

# IX - COASTAL MANAGEMENT ELEMENT



Serving the Community



**GOAL 9.1:** The natural resources of the City's coastal planning area shall be preserved, protected or enhanced, as physically, fiscally, and practically feasible in light of impacts from sea level rise, to provide the highest possible water quality, habitat for fish and wildlife and use for public recreation while safeguarding human life, property and public expenditures.

**Objective 9.1.1:** **Coastal Planning Area:** The Coastal Planning Area (CPA) shall be defined as the hazard area as delineated in Figure CM-1 which includes:

- (1) The Coastal High Hazard Area (CHHA);
- (2) Areas of the City vulnerable to a Category 3 storm surge as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model;
- (3) Areas of the City vulnerable to sea level rise by 2070 based on the 2013 USACE High sea-level-rise curve;
- (4) Other areas of the City identified by the City Council as being subject to, or in the immediate vicinity of areas subject to, coastal erosion, flooding or sea level rise.

**Policy 9.1.1.1:** If 20% or more of a parcel is located within the CPA, then the entire parcel shall be considered within the CPA.

**Policy 9.1.1.2:** The CPA shall also serve as the Adaptation Action Area in accordance with Sections 163.3164(1) and 163.3177(6)(g)10 Florida Statutes with the purpose of increasing funding opportunities (such as grants) and identifying creative solutions for increasing the resiliency of the Adaption Action Area against natural hazards, flooding and sea level rise, so that the City may:

- (1) Protect the health, safety and welfare of residents
- (2) Prevent damage to public and private property
- (3) Reduce National Flood Insurance Program premiums to property owners
- (4) Prioritize policies, projects and funding that implement flood alleviation improvements and mitigation projects

**Policy 9.1.1.3:** Every 7 years, the City shall use public input, subject matter experts and best available science/data to refine the identification of the Coastal Planning Area.

**Objective 9.1.2:** **Protection of Marine Resources.** The City shall protect and restore, where possible, the following natural resources and environmental attributes within its control: endangered species and their habitat, native vegetation and wildlife, fisheries and estuarine habitat, water quality, wetlands, and floodplains.

**Policy 9.1.2.1:** The City shall continue to coordinate coastal planning area environmental protection and restoration efforts with adjacent local governments, and shall institute procedures to ensure that

development and restoration activities are consistent with existing resource protection plans.

**Policy 9.1.2.2:** The City shall, with the assistance of the Marine Resources Council of East Florida, identify all resource protection plans for the Indian River and Cocoa coastal planning area which exist or are in development.

**Policy 9.1.2.3:** The City shall ensure that its plans, procedures, and development criteria conform to the guidelines provided by resource protection plans for the Cocoa coastal planning area.

**Policy 9.1.2.4:** The City shall minimize the disturbance of natural shorelines to improve and continue the stabilization, protection and habitat benefits natural shorelines provide through the prioritization of the use of living shorelines over new or replacement armoring in the coastal planning area. The City shall review and update related City Ordinance(s), to require evidence as to whether a project is eligible for permitting by the US Army Corps of Engineers under “Nationwide Permit (54) Living Shorelines” and evidence as to whether a living shoreline offers sufficient protection to the property. If “evidence” as described in the updated ordinance demonstrates that a living shoreline is not sufficient to protect property and life, additional structural elements may be added but must be accompanied by living shoreline elements to the extent practical and feasible.

**Policy 9.1.2.5:** The City shall maintain shoreline protection and erosion control by working with property owners and Brevard County to facilitate the installation and maintenance of native shoreline vegetation, oyster matts and other natural techniques along appropriate areas.

**Policy 9.1.2.6:** Public expenditures in the coastal planning area, when available, will consider including programming improvements that restore and enhance natural resources.

**Objective 9.1.3: Estuarine Environmental Quality.** The City shall preserve and protect the environmental quality of estuarine environments by limiting specific impacts and cumulative impacts of development or redevelopment while considering future impacts of sea level rise and flooding.

