



Board of County Commissioners
March 16, 2021 - Work Session

SUBJECT

DISCUSSION OF COASTAL MAPPING AND THE EFFECTS ON THE PERIL OF FLOOD ACT

Category

AGENDA ITEMS

Briefings

None

Contact and/or Presenter Information

Contact/Presenter:

Nicole Knapp, County Administration on behalf of the Public Safety Department
Ext. 7824, Nicole.knapp@mymanatee.org

Presenter:

Jerry Murphy, JD, AICP, CFM
University of Florida

Action Requested

None

Enabling/Regulating Authority

Manatee County Comprehensive Plan
Manatee County Land Development Code
Florida Statue 163.3178 Coastal Management
F.S. 163.3178(2)(f) (2015) Peril of Flood Act

Background Discussion

- It recently came to staff's attention that the Comprehensive Plan Future Land Use Coastal Evacuation Area (CEA) Overlay District Map, as well as the Coastal Planning Area (CPA) Coastal Element Map were never formally adopted to reflect the computerized surge model data of 2016.
- On January 7, 2021, during an advertised public hearing, the County Initiated Plan (Map) Amendment of the Manatee County Comprehensive Plan was NOT transmitted to the State.

- The Board asked that a follow up work session be scheduled so that the mapping boundaries, methodologies, and effects of land development regulations could be discussed.
- Given the new law – “Peril of Flood Act”, which became effective July 1, 2015, and specifies new requirements for the coastal management element of a local government's Comprehensive Plan related to coastal flooding and the related impacts of sea level rise, it is imperative the POF Act be considered with discussing potential changes to the Coastal Area maps.
- For the past 24 months, staff has been working with the University of Florida, and in partnership with the Tampa Bay Regional Planning Council (TBRPC), toward implementing the Peril of Flood Act.
- Public hearings for a County Initiated Comprehensive Plan Amendment are tentatively scheduled for May Planning Commission, June Transmittal, and August Adoption.

Attorney Review

Not Reviewed (No apparent legal issues)

Other (if applicable)

Reviewing Attorney

Instructions to Board Records

None at this time

Cost and Funds Source Account Number and Name

\$0

Amount and Frequency of Recurring Costs

\$0

Exhibit "A" Map Amendment
Element 2 – Future Land Use Map Series (Map F)
Element 4 – Coastal Element

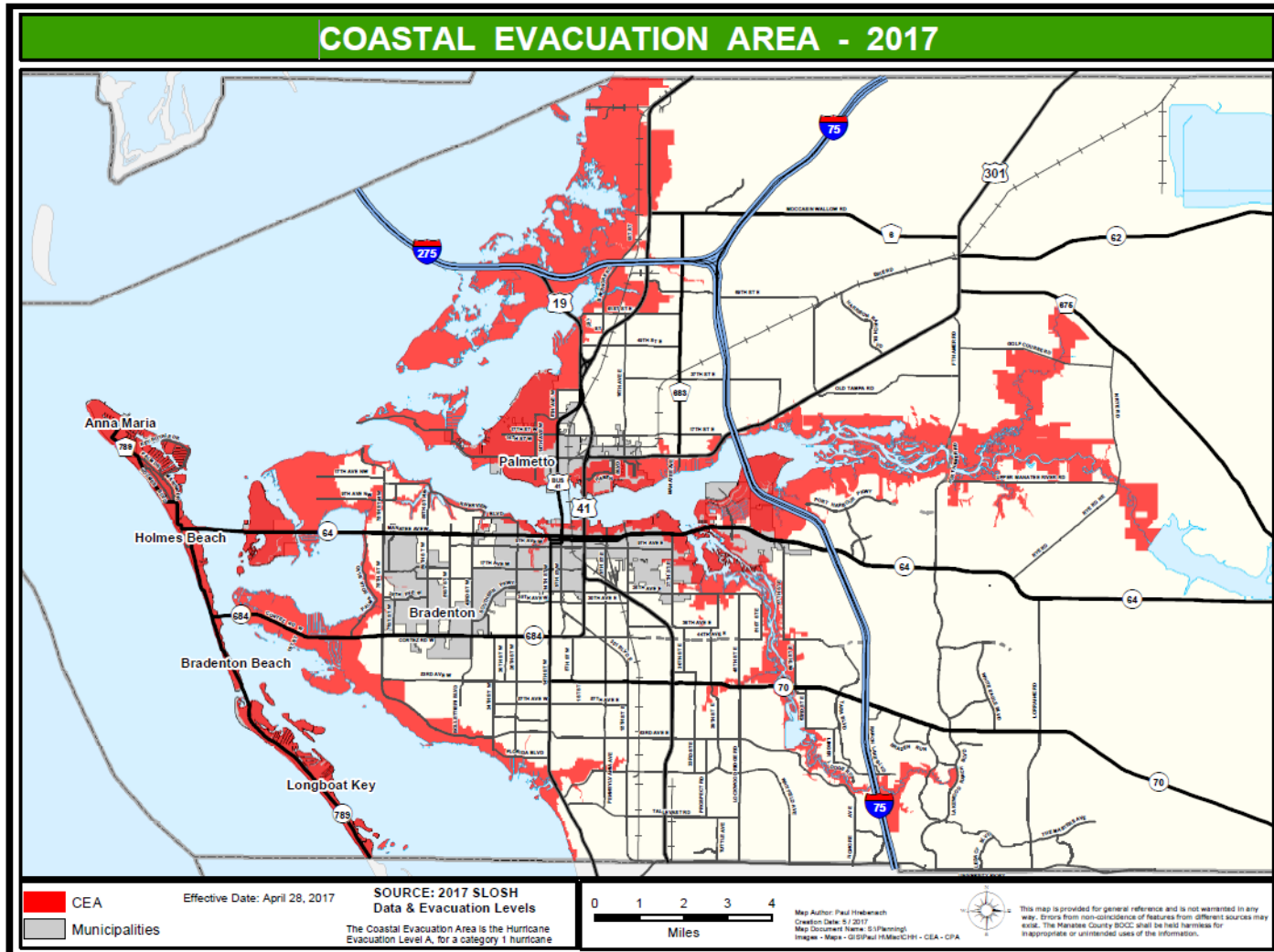


Exhibit "A" Map Amendment
Element 2 – Future Land Use Map Series (Map F)
Element 4 – Coastal Element

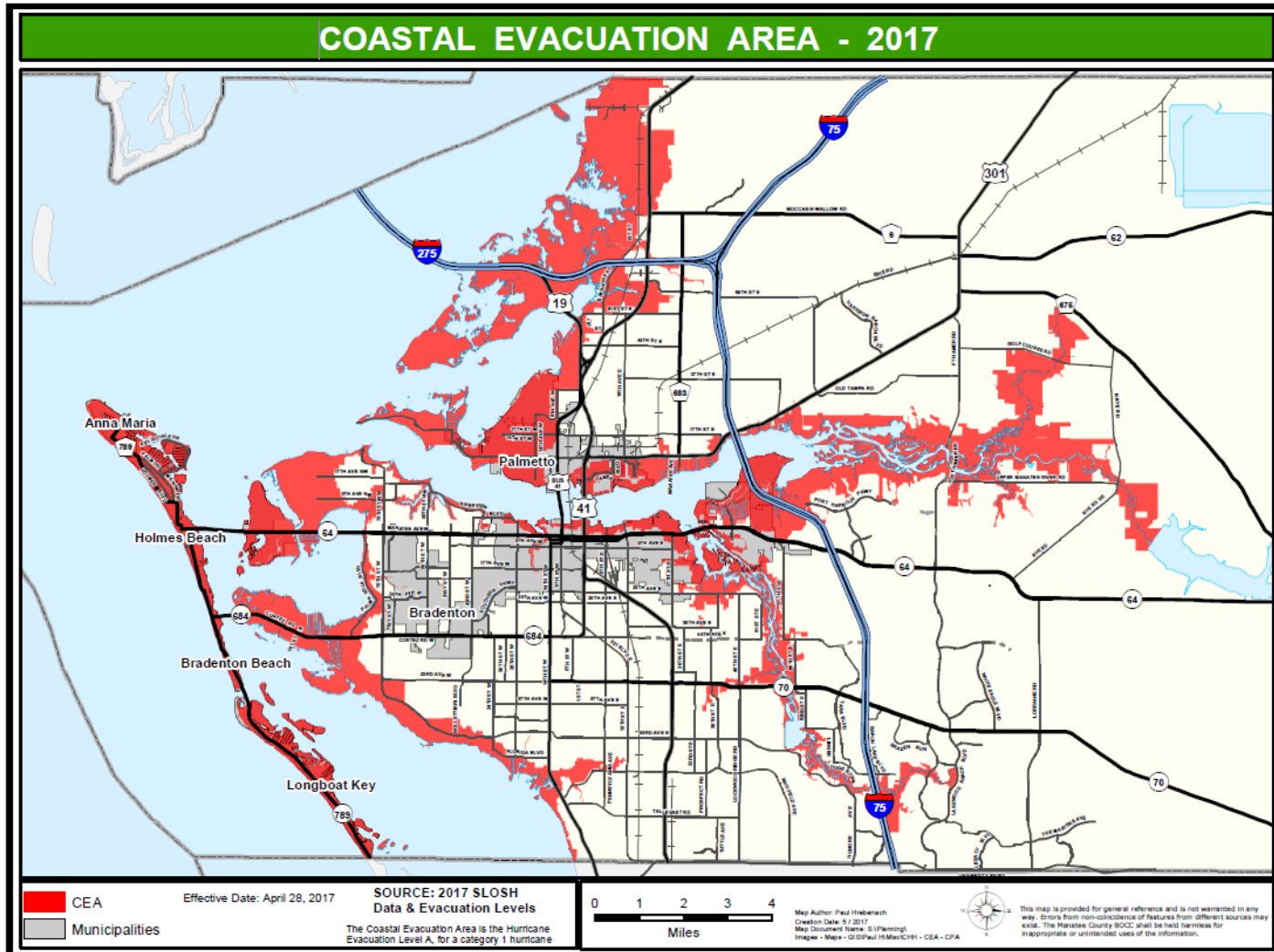
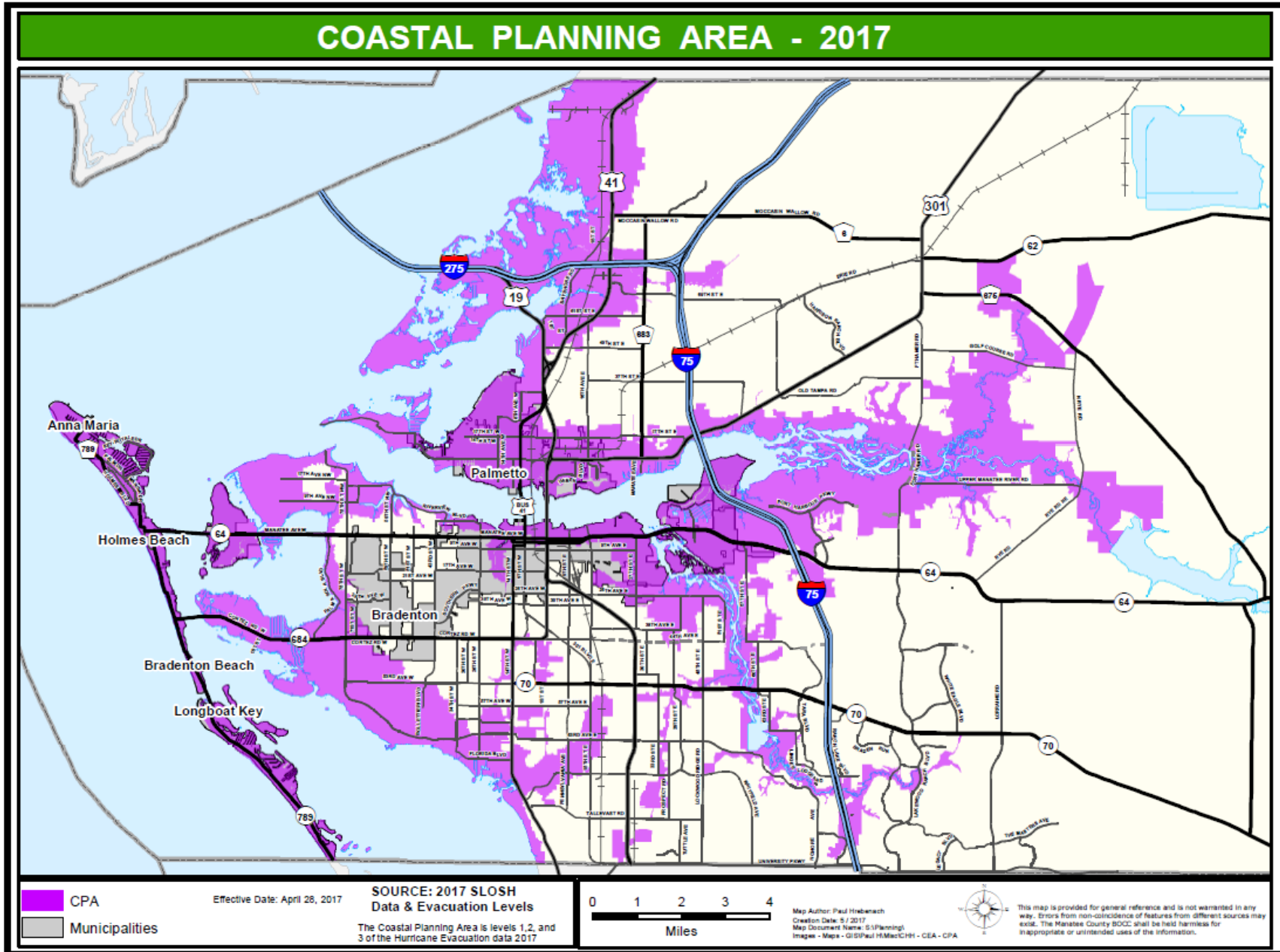


Exhibit "B" Map Amendment

Element 4 – Coastal Element



Project Narrative

The Peril of Flood Act of 2015 expanded the provisions F.S. 163.3178; adding new requirements for the redevelopment component of the coastal management element within local governments Comprehensive Plans to include sea level rise as one of the causes of flood risk that must be addressed along with focuses on eliminating inappropriate and unsafe development in coastal areas.

As such, County Staff has been working with a consultant for the past 18 months to address nature-based adaptation and community resiliency factors not currently addressed in the Plan. The project has afforded County staff the opportunity to facilitate regional discussions to develop consistent vulnerability and risk assessment methodology for public infrastructure and natural resources. The project thus far has also allowed regional support of the integration of Tampa Bay Climate Science Advisory Panel (CSAP) sea level rise projections and compound flood risks into planning mechanisms including the County's Comprehensive Plan.

The goal of proposed text amendments attached is to increase local governments' ability to integrate nature-based adaptation, low-impact design, and considerations for affordable housing resiliency, while addressing the requirements of the Peril of Flood legislation.

[* * *]

Included below you will find Exhibits "A" through "I."

[* * *]

Coding:

Words ~~stricken~~ are deletions; words underlined are additions; words ~~double-stricken~~ and double underline are being relocated elsewhere in the Chapter.

The **yellow highlighted** text is purely for **advisory purposes** to Florida Statutes, or to the Tampa Bay Estuary Program's Comprehensive Conservation and Management Plan (CCMP) policies presented as general and specific options. **This language will be deleted from final Board version.**

The **cyan highlighted** text enclosed in brackets are "hyperlinked" references to other Objectives and Policies in the Element or other Elements of the Plan, including the Comprehensive Emergency Management Plan (CEMP), Local Mitigation Strategy Plan (LMS), and eventually the Post Disaster Redevelopment Plan (PDRP).

EXHIBIT A

ELEMENT 1 - DEFINITIONS

The following definitions shall be used in review or interpretation of this Comprehensive Plan. Where a definition contained within this section is different or inconsistent with the definition contained in enabling State legislation (§ 163.3164, F.S.), the definition contained herein shall be utilized.

Within this definition section, the use of [brackets] explains the context within which the defined word, or groups of words, is used.

[* * *]

Adaptation Action Area (AAA): Low-lying coastal zones experiencing coastal flooding due to extreme high tides and storm surge and vulnerable to the impacts of rising sea level, and the inland areas identified by the County to support efforts for adaptation, migration, and receiving density and intensity transfers from vulnerable areas.

[* * *]

Class I Waters: Potable water supplies as classified and specified in Chapter 47-362-302 (Rule 62-302.400), F.A.C.

Class II Waters: Shellfish Propagation or Harvesting water as classified and specified in Chapter 47-362-302 (Rule 62-302.400), F.A.C.

[* * *]

Coastal A Zone: Area within a special flood hazard area, landward of a V zone or landward of the open coast without mapped coastal high hazard areas. In a coastal A zone, the principal source of flooding must be astronomical tides, storm surges, seiches, or tsunamis, not riverine flooding. During the base flood conditions, the potential for breaking wave height shall be greater than or equal to 1-1/2 feet (457 mm). The inland limit of the coastal A zone is (a) the Limit of Moderate Wave Action (LiMWA) if delineated on a FIRM, or (b) designation by the floodplain administrator.

Coastal Area: The combined area delineated by the three overlays: Coastal Evacuation Area (CEA), Coastal High Hazard Area (CHHA), and Coastal Planning Area (CPA).

[* * *]

Coastal High Hazard Area (CHHA): The geographic 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, pursuant to applicable law, as updated on a periodic basis.

[* * *]

County Administrator: The County Administrator shall mean the County Administrator or a designee, who shall be responsible for the administration the Comprehensive Plan.

[* * *]

Comprehensive Conservation Management Plans (CCMP): A plan that establishes priorities for activities, research and funding for the Nation Estuary Program, and serves as a blueprint to guide future decisions and addresses a wide range of environmental protection issues, including but not limited to water quality, habitat, fish and wildlife, pathogens, land use, and introduced species.

[* * *]

Dock: Any structure intended to serve a boat, which structure is constructed on pilings over open water, or which structure is supported by flotation on the water. The term includes, but is not limited to, piers, wharfs, and loading platforms.

[* * *]

Dredge and Fill: Dredging is the excavation, by any means, in the waters of the State. Filling is the disposition, by any means, of materials in waters of the state. The landward extent of waters of the State for dredge and fill jurisdictional purposes shall be determined as provided in § 4704.022Chapter 62-301 (Rule 62-301.400), F.A.C. Dredge and fill jurisdiction shall be as prescribed in § 47-12.030Chapter 62-312, F.A.C., and § 373.414, F.S.

[* * *]

Endangered and Threatened Species: Flora and fauna as identified by the U.S. Fish and Wildlife Service's "List of Endangered and Threatened Wildlife and Plants" in 50 CFR 17.11-12; Flora as identified by the Department of Agriculture and Consumer Services as specified by the preservation of Native Flora Act in § 581.185-187, F.S., and fauna identified by the Florida Fish and Wildlife Conservation Commission in §§ 39-27.003 and 39-27.004Chapter 68A-27 (Rules 68A-27.003 – 68A-27.005, F.A.C. Endangered Species are so designated due to man-made or natural factors which have placed them in imminent danger of extinction while threatened species are so designated due to a rapid decline in number and/or habitat such that they may likely become endangered without corrective action.

Environmental Preserve: A resource-based preserve operated by the County for the primary purpose of environmental preservation and public enjoyment of environmentally sensitive lands.

[* * *]

Environmentally Sensitive: Lands which that, by virtue of some qualifying environmental characteristic or biological resource, are regulated by the Florida Department of Environmental Protection, the Southwest Florida Water Management District, the U.S. Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission, the U.S. Army Corps of Engineers, or any other governmental agency empowered by law for such regulation. Environmentally sensitive also includes all areas of habitat for threatened and endangered species and species of special concern, and includes all of the following vegetative communities: Mangrove swamp; coastal ridge; tidal marshes; seagrass beds; oyster beds; coastal streams; freshwater wetlands (swamps, marshes, sloughs, wet prairies, and heads); hammocks (mesic or xeric); pine prairies (pine flatwoods or dry prairies); scrubs (sand pine, scrubby flatwoods, and turkey oak ridges).

[* * *]

Flood insurance rate map (FIRM): The official map of the community on which the Federal Insurance Administrator has delineated both special flood hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is a Digital Flood Insurance Rate Map (DFIRM)

[* *]

Green Infrastructure Practices: Techniques for managing stormwater to provide a variety of ecosystem services by infiltrating stormwater into the ground using vegetation or porous surfaces, or by capturing stormwater for later reuse, featuring, e.g., rain gardens, green rooftops, rainwater cisterns, bioswales, permeable pavers, etc., designed and engineered to slow water down and reduce pollutant concentrations by mimicking natural processes of infiltration and biological uptake at its source—off the rooftops, driveways, roads, and parking lots where stormwater first concentrates.

[* *]

Hydrologic Connection: connection to a natural surface water body, including but not limited to lakes, ponds, rivers, creeks and sloughs, where a flow of surface water occurs on an average of thirty (30) or more consecutive days per year under normal hydrological conditions. In the absence of reliable hydrological records, a continuum dominated by the plant species listed in the Wetlands Planning Guidelines may be used to establish a hydrological connection. Artificial or manmade ditches, canals or channels constructed through uplands that connect previously isolated wetlands to natural surface water bodies shall not be deemed as a hydrological connection. Artificial or manmade ditches, canals or channels constructed in historical natural drainage ways shall be deemed a hydrological connection.

