected under Subsection 1 above, off site mitigation shall emphasize the need to satisfy habitat requirements for listed species. Monetary contributions to a trust fund for land acquisition pursuant to this policy shall be applied first to the acquisition of sites known to contain viable populations of listed species.

3. Listed species preservation or mitigation imposed upon a site by a federal, State, or regional agency are presumed to satisfy Objectives 3.3 and 3.5 and related policies, and the City shall incorporate the restrictions imposed by those other agencies into any development order issued for the site.
  4. The protection measures of this Policy 3.5.5 shall not apply to the Florida Panther (*Felis Concolor Coryi*) and the Florida Black Bear (*Ursus Americanus Floridanus*) because of (i) the extremely large home range; (ii) the difficulty of defining precise habitat needs; (iii) the inclusion of other policies in this Conservation/Coastal Management Element which address acquisition or incentive programs to establish wildlife corridors for far ranging species; and (iv) the identified habitat area which is located in areas encompassed by low density land uses of one dwelling unit per 40 acres to one dwelling unit per 100 acres.
- F. For the purpose of this policy, "protect" or "protection" shall mean preservation by the creation, acquisition and enforcement of conservation easements in the manner provided by Section 704.06, F.S. This shall be accomplished through: a conservation easement, dedicated to the City, or to a public or non-profit conservation agency or organization or by virtue of designation of the protected area as Conservation on the Future Land Use Map series (FLUMs). For purposes of a Conservation designation on the FLUMs, final development orders, when issued, will identify protected areas to be designated as Conservation. The next ensuing amendment of the Future Land Use Element by the City will incorporate on the FLUMs such protected areas designated as Conservation. The area on site required for protection may, in part, be satisfied by other requirements if the protected area is the same community type required for protection. A conservation easement, dedication or Conservation designation in the Future Land Use Element shall, by the terms as reflected in the easement, dedication or amendment to the Future Land Use Element, take into consideration the listed species which are subject to protection measures. The City has the final authorization for the decision to accept or reject a particular conservation easement. Acceptance of dedications of such land or easements shall emphasize the need to satisfy habitat requirements for listed species. The City shall refine its procedure for accepting conservation easements.

Conservation easements may be released only when it is shown by competent substantial evidence that the purpose for such easement was dedicated, has been completed or is no longer capable of being accomplished because no other listed species utilize the site. The Land Development Regulations shall not require a landowner to be responsible for ongoing management plan requirements other than the protection as defined above.

G. The listed species information and copies of all listed species surveys, as well as City determinations, shall be maintained in a central location by the City and shall be available to the public for inspection.

H. The listed species surveys required by this Policy shall be conducted using methods approved by the FFWCC or USFWS for those species in the list below for which the site contains habitat which may be utilized by those species. In addition to the following species, all other listed species found on the site shall be reported.

Sherman's Fox Squirrel  
Red Cockaded Woodpecker  
Burrowing Owl  
Bald Eagle  
Gopher Tortoise  
Southeastern American Kestrel  
Florida Pine Snake  
Eastern Indigo Snake  
Florida Gopher Frog  
Woodstork  
Florida Mouse  
Rookeries containing listed species

For purposes of this Policy, the results of a properly conducted survey are considered more conclusive than the data base. A properly conducted survey must address: i) species listed in the data base for which verified sightings by a qualified person have been recorded for that site, and ii) species for which the on-site habitat is particularly valuable. The City shall reserve the right to perform its own properly conducted survey to verify the landowners survey.

I. Properties which have previously been subject to the provisions of Paragraph E of this Policy shall not again be subject to those provisions, even if those properties are being cleared or developed in parcels that are smaller than the original parcel which was subject to those provisions.