**Policy 9.1.3.1:** The City shall actively participate in the Surface Water Improvement and Management (SWIM) Plan administered by the St. Johns River Water Management District (SJRWMD) for the Indian River Lagoon.

**Policy 9.1.3.2:** The City shall participate in future updates to the Indian River Lagoon Comprehensive Conservation and Management Plan, most

recently updated in 2008, and will continue to support and implement the action plan items applicable to the City.

**Policy 9.1.3.3:** The City shall coordinate with the SJRWMD, the Florida Department of Environmental Protection (FDEP), the U.S. Army Corps of Engineers, and/or any other relevant regulatory agency, to conserve, enhance, and protect coastal wetlands.

**Policy 9.1.3.4:** The City shall, through its land development regulations, protect coastal natural resources from the impacts of development.

**Policy 9.1.3.5:** The City shall continue to work with Brevard County to implement the recommendations of the Brevard County Manatee Protection Plan as well as Save Our Indian River Lagoon Projects.

**Policy 9.1.3.6:** The City shall continue to implement National Pollution Discharge Elimination System (NPDES) nonpoint source permitting program.

**Policy 9.1.3.7:** The City shall coordinate estuarine water quality with the Brevard County Natural Resource Management Office. Corrective actions shall be coordinated with the SJRWMD and FDEP.

**Policy 9.1.3.8:** The City shall continue to use alternative methods of effluent disposal such as re-use and land spreading/spray irrigation to reduce nutrient loadings in the rivers and estuaries.

**Policy 9.1.3.9:** The City shall work with property owners to encourage and implement minimum buffer, where feasible, of native vegetation between the shoreline and turf.

**Objective 9.1.4: Priority of Lagoon Shoreline Land Uses.** The City shall continue to promote appropriate land uses along the Lagoon consistent with the public need, while protecting natural resources.

**Policy 9.1.4.1:** The City shall give priority in coastal development to those land uses that are dependent on or related to water access.

**Policy 9.1.4.2:** The approval of shoreline development proposals by the City shall be based upon the following shoreline use priorities:

- A. Water dependent uses such as recreation, marinas and water dependent industry and utilities and uses approved as part of the City's Redevelopment Plan.
- B. Water-related or enhanced uses such as certain utilities, water-related commerce and water enhanced recreation.

**Policy 9.1.4.3:** Industrial uses along the Indian River Lagoon in the City shall be prohibited.

**Policy 9.1.4.4:** The City shall require that new marinas, mooring fields and substantial improvements or additions to existing marinas demonstrate compliance with the following criteria:

- A. Economic need and feasibility;
- B. Land use compatibility with surrounding land uses;
- C. Availability of upland support services;
- D. Availability for public use;
- E. A plan to ensure that water quality will not be degraded below existing FDEP water classification standards. The plan shall address the maintenance and containment of stormwater runoff and wash-down water for dry storage areas and sanitary sewer disposal;
- F. Minimize shoreline hardening structures
- G. Hurricane contingency planning;
- H. Designation by the Clean Marina Program;
- I. A plan for mitigation activities in the event that the environment is adversely affected;
- J. An educational plan for users regarding impacts on the Lagoon is in place; and
- K. A plan for adaptation or mitigation strategies for sea level rise through 2070 and flood impacts to vulnerable infrastructure or facilities on the property in order to minimize damage and impacts to the property and lagoon.

**Policy 9.1.4.5:** The City shall promote strategies and site development techniques with existing and new marinas to reduce impacts from sea level rise, flooding and storm surge such as, but not limited to, natural shorelines, dry or wet flood proofing, elevation of structures and infrastructure, and floating docks.

**Objective 9.1.5: Public Expenditures in the Coastal Planning Area.** The use of public funds for infrastructure improvements which subsidizes increased development in the Coastal Planning Area (CPA) will prioritize projects which restore or enhance natural resources, are part of the City's Redevelopment Plan and/or serve to reduce risk of existing development and property hazards such as sea level rise, flooding and storm surge.