[* *]

Outstanding Florida Waters: Surface waters which have been deemed to be worthy of special protection as identified in Section 17-3.044Chapter 62-302 (Rule 62-302.700), F.A.C.

[* *]

Shoreline-Friendly Practices: Shoreline stabilization that avoids bulkheads, seawalls, and vertical hardening in favor of living shorelines, native plants, oyster gardens, and other nature-based strategies.

[* *]

Special Waters: As used in this Comprehensive Plan, defines water bodies designated in accordance with Chapter 62-302 (Rule 62-302.700~~400~~), F.A.C., by the Environmental Regulation Commission.

Species of Special Concern: Fauna identified in Chapter 68A-27 §39 (Rule 68A-27.005), F.A.C., which that warrants special protection, recognition or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in it becoming a threatened species; may already meet certain criteria for designation as a threatened species but for which conclusive data is limited or lacking; may occupy such an unusually vital and essential ecological niche that, should it decline significantly in numbers or

distribution, other species would be adversely affected to a significant degree; or has not sufficiently recovered from past population depletion.

[* * *]

TSD: Technical Support Document for this Comprehensive Plan comprising data and analysis required by chapter 163 F.S. pursuant to Rule 9J-5, F.A.C.

[* * *]

Water Body: Any natural or artificial pond, lake, reservoir, or other area that ordinarily or intermittently contains water or that has a discernable shoreline.

[* * *]

Wetland, Coastal: Freshwater and saltwater wetlands located within coastal watersheds that are permanently, seasonally, or tidally inundated or saturated with fresh, brackish, or saline water, including but not limited to flats, mangrove swamps, and marshes.

Wetland, Isolated: Wetlands with no apparent surface water connection to perennial rivers and streams, estuaries, or ocean.

Wetland, Marine: Areas with a water regime determined primarily by tides and where the dominant vegetation is salt tolerant plant species.

Wetland Survey: Delineation of the extent of wetlands in accordance with Chapter 62-340, F.A.C. and §373.421(1), F.S., as approved by the appropriate jurisdictional government agency. Methodology for delineation is provided in Rule 62-340, F.A.C.

[* * *]

EXHIBIT B

Element 4 – COASTAL

Element 4 – COASTAL MANAGEMENT

[F.S. § 163.3178(1): The Legislature recognizes there is significant interest in the resources of the coastal zone of the state. Further, the Legislature recognizes that, in the event of a natural disaster, the state may provide financial assistance to local governments for the reconstruction of roads, sewer systems, and other public facilities. Therefore, it is the intent of the Legislature that local government comprehensive plans restrict development activities where such activities would damage or destroy coastal resources, and that such plans protect human life and limit public expenditures in areas that are subject to destruction by natural disaster.]

The purpose of the Coastal Management Element is to restrict development activities that damage or destroy coastal resources; permit non-destructive uses of coastal resources only upon consideration of aesthetic, cultural, ecological, and historical factors; enhance, preserve, and protect natural resources of the coastal area and human life to provide the highest environmental quality possible; and limit public expenditures in areas subject to destruction by natural disasters. The Coastal Management Element furthers the legislative intent of F.S. §§ 163.3177(6)(g) and 163.3178.

GOAL – 4.1

~~Protection, Preservation, and Enhancement of the Natural Resources of the Coastal Planning Area (CPA) to Provide the Highest Environmental Quality Possible.~~

DATA AND ANALYSIS COMPONENT

[F.S. § 163.3178(2): Each coastal management element required by s. 163.3177(6)(g) shall be based on studies, surveys, and data; be consistent with coastal resource plans prepared and adopted pursuant to general or special law; and contain:]

Objective 4.1.1. – Data and Analysis

Base this Coastal Management Element on data, studies, and surveys, and maintain consistency with coastal resource plans prepared and adopted pursuant to law. [See Objective 4.1.5, and associated policies.]

[F.S. § 163.3178(2)(a): A land use and inventory map of existing coastal uses, wildlife habitat, wetland and other vegetative communities, undeveloped areas, areas subject to coastal flooding, public access routes to beach and shore resources, historic preservation areas, and other areas of special concern to local government.]

Policy 4.1.1.1. Develop, maintain, and regularly revise a land use and inventory map of existing coastal uses, wildlife habitat, wetlands and other vegetative communities, undeveloped areas, areas subject to coastal flooding, public access routes to beach and shore resources, coastal historic preservation areas, and other areas of local special concern.

Policy 4.1.1.2. Identify, designate, and preserve otherwise significant coastal resources, including archaeological sites, landmarks, and structures, in accordance with the provision of the Historic and Cultural Element of this Plan and its implementing regulations.

[F.S. § 163.3178(2)(b): An analysis of the environmental, socioeconomic, and fiscal impact of development and redevelopment proposed in the future land use plan, with required infrastructure to support this development or redevelopment, on the natural and historical resources of the coast and the plans and principles to be used to control development and redevelopment to eliminate or mitigate the adverse impacts on coastal wetlands; living marine resources; barrier islands, including beach and dune systems; unique wildlife habitat; historical and archaeological sites; and other fragile coastal resources.]

[CCMP OPTION 1: GENERAL LANGUAGE:]

Policy 4.1.1.3. The Board of County Commissioners will support local and regional mapping, modeling, and monitoring programs to assure the most current and locally-specific data on climate change vulnerability is available.

Policy 4.1.1.4. The County Administrator will analyze the environmental, fiscal, and socioeconomic impact of proposed development and redevelopment for consistency with the Future Land Use Element of this Plan—together with the infrastructure required to support such proposed future development and redevelopment—on the natural and historic resources of the coast.

Policy 4.1.1.5. The County Administrator will employ plans and principles to control development and redevelopment to eliminate or mitigate the adverse impacts on archaeological and historic sites; barrier islands, including beach and dune systems; coastal wetlands, living marine resources; unique wildlife habitat; and other fragile coastal resources.

[CCMP OPTION 1: GENERAL LANGUAGE:]

Policy 4.1.1.7. The County Administrator will seek the support of agencies, e.g., the National Oceanic and Atmospheric Administration (NOAA), the U.S. Geological Survey (USGS), the Federal Emergency Management Agency (FEMA), the U.S. Army Corps of Engineers (USACE), and institutions of higher learning and non-governmental organizations (NGOs) to coordinate support for analyzing, exchanging, and updating data on potential changes in climate change vulnerability.

[F.S. § 163.3178(2)(c): An analysis of the effects of existing drainage systems and the impact of point source and nonpoint source pollution on estuarine water quality and the plans and principles, including existing state and regional regulatory programs, which shall be used to maintain or upgrade water quality while maintaining sufficient quantities of water flow.]

Policy 4.1.1.8. The Administrator will analyze the effects of existing drainage systems and the impacts of point-source and nonpoint-source pollution on estuarine water quality and the plans and principles—including existing state and regional regulatory programs that are used to maintain or improve water quality—while maintaining sufficient quantities of water flow. [See Objective 4.1.4. and associated policies.]

[F.S. § 163.3177(6)(g)2.: For those units of local government identified in s. 380.24, a coastal management element, appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of s. 163.3178(2) and (3). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government’s decisions and program implementation with respect to the following objectives: 2. Preserve the continued existence of viable populations of all species of wildlife and marine life.]

Objective 4.1.24.4.6. – Protect the orderly and balanced utilization and preservation, consistent with sound conservation principles, of all living and nonliving coastal zone resources. ~~Protection of the West Indian Manatee.~~ Implement protection mechanisms to decrease the number of human-caused manatee deaths and increase manatee awareness among residents and visitors.

CCMP OPTION 1: GENERAL LANGUAGE:

Policy 4.1.2.3. The County Administrator will assess the vulnerability of specific ecosystem functions, habitats, landscapes, and species that may be sensitive to climate change and develop coping strategies and contingency plans for their adaptation, such as identifying habitats that may be viable during climate disturbances and could potentially serve to give refuge to and sustain at-risk species.

Policy 4.1.2.4. The County Administrator will continue to support local environmental adaptation management initiatives, mitigation, and restoration, and coordinate with other regional, state, and national strategic planning efforts to improve the resilience of natural lands and systems to climate change.

Policy 4.1.2.5. The County Administrator will enhance public understanding of the potential impacts of changing climate on marine and estuarine habitats through educational community outreach activities and interactive demonstration projects.

Policy 4.1.2.6.4.1.6.1. Land development regulations will protect ~~Protect~~ the West Indian manatee by requiring all development within its range to adhere to Florida Department of Environmental Protection guidelines for ~~this~~ the species and will implement the following strategies:

Implementation Mechanism(s):

- (a) Implementation of the following strategies:
- ~~Designation of slow speed zones for all access channels to, and posting~~ Posting of idle speed zones and other regulatory signs, funded, provided, and maintained by the property owner at, for all existing and new marina-type uses and multi-family docking facilities.
 - ~~Designation of slow speed zones for all access channels to marina type uses and multi-family docking facilities.~~
 - ~~Posting and maintenance of regulatory signs at marina type uses and their access channels will be provided, funded, and maintained by the affected marina type use.~~
 - Location of new or expanded boat ramps, and multi-slip docking facilities away from sites of high manatee concentrations, such as those identified by state and federal agencies. [See Policy 4.4.4.2.4.2.1.2].

- Large, eye-catching educational displays at every boat ramp and marina to alert boaters to the possible presence of manatees and apprise them of boating regulations in the area.
- ~~Permitting~~ **Prohibiting** density of multi-family docking facilities and single-family docks ~~not to exceed one (1) power boat slip for every one hundred (100) feet of privately-owned shoreline-owned.~~

Policy 4.1.2.7.4.1.6.2. The County Administrator will ensure that ~~Designate~~ all public manatee protection areas ~~are designated~~ as slow speed zones.

Implementation Mechanism(s):

- ~~(a) Review of all new and expanded developments where such development provides for water access to ensure that appropriate signage is posted.~~
- ~~(b) Post appropriate signage at Upper Terra Ceia Bay and in Anna Maria Sound near Pelee Island.~~

[F.S. § 163.3177(6)(g)3.: For those units of local government identified in s. 380.24, a coastal management element, appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of s. 163.3178(2) and (3). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government's decisions and program implementation with respect to the following objectives: 3. Protect the orderly and balanced utilization and preservation, consistent with sound conservation principles, of all living and nonliving coastal zone resources.]

Objective 4.1.3.4.1.4 - Coordination with Estuary Programs (EPs) for Water Quality.

~~Development/ and Implementation of~~ **implement** strategies for a coordinated approach to achieving the goals of the Coastal and Heartland National EP, Sarasota Bay and Tampa Bay ~~EPs~~ Estuary Programs, and Charlotte Harbor by working with participating federal, state, and local agencies and reducing pollution from stormwater runoff by supporting the expanded use of green infrastructure.

Policy 4.1.3.1.4.1.4.1. The County Administrator will actively ~~Actively~~ participate in the Estuary Program's (EP's) Management Conferences on Charlotte Harbor, Sarasota and Tampa Bays, and continue to work to identify suitable actions available to Manatee County for the restoration and maintenance of the chemical, physical, and biological integrity of Charlotte Harbor, Sarasota and Tampa Bays, ~~by pursuing the following strategies:~~

Implementation Mechanism:

- (a) ~~Manatee County Board of County Commissioners appointment of a staff liaison group to attend meetings, and to review and report on progress of the Charlotte Harbor Coastal and Heartland National, Sarasota Bay, and Tampa Bay EPs (County) Staff Liaison Group from appropriate departments to attend meetings, and to review and report on progress.~~
- (b) Implement land development regulations for the Peace River Watershed Overlay on the Future Land Use Map.
- (c) Coordinate with the Tampa Bay ~~EP~~ Estuary Program to update five-year (5-year) ~~year~~ action plans for the Tampa Bay watershed area in Manatee County.

Policy 4.1.3.2.4.1.4.2. ~~Consider~~The Administrator will recognize as an important County priority the restoration and maintenance of water quality; indigenous populations of fish, shellfish, fish, and other wildlife; and recreational activities in Sarasota and Tampa Bays, as an important County priority; and implement all affordable, effective, and equitable and affordable bay management strategies to implement this policy, including:

Implementation Mechanism(s):

- (a) Continued development and implementation of appropriate bay management strategies consistent with the ~~national estuary program's~~ EP's management plan(s).
- (b) Expansion of integrated pest management and pollution prevention for public buildings and review of management plans for golf courses and vegetation in common areas to reduce the use of pesticides and fertilizers in the Coastal Planning Area.
- (c) Promotion of the Florida Yards and Neighborhoods program through public education.

Policy 4.1.3.3.4.1.4.3. ~~The Board of County Commissioners will continue~~Continue appropriate intergovernmental agreements with local governments and with government agencies ~~that which~~ formalize Manatee County's role in achieving and maintaining the environmental quality goals and pollution load reduction goals of the Sarasota Bay and Tampa Bay Comprehensive Conservation Management Plans (CCMP).

Policy 4.1.3.4.1.4.4. ~~The County Administrator will coordinate~~Coordinate with the ~~Charlotte Harbor Coastal and Heartland National EP to develop and maintain a workable (CCMP) Comprehensive Conservation Management Plan.~~

Implementation Mechanism:

- (a) ~~Participation in CCMP development.~~

[CCMP OPTION 1: GENERAL LANGUAGE:]

Policy 4.1.3.5. Land development regulations will require development to appropriately use, conserve, and protect the estuarine-, ground-, and surface waters during all phases of land development, e.g., land alteration, construction, and post-construction.

Policy 4.1.3.6. The County Administrator will improve the stormwater management system through water capture, retention, and reuse best management practices.

Policy 4.1.3.7. The Administrator will facilitate and support educational outreach efforts and innovative pilot projects and practices that prioritize low-impact design and development and green infrastructure.

Policy 4.1.3.8. Land development regulations will address opportunities to use green infrastructure as a method of stormwater management, including the integration of green roofs, rain barrels, and rain gardens.

Objective 4.1.4.1.3 - Water Quality, Fish, and Shellfish Harvesting.

Improve coastal water quality ~~such that so~~ all DEP shellfish harvesting prohibition areas are upgraded to "Approved" as feasible, and ~~such that so~~ juvenile fish populations and a diversity of other living marine resources are restored and sustained.

Policy 4.1.4.1.4.1.3.1. ~~Land development regulations will require~~ Require all land development activities within the ~~Coastal Planning Area which~~ CPA that discharge stormwater into receiving coastal waters demonstrate non-degradation of water quality for all applicable parameters. [See Policy 9.4.1.4.]

~~Implementation Mechanism(s):~~

~~Ensure that all development approvals meet water stormwater treatment standards as described in Policy 9.4.1.4 of the Stormwater Management sub-element of the Public Facilities Element.~~

- ~~(a) Review all requests for development requiring a point source discharge permit into receiving waters which flow into shellfish harvesting areas for compliance with this policy.~~
- ~~(b) Monitor compliance with National Pollution Discharge and Elimination System (NPDES) Municipal Separate Suburban Sewer System (MS4) to improve coastal water quality.~~
- ~~(c) Continued participation in the Tampa Bay EP Nitrogen Consortium.~~
- ~~(d) Natural Resources Department continued participation in the Tampa Bay EP Nitrogen Consortium.~~

Policy 4.1.4.24.13.2. ~~Land development regulations will require~~ Require that all proposed development adjacent to the boundaries of the Terra Ceia Aquatic Preserve ensure that no significant degradation of water quality, shoreline or estuarine habitat occurs either attributable to the development alone or in combination with other developments.

~~Implementation Mechanism:~~

- ~~(a) Coordination with the Florida Department of Environmental Protection to review all proposed development applications adjacent to the Terra Ceia Aquatic Preserve for consistency with this policy.~~

Policy 4.1.4.3.4.1.3.3. ~~The County Administrator will continue~~ Continue to support the Florida Department of Transportation in any efforts to redesign the Palma Sola Causeway to improve the flushing characteristics of Palma Sola Bay.

Policy 4.1.4.4. Land development regulations will require waterfront properties be designed to:

- promote water-related and water-dependent activities.
- encourage the retention and development of marine service facilities.
- provide public access to beaches and bays, and
- Maximize natural resource protection.

Policy 4.1.4.5. The County Administrator will provide and improve opportunities for recreation and aesthetic enjoyment of coastal resources.

Objective ~~4.1.5.4.1.2.~~ - Coastal Planning Area Emergent Vegetation and Upland Habitat Protection.

Maintain, restore, and enhance the overall quality of the coastal zone environment, including its amenities and aesthetic values. Maintain or increase the amount of native habitat in the ~~Coastal Planning Area~~CPA to:

- Retain habitat for native species;
- Provide natural areas for passive enjoyment by local residents and visitors;
- Provide filtration of pollutants for runoff to coastal waters;
- Preserve habitat for juvenile fish;
- Preserve the unique natural character of the County's coastlines; and
- Prevent the intrusion of invasive species ~~which that~~ provide inferior habitat.

[See [Objective 8.3.1.](#) and associated policies.]

~~Policy 4.1.5.1.4.1.2.1.~~ Land development regulations will require ~~Require~~ developments and redevelopment within the ~~Coastal Planning Area~~CPA to preserve representative tracts of native upland ~~vegetative~~ communities, particularly ~~as part of any required mitigation activities as required in Policies 3.3.1.3 and 3.3.1.4.~~ [See policies under [Objective 3.3.2.](#) and associated policies.]

Implementation Mechanism(s):

- ~~(a) Maintain land development regulations to require projects encompassing native upland vegetative communities to specify the complete or partial preservation of such communities.~~
- ~~(b) Encourage preservation of native upland vegetative communities as part of any mitigation activities as required in Policies 3.3.1.3 and 3.3.1.4.~~

~~Policy 4.1.5.2.4.1.2.2.~~ Prohibit the alteration ~~Alteration~~ of coastal wetland habitat ~~is prohibited, except where necessary with minimized alteration for:~~

- ~~(1) Instances of proposed~~Proposed water-dependent uses;
- ~~(2) Cases of overriding public interest, such as natural resource restoration activities, the location of public access facilities for public recreational facilities, or deep~~water port facilities; or
- ~~(3) When necessary to avoid the~~Avoiding taking ~~of~~ private property.

[See [Objective 3.3.1.](#) and associated policies.]

Policy 4.1.2.3. [Reserved]

~~Policy 4.1.5.3.4.1.2.4.~~ The County Administrator will review ~~Review~~ all proposed land developments ~~permit applications for determination of compatibility with, and determination of~~ cumulative impacts on, adjacent natural marine resource areas.

Implementation Mechanism:

- ~~(a) Review all land development applications for cumulative effects on adjacent natural marine resource areas in the Coastal Planning Area.~~

~~Policy 4.1.5.4.4.1.2.5.~~ Land development regulations will require ~~buffers~~ Buffers larger than fifty (50) feet adjacent to environmentally sensitive coastal wetlands may be required during the development review process, as if necessary to prevent degradation, due to proposed development and to discourage trimming of mangroves, and loss of habitat due to proposed development. [See Policy 3.3.1.]

~~Implementation Mechanism:~~

- ~~(a) Review of development proposals adjacent to coastal wetlands for compliance with this policy in coordination with policy 3.3.1.5.~~

~~Policy 4.1.5.5.4.1.2.6.~~ Land development regulations will ~~protect~~ Protect natural beaches and dunes from the cumulative impacts of adjacent development. [See Policies 4.2.2.5.4.4.2.5. and 4.2.2.6.4.4.2.6.]

~~Implementation Mechanism:~~

- ~~(a) Review projects to ensure policy compliance.~~

~~Policy 4.1.5.6.4.1.2.7.~~ Encourage Land development regulations will address the restoration and enhancement of disturbed or degraded natural coastal resources, including the conversion of nuisance exotic vegetation and hard surfaces along the shoreline to native coastal vegetation.

~~Implementation Mechanism:~~

- ~~(a) Review of all proposed development in the Coastal Planning Area. (See policies under Objectives 3.3.1 and 3.3.2).~~
- ~~(b) County identification and pursuit of projects for which restoration and enhancement are feasible.~~
- ~~(c) Support the conversion of nuisance exotic vegetation and/or hard surfaces along the shoreline to native coastal vegetation.~~

Objective 4.1.6. – Bay Habitats.

Increase and preserve the number and diversity of healthy bay habitats.

CCMP OPTION 1: GENERAL LANGUAGE:

Policy 4.1.6.1. Land development regulations will expand the use of wetland setbacks, enhanced shorelines, and living shorelines as preferred shoreline stabilization methods along waterfront properties and as alternatives to bulkheads and traditional seawalls.

Policy 4.1.6.2. The County Administrator will promote community involvement, demonstration projects, K-12 education, etc. related to shoreline management.

Policy 4.1.6.3. For existing hardened shorelines, land development regulations will encourage environmentally enhanced stabilization measures, e.g., gradual slopes, native coastal plants, oyster reefs, revetment matting, rip-rap, etc., where appropriate.

Policy 4.1.6.4. The County Administrator will geospatially identify shoreline parcels whose biophysical characteristics are suitable for living shorelines.

Policy 4.1.6.5. The Administrator will develop an outreach/stakeholder engagement program and regulatory strategy to maximize the use of living shorelines, and a monitoring program to track the progress of living shorelines over time.

Policy 4.1.6.6. The Administrator will integrate beach dunes and other appropriate living shoreline features in all beach nourishment projects.

Policy 4.1.6.7. The further hardening of shorelines is prohibited, except as a last resort to protect public property.

Policy 4.1.6.8. The County Administrator will establish living seawall, living shoreline, and oyster garden demonstration projects to educate the citizenry about the ecological benefits and cost-effectiveness of shoreline-friendly practices.