### 3.5.6

The provisions of Policy 3.5.5 shall not apply to bona fide silvicultural or agricultural activities on those lands where such activities were existing on or prior to the effective date of the 2010 Comprehensive Plan or new bona fide silvicultural and agricultural activities in areas otherwise exempt in Paragraph B of Policy 3.5.5. Bona fide silvicultural or agricultural activities shall be defined as good faith commercial or domestic silvicultural or agricultural use of the land, any determination of which shall consider the following:

- (i) The specific agricultural or silvicultural use of the land;
- (ii) The length of time the land has been so utilized;
- (iii) Whether the use has been continuous;
- (iv) Consideration of whether the purchase price paid is three or more times the agricultural assessment placed on the land;
- (v) Size of the tract as it relates to the specific agricultural or silvicultural use;
- (vi) Whether such land is subject to a lease, and if so, the effective length, terms and conditions of the lease;
- (vii) Absence of pending applications for development permits;
- (viii) The classification placed upon such lands by the Property Appraiser pursuant to Section 193.461, Florida Statutes;
- (ix) Merchantability of the silvicultural or agricultural product;
- (x) Whether an indicated effort has been made to care sufficiently and adequately for the land in accordance with acceptable commercial agricultural or silvicultural practices applicable to the product involved;
- (xi) Such other factors as may from time to time become applicable.

To the extent a final determination is made that land clearing activities do not constitute bona fide silvicultural or agricultural activities and are not otherwise exempt from Policy 3.5.5, the provisions of Policy 3.5.5 shall be applicable to such activities.

- A. For purposes of Policy 3.5.6, "silvicultural or agricultural use of the land" shall mean all necessary farming and forestry operations which are normal and customary for the area, such as natural seeding, direct seeding, control burning, preparation of land management plans, site preparation, clearing, fencing, contouring to prevent soil erosion, soil preparation, plowing, planting, harvesting, construction of access roads, creation of fire lanes and placement of bridges and culverts conducted in accordance with applicable rules of the St. Johns River Water Management District.
- B. Bona fide silvicultural and agricultural activities shall be required to comply with all provisions of the Silvicultural "Best Management Practices" Manual published by the Florida Division of Forestry, Department of Agriculture and Consumer Services.

**Objective 3.6** The City shall promote through acquisition or incentives the establishment of carefully selected and designed wildlife corridors connecting viable habitat in order to allow the survival of far ranging species and prevent the isolation of natural communities and their gene pools. This process will be developed in cooperation with the Florida Fish and Wildlife Conservation Commission, the U.S. Fish and Wildlife Service, the Department of Environmental Protection, the St. Johns River Water Management District, Department of Agriculture and Consumer Services, and affected landowners.

**Policies 3.6.1**

The City shall develop incentives such as tax credits or other measures for the incorporation of wildlife corridors in the management of agriculture and silviculture lands.

**3.6.2**

The establishment of wildlife corridors shall be a primary consideration in the prioritization of land for acquisition.

**3.6.3**

The City shall implement procedures for the City Council at the request of the landowner, to designate or qualify lands as being environmentally endangered so as to encourage the preservation of such lands through: (i) the conveyance of such environmentally endangered lands to the City or to the Board of Trustees of the Internal Improvement Trust Fund, or (ii) the imposition of a conservation easement or other restrictive covenant upon such environmentally endangered lands whereupon the City shall consider the value of the lands so conveyed or restricted in setting the ad valorem assessment for such environmentally endangered lands in accordance with the provisions set forth in Section 193.501, F.S. (1989).

**Objective 3.7**

The City of Jacksonville Manatee Protection Plan 4th Edition, dated November 2017 (MPP), as adopted by the City Council and approved by the State of Florida and the U.S. Fish and Wildlife Service, is hereby incorporated into the City of Jacksonville Comprehensive Plan by reference. The City shall implement the MPP in order to ensure both immediate and long-term plans for manatee and manatee habitat protection including consistency review of the boat facility siting plan located in the Manatee Protection Plan.