**Policy 9.1.5.1:** Public expenditures for capital improvements that promote public access, hazard mitigation and use of coastal areas shall be reviewed through the annual budget process to minimize loss potential and account for future impacts from sea level rise and flooding.

**Policy 9.1.5.2:** Local funds used to subsidize new development through new or improved infrastructure shall be limited within the CPA. New or

improved infrastructure in the CPA shall not be used to justify new development in the CPA where the new or improved infrastructure removes previous capacity/safety impediments to additional development.

**Objective 9.1.6: Public Access to the Lagoon.** The City shall continue to promote public access to the Lagoon consistent with the public need and to promote scenic views, while protecting natural resources and mitigating risk from natural hazards.

**Policy 9.1.6.1:** The City shall, where appropriate and to the extent physically and financially feasible while considering impacts from sea level rise and flooding, maintain and preserve all public access and water-related recreational facilities and shall inventory existing public access to the lagoon and water-related recreational facilities to identify deficiencies and opportunities.

**Policy 9.1.6.2:** The City shall encourage the preservation of recreational and commercial working waterfronts as defined in section 342.07, F.S.

**Policy 9.1.6.3:** The City shall adopt Brevard County's marina siting criteria by 2022.

**Policy 9.1.6.4:** The City shall continue to consider the purchase of frontage areas along the Indian River Lagoon, as needed, to ensure adequate public access, improve the estuarine area and serve as areas to mitigate impacts from storm surge, sea level rise and flooding.

**Policy 9.1.6.5:** The City shall continue to seek County, state and federal programs to provide funding for purchase of riverfront property.

**Policy 9.1.6.6:** The City shall coordinate with the County to ensure bikeway linkages to waterfront parks and public water access.

**Policy 9.1.6.7:** The City shall continue to coordinate with other coastal cities and Brevard County to investigate and implement equitable measures to promote the provision or funding of public access ways to the Indian River Lagoon by new development.

**Policy 9.1.6.8:** The City shall encourage, through the development review and approval process, the voluntary dedication of access to public waterways including designated scenic areas, conservation easements and other green space or natural areas with infrastructure strictly limited to that necessary for safe public access.

**GOAL 9.2:** The City shall, as practically and financially feasible, establish and implement strategies for new development, redevelopment and investment in public facilities, utilities and infrastructure to protect and mitigate losses to human life and property in areas subject to natural disasters, flooding, and sea level rise.

**Objective 9.2.1:** **Coastal High Hazard Area (CHHA).** The City shall continue to direct population concentrations away from the CHHA through implementation of the future land use map, land development code and through the development review and approval process.

**Policy 9.2.1.1:** The Coastal High Hazard Area is delineated as the area below the elevation of the Category 1 storm surge line as established by a Sea, Lake, and Overland Surges from Hurricanes (SLOSH) computerized storm surge model.

**Policy 9.2.1.2:** The City shall continue to evaluate non-conforming land uses within the CHHA.

**Policy 9.2.1.3:** In order to continue to direct population away from the CHHA, any increase of density for properties within the CHHA shall generally be discouraged from the time of this plan's adoption.

**Objective 9.2.2:** Development, redevelopment, rebuilds, retrofits and additions in the City shall be planned and managed through strategies and design principles that are consistent with sound planning practices that protect life and property from the effects of flooding, storm surge and related impacts of sea level rise and that protect the long-term financial viability of the City.

**Policy 9.2.2.1:** All new development and redevelopment shall be consistent with, or more stringent than, the flood resistant construction requirements in the Florida Building Code and applicable flood plain management regulations set forth in 44 C.F.R. part 60.