Policy 4.1.6.9. The County Administrator will develop incentives and technical assistance to waterfront properties to install or retrofit shoreline-friendly practices.

Policy 4.1.6.10. The Administrator will explore establishing a program that provides grant opportunities to educate the citizenry about, and to access the materials necessary to establish, shoreline-friendly practices.

Objective ~~4.1.7.4.1.1.~~ - Seagrass Protection.

Increase the number of acres of seagrass in local waters in cooperation with the Coastal & Heartland National EP, Tampa Bay and Sarasota Bay and Tampa Bay EPs and the Charlotte Harbor NEP through programs to which protect, restore, and enhance significant habitat to provide:

- An indication of overall bay health;
- Habitat for juvenile fish and shellfish;
- Forage for the West Indian Manatee; and
- Other benefits associated with seagrasses.

Policy 4.1.7.1.4.1.1. Land development regulations will require ~~Require that all preliminary site plans, and preliminary plats, or equivalent site plans,~~ depict the location of any existing seagrass habitat contained within the proposed development site or within fifty (50) feet of the development's boundary.

Implementation Mechanism:

~~(a) County review to determine if the proposed development activities will adversely affect seagrass habitats.~~

Policy 4.1.7.2.4.1.1.2. Land development regulations will prohibit ~~Prohibit~~ any non-water dependent development activities in submerged areas containing significant seagrass habitat, except as expressly permitted by this Plan other policies (e.g., Policy 4.2.1.1), or in cases of where the Board of County Commissioners determines an overriding public interest, as determined by the Board of County Commissioners. [See Policy 4.4.4.14.2.1.1.]

Implementation Mechanism:

~~(a) Review proposed development to ensure policy compliance.~~

Policy 4.1.7.3.4.1.1.3. New boat ramps are prohibited ~~Prohibit~~ the location of new boat ramps in areas characterized by insufficient depth, sensitive bottom, or shoreline habitats, such as seagrass beds.

Implementation Mechanism:

- ~~(a) Review development to ensure policy compliance.~~

~~Policy 4.1.7.4.4.1.4.~~ In coordination with the Sarasota Bay and Tampa Bay EPs, The County Administrator will identify all areas of significant seagrass habitat, and direct marine traffic to avoid these areas, and maximize opportunities for reestablishing and protecting seagrass habitat throughout Sarasota and Tampa Bays by pursuing funding for appropriate seagrass restoration in those areas identified as best suited for recovery and restoration of seagrass.

Implementation Mechanism:

- ~~(a) Coordinate with the Tampa Bay National Estuary Program to ensure policy compliance.~~

~~Policy 4.1.1.5.~~ Maximize opportunities for reestablishing and protecting seagrass habitat throughout Sarasota and Tampa Bays. [Combined into Policy 4.1.7.4.]

Implementation Mechanism(s):

- ~~(a) Coordinate with the Tampa Bay and Sarasota Bay Estuary Programs and the Agency For Bay Management to identify those areas best suited to the restoration or recovery of seagrasses.~~
- ~~(b) Continued involvement in the Sarasota and Tampa Bay EPs including application for funding for appropriate seagrass restoration.~~

~~Policy 4.1.7.5.4.1.1.6.~~ The County Administrator will develop techniques to orient boating activities to suitable areas away from sensitive habitats, to protect seagrass beds and sensitive habitat and reduce turbidity. [See Policy 4.4.4.2.4.2.1.2.]

Implementation Mechanism:

- ~~(a) Review all development requests for marina type uses to ensure that sensitive habitats will not be negatively affected.~~

~~Policy 4.1.7.6.4.1.1.7.~~ The County Administrator will encourage seagrass growth through strategies that improve water transparency in Charlotte Harbor, Sarasota and Tampa Bays and Charlotte Harbor. [See policies under Objective 3.2.2. and associated policies.]

F.S. § 163.3177(6)(g)1.: For those units of local government identified in s. 380.24, a coastal management element, appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of s. 163.3178(2) and (3). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government's decisions and program implementation with respect to the following objectives: 1. Maintain, restore, and enhance the overall quality of the coastal zone environment, including, but not limited to, its amenities and aesthetic values.

Objective 4.1.85. - Dredge and Fill.

Review dredge and fill activities and identify spoil sites to ensure that such activities do not degrade water quality and to ensure that spoil sites are compatible with the environment.

Policy 4.1.8.1.5.1. ~~The Administrator will coordinate~~ Coordinate with appropriate agencies to ensure County review of all Environmental Resource permits for dredge and fill operations in coastal areas of ~~Manatee County~~.

Implementation Mechanism:

~~(a) Review development to ensure policy compliance.~~

Policy 4.1.8.2.5.2. ~~Land development regulations will restrict~~ Restrict dredge and fill operations in the ~~Coastal Planning Area~~ CPA to operations that ~~which~~ facilitate the continued use of existing channels, ~~operations are~~ associated with appropriate water-dependent uses, or ~~operations which~~ correct environmental problems caused by limited tidal circulation or other deficiencies of the environmental system.

Implementation Mechanism:

~~(a) Review all Federal and State dredge and fill applications for compliance with policy.~~

Policy 4.1.8.3.5.3. ~~The County Administrator will limit~~ Limit construction of artificial waterways to necessary drainage improvements required to implement the goals, objectives, and policies of the Public Facilities element.

Implementation Mechanism:

~~(a) Review dredge and fill applications for compliance with this policy.~~

Policy 4.1.8.4.1.5.4. ~~The Administrator will coordinate with the West Coast Inland Navigation District (WCIND) to identify and permit appropriate spoil sites~~ Require the approval of spoil sites for dredge and fill material consistent with ~~identified sites as included in the~~ Future Land Use Map Series of the Future Land Use Element to prevent further degradation of adjacent waters and to ensure placement of spoil material on suitable upland areas. [See Objective 2.14.1, associated policies, and Map D.]

Implementation Mechanism(c):

~~(a) Review development to ensure compliance.~~

~~(b) Continued coordination with the West Coast Inland Navigation District (WCIND) to identify appropriate spoil sites.~~

Policy 4.1.8.5. The County Administrator will recommend and review proposed development and redevelopment that could change surface and groundwater flow patterns in basins tributary to bays and rivers to improve water quality discharge to these estuarine systems.

Policy 4.1.8.6. Provide for drainage improvements in repairs to roads along County-maintained evacuation routes. Levels of service for these routes will be maintained and, where possible, improved.

HAZARD MITIGATION COMPONENT

F.S. § 163.3177(6)(g)7.: For those units of local government identified in s. 380.24, a coastal management element, appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of s. 163.3178(2) and (3). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government's decisions and program implementation with respect to the following objectives: 7. Protect human life against the effects of natural disasters.]

[F.S. § 163.3178(2)(d): A component which outlines principles for hazard mitigation and protection of human life against the effects of natural disaster, including population evacuation, which take into consideration the capability to safely evacuate the density of coastal population proposed in the future land use plan element in the event of an impending natural disaster. The Division of Emergency Management shall manage the update of the regional hurricane evacuation studies, ensure such studies are done in a consistent manner, and ensure that the methodology used for modeling storm surge is that used by the National Hurricane Center.]

GOAL - 4.24

Protection of Manatee County Residents Citizens and Visitors from Natural Disasters Through Disaster Mitigation, Provision of Adequate Warning, and Post Disaster Planning.

Objective 4.2.14.4.4. - Hurricane Evacuation.

Maintain or reduce hurricane evacuation clearance times through mitigation, sheltering in place, and response techniques to protect the health and safety of residents citizens and visitors.

Policy 4.2.1.1.4.4.1. The County Administrator will develop Develop and implement provisions for increasing the rate of evacuee mobilization, in coordination with the Tampa Bay Regional Planning Council (TBRPC), other appropriate Emergency Support Functions (ESF) departments and agencies, and other local governments within Manatee County and other adjacent counties to:

Implementation Mechanism(s):

- ~~(a) Coordination with the Tampa Bay Regional Planning Council (TBRPC) and other appropriate Emergency Support Functions (ESF) departments and agencies to:~~
- Prepare and annually update the **Comprehensive Emergency Management Plan (CEMP)** in coordination with other local governments. The CEMP, in compliance with Florida Statutes and Florida Administrative Code, shall contain measures for hurricane preparedness, response, recovery and mitigation. It shall include at minimum an evacuation component, a shelter component (risk and host events), and a post-disaster and recovery component. The county plan will assign lead and support responsibilities for county agencies and personnel that coordinate with the emergency support functions outlined in the State of Florida Comprehensive Emergency Management Plan.
 - Distribute bilingual annual disaster guides free of charge to the public which that identify emergency preparedness procedures and evacuation shelters, including Distribution should include the possibility of mailing disaster guides to all residents addresses in the Hazard Vulnerability Area of the County.

- Implement the **Local Mitigation Strategy (LMS)**

Policy 4.2.1.2.4.4.1.2. The Administrator will coordinate with the Tampa Bay Regional Planning Council, Sarasota-Manatee Metropolitan Planning Organization, Manatee County Sheriff's Office, and Florida Department of Transportation to ensure that major evacuation routes maintain adequate capacity on all identified major evacuation routes and are improved as necessary to facilitate an efficient and safe evacuation.

Implementation Mechanism:

- ~~(a) Coordination with the Tampa Bay Regional Planning Council to ensure that major evacuation routes have adequate capacities, are adequately maintained and, when necessary, are improved to facilitate an efficient and safe evacuation. Roadway and traffic management related improvements to all evacuation routes will be coordinated by the Metropolitan Planning Organization, Manatee County Sheriff's Office, and FDOT.~~

Policy 4.2.1.3. The CEMP will outline principles to mitigate hazards and protect human life against the effects of natural disaster—including population evacuation—that consider the capability to safely evacuate the coastal population density proposed in the Future Land Use Element of this Plan in the event of an impending natural disaster.

Policy 4.2.1.4.4.4.1.3. ~~Cosponsor~~The County Administrator will cosponsor and participate in annual all-hazard preparedness activities, simulations, exercises and seminars to test the effectiveness of the CEMP.

Implementation Mechanism:

- ~~(a) Coordination with members of the Disaster Preparedness Planning Committee to stage all-hazard preparedness activities.~~

Policy 4.2.1.5.4.4.1.4. The County Administrator will coordinate~~Coordinate~~ all emergency management activities including evacuation orders with all state, regional, and local emergency response agencies to effect a safe and efficient evacuation and resettlement of citizens and visitors~~County residents~~.

Implementation Mechanism:

- ~~(a) Implement all emergency management operations and coordination activities with adjacent counties and the State.~~
- ~~(b) Coordinate resources requests to the State Division of Emergency Management.~~

Policy 4.2.1.6.4.4.1.5. The County Administrator will develop~~Develop~~ and implement provisions for decreasing the rate of evacuee mobilization by encouraging and in coordination with other local governments, encourage citizens-residents to shelter in place when and where appropriate in coordination with other local governments.

Objective 4.2.2.4.4.2. - Hazard Mitigation. Create pre-disaster mitigation plans to reduce the risk to life and property from natural or man-made disasters.

Policy 4.2.2.1.4.4.2.1. ~~Require that all project approvals~~ All development permits for lands within the Coastal Evacuation Area (CEA) must meet performance standards as described in detail provided in land development regulations, including and which may include:

- Procedures for development and establishment of hurricane shelter capacity and evacuation time standards;
- Mitigation measures such as fair share contribution to preserve sheltering capacity and maintain evacuation times, or reductions in proposed development and redevelopment project density;
- Special design standards for infrastructure construction;
- Development of hurricane evacuation plans; and
- Specific surcharges or fees to recoup public expenditures for infrastructure after a ~~storm~~ disaster event.

Policy 4.2.2.2.4.4.2.2. ~~Land development regulations will require developers of~~ Require new development and redevelopment in the Coastal Planning Area (CPA), their successors, and assigns to provide hurricane evacuation plans for the project, prepared in coordination with County staff, and require funding for the implementation of such plans with funding for such planning and implementation provided by the developers of the project or their successors.

Implementation Mechanism(s):

- ~~(a) Review of all development in the Coastal Planning Area to ensure consistency with this policy.~~
- ~~(b) In conjunction with the site plan approval, development projects will submit an effective and compliant hurricane evacuation plan to Manatee County.~~

Policy 4.2.2.3.4.4.2.3. ~~Land development regulations will minimize~~ Minimize the location of development and redevelopment within areas of the CEA which that have sustained recurring hurricane-related damage by providing strategies for the acquisition of repetitive loss and suitable environmentally sensitive properties and techniques to reduce risks of property loss due to hazard events.

Implementation Mechanism(s):

- ~~(a) Development of possible strategies for the fee simple acquisition of repetitive loss properties.~~
- ~~(b) Development of zoning and other mitigative techniques to reduce the probability of future property loss due to a storm event.~~
- ~~(c) Development of possible acquisition strategies for suitable environmentally sensitive properties.~~

Policy 4.2.2.4.4.4.2.4. ~~The County Administrator will implement policies and actions of the Local Hazard Mitigation Strategy (LMS).~~

Implementation Mechanism(s):

- ~~(a) Coordination with other member agencies to achieve policy compliance.~~
- ~~(b) Interagency hazard reports review and inclusion during development of the Local Mitigation Strategy.~~

Policy 4.2.2.5.4.4.2.5. Minimize the disturbance of natural shoreline resources that provide shoreline stabilization and protect landward areas from the effects of storm events. Strategies to implement this Policy may include: conservation easements, lease agreements, land donations, deed restrictions or covenants. [See Objective 4.1.5, and Policy 4.2.2.6.

~~Implementation Mechanism(s):~~

- ~~(a) Implementation of the policies under Objective 4.1.2, and Policies 4.4.2.5, and 4.4.2.6.~~
- ~~(b) Recommendation of strategies for projects within the CEA to achieve this policy. Such strategies may include, but are not limited to, conservation easements, lease agreements, land donations, deed restrictions or covenants. These provisions will be implemented to protect shoreline integrity through non disturbance of coastal vegetation and soils.~~

Policy 4.2.2.6.4.4.2.6. ~~Prohibit the construction of new seawalls and the repair and reconstruction of existing seawalls~~ is prohibited except as permitted by applicable federal and state regulations.

~~Implementation Mechanism:~~

- ~~(a) Review of proposed construction and seawall repair or reconstruction activities for policy compliance.~~

Policy 4.2.2.7.4.4.2.7. ~~The Board of County Commissioners will improve~~ Improve sheltering capacity through ~~the development of more shelters, through increased public education regarding evacuation options, or through land development regulations, and other techniques which that~~ reduce the numbers of persons needing shelter during a major storm disaster event, including:

~~Implementation Mechanism(s):~~

- ~~(a) Improve sheltering capacity. Improvement techniques may include:~~
 - ~~Procedures for evaluating the impact of the each proposed development and redevelopment on hurricane shelter capacity and evacuation clearance times.~~
 - ~~Establishment of required standards for~~ Requiring development and redevelopment to maintain adequate, available hurricane shelter capacity and evacuation clearance times, and-
 - ~~A requirement for~~ Requiring mitigation techniques, including density reduction, to ensure that new projects development and redevelopment contribute fair share improvements or funding fees in-lieu to maintain required shelter capacity. Such mitigation measures may include reduction in project densities to ensure compliance with the established standards.
 - ~~Establishment~~ Establishing of a Home Host program for selected areas of the County by providing educational programs that encourage a neighbor host sheltering initiative to help reduce the shelter deficit.

Policy 4.2.2.8.4.4.2.8. ~~Expand~~ The County Administrator will expand the training of local Community Organizations Active in Disaster (COAD), Volunteer Organizations Active in Disaster (VOAD), Community Emergency Response Teams (CERT), the Medical Reserve Corps, Manatee County Search and Rescue, and other partner agencies to support first responders.

Implementation Mechanism:

- ~~(a) — Manatee County Government will facilitate holistic and countywide emergency preparedness and disaster response training needs of residents, visitors, and business owners for all hazards.~~

Policy 4.2.2.9. Land development regulations will require new large-scale developments to provide a proportionate share of shelters for hurricane protection.

Policy 4.2.2.10. The Administrator will work to improve resilience to coastal flooding due to SLR and lessen the impacts of natural disasters on human life, property, public facilities, and natural resources through emergency management, hazard mitigation, and natural disaster planning, coordinated with other relevant local and regional plans.

Policy 4.2.2.11. The County Administrator will coordinate land uses and hurricane evacuation policy with other relevant local and regional plans and policies.

Policy 4.2.2.12. The County Administrator will coordinate with the incorporated municipalities in the annual development and issuance of the County All Hazards Disaster Planning Guide.

Policy 4.2.2.13. The County Administrator will promote public education of disaster preparedness and hurricane evacuation through condominium, homeowners, and neighborhood associations; public forums; and schools.

Policy 4.2.2.14. The County Administrator will participate with the incorporated municipalities in the LMS Working Group for the purpose of reducing vulnerability to natural hazards that endanger the community.

Objective - 4.2.3. – Optimize hazard prevention and mitigation.

Policy 4.2.3.1. Land development regulations will provide incentives for structure retrofit programs to address identified flood, wind, evacuation vulnerabilities.

Policy 4.2.3.2. The County Administrator will maintain, regularly review, and update a list of vulnerable critical facilities with costs for necessary pre-disaster resilience improvements.

Policy 4.2.3.3. The County Administrator will identify pre- and post-storm redevelopment options for land in known vulnerable areas to prevent future loss to life or property. Any County purchase option will analyze the benefits of acquisition, the costs, and resources available through:

(1) FEMA Building Resilient Infrastructure and Communities (BRIC) program and Hazards Mitigation Grant Program (HMGP) funding.

(2) grants from other sources of funding.

(3) County funding, together with just valuation, potential uses, projected inundation, and return on investments.

Objective 4.2.4. – Minimize the adverse effects of disaster events.

Policy 4.2.4.1. The County Administrator will develop strategies to address the special needs populations before, during, and in the aftermath of a disaster/hazard event.

Policy 4.2.4.2. The County Administrator will annually update the Post-Disaster Redevelopment Component of this Plan.

Policy 4.2.4.3. The County Administrator will provide and support disaster planning training, including collaborative programs with appropriate government agencies, NGOs, and the private sector.

Policy 4.2.4.4. The County Administrator will continue to develop training on, and improve communication of, mitigation strategies and techniques with all Emergency Support Function (ESF) agencies.

Policy 4.2.4.5. The County Administrator will promote and support expanded CERT service and training opportunities.

Policy 4.2.4.6. The County Administrator will periodically evaluate and update the public and internal response agencies about new communications technologies.

Objective 4.2.5. – Reduce the number of repetitive loss properties.

Policy 4.2.5.1. Land development regulations will provide options to relocate property, development entitlements, and vested rights susceptible to repetitive flooding and SLR inundation.

Policy 4.2.5.2. The County Administrator will administer stormwater management system maintenance programs to be resilient to the impacts of climate change.

Policy 4.2.5.3. Land Development regulations will limit development density and intensity in repetitive flood loss areas.

Objective 4.2.6. – Improve the resilience of vulnerable properties by directing new development and redevelopment to less vulnerable areas.

Policy 4.2.6.1. The County Administrator will monitor floodplain regulations and enforcement to assess regulatory effectiveness.

Policy 4.2.6.2. Land development regulations will provide incentives to achieve floodplain compliance.

Policy 4.2.6.3. The BOCC will only grant variances to the floodplain management requirements and standards of the land development regulations in circumstances of over-riding public necessity.

Policy 4.2.6.4. Land development regulations will require development, redevelopment, and new structures in the Special Flood Hazard Area (SFHA) to meet or exceed current Florida Building Code requirements and standards.

Policy 4.2.6.5. The County Administrator will annually audit the LMS for consistency with other applicable ordinances, plans, and regulations regarding hazard mitigation initiatives and strategies.

Policy 4.2.6.6. The County Administrator will budget resources to strengthen existing land use policies, regulations, review procedures, and enforcement.

Policy 4.2.6.7. Land development regulations will provide higher standards for impervious surfaces to decrease stormwater run-off.

Policy 4.2.6.8. Land development regulations will provide higher standards to protect facilities and structures from hazards.

Objective 4.2.7. – Increase the level of disaster awareness through enhanced public education.

Policy 4.2.7.1. The County Administrator will provide public education and information to the community about local hazard mitigation efforts, planning, programming, and techniques [e.g., events such as Hurricane Expo and general presentations to community groups].

Policy 4.2.7.2. The County Administrator will utilize a broad variety of media to educate the public on hazard mitigation.

Policy 4.2.7.3. The County Administrator will annually provide outreach specifically to owners and tenants of all properties in repetitive loss areas as part of the National Flood Insurance Program (NFIP) Community Rating System (CRS) and repetitive loss property owner outreach programs.

Policy 4.2.7.4. The County Administrator will educate citizens living or working in defined hazard areas to understand their vulnerability and appropriate hazard mitigation techniques.

Policy 4.2.7.5. The County Administrator will provide and publicize opportunities for interested individuals to participate in hazard mitigation training.

Objective 4.2.8. – A disaster-resistant economy that embraces a broad socioeconomic spectrum.

Policy 4.2.8.1. The LMS will consider facilities, programs, and resources to support impacted local businesses resuming commercial activity.

Policy 4.2.8.2. The CEMP and **Post-Disaster Recovery Plan (PDRP)** will consider the needs of key employers.

Policy 4.2.8.3. The County Administrator will provide guidance for community businesses to improve the disaster resilience of their facilities and operations.