**Policy 3.7.1**

The City shall implement the provisions and requirements identified in the MPP. Implementation shall include but not be limited to consistency reviews with the boat facility siting plan of the Manatee Protection Plan, data collection, coordination of law enforcement activities, and manatee awareness and education.

**Objective 3.8** The City shall institute programs to support the protection, management, and improvement of local fisheries and fish habitat in order to increase ecological, recreational, scientific, educational, aesthetic, and economic values and therefore make Jacksonville a more desirable place to live and work.

**Policies 3.8.1**

The EQD shall implement programs, ordinances, and rules as described in the water quality section of this element in order to protect and improve water quality to provide appropriate habitat for healthy populations of fish and wildlife.

### **3.8.2**

The City shall participate through the SWIM Act and other programs to recommend and receive funding for fisheries habitat improvement efforts in the lower St. Johns River basin.

### **3.8.3**

The Recreation and Community Services Department shall continue to study and implement management techniques to improve recreational fishing opportunities in the area's rivers, streams, and estuaries. State and federal fisheries management agencies will be asked to participate in the implementation of the management techniques. The City shall continue to cooperate with the FFWCC and the U.S. Fish and Wildlife Service in the Jacksonville Urban Pond Project to provide freshwater recreational fishing opportunities through intensive management.

### **3.8.4**

The City shall protect its shellfish beds and potential shellfish harvesting areas from pollution.

### **3.8.5**

As part of the Special Management Areas Program, The EQD shall encourage and support the lower St. Johns River SWIM Plan efforts to ensure that valuable grassbeds and nursery areas utilized by fish species important to commercial and recreational fishing in the City are identified and mapped. The City will assist the SJRWMD in development of protection strategies for submerged aquatic vegetation in Duval County.

### **3.8.6**

The City shall continue to support the concept of establishing a regional fisheries resource center for Northeast Florida. This Center will be established with the primary goal of developing applied management strategies to improve the overall fisheries industry in Jacksonville. The City may assist in such efforts as coordinating site selection, recruiting talented personnel, and acquiring funding through grants and other means.

### **3.8.7**

The EQD will continue to aggressively pursue inclusion of significant aquatic biological studies in the SWIM Plan for the Lower St. Johns River.

**Objective 6.7** The City shall consider the impact of development on the river and its tributaries during the land development review process.

#### **Policies 6.7.1**

The City of Jacksonville shall require a Low Maintenance Zone (LMZ) to be established between developed areas contiguous to any pond, stream, water course, lake, wetland or seawall in accordance with Chapter 366, Part 6, Ordinance Code.

#### **6.7.2**

The Planning and Development Department shall encourage coordination between infrastructure and land planning in order to ensure that future development will contribute to the sustainability of the river and the City's water supply.

#### **6.7.3**

The City, in conjunction with the Low Impact Development (LID) subcommittee of the Subdivision Standards Policy Advisory Committee (SSPAC) and the St. John's River Water Management District, shall construct an LID manual by September 2012. The LID Manual shall

include meaningful and predictable guidelines and standards that the City shall use to encourage LID in order to reduce the impact of new and existing development and manage stormwater at its source. Encouragement strategies may include: offering credits to off-set the Stormwater Utility Fee and allowing alternative designs to be permitted without deviations or variances from the Land Development Regulations.

#### **6.7.4**

In order to conserve fresh water, JEA, subject to permitting requirements of state law, shall have first priority of reclaimed municipal water use for electrical power production-related purposes, such as cooling water for generating units, because they constitute essential public infrastructure; provided, however, that following such use the remainder of such water, if any, shall be returned to the JEA reclaimed water system for further reuse so long as all water quality requirements are met.

**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.

#### **Policies 11.3.1**

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**

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**

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**

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

#### **11.3.5**

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**

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.

### **11.3.7**

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**

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**

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**

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**

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**

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**

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**

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**

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 increase resilience.

**11.3.16**

The City shall continue to implement the Florida Building code 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**

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**

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)