**Policy 9.2.2.2:** The City shall require site development techniques that encourage more efficient and climate resilient development practices that include, but are not limited to:

- Low impact development techniques on private and public property that provide for site design, engineering and stormwater management to reduce stormwater runoff, encourage greater onsite storage, reuse or absorption and mitigate flood impacts such as pervious pavement, native vegetation, rain gardens or barrels, etc.
- Prioritization of living shoreline installation and maintenance.
- Allowance of specialized fortification techniques as recommended by the Florida Green Building Council.

Additionally, the City shall continue to further explore standards that increase the City's coastal resiliency, such as requiring development to build at least three feet above the area's Base Flood Elevation or reducing the development's total amount of required parking while increasing the facility's potential for water absorption and retention.

**Policy 9.2.2.3:** The City shall utilize, but not be limited to, the following tools, site development techniques and strategies for use within the coastal planning area and areas within the 100-year floodplain to implement and integrate in order to mitigate flooding and effects of sea level rise and storm surge in order to protect property, to the greatest physical and financial extent possible:

- (1) Green street techniques to divert, capture or absorb water in a way to reduce flood impacts on private property, including, but not limited to street trees, landscaped areas and vegetative curb extensions, bioswales, vernacular streetscapes, and roadway re-design.
- (2) Hybrid stormwater masterplan to integrate a combination of green and gray infrastructure, including but not limited to bioretention, increasing pipe capacity, stormwater parks, rain gardens/bioswales, pumps, and water flow diversion strategies.
- (3) Underground utilities in vulnerable and feasible areas;
- (4) Establish new parking standards and parking lot site plan design with greater water capture techniques;
- (5) Increase of set-back lines for properties in the CPA
- (6) Natural dune restoration
- (7) Permeable pavement
- (8) Dry and Wet flood proofing of structures
- (9) Green/Open space

**Policy 9.2.2.4:** The City shall not allow nursing homes, assisted living facilities, hospitals, or other group homes to be located in the Coastal Planning Area.

**Objective 9.2.3: Plan and Process Consistency.** The City will work to institute the practice of adapting and mitigating the built environment to address natural hazards, flooding, and impacts from sea level rise across all plans, policies, procedures and coordination with partner agencies.

**Policy 9.2.3.1:** The City shall audit and update all plans, policies, processes and other related documents to be consistent with the peril of flood goals, objectives and policies set forth in the comprehensive plan.

**Policy 9.2.3.2:** The City will work with City staff and the public to integrate and implement the 2019 City of Cocoa Resilience Action Plan.

**Policy 9.2.3.3:** The City, as per its adoption of the East Central Florida Regional Resilience Action Plan, will continue to collaborate regionally with

other entities and stakeholders to advance resilience across the region.

**Policy 9.2.3.4:** The City, as per adoption of the East Central Florida Regional Resilience Action Plan will integrate the regional approach to sea level rise planning with its plans, procedures and policies. The City will consider a range of rise based upon the vulnerability, allowable risk, and project service life and the forecast project “in-service” date of a facility or development. The range will include a minimum rise of 5.15 feet by 2100 (2013 USACE High) with an upper range of 8.48 feet by 2100 (2017 NOAA High). Short-term planning should consider impacts out to 2040, 1.22 -1.85 feet (20-year planning horizon), medium-term planning should consider impacts out to 2070 (2.85-4.47 feet) (50-year planning horizon), and long-term planning should extend out to 2100 (80-year planning horizon).

**Policy 9.2.3.5:** The City shall assess current policies, ordinances and codes to increase mixed-use development in areas outside the 100-year flood plain, sea level rise, and flooding.

**Objective 9.2.4: Evacuation Times.** The City shall cooperate with Brevard County to ensure evacuation times are maintained or reduced and to ensure efficient evacuation of threatened residents to areas of safety in the event of a natural disaster.

**Policy 9.2.4.1:** In the event of a hurricane emergency the City will respond to the direction of the Brevard County Office of Emergency Management in the implementation of emergency plans. Coordinated emergency activities will include, but are not limited to warning, public information, communications, evacuation, public shelters and related welfare services.