Objective 4.2.9. – County-wide participation of Manatee local governments in the LMS.

Policy 4.2.9.1. Local governments in Manatee County will review and update mitigation strategies post-event, considering the provisions of **F.S. § 163.3178**, and post-event interagency hazard mitigation reports.

Policy 4.2.9.2. Local governments in Manatee County will continue to develop funding mechanisms for LMS-approved mitigation initiatives, consistent with the provisions of F.S. § 163.3177, for identifying and funding capital improvement projects.

Policy 4.2.9.3. Local governments in Manatee County participating in the LMS will emphasize mitigation funding during the annual budget process pursuant to the provisions of F.S. § 163.3177.

Objective 4.2.10. – Provide procedures and responsibilities for amendment, maintenance, and updating the LMS.

Policy 4.2.10.1. The LMS will provide the processes for application, mitigation project selection, and distribution of funds under the Hazard Mitigation Grant Program required by the State.

Policy 4.2.10.2 The Emergency Management Division of the Public Safety Department has the primary responsibility of monitoring and supporting the LMS. This effort includes:

1. technical and clerical support for the benefit of the LMS Working Group;
2. monitoring the status of LMS-supported projects throughout the year; and
3. assessing the LMS against the Florida Division of Emergency Management-established evaluation criteria to determine if changes to the LMS are needed. Should it be determined by the Chair or any member of the LMS Working Group that the LMS requires further evaluation/update, an event has significantly changed or negated parts of the LMS, or a LMS-supported mitigation project may be eligible for grant funding, the item(s) will be discussed at either one of the regularly scheduled quarterly meetings or at a special meeting called by the Chair.

Policy 4.2.10.3. The participating agencies and local governments will present new initiative projects at the LMS Working Group quarterly meetings. These initiatives will be evaluated, incorporated into the LMS, and prioritized at these meetings. Completed initiatives will be moved to the COMPLETED column of the mitigation Project Initiatives List. Incomplete initiatives will be re-evaluated. The LMS Working Group will use the Mitigation Initiatives Evaluation Scoring Sheet to evaluate new initiatives and re-evaluate incomplete initiatives. Following a disaster event, the lessons learned or applicable comments from any post-event interagency hazard mitigation reports will be incorporated into the LMS.

Policy 4.2.10.4. Every five (5) years, the LMS will undergo a 5-year cycle update. The review of the LMS will begin 18 months prior to the expiration date of the adopted LMS. The LMS Working Group will appoint (a) sub-committee(s) to conduct an audit/review of the LMS, assessing its effectiveness and identifying those revisions necessary to meet County-wide hazard mitigation needs. The subcommittee(s) will report to the full LMS Working Group at their next scheduled quarterly meeting. The LMS Working Group will provide the draft report to the elected officials of all participating agencies and local governments for review and comment.

Policy 4.2.10.5. The LMS Working Group will vote to transmit the draft report to the State of Florida Division of Emergency Management, State Hazard Mitigation Officer. The State's comments will inform subsequent revisions and the report will be submitted to the Manatee County Board of County Commissioners. The Board will vote to accept the report and, after review and discussion, vote to include the revisions recommended by the LMS Working Group in the LMS.

Policy 4.2.10.6. In addition to the 5-year cycle update, following a major disaster event that substantially impacts the LMS, the LMS Working Group may submit proposed revisions to the LMS to the Manatee County Board of County Commissioners and participating local governments for amendment.

Objective 4.2.11. – The County Administrator will develop and maintain a CEMP that complies with **F.S. §252.38**, Ch. 27P-6 F.A.C., and implements the following Policies:

Policy 4.2.11.1. Employ an all-hazards planning approach to all disasters, emergencies, hazards, or threats.

Policy 4.2.11.2. Establish the general planning framework for all-hazards prevention, preparedness, response, recovery and mitigation activities.

Policy 4.2.11.3. Reduce the vulnerability of people and their communities to hazards, including loss of life, injury, and damage or loss of property resulting from man-made, natural, and technological disasters by developing effective and strategic prevention, preparedness, response, recovery, and mitigation programs.

Policy 4.2.11.4. Describe the County's role in supporting other local governments during an emergency or disaster.

Policy 4.2.11.5. Describe the state and federal relationship with the County and other local governments during an emergency or disaster.

Policy 4.2.11.6. Describe the types of events likely to occur, from local emergencies to minor, major, or catastrophic disasters.

Policy 4.2.11.7. Describe the actions the Emergency Management Division will initiate--in coordination with county, municipal, state, federal, and other government counterparts, as appropriate—regardless of the magnitude of the emergency or disaster.

Policy 4.2.11.8. Describe the mechanisms to deliver immediate assistance, including direction and control of intrastate, interstate, and federal response and recovery assistance.

Policy 4.2.11.9. Establish a system that adopts, applies, and integrates the tenets of the National Incident Management System (NIMS) to ensure its interface with the National Response Framework (NRF) to maximize the integration of incident-related prevention, preparedness, response, recovery, and mitigation activities.

Objective 4.2.12. – Maintain a CEMP that establishes direction and control.

Policy 4.2.12.1. The County Administrator executes the emergency management program. The Director provides policy level assistance and guidelines in disaster preparedness activities and functions, including planning, public information, and training programs; and serves as coordinator and liaison between the Board of County Commissioners and State and Federal agencies in times of disaster [Ordinance 19-47].

Policy 4.2.12.2. During the continuance of a state of local emergency the Director is responsible for coordinating all disaster emergency relief activities and efforts, subject only to the direction and control of the Board of County Commissioners or such direction and control as delegated by the Board to the Administrator as codified in Article II of Chapter 2-13 of the Manatee County Code. The operational policies and procedures for response to disaster emergencies will be consistent with the CEMP.

[CCMP OPTION 1: GENERAL LANGUAGE:]

Policy 4.2.12.3. The Administrator will support the integration of resilience measures into this Plan and the plans of the other local governments in Manatee County, and continue to advance and develop policies and programs that conserve natural resources, mitigate greenhouse gas (GHG) pollution, and advance sustainability and climate change resilience.

[F.S. § 163.3178(2)(f)2.: Encourage the use of best practices development and redevelopment principles, strategies, and engineering solutions that will result in the removal of coastal real property from flood zone designations established by the Federal Emergency Management Agency.]

Objective 4.2.13. –

In coordination with FDEP, SWFWMD, and other partner agencies develop, promulgate, and in County-funded projects use development and redevelopment best practices, employing principles and strategies to remove coastal real property from Flood Insurance Rate Map (FIRM) Zones V. Implementing ordinance provisions may include, but are not limited to:

- Reconstruction in compliance with current building and construction standards;
- Public acquisition; or
- Reduction in intensity of use.

[See Objectives 2.3.1., 2.3.3., 3.4.1., and associated policies, and Policy 8.3.1.2.]

Policy 4.2.13.1. Land development regulations will provide incentives and regulations to remove repetitive loss property and other real property improvements from projected 2040 inundation areas of the FIRM Zones V and coastal AE, and capture any additional CRS benefits.

[F.S. § 163.3178(2)(f)3.: Identify site development techniques and best practices that may reduce losses due to flooding and claims made under flood insurance policies issued in this state.]

Policy 4.2.13.2. Land development regulations will require new development and redevelopment to employ site development techniques that reduce flood losses and claims made under flood insurance policies. These requirements will include structural and non-structural site development techniques, e.g., maintaining adequate level-of-service standards for stormwater management, grading or use of appropriate materials to withstand inundation,

minimizing flood damage to structures through flood-proofing and siting infrastructure and other public facilities to account for predicted flood conditions.

Policy 4.2.13.3. Land development regulations will require new development to add additional freeboard to the base flood elevation and enlarge the time window for cumulative substantial improvements to legal non-conforming structures in projected 2040 inundation areas and capture any additional CRS benefits.

[F.S. § 163.3178(2)(f)4.: 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 4.2.13.4. Land development regulation will continue to ensure new development meets or exceeds the flood-resistance requirements of the Florida Building Code and 44 CFR part 60.

[F.S. § 163.3178(2)(f)5.: Require that any construction activities seaward of the coastal construction control lines established pursuant to s. 161.053 be consistent with chapter 161.]

Policy 4.2.13.5. Construction and development activities seaward of the coastal construction control line must be consistent with [F.S. Chapter 161](#), the Florida Building Code, and land development regulations.

Policy 4.2.13.6. The County Administrator will engage the community with public education and outreach on the benefits and importance of mitigating flood risks through building construction codes, flood elevation requirements, land use regulations, and stormwater management.

[F.S. § 163.3178(2)(f)6.: Encourage local governments 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 4.2.13.7. Land development regulations will provide for participation in the CRS administered by FEMA and strive to improve the community's score resulting in reductions in flood risk and insurance premiums for citizens.

Policy 4.2.13.8. The Floodplain Administrator will in and support a Manatee County-wide Program for Public Information (PPI) to improve CRS scores within the county and its municipalities.

[F.S. § 163.3177(6)(g)9.: For those units of local government identified in s. 380.24, a coastal management element, appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of s. 163.3178(2) and (3). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government's decisions and program implementation with respect to the following objectives: 9. Preserve historic and archaeological resources, which include the sensitive adaptive use of these resources.]

Policy 4.2.13.9. Land development regulations will include provisions to preserve historic and archaeological resources, including the sensitive adaptive use of these resources. [See the [Historic and Cultural Element](#) of this Plan and its implementing regulations.]

[F.S. § 163.3177(6)(g)10. For those units of local government identified in s. 380.24, a coastal management element, appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of s. 163.3178(2) and (3). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government's decisions and program implementation with respect to the following objectives: 10. At the option of the local government, develop an adaptation action area designation for those low-lying coastal zones that are experiencing coastal flooding due to extreme high tides and storm surge and are vulnerable to the impacts of rising sea level. Local governments that adopt an adaptation action area may consider policies within the coastal management element to improve resilience to coastal flooding resulting from high-tide events, storm surge, flash floods, stormwater runoff, and related impacts of sea-level rise. Criteria for the adaptation action area may include, but need not be limited to, areas for which the land elevations are below, at, or near mean higher high water, which have a hydrologic connection to coastal waters, or which are designated as evacuation zones for storm surge.]

Policy 4.2.13.10. The land development regulations will provide criteria for an adaptation action area designation to improve resilience to coastal flooding resulting from high-tide events, storm surge, flash floods, stormwater runoff, and related impacts of SLR, including, but not limited to, areas

- where land elevations are below, at, or near mean higher high water;
- that have a hydrologic connection to coastal waters;
- that are designated as evacuation zones for storm surge;
- that inundation modeling indicates are vulnerable; or
- that are optimal for relocating vulnerable development or receiving transferred development entitlements associated with vulnerable areas.

COASTAL HIGH HAZARD AREA

F.S. § 163.3178(2)(h): Designation of coastal high-hazard areas and the criteria for mitigation for a comprehensive plan amendment in a coastal high-hazard area as defined in subsection (8). The coastal high-hazard area is 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. Application of mitigation and the application of development and redevelopment policies, pursuant to s. 380.27(2), and any rules adopted thereunder, shall be at the discretion of local government.]

GOAL – 4.3

Establish and maintain an ongoing process that continually assesses potential disasters, develops corresponding hazard mitigation strategies and techniques; incorporates preparedness, response, and recovery into the consciousness of the entire community; and limits public expenditures in areas subject to destruction by natural disaster.

Objective 4.3.1. - Designate Coastal High-Hazard Areas (CHHA) and the mitigation criteria for amending this Plan in a CHHA, as defined in [F.S. § 163.3178\(8\)](#).

[F.S. § 163.3177(6)(g)6.: For those units of local government identified in s. 380.24, a coastal management element, appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of s. 163.3178(2) and (3). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government's decisions and program implementation with respect to the following objectives: 6. Limit public expenditures that subsidize development in coastal high-hazard areas.]

Policy 4.3.1.1. The County Administrator will analyze and evaluate the benefits and costs of adaptation alternatives in the design or retrofit of infrastructure and limit public expenditures that subsidize development in the CHHA.

Policy 4.3.1.2. Land development regulations will include provisions that ensure development and zoning changes do not promote increased population within CHHA.

Policy 4.3.1.3. Land development regulations will direct new population growth away from known or predicted CHHA.

Policy 4.3.1.4. Land development regulations will require proposed development and redevelopment in the CHHA be reviewed for significant impacts upon evacuation routes and provide all necessary roadway improvements.

[PUBLIC FACILITIES COMPONENT]

F.S. § 163.3178(2)(i): A component which outlines principles for providing that financial assurances are made that required public facilities will be in place to meet the demand imposed by the completed development or redevelopment. Such public facilities will be scheduled for phased completion to coincide with demands generated by the development or redevelopment.]

Objective 4.3.2. - Public Infrastructure in the Coastal Planning Area CPA.

Minimize public expenditures on infrastructure for new development within the Coastal Planning Area CPA to limit replacement costs in case the event of damage from natural hazards. [See [Objectives 5.7.6., 10.1.2., 10.1.9.](#), and associated policies.]

Policy 4.3.2.1. Land development regulations will require new development and redevelopment in the CPA to provide infrastructure improvements to meet the applicable level-of-service standards. The Board of County Commissioners will limit the placement of County-funded infrastructure within the Coastal Planning Area which exceeds the demands in the CPA to meet only the needs permitted generated by approved development consistent with this Plan; except to provide for hurricane disaster evacuation needs and as allowed in accordance with [Policy 4.3.2.2](#).

Policy 4.3.2.2. ~~Prohibit the construction~~ Construction of County-funded public facilities within the CHHA is prohibited, except for the following:

- Public recreation consistent with natural resource preservation;
- ~~Maintenance of~~ Maintaining hurricane evacuation times;

- Facilities ~~which are~~ necessary for public health, safety, or resource restoration;
- Roadways shown on the **Future Traffic Circulation Map** or the **Major Thoroughfare Map** contained in the **Traffic Circulation Transportation Element** of the ~~Comprehensive~~ this Plan;
- Improvements required to maintain Level **of** Service standards;
- Port facilities consistent with the **Port Manatee Master Plan** and this ~~Comprehensive~~ Plan; and
- Projects ~~which are~~ of an overriding public interest as determined by the Board of County Commissioners.

~~Implementation Mechanism:~~

- ~~(a) Development of County department capital improvements budgets consistent with this policy.~~
- ~~(b) County input to the Sarasota-Manatee Metropolitan Planning Organization to discourage the inclusion of transportation improvements within the CEA unless such improvements are consistent with Policy 4.3.2.4.~~

Policy 4.3.2.3. Prohibit Manatee County ~~The Board of County Commissioners will not accept from accepting~~ responsibility for maintaining new roadways within the CHHA ~~except for those which are unless~~ consistent with **Policies 4.2.2.1. and 4.3.2.4.**

~~Implementation Mechanism:~~

- ~~(a) Review proposed developments to implement this policy.~~

Policy 4.3.2.4. Prohibit construction ~~Construction of new, or widening~~ improvement of existing, bridges linking the mainland to any island/key area within Manatee County ~~is prohibited unless such bridge or improvement is shown on the~~ **Future Traffic Circulation Map**. ~~The Board of County Commissioners will not support the Sarasota-Manatee Metropolitan Planning Organization including transportation improvements within the CEA on the Future Traffic Circulation Map and will coordinate with the Florida Department of Transportation to review all applications for bridge construction to ensure compliance.~~

~~Implementation Mechanism:~~

- ~~(a) Coordination with the Florida Department of Transportation to review all applications for bridge construction to ensure compliance with this policy.~~

Policy 4.3.2.5. The Board of County Commissioners will establish ~~Establish~~ a lower priority for the funding of public infrastructure within the CEA ~~as compared to~~ **over public infrastructure in** non-CEA areas, except where expenditures are necessary to:

- Alleviate dangerously overcrowded or otherwise hazardous roads;
- Replace or construct wastewater facilities to alleviate or prevent potential violations of potable water quality standards applicable to surface waters; and
- Provide recreational facilities unique to coastal sites.

Implementation Mechanisms:

- ~~(a) Internal coordination between departments during preparation of the Capital Improvements Projects budget to achieve policy compliance.~~

Policy 4.3.2.6. ~~The County Administrator will continue~~Continue ~~coordinate with state and local agencies to provide assistance to identified neighborhoods in the Coastal Planning Area which CPA that require more resilient housing,~~ through financial or technical assistance to improve sub-standard housing. ~~(See also Objective 6.1.4)~~(See Objective 6.1.4 and associated policies.)

Implementation Mechanism:

- ~~(a) Coordinate with state and local agencies to ensure policy compliance.~~

Policy 4.3.2.7. ~~The Administrator will ensure that adaptation to climate change impacts, especially SLR, are incorporated into the planning, siting, construction, maintenance, and replacement of public infrastructure to maximize the useful lifespan and return on investment.~~

Policy 4.3.2.8. ~~Public expenditures that subsidize new or expanded infrastructure in the CHHA will only be permitted to service density levels as determined by the FLUM and permitted by County regulations.~~

Policy 4.3.2.9. ~~Land development regulations for all new development, redevelopment, and infrastructure in the CHHA will provide that financial assurances are made that required public facilities will be in place to meet the demand imposed by completed development or redevelopment.~~

Objective 4.3.3. - Prior to the development of new infrastructure or other public facilities in the CHHA, determine that no other feasible sites exist outside that CHHA.

Policy 4.3.3.1. When growth demands expansion or renovation of existing infrastructure and other public facilities in the CHHA, first consider relocation outside the CHHA. Where no feasible alternative exists to construction, expansion, or renovation of existing infrastructure and other public facilities in the CHHA, all development must be floodproofed in accordance with land development regulations to minimize potential damage from impacts related to SLR.

Policy 4.3.3.2. Land development regulations will address and minimize the impacts of SLR and storm surge with strategic regulations that also protect shoreline ecological functions, allow water-dependent uses, and provide public access to water.

Policy 4.3.3.3. Land development regulations consistent with **Objective 4.3.3.** will address hardened erosion control structures and other strategies to reduce flood risk in coastal areas in accordance with the region's identified projection for SLR.

Policy 4.3.3.4. The County Administrator will consider projected climate impacts when developing and siting, or redeveloping infrastructure, to maximize longevity and resiliency.

Policy 4.3.3.5. The County Administrator will consider measures to protect or relocate infrastructure and public facilities in areas projected to be impacted by climate change and SLR, including elevating infrastructure and structures above forecasted storm surge height and base flood elevation (BFE).

REGULATORY & MANAGEMENT TECHNIQUES

F.S. § 163.3177(6)(g)4.: For those units of local government identified in s. 380.24, a coastal management element, appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of s. 163.3178(2) and (3). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government's decisions and program implementation with respect to the following objectives: 4. Avoid irreversible and irretrievable loss of coastal zone resources.]

GOAL – 4.43

GOAL – 4.2

Support Regional Efforts to Integrate Climate Change, Stormwater Management, and Bay Habitats into Planning Efforts to Balance Compatibility of Land Development in The Coastal Planning Area with Natural Resource Protection, in The Coastal Planning Area protect Protection of the Residents-Citizens and Property Within the Coastal Planning AreaCPA from the Physical and Economic Effects of Natural Disasters, and Restrict Development and Redevelopment that Would Damage or Destroy Coastal Resources.

Objective 4.4.1.4.3.1. - Development Type, Density and Intensity.

Limit development type, density and intensity within the Coastal Planning Area CPA and direct population and development to areas outside of the Coastal High Hazard AreaCHHA to mitigate the potential negative impacts of natural hazards in these areas.

Policy 4.4.1.1.4.3.1.1: Land development regulations will directDirect population concentrations away from the Coastal Evacuation Area (CEA).

Implementation Mechanism:

~~(a) Maintain requirements in the Manatee County Land Development Code consistent with this policy.~~

Policy 4.4.1.2.4.3.1.2: Land development regulations will limitLimit the density of new residential development within the FEMA FIRM Velocity Zones (Zones V) to a maximum of three (3) dwelling units per gross acre (du/ga) or to the maximum density shown on the Future Land Use Map for the area within the V-Zones V, whichever is less. Any reduction in residential development potential within the FEMA Velocity Zones V resulting from the limit of three (3) du/ga within that area may be re-captured on the subject site in areas outside of the velocity zoneZones V where consistent with other provisions of this Comprehensive Plan.

Implementation Mechanism:

~~(a) Maintain regulations in the Land Development Code to implement this policy.~~

Policy 4.4.1.3.4.3.1.3: Land development regulations will requireRequire that non-industrial redevelopment activities within the FEMA Velocity Zones V be limited to the density/intensity in existence for the development site prior to the effective date of the Comprehensive this Plan; or be limited to three (3) dwelling units per gross acre du/ga or the maximum Floor Area Ratio associated with the Future Land Use designation(s) on the project redevelopment site, whichever is less. This provision shall only apply applies only to those portions of the site within the Velocity Zones V and not to the entire redevelopment site. All such

redevelopment activities ~~shall~~must also be subject to compliance~~comply~~ with other applicable goals, objectives, and policies of this ~~comprehensive Plan~~plan, and all applicable development regulations.

~~Implementation Mechanism:~~

~~(a) Maintain regulations in the Land Development Code to implement this policy.~~

Policy 4.4.1.4.4.3.1.4. ~~Land development regulations will limit~~Limit industrial development~~uses~~ in the CHHA to the maximum intensity allowed under the Industrial-Light future land use category and prohibit any generation, storage, or disposal in excess of 45.4 pounds of hazardous~~;~~ or 0.45 pounds of acutely hazardous~~;~~ waste or substances per month for any use in the CHHA. Industrial development~~uses~~ within and in close proximity to Port Manatee ~~shall be~~are exempt from this policy so long as ~~industry~~industrial uses storing above the threshold quantities of hazardous~~;~~ or acutely hazardous~~;~~ waste or substances ~~take steps to~~minimize the potential for release of this material~~hazardous or acutely hazardous waste or substance~~ in a storm event.

~~Implementation Mechanism:~~

~~(a) Review of all commercial and industrial uses in the CHHA to ensure compliance with this policy.~~

Policy 4.4.1.5.4.3.1.5. ~~Maximize the~~Land development regulations will provide criteria for clustering of uses in the CHHA, and ~~Coastal High Hazard Area.~~

(1) ~~Clustering shall be promoted~~Promote clustering and transfer of development and redevelopment entitlements to properties landward of the CHHA, and dedicating lands from which such entitlements are transferred as Public Conservation Easements or County lands to protect coastal resources from the impacts of dock accesses, runoff from impervious surface, and to minimize infrastructure subject to potential storm damage.

(2) ~~The Board of County Commissioners may waive net~~Net density limits may be waived for appropriately clustered development and redevelopment projects.

Alternative:

(2) ~~Net density limits for appropriate clustered projects.~~

(3) For ~~project~~sites located partially within the CHHA, ~~development shall be encouraged~~encourage to transfer of proposed development and redevelopment from areas within the CHHA to portions of the site outside of the CHHA.

[See policies under **Objective 2.3.1** of the Future Land Use Element and associated policies.]

~~Implementation Mechanism:~~

~~(a) Maintain provisions in the Land Development Code to encourage clustering of density/intensity. [MEMO #10 ITEM 1.C]~~

Policy 4.4.1.6.4.3.1.6. ~~Prohibit the development of new~~New mobile home development or redevelopment projects is prohibited within the Coastal Planning Area CPA. [See **Policy 6.1.1.2.**]

~~Implementation Mechanism:~~

~~(a) Maintain regulations in the Land Development Code to implement this policy.~~

Policy 4.4.1.7.4.3.1.7. ~~Prohibit the siting of new~~New acute care medical facilities are prohibited within the Coastal Evacuation Area CPA.

Implementation Mechanism:

(a) — ~~Maintain regulations in the Land Development Code to implement this policy.~~

~~**Policy 4.4.1.8.4.3.1.8.** Maintain Land development regulations will provide the minimum construction setback line for all areas of the Coastal Planning Area CPA which that have not been delineated for a Coastal Construction Control Line.~~

Implementation Mechanism:

(a) — ~~Enforce setbacks consistent with this policy.~~

~~**Policy 4.4.1.9.** The County Administrator will utilize the regional hurricane evacuation studies, updated from time to time by the State Division of Emergency Management employing the National Hurricane Center methodology for modeling storm surge.~~

[CCMP OPTION 1: GENERAL LANGUAGE:]

~~**Policy 4.4.1.10.** Land development regulations will require new development and redevelopment to enhance climate change mitigation through conservation, restoration, and sustainable use of blue carbon ecosystems, e.g., mangroves, salt marshes, and seagrasses. [See [Objective 4.1.7.](#) and associated policies.]~~

[BEACH & DUNE SYSTEM COMPONENT

F.S. § 163.3178(2)(e): A component which outlines principles for protecting existing beach and dune systems from human-induced erosion and for restoring altered beach and dune systems.]

Objective 4.4.2. – Outline principles for protecting existing beach and dune systems from human-induced erosion and for restoring altered beach and dune systems

Policy 4.4.2.1. Land development regulations will protect beach and dune systems by regulating coastal construction and providing coastal resource best management practices.

Policy 4.4.2.2. Land development regulations will provide requirements to preserve and restore native beach and dune vegetation that stabilizes beach and dune systems and provides protection against storm impacts and develop additional vegetated dunes.

Policy 4.4.2.3. Land development regulations will require dune restoration and stabilization for all beachfront property development.

Policy 4.4.2.4. The County Administrator will coordinate with the incorporated municipalities on beach restoration and renourishment efforts and support ongoing protection and enhancement of the beach and dune systems.

Policy 4.4.2.5. Land development regulations will prohibit public or private activities that would increase erosion or otherwise deteriorate the beach and dune systems.

Policy 4.4.2.6. Land development regulations will limit beach maintenance and raking to minimize detrimental impacts upon native flora and fauna and the functions of the beach and dune system.

Policy 4.4.2.7. Motorized vehicles are prohibited on the beach and dune system with certain permitted exceptions:

1. Emergency vehicles; and
2. Vehicles associated with beach nourishment, environmental maintenance, environmental monitoring, or conservation purposes.

Policy 4.4.2.8. Land development regulations will provide standards for armoring; construction of groins, seawalls, and other erosion control structures; dredge and fill activities; pier and dock construction; and public access.

Policy 4.4.2.9. The Administrator will support municipal efforts to acquire additional public beach accesses and mobility facilities in the incorporated areas of the county.

REDEVELOPMENT COMPONENT

F.S. § 163.3178(2)(f): A redevelopment component that outlines the principles that must be used to eliminate inappropriate and unsafe development in the coastal areas when opportunities arise. The component must:

Objective 4.4.3. - Post Disaster Recovery.

Identify and prioritize cleanup and recovery activities to facilitate an expeditious return to normalcy in the event of a major storm event to provide for quick recovery in case of a natural disaster.

Policy 4.4.3.1. The Administrator will prioritize repair, cleanup actions, and necessary permitting, and repair activities following a natural disaster, utilizing the following procedures:-

Implementation Mechanism(s):

- (a) ~~County~~ Damage Assessment Teams established in the ~~Manatee County Comprehensive Emergency Plan~~ CEMP will collect collection of initial storm damage data following a disaster event, and ~~presentation of~~ present this data to the Board of County Commissioners for prioritization of recovery activities.
- (b) ~~Prioritization of~~ Prioritize building permit issuance after a disaster event to ensure that those structures that can be quickly restored to use are issued permits first and that structures that require the most time and materials to restore are issued permits last.
- (c) Activate the emergency debris clearance plan ~~as soon as possible~~.
- (d) ~~Coordination~~ Coordinate with the ~~Manatee County~~ Port Authority to prioritize essential infrastructure repair and reconstruction.
- (e) Coordinate activation of First-In Teams for emergency debris clearance of identified critical routes.
- (f) Train Recovery Teams of ~~Manatee County employees~~ to assist in all areas of disaster recovery, such as volunteer coordination, safety, and other necessary post-disaster duties that will be needed post disaster.

Policy 4.4.3.2. Whenever feasible, ~~relocate structures located in the CEA which that~~ have incurred damage ~~from a natural disaster event, where damage is greater than fifty (50) percent (50%) of their assessed value from a natural disaster event, where damage is,~~ must be relocated, together with their density/intensity entitlements, to new locations ~~that are~~ outside of the CEA. Alternatively, utilize improved construction or site development practices during redevelopment in a manner consistent with ~~Manatee County Land Development Regulations and development regulations~~ to minimize the risk of recurrent damage.

Implementation Mechanism:

- (a) ~~Review of all building permits for property within the CEA for which the reconstruction of a structure is proposed to ensure application of this policy.~~

Policy 4.4.3.3. ~~The Administrator will continue to coordinate with the incorporated municipalities to establish best practice development and redevelopment principles, site development techniques, and engineering strategies to eliminate inappropriate and unsafe development in coastal areas when opportunities arise.~~

Commented [GM1]: Probably a separate policy.

[F.S. § 163.3178(2)(f)1.: Include development and redevelopment principles, strategies, and engineering solutions that reduce the flood risk in coastal areas which results from high-tide events, storm surge, flash floods, stormwater runoff, and the related impacts of sea-level rise.]

[SHORELINE USE COMPONENT]

F.S. § 163.3178(2)(g): A shoreline use component that identifies public access to beach and shoreline areas and addresses the need for water-dependent and water-related facilities, including marinas, along shoreline areas. Such component must include the strategies that will be used to preserve recreational and commercial working waterfronts as defined in s. 342.07.]

Objective ~~4.4.4.2.1.~~ - Water-Dependent and Other Uses.

Give priority to the siting and development of water-dependent uses within the ~~Coastal Planning Area CPA~~, as compared with other shoreline uses and provide for compatibility of water-dependent and other uses in the ~~Coastal Planning Area CPA~~ to protect natural shorelines, habitat, and water quality. ~~[See Objectives 2.9.3., 7.1.1., and associated policies.]~~

Policy 4.4.4.1.4.2.1.1. ~~Shoreline uses shall be~~ prioritized according to the following list. ~~Uses are prioritized in descending order with most preferable uses listed first and least preferable uses listed last.~~

- (1) ~~Water-dependent conservation of uses such as fish, shellfish, and marine resource production; natural coastal habitat protection, shoreline stabilization, compatible passive recreational facilities, and projects~~ uses that enhance public safety; and water dependent industrial uses associated with port facilities;
- (2) ~~Water-related uses such as certain~~ utilities, commercial, and industrial uses;
- (3) ~~Water-enhanced uses such as certain~~ recreation and commercial uses;
- (4) ~~Non-water dependent and non-water enhanced uses which that~~ result in an irretrievable commitment of coastal resources.

Implementation Mechanism:

- (a) ~~Determination of priority ranking for developments proposing to locate within the Coastal Planning Area.~~

Policy 4.4.4.2.4.2.1.2. Land development regulations will Require require that marina-type uses meet the following criteria, and are consistent with the following guidelines:

CRITERIA:

- (1) ~~Shall prepare~~ Prepare hurricane preparedness plans;
- (2) ~~Shall prepare~~ Prepare, if appropriate, a fuel management/spill contingency plan which ~~shall that~~ describes methods to be used in dispensing fuel and all procedures, methods, and materials to be used in the event of a fuel spill;
- (3) ~~Shall be encouraged to locate~~ Locate in areas which ~~that~~ have been altered by man, particularly when such areas have historically been used for marine-related activities;
- (4) ~~Shall demonstrate~~ Demonstrate sufficient upland area to accommodate all needed support facilities; and
- (5) ~~Shall not have~~ Have no significant adverse impact on established commercial fishing activities;

GUIDELINES:

- (1) Preferably ~~should be~~ located outside any Aquatic Preserve and any approved, or conditionally approved, shellfish harvesting area.

Implementation Mechanism:

- (a) ~~Review all requests for marina-type development to ensure compliance with this policy.~~

Policy 4.4.4.3.4.2.1.3. Prohibit the siting of new New wastewater treatment plants are prohibited within the Coastal Planning Area CPA, and Land development regulations will ensure that any expansion of existing facilities ~~will~~ does not degrade water quality in coastal receiving waters.

Implementation Mechanism:

- (a) ~~Review all applications for wastewater treatment plant expansions and any proposed outfall into coastal receiving waters for compliance with this policy.~~

Policy 4.4.4.4.2.1.4. Establish Land development regulations will establish buffer zones from all state-designated Aquatic Preserves and Outstanding Florida Waters.

Implementation Mechanism:

- (a) ~~Development of land development regulations consistent with this policy.~~

Policy 4.4.4.5.4.2.1.5. The County Administrator will continue Continue to coordinate with the Natural Resources Conservation Service, Manatee River Soil and Water Conservation District, Coastal and Heartland National EP, and Sarasota Bay and Tampa Bay and Sarasota Bay National Estuary Programs EPs to encourage all agricultural activities that are contiguous to, or that have runoff discharging directly into, Charlotte Harbor, Sarasota Bay, Tampa Bay, or Terra Ceia Aquatic Preserve, ~~Tampa Bay, or Sarasota Bay,~~ implement or continue a program of

~~Best Management Practices~~ best management practices to reduce nitrogen and phosphorous runoff.

Implementation Mechanism:

~~(a) Coordination with the Natural Resources Conservation Service, the Manatee River Soil and Water Conservation District, and the appropriate EPC.~~

Policy 4.4.4.6.4.2.1.6. ~~Prohibit adverse~~ Adverse impacts on coastal resources from industrial development are prohibited except where such impact is unavoidable and furthers ~~in the interest of~~ an overriding public interest as determined by the Board of County Commissioners.

Policy 4.4.4.7. The Administrator will identify public access to beach and shoreline areas and address the need for water-dependent and water-related facilities, including marinas, along shoreline areas, including strategies to preserve commercial and recreational working waterfronts as defined in F.S. § 342.07. [See Objective 8.2.1 and associated policies.]

Objective 4.4.5. -

Adopt and promulgate development and redevelopment principles and engineering strategies that reduce coastal area flood risks resulting from flash floods, high-tide events, storm surge, stormwater runoff, and related impacts of climate change and SLR, and support adaptation strategies that promote long-term resilience and diversity of critical coastal habitats. [See Objective 3.3.1. and associated policies.]

Policy 4.4.5.1. Land development regulations will not permit irreversible and irretrievable loss of coastal zone resources.

[F.S. § 163.3177(6)(g)5.: For those units of local government identified in s. 380.24, a coastal management element, appropriately related to the particular requirements of paragraphs (d) and (e) and meeting the requirements of s. 163.3178(2) and (3). The coastal management element shall set forth the principles, guidelines, standards, and strategies that shall guide the local government's decisions and program implementation with respect to the following objectives: 5. Use ecological planning principles and assumptions in the determination of the suitability of permitted development.]

Policy 4.4.5.2. Land development regulations will employ ecological planning principles and assumptions that allow coastal ecosystems to adapt to and migrate under new climate regimes in determining the suitability of future development and redevelopment in the coastal zone. [See Objective 3.3.2. and associated policies.]

[F.S. § 163.3178(2)(j): An identification of regulatory and management techniques that the local government plans to adopt or has adopted in order to mitigate the threat to human life and to control proposed development and redevelopment in order to protect the coastal environment and give consideration to cumulative impacts.]

Policy 4.4.5.3. The Board of County Commissioners will adopt, regularly review, and revise regulations to reduce natural hazard impacts to real property—including but not limited to flooding from stormwater runoff, storm surge, SLR, and/or high tide events— consider cumulative impacts and employ regulatory and management techniques to mitigate the threat to human life and to control proposed development and redevelopment to protect the coastal environment.

[F.S. § 163.3178(7): Each county shall establish a county-based process for identifying and prioritizing coastal properties so they may be acquired as part of the state’s land acquisition programs. This process must include the establishment of criteria for prioritizing coastal acquisitions which, in addition to recognizing pristine coastal properties and coastal properties of significant or important environmental sensitivity, recognize hazard mitigation, beach access, beach management, urban recreation, and other policies necessary for effective coastal management.]

Policy 4.4.5.4. The Administrator will cooperate and coordinate with the incorporated municipalities in the county-based process for identifying and prioritizing coastal properties for the state's land acquisition programs.

[PORT MANATEE COMPONENT

F.S. § 163.3178(2)(k): A component which includes the comprehensive master plan prepared by each deepwater port listed in s. 311.09(1), which addresses existing port facilities and any proposed expansions, and which adequately addresses the applicable requirements of paragraphs (a)-(k) for areas within the port and proposed expansion areas. Such component shall be submitted to the appropriate local government at least 6 months prior to the due date of the local plan and shall be integrated with, and shall meet all criteria specified in, the coastal management element. “The appropriate local government” means the municipality having the responsibility for the area in which the deepwater port lies, except that where no municipality has responsibility, where a municipality and a county each have responsibility, or where two or more municipalities each have responsibility for the area in which the deepwater port lies, “the appropriate local government” means the county which has responsibility for the area in which the deepwater port lies. Failure by a deepwater port which is not part of a local government to submit its component to the appropriate local government shall not result in a local government being subject to sanctions pursuant to ss. 163.3167 and 163.3184. However, a deepwater port which is not part of a local government shall be subject to sanctions pursuant to s. 163.3184. See also 163.3177(3)-(6).

See 2016 Port Manatee Master Plan Update]

[NO PROPOSED CHANGES]

EXHIBIT C
CONSERVATION ELEMENT

[* * *]

Objective 3.2.2. - Surface and Ground Water.

Maintain or enhance the quality and transparency of surface waters and protect groundwater quality through natural resource and land use programs to:

- Contribute to continued cleanup and pollution reduction goals of Tampa Bay and Sarasota Bay;
- Ensure clean water for passive recreation;
- Maintain water quality for potable wells;
- Enhance natural aquatic habitat; and
- Ensure that adequate water supplies meet population demand for a least a ten-year planning period, considering the Southwest Florida Regional Water Supply Plan, and Manatee County Water Supply Facilities Work Plan.

[See [Policy 4.1.7.6.](#)]

[* * *]

Objective 3.3.1. - Wetlands Protection.

Preserve and protect existing, viable wetland systems to:

- Maintain control of flooding and erosion through storage of agricultural and urban runoff in wetland areas;
- Achieve biological filtration of pollutants associated with urban and agricultural runoff by wetlands;
- Maintain protection of coastal areas from tidal storm surges through maintaining wetlands as a natural buffer;
- Achieve water recharge of surficial aquifers through wetland areas;
- Maintain unique habitat functions of wetland areas as homes and critical breeding areas for many animal and plant species;
- Maintain essential chemical and energy cycles facilitated by wetlands; and
- Maintain educational and recreational opportunities provided by wetlands.

[See [Objective 4.4.5](#) and associated policies and [Policy 4.1.5.2.](#)]

Policy 3.3.1.1. Prohibit removal, alteration, or encroachment within wetlands except in cases where no other practical alternatives exist that will permit a reasonable use of the land or where there is an overriding public benefit interest. Such determination will require completion of impact avoidance and minimization analyses which clearly demonstrate the necessity of the proposed impact. [See [Policy 5.1.5.2.](#)]

[* * *]

Objective 3.3.2. - Wildlife and Upland Habitat Protection.

Protect and preserve native wildlife, endangered, threatened, and species of special concern, and native upland habitat through appropriate acquisition, restoration, and development controls to provide:

- Areas for passive recreation and enhanced quality of life;
- Large pervious areas for improved water quality and groundwater recharge;
- Species biodiversity; and
- Natural area greenways.

[See [Objective 4.1.5](#) and [Policy 4.4.5.2.](#)]

[* * *]

Objective 3.4.1. - Hazardous Substances and Waste Management.

Ensure that all hazardous substances and wastes are properly managed and disposed to minimize the risk of spills or accidents that may threaten the health of County residents. [See [Objective 4.2.13](#) and associated policies.]

[* * *]

EXHIBIT D

FUTURE LAND USE ELEMENT

[* * *]

Objective 2.2.1. - Future Land Use Categories.

Establish and define future land use categories to be shown on the Future Land Use Map to guide the location of land uses, limit the general range of uses, and to provide limits on densities and intensities. [\[See Objective 4.4.4 and associated policies.\]](#)

[* * *]

Objective 2.3.1. - Clustering and Density/Intensity Transfers to Preserve Natural Resources.

Promote the clustering of uses and the transfer of density/intensity to:

- Protect sensitive environments while preserving development potential;
- Decrease impervious surface in important groundwater recharge areas;
- Decrease runoff to potable water reservoirs;
- Limit development in areas subject to natural disasters which may cause damage to life and/or property;
- Preserve endangered and threatened species;
- Preserve open areas to increase light, air, and quality of life;
- Decrease development costs by limiting infrastructure; and
- Decrease maintenance costs for new infrastructure. [\[See also Policy 5.2.1.5\]](#)

[\[See Objective 4.2.13 and associated policies, and Policies 4.4.1.5 and 5.2.1.5.\]](#)

[* * *]

Objective 2.3.3. - Floodplain Management.

Direct development away from areas subject to flooding to reduce risks to life and property and to minimize costs to County residents for replacing damaged infrastructure. [\[See Objective 4.2.13 and associated policies.\]](#)

[* * *]

Objective 2.9.3. - Innovative Community Planning.

Establish innovative community planning efforts. [\[See Objective 4.4.4 and associated policies.\]](#)

[* * *]

Objective 2.14.1. - Establish specific policies restricting the location and intensity of certain developments in order to preserve and protect neighborhoods from encroachment by incompatible uses and intensities, ensure adequate provision of infrastructure, and other reasons the Board of County Commissioners may decide warrant a specific area policy. [\[See Policy 4.1.8.4., and Objective 4.4.1.4.1.4., and associated policies.\]](#)

[* * *]

EXHIBIT E

TRANSPORTATION ELEMENT

[* * *]

Objective 5.7.6. - Public Expenditures in Coastal High Hazard Areas.

Public expenditures shall not be used to support the permanent concentration of residential populations at the Port. [\[See Objective 4.3.2 and associated policies.\]](#)

[* * *]

DRAFT

EXHIBIT F
HOUSING ELEMENT

[**]

Objective 6.1.1. - Private Sector Delivery.

Maintain a flexible regulatory process ~~which~~ that assists the private sector in the delivery of a variety of housing products.

Policy 6.1.1.1. Permit a variety of appropriate dwelling unit types and sizes in all residential future land use categories, subject to compliance with other goals, objectives, and policies of this ~~Comprehensive Plan~~.

Policy 6.1.1.2. Permit consideration of mobile homes in all future land use categories allowing residential development on a variety of lot sizes, if compatible with surrounding development unless otherwise prohibited by this Plan. [See [Policy 4.4.1.6.](#)]

[**]

Objective 6.1.4. - Sub-standard Housing.

Continue to reduce the number of sub-standard housing units. [See [Policy 4.3.2.6.](#)]

[**]

DRAFT

EXHIBIT G

HISTORIC AND CULTURAL ELEMENT

[* * *]

Objective 7.1.1. - Historically Significant Neighborhoods.