**Policy 9.2.4.2:** The City will continue to require that development and redevelopment activities minimize the risks to life and property from natural disasters by evaluating the effects on evacuation times within the hurricane vulnerability zones.

**Policy 9.2.4.3:** The City shall generally discourage any increase in density within the Coastal High Hazard Area.

**Objective 9.2.5: Post-Disaster Redevelopment Plan.** The City shall develop a post-disaster redevelopment plan (PDRP) to establish, at minimum, long-term policies regarding redevelopment, infrastructure, densities, nonconforming uses, and future land use patterns.

**Policy 9.2.5.1:** The City shall develop a City specific post-disaster redevelopment plan by 2024.

**Policy 9.2.5.2:** Appropriate redevelopment activities in the Coastal Planning Area will be conducted through means which will institute appropriate

resilience planning for private property in coordination with goals, objectives and policies consistent with the comprehensive plan, mitigate conditions hazardous to life and property; identify, preserve, and improve historic resources and significant historic structures, sites, neighborhoods, and districts; preserve and improve natural resources; encourage recreational opportunities; and encourage appropriate commercial uses as physically and financially feasible when considering increasing levels of flooding, storm surge and the effects of sea level rise.

- Policy 9.2.5.3:** Guidelines for post-disaster redevelopment and hazard mitigation will continue to be developed and included in the City's land development regulations. These guidelines will be designed to reduce or eliminate the exposure of human life and limit repeat damage to public and private property due to hurricane hazards, account for the future impacts of sea level rise, and to promote the long-term economic and fiscal viability of the City. The guidelines will incorporate Brevard County's Local Mitigation Strategies into recommendations on hazard mitigation and other applicable interagency reports, as well as applicable chapters of the City Code or articles thereof.
- Policy 9.2.5.4:** Post-disaster redevelopment will be coordinated jointly by the Community Development, Public Works, and Code Enforcement departments and, if applicable, with the Federal Emergency Management Agency. Priority will be given to those post-disaster tasks needed to protect the health and safety of the public, restore public services and repair damaged infrastructure.
- Policy 9.2.5.5:** The City shall prepare inventories of properties for acquisition and removal, including repetitive loss properties and establish clear priorities for the use of acquisition resources.
- Policy 9.2.5.6:** The City shall continue to participate in the National Flood Insurance Program Community Rating System administered by the Federal Emergency Management Agency to achieve flood insurance premium discounts for their residents.
- Policy 9.2.5.7:** Procedures for post-disaster action shall include a system for distinguishing between immediate repair and clean-up actions needed to protect the public health and safety, versus long-term repair and redevelopment activities.
- Policy 9.2.5.8:** The City requires that any structure, including those abandoned, sustaining damage in excess of 50% of the building's assessed value comply with all City ordinances and current standards.

**Policy 9.2.5.9:** Recommendations provided by local agencies and in interagency hazard mitigation reports will be reviewed as available and will be implemented as feasible.

**Policy 9.2.5.10:** Temporary-building moratoriums may be declared in the coastal planning area when 50% or more of the structures have been damaged by 50% or greater to assess the impacts and feasibility of redevelopment.

**Objective 9.2.6: Disaster Preparedness for Entities Critical to Redevelopment.** The City shall develop and implement pre-and-post disaster preparedness measures critical for redevelopment.

**Policy 9.2.6.1:** The City shall work with local businesses and organizations to aid in disaster planning and recovery through the development of Continuity of Operations Plans and other preparedness strategies including employee coordination.

**Policy 9.2.6.2:** The City shall work with local merchant associations to provide an information program about hurricane preparedness for local businesses.

**Policy 9.2.6.3:** As part of outreach, education and other preparedness activities, the City shall assess the development of a program to work with local businesses to certify them as hurricane prepared which will help the community recover more quickly following a storm.