Identify, preserve, and protect historically significant neighborhoods to:

- (a) Preserve the special character of existing residential uses;
- (b) Promote preservation of local neighborhood heritage;
- (c) Provide historical continuity for future residents and visitors;
- (d) Protect or improve property values; and
- (e) Promote pride in significant local neighborhoods.

[See [Objective 4.4.4](#) and associated policies.]

[* * *]

DRAFT

EXHIBIT H

RECREATION AND OPEN SPACE ELEMENT

[* * *]

Objective 8.2.1. - Public Access.

Provide appropriate public access for ~~residents~~ citizens of all ages and physical abilities, and ensuring compatibility with natural resource protection to allow all ~~residents~~ citizens the opportunity to enjoy these recreational resources. [See Policy 4.4.4.7.]

[* * *]

GOAL - 8.3

Available Natural Resource Areas to Meet the Need for Quiet Passive Enjoyment of Natural Resources, Hunting, Relaxation and Enjoyment of Tranquil, Open Green Spaces.

Objective 8.3.1. - Conservation and Open Space.

Protect Conservation and open space lands from incompatible uses to maintain the function and value of open space lands as habitat for wildlife, promote unique communities, and for passive recreation. [See Objective 4.1.5 and associated policies.]

[* * *]

Policy 8.3.1.2. Identify and evaluate the following undeveloped lands for acquisition for use as public areas suitable for passive recreation consistent with public access and natural resource protection:

- (a) Areas adjacent to bays, rivers, lakes, the Gulf of Mexico, and
- (b) Representative areas of upland or coastal habitat.

[See Objective 4.2.13 and associated policies.]

[* * *]

EXHIBIT I

CAPITAL IMPROVEMENTS ELEMENT

[**]

Objective 10.1.2. - Capital Improvements Prioritization Criteria.

Prioritization of capital improvement projects in a manner that achieves and maintains adopted Level of Service standards within the shortest time frame possible, while maintaining and protecting the County's investment in existing capital facilities. [See [Objective 4.3.2](#) and associated policies.]

[**]

Objective 10.1.9 - Coastal Infrastructure.

Limiting public investments in the Coastal High Hazard Area to those necessary or those designed to minimize loss of public investment. [See [Objective 4.3.2](#) and associated policies.]

[**]

DRAFT

PERIL OF FLOOD

Regional Standards & Best Practices Checklist



Photo: Bill Jones



[Introduction Paragraph / Acknowledgements]

LAND USE POLICY TOOL | APPLICATION TO HAZARD VULNERABILITY

Comprehensive Plan

The community's vision for its future and plan for realizing that vision addresses all statutory requirements and includes annexes, components, elements, etc., addressing:

- All-Hazards Mitigation
- Floodplain Management
- Evacuation
- Emergency Response
- Continuity of Operations
- Disaster Recovery
- Post-Disaster Redevelopment
- Capital Improvements
- Economic Development
- Coastal Management
- Shoreline Restoration
- Open Space
- Stormwater Management
- Historic Preservation

Development Regulations

- Permitted Land Use
Provision regulating the types of land use (e.g. residential, commercial, industrial, open space, etc.) permitted in areas of community; may be tied to land development regulations
- Density of Land Use
Provision regulating density (e.g. units per acre); may be tied to land development regulations
- Subdivision Regulations
Provision controlling the subdivision of parcels into developable units and governing the design of new development (e.g. site storm water management)
- Zoning Overlays
Provision to use zoning overlays that restrict permitted land use/ density in hazardous areas; may be special hazard zones or sensitive open space protection zones
- Setbacks or Buffer Zones
Provision requiring setbacks or buffers around hazardous areas (e.g. riparian buffers and ocean setbacks)
- Cluster Development
Provision requiring clustering of development away from hazardous areas, such as through conservation subdivisions

Land Acquisition

- Acquire Land & Property
Purchase land/property in hazard area
- Open Space or Easement Requirement/Purchase
Provision encouraging open space purchase by the community or open space easements as an element of development approval

Density Transfer Provisions

- Transfer/Purchase of Density Entitlements
Provision for transferring density entitlements to control density; maybe transfer of density entitlement or purchase of density entitlements

Financial Incentives & Penalties

- Density Bonuses Density bonuses such as ability to develop with greater density in return for dedication or donation of land in areas subject to hazards
- Tax Abatement Tax breaks offered to property owners and developers who use mitigation methods for new development
- Impact /Special Study/ Protection Provision requiring impact fees, special study fees, or protection fees for development in hazardous areas; fees could cover costs of structural protection

Land Use Analysis & Permitting

- Land Suitability Hazards are one of the criteria used in analyzing and determining the suitability of land for development
- Site Review Provision requiring addressing hazard mitigation in process of reviewing site proposals for development
- Design/Construction/Guidelines/ Requirements Guidelines or requirements that apply to the design or construction of developments in hazard areas

Public Facilities (including Public Housing)

- Siting Provision to site public facilities, including municipal buildings and public housing, out of hazard areas
- Sizing/Capacity Provision limiting capacity of public facilities, including public housing, in hazard areas to cap amount of development

Post-Disaster Reconstruction Decisions

- Development Moratorium Provision imposing a moratorium on development for a set period of time after a hazard event to allow for consideration of land use change
- Post-Disaster Land Use Change Provision related to changing land use regulations following a hazard event; may include redefining allowable land uses after a hazard event
- Post-Disaster Capital Improvements Provision related to adjusting capital improvements to public facilities following a hazard event

Capital Improvements

- Infrastructure "Hardening or "Weatherproofing" Provision encouraging or requiring development in hazard zones to increase structural resilience to hazards
- Elevating Provision pertaining to the physical elevation of structures in hazard zones
- Drainage Improvements or Flood Control Provision that pertains to drainage or flooding issues within the community
- Ecosystem Enhancement Provision to improve or preserve the functioning of the natural environment within the community
- Slope/Dune Stabilization Provision that pertains specifically to stabilization of slopes or dunes or seeks to control erosion

Addressing Risk & Vulnerability

- 1. The Community has considered the following risks:
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 2. The Community has identified and mapped the past extent of the following coastal hazards based on historical information, existing plans and reports, and scientific and local knowledge.
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 3. The Community uses plans to identify the damage and cost of previous storms, floods, or erosion.
- 4. The Community tracks repetitive loss properties within the National Flood Insurance Program (NFIP).
- 5. The Community defines historic rates of local sea-level rise (SLR) through tide-gauges or research.
- 6. Have staff trained in mapping or monitoring the following:
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 7. Use maps and geo-spatial data to define and describe the future extent of the following coastal hazards:
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 8. Use plans to estimate future financial losses from SLR.
- 9. Evaluate property values for properties at-risk from SLR.
- 10. Use mapping and geo-spatial data to assess the coastal hazard vulnerability of the following community assets:
 - Critical facilities (hospitals, fire stations, etc.)
 - At-Risk Populations (elderly, low-income, disabled)
 - Buildings (number and type of structures)
 - Infrastructure (roads, schools, hospitals, public works, etc.)
 - Natural resources (Critical Areas, unique ecosystems and habitats, etc.)
 - Historical resources (historic districts, propertiesm landmarks)
 - Cultural resources (libraries, museums, archeological)
 - Economic resources (business districts, factories, tourism areas)
- 11. Have staff trained in the use of FEMA's HAZUS-MH.
- 12. Share risk and vulnerability assessments with these people and agencies:
 - Planning staff
 - Public Work officials
 - Transportation planners
 - Emergency Management
 - Elected officials
 - General Public

Land-Use Planning

- 1. Participate in the FEMA NFIP Community Rating System (CRS)
- 2. Include goals, objectives, policies, and strategies in the coastal management element of the comprehensive plan to reduce coastal hazard vulnerability.
 - Discourage development in vulnerable areas and identify specific land use tools to respond to coastal hazard threats.
- 3. Target frequently flooded areas to be planned/zoned for open space/recreation, easements, or acquisition.
- 4. Include goals, objectives, policies, and strategies in the comprehensive plan regulating development within areas vulnerable to coastal hazards.
- 5. Include goals, objectives, policies, and strategies in the comprehensive plan limiting development within the floodplain.
- 6. Include goals, objectives, policies, and strategies in the comprehensive plan that promote infill outside vulnerable areas.
- 7. Include goals, objectives, policies, and strategies in the comprehensive plan that promote infill outside vulnerable areas.
- 8. Include goals, objectives, policies, and strategies to address the impacts of climate change on drinking water availability in the General Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element.
- 9. Adopt a floodplain management plan.
- 10. Extend planning horizons to incorporate potential long-term coastal hazards such as:
 - Sea-level rise (SLR)
 - Coastal erosion
 - Increased storm activity and severity
- 11. Include goals, objectives, policies, and strategies to address relocation, abandonment, and protection of infrastructure at risk from coastal flooding or other coastal hazards in the General Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element.
- 12. Have a certified floodplain manager (CFM®) on staff.
- 13. Have a floodplain manager or planner who participates in one of more of the following organizations:
 - Association of State Floodplain Managers (ASFPM) or Florida Floodplain Managers Association (FFMA)
 - American Planning Association (APA) or Florida APA chapter
 - American Society of Civil Engineers (ASCE) or state or local section of ASCE
 - American Public Works Association (APWA)
- 14. Have technical and computer mapping capabilities.
- 15. Adopt the current editions of the Florida Building Code
- 16. Conducted a build-out analysis using existing zoning.
 - Evaluate the build-out analysis using existing zoning.
- 17. Require disclosure statements for vulnerable coastal properties.
- 18. Establish a timeline or strategic plan for the relocation, abandonment, or protection of buildings in areas at risk to coastal flooding or other coastal hazards.
- 19. Require additional elevation of residential, nonresidential, and public buildings and infrastructure to be above base flood elevations--also known as freeboard--within the 100-year floodplain.
- 20. Require flood-proofing of residential, nonresidential, and public buildings and infrastructure within the 100-year floodplain.
- 21. Restrict rebuilding of structures destroyed by coastal hazards.
 - Required rebuilding--where allowed--to be more resilient to coastal hazard impacts (e.g., elevated, smaller footprint, or set back from the coast).
- 22. Use an early flood warning system.
 - Support citizen action groups that alert at-risk property owners during an event, educate residents about evacuation routes, and help residents evacuate prior to an event.

All-Hazard Mitigation Planning

- 1. Have a current FEMA-approved All-Hazard Mitigation Plan.
- 2. The All-Hazard Mitigation Plan describes past mitigation efforts (i.e., shoreline stabilization, land acquisition, etc.), along with their costs and effectiveness.
- 3. The All-Hazard Mitigation Plan provides a general explanation of the environmental, social, and economic consequences of failing to address coastal hazards.
- 4. The community acquires repetitive loss structures.
 - The community currently works to acquire them.
- 5. The All-Hazard Mitigation Plan include maps that indicate local coastal hazard risks.
- 6. The All-Hazard Mitigation Plan identifies strategies to manage the following coastal hazards as potential threats:
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 7. The All-Hazard Mitigation Plan identifies opportunities to incorporate hazard mitigation into existing planning mechanisms (e.g., land use planning, capital investments, shoreline restoration projects).
- 8. The All-Hazard Mitigation Plan identifies the federally-required update frequency (five (5) years).

Emergency Response & Disaster Preparedness

- 1. The community has first-hand experience with disaster recovery within the last ten (10) years.
- 2. The community has a communication system to use before, during, and after a disaster?
- 3. The community has assessed the vulnerability of major evacuation routes to the following coastal hazards:
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 4. The community has assessed the location of shelters in relation to coastal hazards, including access considerations:
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 5. The community has evaluated their critical facilities, such as hospitals, fire stations, and police stations, for vulnerability to the following coastal hazards including access considerations:
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 6. The community's emergency management staff participates in the community's comprehensive planning process.

Infrastructure & Critical Facilities

- 1. The community have a capital improvements plan and equivalent budgetary process.
- 2. Professional planners, engineers, and/or certified floodplain managers are involved in the capital improvements planning process.
- 3. The capital improvements plan identify the frequency necessary to update the plan.
- 4. The community has a detailed inventory, including elevations, of the structural components of emergency access routes (e.g., roads, bridges, and culverts).
- 5. The community has procedures for regularly examining structural components of emergency access routes for damage.
- 6. Include goals, objectives, policies, and strategies in the comprehensive plan that promote infill outside vulnerable areas.
- 7. When critical transportation infrastructure is repaired, the following are considered to reduce future flood damages:
 - Elevating roads above predicted flood levels
 - Moving roads landward as erosion occurs
 - Incorporating future flooding and sea-level rise into culvert size and placement
- 8. When upgrading existing community infrastructure, the capital improvements plan considers the impact of the following coastal hazards:
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 9. When planning new community infrastructure, the capital improvements plan considers the impact of the following coastal hazards:
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 10. The community has a policy that identifies at what point it will stop upgrading existing community infrastructure to withstand increased coastal hazards and sea-level rise (SLR).
- 11. Maps (or other geo-spatial tools like GIS) are used to spatially define the vulnerability of the following to coastal hazards:
 - 11.1 Roads
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
 - 11.2 Public buildings (schools, hospitals, fire stations, etc.)
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
 - 11.3 Public services and utilizes (wastewater treatment, water distribution, power transmission, etc.)
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge

Natural Resources

- 1. Potential conservation land acquisitions and easements are assessed for their vulnerability to coastal hazards.
- 2. Potential conservation land acquisitions and easements are assessed for their natural protective properties, such as storm surge buffer, flood water management, and erosion control.
- 3. Potential conservation land acquisitions and easements are assessed for their ability to provide long-term suitable habitat.
- 4. Conservation land acquisition or easement programs within the community direct funding to areas identified as the most ecologically valuable land.
 - 4.1 The community has assessed the future extent of these ecologically valuable areas within the community, with a tool such as the Sea Level Affecting Marshes Model (SLAMM)?
- 5. The Conservation Element of the Comprehensive Plan:
 - 5.1 Addresses open space conservation as a way to minimize the effect of coastal hazards
 - 5.2 Is regularly evaluated and updated in coordination with the Comprehensive Plan
- 6. Public open space is maintained in a manner that provides protection from coastal hazards.
- 7. The Comprehensive Plan designates areas requiring special protection (such as wetlands, beaches, and floodplains).
- 8. The Conservation Element of the Comprehensive Plan includes coastal hazards and climate change or the comprehensive plan has a sea-level rise (SLR) planning element that addresses potential changes in sensitive areas.
- 9. The community considers the following threats in the Conservation Element of the Comprehensive Plan:
 - Coastal erosion and/or shoreline change
 - Sea-level rise
 - Coastal flooding
 - Storm surge
- 10. The community has local ordinances or land development regulations to protect the following from development or disturbance:
 - Dunes
 - Bluffs
 - Eroding Cliffs
 - Wetlands
 - Beaches
- 11. The General Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element in the Comprehensive Plan considers the impacts of coastal hazards (e.g., salt water intrusion) on the availability of freshwater for drinking water and living resources.
- 12. The community has protective measures in place for aquifer recharge areas, including wells, springs, seeps, lakes, and headwaters.

SPACE TO INCLUDE OTHER TEXT/PHOTOS/QUOTES?

Economy & Society

- 1. The community has mapped the vulnerability to coastal hazards of the following:
 - At-risk populations (elderly, low-income, disabilities, etc.)
 - Historical resources (historic district, properties, landmarks)
 - Cultural resources (libraries, museums, archeological sites)
 - Economic resources (business districts, factories, tourism, working waterfronts)
- 2. The community has an economic development plan or strategy.
 - 2.1 The economic development plan or strategy identifies economic vulnerabilities due to coastal hazards.
- 3. The community's economic base is diversified.
- 4. Plans or studies describe the cost of damages from previous storms, floods, erosion, or the economic losses due to closures during disaster events and the recovery process?
- 5. Plans or studies estimate future financial losses that may result from sea-level rise (SLR).
- 6. The following social systems strongly define your community's identity:
 - Faith-based networks
 - Cultural heritage/historic districts
 - Neighborhood associations
 - Business-related networks
 - Civic organizations (Kiwanis Club, Rotary Club, etc.)
 - Universities or colleges



Photo: Tampa Bay Times, Sam Ribble

Agriculture

GOAL: Ensure the continued viability of agriculture in the face of climate change through policies and actions that encourage sustainable production, remove barriers to production, promote economic incentives, improve water reliability, and promote best management practices.

- AG-1 Promote policies that preserve the economic viability of agriculture.
- AG-2 Continue to meet the water needs of agriculture.
- AG-3 Promote locally produced foods and goods.
- AG-4 Align research and extension with climate-related needs of agriculture.
- AG-5 Maintain or create agriculture purchase of development rights programs.
- AG-6 Assess opportunities for growers and agricultural landowners to manage land to lessen the impacts of climate change and incentivize those actions.
- AG-7 Seek a national designation as a critical source of domestic agricultural products.
- AG-8 Identify and reduce obstacles for enabling urban agriculture, gardening, and other backyard agricultural practices.
- AG-9 Increase resources for the study and implementation of invasive, non-native pest and pathogen prevention; early detection; and rapid response.
- AG-10 Promote sustainable aquaculture, perennial crops, diversified farming systems, precision agriculture, and re-con touring field elevations.
- AG-11 Assess and address public health risks of more frequent and intense high-heat days to agriculture and farm workers.

Energy & Fuel

GOAL: Reduce consumption of electricity and fuel and increase renewable energy capacity to increase resilience, reduce greenhouse gas emissions, and improve emergency management and disaster recovery.

- EF-1 Promote renewable energy through policies and technological development in order to reduce greenhouse gas (GHG) emissions.
- EF-2 Advance energy efficiency and conservation through technological solutions, behavioral strategies, and policies in order to reduce greenhouse gas (GHG) emissions.
- EF-3 Increase accessibility to energy efficiency solutions for limited-income families.
- EF-4 Increase accessibility to distributed renewable energy technology.
- EF-5 Utilize renewable and distributed energy technologies for emergency management and disaster recovery.
- EF-6 Streamline permitting and administrative processes to reduce the soft costs associated with renewable energy technologies.
- EF-7 Establish financing mechanisms for current homeowners to invest in renewable energy and energy efficiency.
- EF-8 Build the capacity for distributed renewable energy and energy storage technologies in future building stock.
- EF-9 Enable grid-independent energy and waste-to-energy systems.
- EF-10 Enable a fuel-efficient public vehicle fleet.
- EF-11 Establish a fuel-efficient county and municipal vehicle fleets.
- EF-12 Promote community use of electric vehicles (EV).

Regional Collaboration & Coordination

GOAL: Strengthen coordination and collaboration on climate change issues by building the capacity to meet evolving needs.

- CC-1 Establish and implement a regional communications strategy among business, government, and community leadership.
- CC-2 Update regional unified sea level rise projections.
- CC-3 Explore opportunities to better coordinate cross-agency and cross-jurisdiction reviews of major infrastructure projects.
- CC-4 Continue to provide high-quality implementation support resources for jurisdictions seeking to implement sustainability and resilience measures.
- CC-5 Develop and track regional indicators of climate change impacts, emissions reduction, and adaptation action.
- CC-6 Create an advisory group composed of organizations that represent the region's climate work, equitable community development, and vulnerable populations in order to track and share best practices on equitable climate action with the region.

Natural Systems

GOAL: Implement monitoring, management, and conservation programs designed to protect natural systems and the services they provide to society while improving their capacity for climate adaptation

- NS-1 Foster public awareness of the impacts of climate change on natural systems and ecosystem services.
- NS-2 Promote collaborative federal, state, and local government conservation land acquisition and easement programs.
- NS-3 Support regional wildland fire management coordination efforts.
- NS-4 Develop sustainable financing for the monitoring, protection, restoration, and management of natural areas and ecosystem services.
- NS-5 Identify or create a group to coordinate a plan to create adaptation corridors, living collections, and other approaches to species dispersal and conservation.
- NS-6 Conduct a predictive assessment of current and potential invasive species ranges and impacts.
- NS-7 Promote the protection and restoration of coastal natural systems and the creation of living shorelines.
- NS-8 Support coral reef protection, restoration, and sustainable-use initiatives to help Florida's sensitive reefs adapt to the changing climate and ocean acidification.
- NS-9 Advocate for federal and state funding for applied monitoring and climate-related science, conducted in partnership with the Florida Climate Institute.
- NS-10 Examine and propose revisions to environmental regulations to account for the effects of climate change.
- NS-11 Identify the effects of climate change on fish populations, the sustainability of key fisheries, and the fishing industry, then develop adaptation plans as needed.
- NS-12 Promote the protection, restoration, and creation of freshwater wetlands, open space buffer areas, and connectivity between freshwater and estuarine waters.
- NS-13 Develop and implement long-term, sustainable, solutions to beach erosion and sediment supply.
- NS-14 Maintain, create, and/or restore urban tree canopy.

Public Health

GOAL: Build capacity to proactively mitigate climate-related public health risks.

- PH-1 Understand and communicate public health risks associated with climate change.
- PH-2 Adopt and update all Florida Department of Health plans to reflect climate and sea level rise impacts on public health.
- PH-3 Adapt federal and state public health resources to support specific community needs.
- PH-4 Reduce extreme heat exposure to promote public health.
- PH-5 Advocate for policy changes and funding for local health departments to collect data more frequently to influence public health plans.
- PH-6 Increase reporting of health data monitoring systems to evaluate emerging diseases related to climate change.
- PH-7 Develop tools to assess the impacts of climate change and sea level rise on existing chronic conditions and to report trends or concerns for action.

Risk Reduction

GOAL: Prepare for the inevitable shocks and stresses through coordinated and interdisciplinary risk reduction and emergency management planning and investment.

- RR-1 Identify and quantify infrastructure and populations at risk to sea level rise and storm surge.
- RR-2 Integrate climate scenarios into emergency planning, evacuation training, and exercises.
- RR-3 Integrate climate vulnerability analysis data, as well as climate adaptation planning and funding, into existing emergency planning and funding documents.
- RR-4 Create and invest in strategic pre-disaster plans for post-disaster recovery.
- RR-5 Identify the most advanced insurance coverage models to reduce exposure in the face of climate-related risks.
- RR-6 Prioritize adaptation investments to reduce the impact of flooding and sea level rise on transportation infrastructure, particularly on evacuation routes.
- RR-7 Ensure local comprehensive plans align with the state Coastal Construction Control Line.
- RR-8 Continue to adopt and update consistent plans at all levels of government in the region that address and integrate mitigation, sea level rise (SLR), and climate change adaptation.
- RR-9 Review the Florida Building Code through the lens of climate vulnerability.
- RR-10 Understand and communicate risk information to all residents.
- RR-11 Promote and leverage existing policies and programs designed to reduce flood risks and economic losses.
- RR-12 Increase long-term community resilience and disaster recovery through distributed renewable energy and battery storage systems.
- RR-13 Use effective social media for emergency messaging, public health updates, and tidal flooding updates.
- RR-14 Encourage individual small business recovery plans and personal home adaptation plans.
- RR-15 Support disaster planning and preparedness training for city and county staff.
- RR-16 Connect with members from highly vulnerable populations to build trust and inform emergency management planning.
- RR-17 Ensure the emergency management definition of “communities at risk” includes economically vulnerable people.
- RR-18 Align and integrate emergency management staff and responsibilities with chief resilience officer roles to bolster long-term plans

Civic Engagement

GOAL: Build public awareness of the climate-related risks and opportunities for early, coordinated action to address these risks.

- PO-1 Assess community needs to guide local government communications.
- PO-2 Promote public awareness and understanding of climate impacts, as well as the personal actions and public policy options available to respond to climate change.
- PO-3 Inspire community action to address the causes and impacts of climate change.
- PO-4 Create open data platforms and digital tools.
- PO-5 Create culturally- and linguistically-appropriate information gathering tools and strategies to help inform decision-makers of the priorities and concerns in communities.

Water

GOAL: Advance the water management strategies and infrastructure improvements needed, in parallel with existing water conservation efforts, to mitigate the potential adverse impacts of climate change and sea level rise on water supplies, water and wastewater infrastructure, and water management systems, inclusive of canal net works, pumps, control structures, and operations.

- WS-1 Foster innovation, development, and exchange of ideas for managing water.
- WS-2 Ensure consistency in water resource scenarios used for planning.
- WS-3 Plan for future water supply conditions.
- WS-4 Coordinate saltwater intrusion mapping.
- WS-5 Maintain inventories of water and wastewater infrastructure.
- WS-6 Develop a spatial database of resilience projects for water infrastructure.
- WS-7 Foster innovation, development, and exchange of ideas for managing water.
- WS-9 Update the regional stormwater rule.
- WS-10 Integrate combined surface and groundwater impacts into the evaluation of at-risk infrastructure and the prioritization of adaptation improvements.
- WS-11 Advance green infrastructure and alternative strategies.
- WS-12 Integrate hydrologic and hydraulic models.
- WS-13 Practice integrated water management and planning.
- WS-14 Advance comprehensive improvements to regional and local stormwater management practices.
- WS-15 Foster scientific research for improved water resource management.
- WS-16 Expand partnerships and resources to further innovation in water resource management.
- WS-17 Advance capital projects to achieve resilience in water infrastructure.
- WS-18 Coordinate innovation and regional funding.
- WS-19 Recognize adaptable infrastructure.
- WS-20 Expand surface water storage.

Sustainable Transportation

GOAL: Adapt to the impacts of climate change and reduce greenhouse gas emissions by reshaping where and how to build and move from place to place.

- ST-1 Incorporate unified sea level rise projections, by reference, into all city, county, and regional agency comprehensive plans, transportation and other infrastructure plans, and capital improvement plans.
- ST-2 Ensure locally produced maps for planning and project documents include the latest storm surge and sea level rise projections.
- ST-3 Use vulnerability and risk assessment analyses and tools to identify priorities for resilience investments.
- ST-4 Designate adaptation action areas, restoration areas, and growth areas as a priority-setting tool for vulnerable areas, and as a means to maximize benefits to natural systems while guiding people and commerce to less vulnerable places.
- ST-5 Ensure beneficial social equity outcomes in considering the impacts of land use policy, public infrastructure, and public service decisions on high-vulnerability populations.
- ST-6 Develop localized adaptation strategies for areas of greatest climate-related vulnerability in collaboration with appropriate agencies and jurisdictions to foster multi-jurisdictional solutions and maximize co-benefits.
- ST-7 Incorporate strategies to reduce risk and economic losses associated with sea level rise and flooding into local comprehensive plans, post-disaster redevelopment plans, building codes, and land development regulations.
- ST-8 Consider the adoption of green building standards to guide decision-making and development and to provide an incentive for better location, design, and construction of residential, commercial, and mixed-use developments and redevelopment.
- ST-9 Implement best practices for the identification, evaluation, and prioritization of threatened resources to preserve historic and archaeological resources and increase resource resilience.
- ST-10 Employ transit-oriented developments and other planning approaches to promote higher-density development capable of supporting more robust transit.
- ST-11 Modify local land use plans and ordinances to support compact development patterns, creating more walkable and affordable communities.
- ST-12 Develop and implement policies and design standards that recognize the transportation system's most vulnerable users and incorporate sustainable elements.
- ST-13 Conduct an assessment of unused or underutilized properties and develop an approach for utilizing such properties that enhances overall resilience goals.
- ST-14 Adopt social equity policies that support equitable economic growth and increase affordable housing opportunities near critical infrastructure.
- ST-15 Develop policies to enhance the urban tree canopy to protect pedestrians and bicyclists from heat and pollution exposure.
- ST-16 Phase out septic systems where necessary to protect public health and water quality.
- ST-17 Ensure investments reduce greenhouse gas (GHG) emissions and increase the resilience of the transportation system to extreme weather and climate impacts.
- ST-18 Increase the use of transit as a transportation mode for the movement of people in the region.
- ST-19 Expand, connect, and complete networks of bicycle and pedestrian facilities, including those supporting access to transit.
- ST-20 Expand the use of transportation demand management strategies to reduce peak period and single-occupant vehicle travel.
- ST-21 Address resilience, maximize efficiency, and increase the use of low-carbon transportation modes for the movement of freight in the region.
- ST-22 Implement transportation system management and operations strategies to maximize the efficiency of the existing transportation system in a coordinated manner across local governments and agencies in the region.
- ST-23 Use evidence-based planning and decision-making for transportation system investments and management.

Social Equity

GOAL: Create equitable climate policies, programs, and decision-making processes that consider local socio-economic and racial inequities and ensure all can participate and prosper.

- EQ-1 Encourage dialogue between elected officials, staff, and socially vulnerable populations about local climate impacts and community priorities to inform leaders of community needs.
- EQ-2 Integrate social vulnerability data into all local government processes.
- EQ-3 Support public infrastructure that enables economic mobility, health, and safety for all community members.
- EQ-4 Address the needs of socially vulnerable populations by engaging existing community leaders and representative organizations in decision-making processes, particularly for critical public infrastructure.
- EQ-5 Build the capacity of existing and future leaders of socially vulnerable populations to ask, analyze, and communicate about their community's climate resilience.
- EQ-6 Partner with intermediary organizations that have deep community ties with socially vulnerable populations to co-create engagement and outreach strategies.
- EQ-7 Provide equity and social justice training for local government staff.

Water

GOAL: Establish an economic resilience strategy involving elected and business leadership, inclusive of funding mechanisms to guide, incentivize, protect, and promote public and private investments and the economic integrity of the community.

- ER-1 Establish a regional economic resilience communications strategy.
- ER-2 Advance regional resilience infrastructure standards.
- ER-3 Seek federal and state engagement to develop a resilience strategy.
- ER-4 Pursue the development of regional water models.
- ER-5 Integrate resilience and economic development.
- ER-6 Establish funding strategies to provide for equitable investment.
- ER-7 Engage in the National Flood Insurance Program (NFIP) process.
- ER-8 Serve as a model for regional resilience.
- ER-9 Strive for economic equity in adaptation planning.

Public Policy

GOAL: Guide and influence all levels of government to address climate change in relevant policies, programs, and legislation.

- PP-1 Support—at all levels of government—policy, legislation, and funding to reduce greenhouse gas emissions in all sectors, use less energy and water, deploy renewable energy and low-carbon transportation, prepare for and adapt to climate impacts, build community resilience, and study climate and earth science.
- PP-2 Develop common positions on climate, energy, and resilience issues, and advocate for those positions before state and federal legislatures, regulatory bodies, and the executive and judicial branches of government.
- PP-3 Urge federal, state, regional, and local partners to prioritize climate change considerations in the planning, construction, and operation of the regional water management and flood control system.
- PP-4 Participate in coalitions of public-, private-, nonprofit-, and/or academic-sector actors dedicated to climate, energy, and resilience issues.
- PP-5 Coordinate climate, energy, and resilience policies among counties, municipalities, school districts, and other units of government in the region.
- PP-6 Prioritize climate policies that advance social and economic equity for high-vulnerability populations and limited-income residents
- PP-7 Consider the direct and indirect impacts of projects, policies, and investments on relevant stakeholders.
- PP-8 Encourage the general public to engage in civic discourse regarding climate, energy, and resilience issues.



**COASTAL MAPPING
ADMINISTRATIVE PROCEDURES
MANUAL**

Coastal High Hazard, Coastal Evacuation, and
Coastal Planning Areas

January 7, 2021



TABLE OF CONTENTS

INTRODUCTION 3

LEGISLATIVE FINDINGS, RELIANCE ON STUDY(S) AND INTENT 3

MAP TYPES INCLUDED 3

CONFLICTS 3

DEFINITIONS 3

ACRONYMS/ABBREVIATIONS 4

POINT OF CONTACT 4

COASTAL MANAGEMENT ELEMENT OBLIGATION 5

Sea, Lake and Overland Surges from Hurricanes (SLOSH) 5

COASTAL MAPPING DETERMINATION 5

Coastal High Hazard Area 6

Coastal Evacuation Area 7

Coastal Planning Area 8

Evacuation Levels and Storm Surge 9

COASTAL MAPPING 9

Responsibilities of Individuals 9

Standard Operating Procedures 10

EVACUATION LEVEL MAP AVAILABILITY 12

SUPPORTING INFORMATION RELATED TO MAPPING BOUNDARIES 13

Hurricane Wind Scale Determination 14

REFERENCES 15

The Administrative Procedures Manual contains supplemental details used in the administration of Manatee County's Comprehensive Plan and Land Development Code (LDC) as it relates to mapping the boundaries of Manatee County's Coastal High Hazard Area (CHHA), Coastal Evacuation Area (CEA), and Coastal Planning Area (CPA).

INTRODUCTION The manual is organized to support and comply with the intent of Chapter 4 Zoning of the LDC, as well as implement the goals, policy and objectives of Elements 2 Future Land Use and 4 Coastal of the Comprehensive Plan. This manual does not repeat the text contained within with the LDC or Comprehensive Plan, so it is important to reference the current version of both, in addition to the current version of this manual.

LEGISLATIVE FINDINGS, RELIANCE ON STUDIES, AND INTENT The Board of County Commissioners approved this manual by Resolution 21-001. The most recent Sea, Lake and Overland Surges from Hurricanes (SLOSH) model data is from May 2016. In Manatee County, the coastal areas are defined in Chapter 2 of the LDC, with regulations codified in Chapter 4 of the LDC. It is the intent of Manatee County to have administrative decisions governed by specific criteria, the findings and legislative intent to guide implementation and administration of coastal evacuation mapping.

MAP TYPES INCLUDED

The procedures contained in this document apply to the following maps:

- Coastal High Hazard Area (CHHA)
- Coastal Evacuation Area (CEA)
- Coastal Planning Area (CPA)

CONFLICTS

In the event of a conflict between the regulations in the Administrative Procedures Manual and the provisions in the Comprehensive Plan, in all instances the Comprehensive Plan **DEFINITIONS** shall supersede these regulations.

In addition to the definitions contained in Chapter 2 of the Manatee County LDC, and Element 1 of the Manatee County Comprehensive Plan, the following definitions shall apply:

MEOW: The Maximum Envelope of Water (MEOW) provides a worst-case basin snapshot for a particular storm category, forward speed, trajectory, and initial tide level, incorporating uncertainty in forecast landfall location. These products are compiled when a SLOSH basin is developed or updated. MEOWs are not storm specific and are available to view in the SLOSH display program for all operational basins. No single hurricane will produce the regional flooding depicted in the MEOWs. Instead, the product is intended to capture the worst-case high-water value at a particular location for hurricane evacuation planning.

SLOSH: The Sea, Lake and Overland Surges from Hurricanes (SLOSH) model is a computerized numerical model developed by the National Weather Service (NWS) to estimate storm surge heights resulting from historical, hypothetical, or predicted hurricanes by taking into account the atmospheric pressure, size, forward speed, and track data.

LIDAR: Is a method for measuring distances (ranging) by illuminating the target with laser light and measuring the reflection with a sensor.

NAVD 88: Is the vertical datum for orthometric heights established for vertical control surveying in the United States of America based upon the General Adjustment of the North American Datum of 1988. It superseded the National Geodetic Vertical Datum of 1929 (NGVD 29), previously known as the Sea Level Datum of 1929.

AMSL	Above Mean Sea Level
BFE	Base Flood Elevation
CEMP	Comprehensive Emergency Management Plan
CEA	Coastal Evacuation Area
CHHA	Coastal High Hazard Area
CPA	Coastal Planning Area
EHPA	Enhanced Hurricane Protection Area
FBC	Florida Building Code
FDEM	Florida Division of Emergency Management
FEMA	Federal Emergency Management Agency
LDC	Land Development Code
LIDAR:	Light Detection and Ranging (data)
LMS	Local Mitigation Strategy Plan
MEOW	Maximum Envelope of Water
NHC	National Hurricane Center
NAVD	North American Datum
NWS	National Weather Service
SESP	State Emergency Shelter Plan
SLOSH	Sea, Land and Overland Surges from Hurricanes
SRES	Statewide Regional Evacuation Study
TBRPC	Tampa Bay Regional Planning Council

Questions regarding data, applicability, supporting documents and processes, should be directed to:

Manatee County Emergency Management
P.O. Box 1000
Bradenton, Florida 34206
Emergency.Management@mymanatee.org
(941) 749-3507

As a coastal county, Manatee County is identified in Section 380.24, F.S. to be required to adopt a Coastal Management Element meeting the requirements of the applicable statutes. The Coastal Management Element is required to address certain objectives, including protecting human life against the effects of natural disasters and limiting public expenditures that subsidize development in coastal high hazard areas. (Section 163.3177(6)(g), F.S.)

COASTAL MANAGEMENT ELEMENT OBLIGATION

The Florida Legislature has made legislative findings that in the event of natural disaster, the State may provide financial assistance to local governments for the reconstruction of roads, sewer systems, and other public facilities. However, one of the requirements to enable Manatee County to be eligible for such financial assistance is to have a Comprehensive Plan that restricts development activities where such activities would damage or destroy coastal resources and such plans must protect human life and limit public expenditures in areas that are subject to destruction by natural disaster. (Section 163.3178(1), F.S.)

Sea, Lake and Overland Surges from Hurricanes (SLOSH)

The NWS updates SLOSH models on a regular basis as an area experiences natural changes in the shoreline or new structures are built (such as levees). The NHC regards the Composite Approach – a method which predicts surge by running SLOSH several thousand times with hypothetical hurricanes under different storm conditions, as the best approach for determining storm surge vulnerability since it takes into account forecast uncertainty. This approach plays an integral role in emergency management as they form the basis for the development of the nation's evacuation zones/levels.

COASTAL MAPPING DETERMINATION

This section of the manual clarifies the manner in which those sections of the LDC are to be implemented to maintain consistency with Florida law and generally accepted mapping of the boundary areas.

Per Florida Statute, the Florida Division of Emergency Management (FDEM) shall manage the update of the regional hurricane evacuation studies, ensure such studies are done in a consistent manner, and ensure that the methodology used for modeling storm surge is that used by the NHC. Local governments have the following authorities and responsibilities:

- a. Safeguarding the life and property of its citizens is an innate responsibility of the governing body of each political subdivision of the State,
- b. Directing timely evacuation,
- c. Determining how to safely evacuate the density of coastal population. (e.g. Evacuation Maps), and
- d. Evacuate and shelter at-risk citizens during an emergency or disaster

Section 403.8 of the LDC describes the purpose, approximate boundaries, use limitations, prohibited activities, and other development restrictions for land located in the coastal overlay districts - the CHHA, CEA, and CPA.

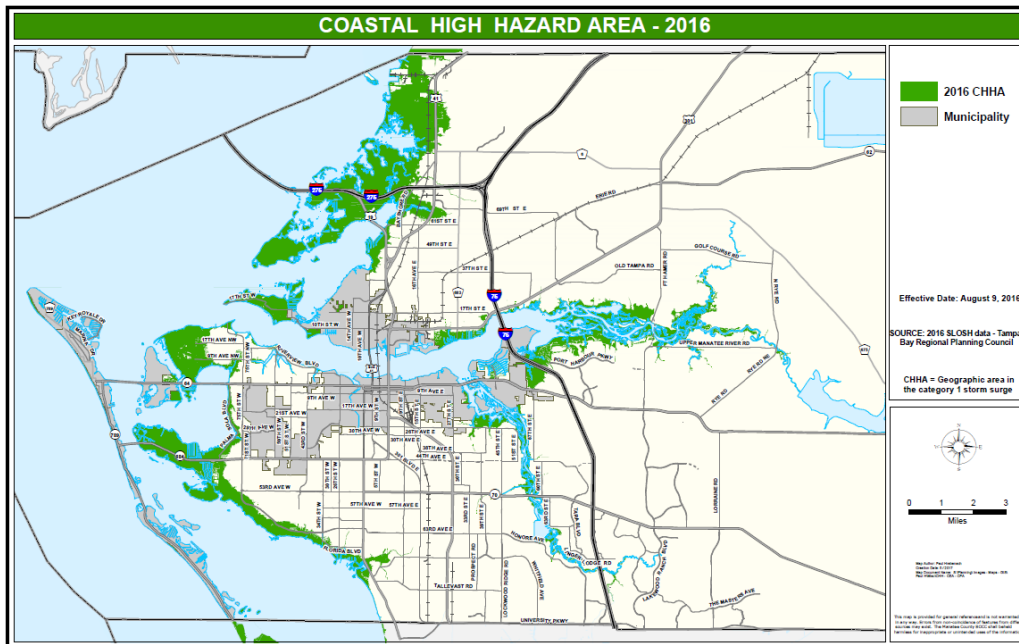
The designation of CHHA is defined by the Florida Statute as: “The area below the elevation of the Category 1 storm surge line as established by a SLOSH computerized storm surge model”. (Section 163.3178(1)(h) F.S.)

The County is required to base the update of the boundaries of the CHHA Map upon the most relevant and appropriate Coastal High Hazard Area (CHHA) available at the time of adoption of the Map Amendment. The data must be taken from a professionally accepted source. (Section 163.3177(1)(f) 1. and 2. F.S.)

The FDEM, Division of Community Planning (now Department of Economic Opportunity) and Department of Transportation in coordination with the Tampa Bay Regional Planning Council (TBRPC) published the *2010 Statewide Regional Evacuation Study for the Tampa Bay Region* on August 26, 2010. The computerized storm surge model known as the SLOSH model was calibrated based on the 2009 LIDAR data – **the latest information at that time**. The LIDAR has a vertical accuracy of the laser mapping that is within 15-centimeter tolerance.

The SLOSH model coverage is subdivided into 32 regions or basins and in 2016, the NHC added a new region or basin to the model. With the addition of a new basin along the west coast of Florida, the data produced more inundation than the 2009 model. As such, a new CHHA map was produced by TBRPC.