**Objective 9.2.7: Historically and Archaeologically Significant Resources.** The City shall protect and preserve architecturally, historically and archaeologically significant resources in the City's coastal planning area through the adoption of the land development regulations, zoning code provisions, a program for public and private site acquisition, within the City's funding capabilities and with the owner's consent, and sensitive reuse of historic resources.

**Policy 9.2.7.1:** The City shall protect historical and archaeological resources in the CPA, as physically and financially feasible, while considering future impacts, long-term strategies, and cost-benefit of the protection or adaptation measures.

**Policy 9.2.7.2:** The City shall compile a list of all properties which have been designated as historically, architecturally or archaeologically significant on a local, state or national basis within the coastal planning area.

**Policy 9.2.7.3:** The City shall discourage development activities that have the potential of endangering historic resources located within the coastal planning area.

- Policy 9.2.7.4:** The City will encourage the retention of all historic properties in the City, with sensitive, adaptive reuse being examined as an alternative to demolition. Rehabilitation, restoration, relocation, mitigation, and reuse plans and designs will be guided by the recommended approaches identified in objective criteria published by governmental agencies, preservation organizations and which the City may adopt from time to time.
- Policy 9.2.7.5:** The City will encourage individuals, groups and organizations to submit reliable information about the history or architectural historical significance of individual properties in the City as an aid in the documentation of their significance.
- Policy 9.2.7.6:** The City will prepare an information document containing an identification of historic resources in the City, to include address, map location, brief notation of historical significance, landmark status, ownership (Public/Private), vulnerabilities and other relevant information for public information purposes. The City will seek state funds for the preparation of the document.
- Policy 9.2.7.7:** The City will participate, within its financial resources, with other governmental agencies, civic organizations, business groups and interested persons to purchase historic resources with the owner's consent and to accept responsibility for restoration in support with the property owner, in an "adopt-a-house" or similar program for the purpose of maintaining historic properties in good repair, form and appearance, and for functional uses.

**Objective 9.2.8: Infrastructure in the Coastal Planning Area.** Level of service standards and service areas for the City as a whole, as adopted in the Capital Improvements Element, may apply to the infrastructure within the coastal planning area but with the need to consider long-term implications of increased hazards due to sea level rise and flooding and balances design considerations for the current and future impacts of sea level rise and flooding with the benefits and challenges of incorporating the impacts and maintenance during the service-life utility of infrastructure.

- Policy 9.2.8.1:** Phasing of infrastructure will occur according to the Capital Improvements Element and in accordance with development regulations adopted subsequent to this plan with specific consideration given to protection of coastal resources.
- Policy 9.2.8.2:** The level of service standards adopted in other elements of this Comprehensive Plan may apply within the coastal planning area depending on evaluation of factors such as cost-benefit analysis that considers, among other factors, number of times infrastructure has been damaged, upgraded, or rebuilt; number of people served by the infrastructure; whether alternatives for the services provided by the infrastructure are present; criticality of the infrastructure for

protection of safety; potential increased hazards to first responders; etc.

- Policy 9.2.8.3:** Consideration shall be given to alternative locations of infrastructure, hardening, elevating or other strategies if located in the coastal planning area to reduce potential public losses.
- Policy 9.2.8.4:** Infrastructure and roadway improvements within already developed public rights-of-way will be maintained as determined feasible and reasonable by City policy in good-faith attempts.
- Policy 9.2.8.5:** When constructing or reconstructing utilities or infrastructure, the City shall assess vulnerabilities and resilience to sea level rise, flooding and storm surge, and identify cost-effective strategies to minimize exposure and reduce impacts.
- Policy 9.2.8.6:** The City shall prioritize the use of Green Street techniques (reference Policy 9.2.2.2 (1)) within the Stormwater Master Plan, on public rights-of-way, to the extent financially and physically possible, to alleviate flood impacts to streets and buildings and maintain its level of service standards.