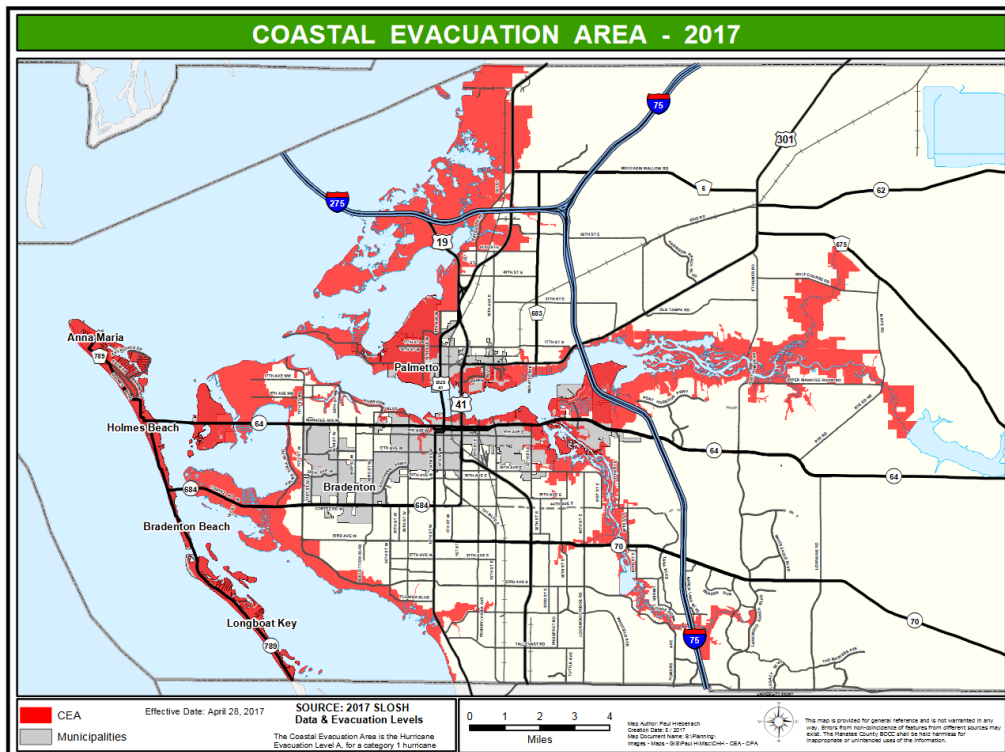
The result of the SLOSH model is the mapping of the CHHA Overlay Map - Category 1 storm surge. (Map included below is meant as a representation only. Official copy shall be as formally adopted in the Manatee County Comprehensive Plan.)



The designation of the CEA is evacuation Level A, established based on the Category 1 storm surge, as established in the regional hurricane evacuation study applicable to Manatee County and as updated on a periodic basis.

The CEA map implements the purpose of the CEA Overlay District – Comprehensive Plan Policy 2.2.2.4.1 – to minimize the effect of development on the evacuation of population from Zone A during Category 1 hurricane, as well as implements Policy 2.2.2.4.2.a – limit population in the CEA Overlay District. (Map included below is meant as a representation only. Official copy shall be as formally adopted in the Manatee County Comprehensive Plan.)

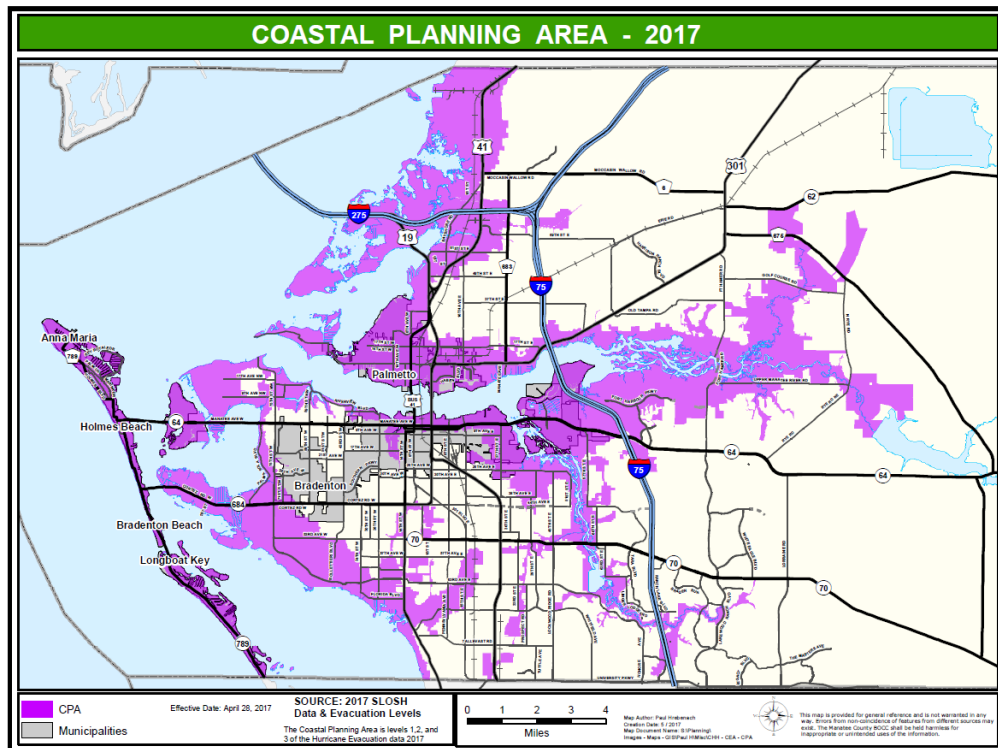
The goal of an evacuation is to move as few people as needed the shortest distance to safety. Zone-based evacuation plans can be most effective in meeting this goal. They reduce resource burdens, facilitate re-entry, and accelerate the transition to recovery. A zone-based approach requires emergency managers and the whole community to work together to understand and coordinate evacuation and shelter-in-place actions, and make informed decisions based on the appropriate transportation models. These protective actions support all-hazards planning, whether for hurricanes, wildfires, floods, chemical spills, or civil unrest. Situational awareness and flexibility of plans, along with an educated public, allow each state, local, tribal, and territorial partner to customize its preparation and response efforts.



The designation of the CPA is defined as the geographic area of the County which lie within the Hurricane Vulnerability Area (evacuations levels A, B and C), as updated on a periodic basis.

The CPA map implements the Comprehensive Plan Goal 4.3 – to protect the residents and property within the **Coastal Planning Area (CPA)** from the physical and economic impact of natural disasters, as well as implements Policy 2.2.2.4.2.a – limit population in the CEA Overlay District and Policy 4.3.1.1 – direct population concentrations away from the CEA. (Map included below is meant as a representation only. Official copy shall be as formally adopted in the Manatee County Comprehensive Plan.)

While the primary reason for creating evacuation levels and/or maps is for hurricanes, residents, businesses, and visitors may also need to be evacuated in the event of freshwater flooding or other hazards. Manatee County’s Department of Public Safety and the Division of Emergency Management encourages and facilitates planning processes that establish and emphasizes the importance of preparing a framework through which Manatee County prepares, responds, recovers, and mitigates the impacts of a wide variety of disasters that could adversely affect the health, safety and/or general welfare of residents, businesses, and visitors.



Evacuation Levels and Storm Surge

There are five (5) surge levels, ranked by the risk of storm surge impact. Evacuation levels are classified using letters A through E, with areas that are not located within a hurricane evacuation level being declared, “outside of the evacuation area,” or N/A. Storm surge inundation heights range from ground level up to 33 feet. Evacuation Level A is considered to be “lower” than Evacuation Level E, and Level A will evacuate first.

Tropical storms and hurricanes produce strong winds that push seawater ashore, creating deadly storm surge. Storm surge inundation describes the height of water above ground level. In Manatee County, storm surge inundation is communicated through ranges of heights known as hurricane evacuation levels.

High tide, wave action, freshwater flooding, and rainfall will add additional flooding risks to saltwater storm surge issues as these threats are not captured with the categorized A through E levels.

Evacuation Levels	Instructions	Storm Surge Height NAVD 1988
Level A	Evacuate red areas and all manufactured homes	Up to 11 ft.
Level B	Evacuate red and orange areas and all manufactured homes	Up to 15 ft.
Level C	Evacuate red, orange and yellow areas and all manufactured homes	Up to 18 ft.
Level D	Evacuate red, orange, yellow and green areas and all manufactured homes	Up to 28 ft.
Level E	Evacuate red, orange, yellow, green and blue areas and all manufactured homes	Up to 34 ft.

COASTAL MAPPING

- This section describes the responsibilities of the various individuals and groups involved in the review, methodology, and production of mapping the boundaries of the three coastal areas.
1. **Responsibilities of Individuals**

The National Weather Service

2. **Tampa Bay Regional Planning Council** uses a computerized model known as the SLOSH model to estimate storm surge heights resulting from historical, hypothetical, or predicted hurricanes by considering the atmospheric pressure, size, forward speed, and track data. This data is provided to TBPRC for them to map data surge zones for each County in the region.

TBPRC is responsible for producing Storm Tide Zones for each County in the region based on latest SLOSH model data. This data is provided to each County in the region for further jurisdiction-specific mapping efforts.

3. **Manatee County** The Chief of Emergency Management is assigned to assist with mapping efforts, as well as responsible for coordinating reviews performed by other departments, and taking an application through the legislative public hearings for Comprehensive Plan Map Amendments. The duties of the Project Manager are as follows:
- a. The Project Manager is the first point of contact and is responsible for overseeing the coordination with the Geographic Information Systems (GIS) staff member(s) assigned to assist with mapping efforts, as well as responsible for coordinating reviews performed by other departments, and taking an application through the legislative public hearings for Comprehensive Plan Map Amendments.
 - b. The Project Manager is responsible for overseeing a county-wide advertisement campaign to ensure the public is informed of the updated maps. The Project Manager is responsible for ensuring the maps are correctly displayed on the County website, which includes the Learn Your Level interactive map. The Project Manager is responsible for seeing that the pertinent information from the coastal maps is correctly displayed on the All Hazards Disaster Planning Guide.
 - c.
 - d.

The Emergency Management Division of the Public Safety Department compares the surge data on the SLOSH model maps to local county parcel maps to determine evacuation levels. While the SLOSH models provide a local assessment of storm surge risk, they do not provide complete certainty.

Upon receipt of updated SLOSH computerized storm surge model data, the following Manatee County Standard Operating Procedures shall be followed when mapping the boundaries of the CHHA, CEA and CPA:

1. The Project Manager shall provide the current/latest MEOW lines to the assigned Manatee County GIS employee, so additional data layers may be provided for consideration. Additional data layers include, but shall not be limited to, roads, buildings, and evacuation routes.
2. Once the GIS employee provides the data maps to the Project Manager as described above, the Project Manager shall follow the methods described below when determining the exact delineation of each Evacuation Level:

a. Coastal High Hazard Area

- i. The Category 1 storm surge line, as established by the SLOSH computerized storm surge model, shall be mapped as the boundary of the CHHA. The County shall base the update of the boundaries of the CHHA Map upon the most relevant and appropriate data and analysis available at the time of adoption of the Comprehensive Plan Map Amendment.
- ii. No other additional information shall be considered when mapping the CHHA other than what is required per Florida Statute.
- iii. Once the new boundaries are established and the map is deemed finalized for implementation, the latest boundaries of the CHHA shall be formally adopted into the Comprehensive Plan per requirements set forth in Florida Statute, Manatee County Land Development Code and Comprehensive Plan.

b. Coastal Evacuation Area

- i. Any property where the Category 1 storm surge crosses the property line, which results in storm surge inundation inward of the property lines, the entire property shall be mapped as Evacuation Level A.
- ii. Any property where both the Category 1 and Category 2 storm surge crosses the property line, which results in inundation for both storm surges levels being inward of the property lines, the entire property shall be mapped as Evacuation Level A – the most conservative/earliest evacuation level.
- iii. Any street, right-of-way, access lane, drive aisle or other form of vehicular travel area which results in Category 1 storm surge inundation being mapped into said area, the entire width of said area shall be mapped as Evacuation Level A.
- iv. Any street, right-of-way, access lane, drive aisle or other form of vehicular travel area which results in both Category 1 and Category 2 storm surge inundation being mapped into said area, the entire width of said area shall be mapped as Evacuation Level A- the most conservative/earliest evacuation level.
- v. If a more intense area of category storm surge inundation and/or evacuation level (e.g. Cat 1/Evac A) occur on the street, right-of-way, access lane, drive aisle or other form of vehicular travel area where a property gains access from, and the property itself contains no area of storm surge inundation at all, the property shall be mapped as Evacuation Level A.
- vi. Any property that contained Category 1 storm surge inundation on a previous SLOSH storm surge model, that contains no inundation on the current/latest model, shall be removed from Evacuation Level A and mapped as No Evacuation Level or N/A.
- vii. No exception shall be given to properties which contain structures built under newer building codes or include increased mitigation measures such as hurricane impact windows and elevated structures. Given the threat of surge and flooding affects associated with surge, properties determined to be mapped as Evacuation Level A according to the methodology defined above, shall remain mapped in the Evacuation Level A.
- viii. Once the new boundaries are established and the map is deemed finalized for implementation, the latest boundaries of the CEA shall be formally adopted into the Comprehensive Plan per requirements set forth in Florida Statute, Manatee County Land Development Code and Comprehensive Plan.

c. Coastal Planning Area

- i. Any property where the Category 1 storm surge crosses the property line, which results in storm surge inundation inward of the property lines, the entire property shall be mapped as Evacuation Level A.
- ii. Any property where the Category 2 storm surge crosses the property line, which results in storm surge inundation inward of the property lines, the entire property shall be mapped as Evacuation Level B.
- iii. Any property where the Category 3 storm surge crosses the property line, which results in storm surge inundation inward of the property lines, the entire property shall be mapped as Evacuation Level C.
- iv. Any property that contains more than one category of storm surge inundation inward of the property lines, the entire property shall be mapped as the most conservative/earliest evacuation level. (e.g. Cat 2 & 3 storm surge inundation present on property = entire property mapped as Evacuation Level B.)

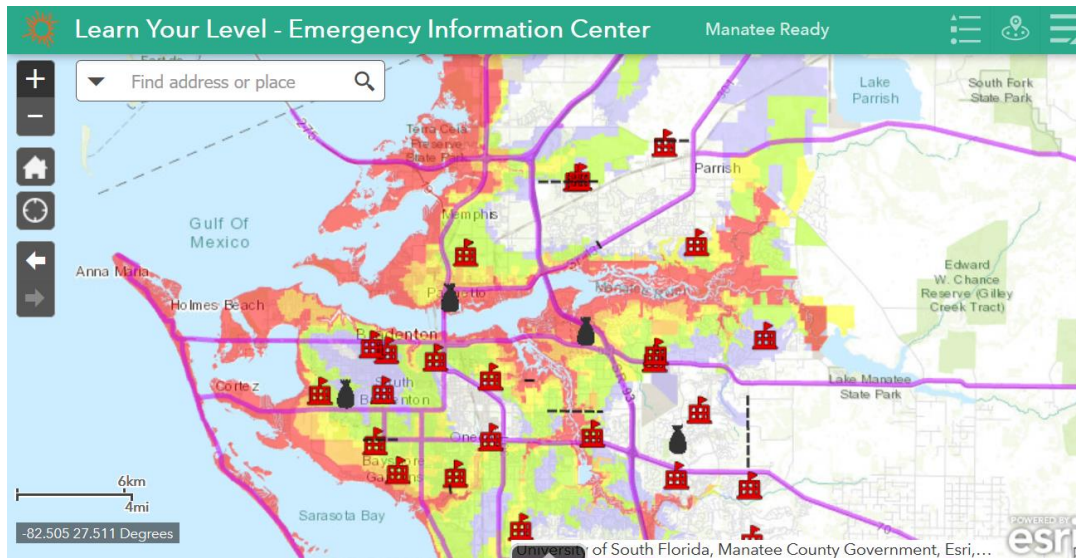
- v. Any street, right-of-way, access lane, drive aisle or other form of vehicular travel area which results in Category 2 storm surge inundation being mapped into said area, the entire width of said area for the entire length of the inundation area shall be mapped as Evacuation Level B.
- vi. Any street, right-of-way, access lane, drive aisle or other form of vehicular travel area which results in both Category 2 and Category 3 storm surge inundation being mapped into said area, the entire width of said area shall be mapped as Evacuation Level B- the most conservative/earliest evacuation level.
- vii. If a more intense area of category storm surge inundation and/or evacuation level occur on the street, right-of-way, access lane, drive aisle or other form of vehicular travel area where a property gains access from, and the property itself contains a lesser/later category, or no area of storm surge inundation, the property shall be mapped equal to the evacuation level assigned to the street.
- viii. Any property that contained a more intense storm surge inundation on a previous SLOSH storm surge model, that contains a lesser or no inundation on the current/latest model, shall be mapped with an evacuation level according to the current/latest model.
- ix. No exception shall be given to properties which contain structures built under newer building codes or include increased mitigation measures such as hurricane impact windows and elevated structures. Given the threat of surge and flooding affects associated with surge, properties shall remain mapped per according to the methodology defined above.
- x. Once the new boundaries are established and the map is deemed finalized for implementation, the latest boundaries of the CPA shall be formally adopted into the Comprehensive Plan per requirements set forth in Florida Statute, Manatee County Land Development Code and Comprehensive Plan.

**Footnotes:*

Given new data and increased knowledge of threats, methods for mapping the evacuation levels has, and will continue to, evolve over the years. The determination of evacuation level is not based on a percentage of the overall property being located within a particular category of storm surge. Under no circumstances should the SLOSH storm surge interactive risk maps be compared with local evacuation levels. Evacuation levels consider other critical factors, which affect evacuation decision-making. The SLOSH storm surge maps are provided for informational and educational purposes only and do not supersede evacuation levels established on the coastal maps, which is set by local and state emergency management.

EVACUATION LEVEL MAP AVAILABILITY

Evacuation level maps are available on the Manatee County website (www.mymanatee.org) and through a variety of printed sources distributed to county and municipal facilities. Evacuation maps are updated when new information becomes available and in conjunction with the Tampa Bay Regional Planning Council hurricane evacuation study program. The digital version of the All Hazards Disaster Planning Guide is also available on the County website. Manatee County partners with local news media agencies to share the evacuation level map and typically the newspapers print a special edition paper annually with critical hurricane preparedness information, including the full-color hurricane evacuation level map.



Element 4 of the Comprehensive Plan – Coastal Element - is further implemented through both the Comprehensive Emergency Management Plan (CEMP), as well as the Local Mitigation Strategy Plan (LMS).

The CEMP standardizes documents that set forth the County’s role in organizing and carrying out evacuations, sheltering operations, post-disaster response and recovery activities, deployment of resources, and emergency warning and communications coordination.

The LMS is a plan developed to promote hazard mitigation and to manage post-disaster recovery. The LMS deals not only with flooding and hurricanes, but with pre-disaster mitigation techniques to hazards which Manatee County might be vulnerable, including natural, technological, and societal hazards. Through the goals, objectives and initiatives, the focus of the LMS is to reduce vulnerability and enhance hazard mitigation. Additionally, as part of the Threats and Hazards analysis, the LMS evaluates coastal and riverine erosion stating that those areas identified at greater risk of erosion are those areas located in the CHHA, CPA, CLA, areas around the Manatee, Braden, and Little Manatee Rivers and associated tributaries; Bowless and Wares Creeks.

Due to its subtropical location and long coastline, the entire county is particularly susceptible to hurricanes and tropical storms. Information located on the Atlantic Oceanographic and Meteorological Laboratory/National Oceanic and Atmospheric Administration website places the probability of a tropical storm/hurricane striking Manatee County at 36-42 percent annually. The probability of a major storm (Category 3+) is at 2 percent annually.

The greatest threat posed by hurricane or tropical storm to Manatee County is storm surge along the barrier islands, wind damage to homes, businesses, and coastal lands, and inland flooding. Depending on location within the County, storm surge could vary from 11 to 34 feet. The barrier islands of Longboat Key and Anna Maria Island are most susceptible to the effects of storm surge created by tropical systems and severe winter storms. The combination of high tides and wind action can create coastal flooding and saltwater inundation of the barrier islands and is considered a significant risk factor. Secondary

areas susceptible to these same impacts are the low-lying areas along the Manatee and Braden Rivers. Storm surge can range from 6 feet for a Category 1 storm to 28 feet for a Category 5 storm. Based on the study done by Tampa Bay Regional Planning County, storm surge could go as far inland as Lake Manatee, with a surge of almost 9 feet.

The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous and require preventative measures. In the western North Pacific, the term "super typhoon" is used for tropical cyclones with sustained winds exceeding 150 mph.

Category	Sustained Winds	Types of Damage Due to Hurricane Winds
Tropical Depression	<38 mph	Winds can produce some damage
Tropical Storm	39 to 73 mph <64 kt <119 km/h	Dangerous winds can produce some damage
1	74-95 mph 64-82 kt 119-153 km/h	Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding, and gutters. Large tree branches will snap, and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last several days.
2	96-110 mph 83-95 kt 154-177 km/h	Extremely dangerous winds will cause extensive damage: Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3	111-129 mph 96-112 kt 178-208 km/h	Devastating damage will occur: Well-constructed framed homes may incur major damage or removal of roof, decking, and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
4	130-156 mph 113-136 kt	Catastrophic damage will occur: Well-constructed framed homes can sustain

	209-251 km/h	severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted, and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5	157 mph or higher 137 kt or higher 252 km/h or higher	Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
Source: http://www.nhc.noaa.gov/climo		

REFERENCE 1. **Manatee County Comprehensive Emergency Management Plan**
(2020 Interim Update CEMP - 2018 ed. - or the latest plan as adopted by Manatee County Board of County Commissioners)

Provided upon request. See point of contact on page 4 of this manual.

2. **Manatee County Local Mitigation Strategy Plan**
(2019 Update or the latest plan as adopted by Manatee County Board of County Commissioners)
Available online at:
www.mymanatee.org/hazard

3. **Statewide Emergency Shelter Plan**
(January 31, 2020 or the latest plan as adopted January of each even calendar year)

Available online at:
<https://www.floridadisaster.org/dem/response/infrastructure/statewide-emergency-shelter-plan/>

4. **Statewide Regional Evacuation Study Program**
(August 26, 2010 and the latest supplemental data report to the plan)

Available online at:
<http://www.tbrpc.org/regional-evacuation-study/>