

CHAPTER X
COASTAL MANAGEMENT ELEMENT

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GOAL, OBJECTIVES AND POLICIES

GOAL

ESTABLISH GROWTH MANAGEMENT STRATEGIES THAT WILL ALLOW GROWTH TO CONTINUE WITHIN THE COASTAL ZONE WHICH DOES NOT DAMAGE OR DESTROY THE FUNCTION OF COASTAL RESOURCES, PROTECTS HUMAN LIFE AND LIMITS PUBLIC EXPENDITURES IN AREAS SUBJECT TO DESTRUCTION BY NATURAL DISASTERS.

Estuarine Pollution

Objective 1

Improve areas within the Indian River Lagoon basin with fair or poor water quality as measured by the State of Florida Department of Environmental Protection using the trophic state index, and maintain areas with good water quality.

Policy 1.1

The Brevard County Natural Resources Management Department shall coordinate with the Florida Department of Environmental Protection to develop and implement Basin Management Action Plans to comply with National Pollutant Discharge Elimination System Permits and meet the Total Maximum Daily Loads established for local surface waters.

Policy 1.2

Brevard County shall maintain within the land development code regulations that implement standards consistent with National Pollutant Discharge Elimination System Permits and Total Maximum Daily Loads.

Policy 1.3

Brevard County shall continue to cooperate with other agencies and municipalities that perform fisheries studies and submerged aquatic vegetation mapping and use this data to assist in establishing priority areas for surface water improvement efforts. In addition, Brevard County shall coordinate the manatee protection plan with municipalities and appropriate agencies.

Policy 1.4

The Brevard County Natural Resources Management Office shall review and comment, as necessary, on dredge-and-fill applications and/or Environmental Resource Permits from the Florida Department of Environmental Protection, St. Johns River Water Management District (SJRWMD), the U.S. Army Corps of Engineers, or other appropriate agencies.

Policy 1.5

Brevard County shall continue to consider recommendations of Marine Resources Council and other appropriate groups in the development of estuarine studies.

Policy 1.6

Brevard County shall coordinate surface water management and protection efforts with the Indian River National Estuary Program (IRNEP), FDEP, SJRWMD and other appropriate agencies.

Policy 1.7

Brevard County supports coordinated regional fisheries management plans developed by the Atlantic States Marine Fisheries Commission.

Water Quality/Seagrasses

Objective 2

Improve existing water quality to enhance seagrass and other submerged aquatic vegetation quantity, health, diversity, and distribution within the Indian River Lagoon.

Policy 2.1

Brevard County shall support the St. Johns River Water Management District's (SJRWMD) mapping of submerged aquatic vegetation within the Indian River Lagoon system. Evaluation results shall be made available to municipalities and other agencies or programs. Areas that show decline should be targeted for increased watershed management, including non-point source pollution, and restoration. Management strategies shall be coordinated with the municipalities and other agencies.

Policy 2.2

Brevard County shall continue to participate in the Indian River Lagoon Advisory Committee and its associated advisory groups.

Policy 2.3

Brevard County shall continue to protect Submerged Aquatic Vegetation (SAV) from the impacts of local land development by implementing the Surface Water Protection Ordinance. At a minimum, the following criteria shall be addressed:

Criteria:

- A. Maintain upland vegetation within required setbacks to reduce runoff.
- B. Require proper use of turbidity screens during construction activities.

- C. Control discharge rates to promote on-site settlement of sediment loads and meet minimum retention requirements for runoff from storm events.
- D. Coordinate with FDEP Aquatic Preserve staff when development is within or adjacent to an aquatic preserve.

Policy 2.4

Brevard County shall address modification of existing development which does not meet stormwater management standards.

Policy 2.5

Brevard County supports the goals of the National Estuary Program's Comprehensive Conservation and Management Plan (CCMP) for recovery of the Lagoon. This support is reflected in the strategies identified in the County's Action Plan Implementation Status Report for the CCMP.

Policy 2.6

Where possible, local stormwater, as well as state and federal surface water programs should reduce or eliminate freshwater inputs to the Indian River Lagoon via interbasin diversions.

Fisheries

Objective 3

Maintain fisheries in and adjacent to Brevard County through habitat production, maintenance and restoration.

Policy 3.1

Brevard County shall encourage habitat evaluation and fisheries studies. These studies should be coordinated with federal and state programs and funded through a combination of the proceeds from a saltwater fishing license and state and federal grants.

Policy 3.2

Mosquito impoundments should be reconnected to the Indian River Lagoon where benefits can be demonstrated to increase habitat value of the impoundments and benefits to the Lagoon.

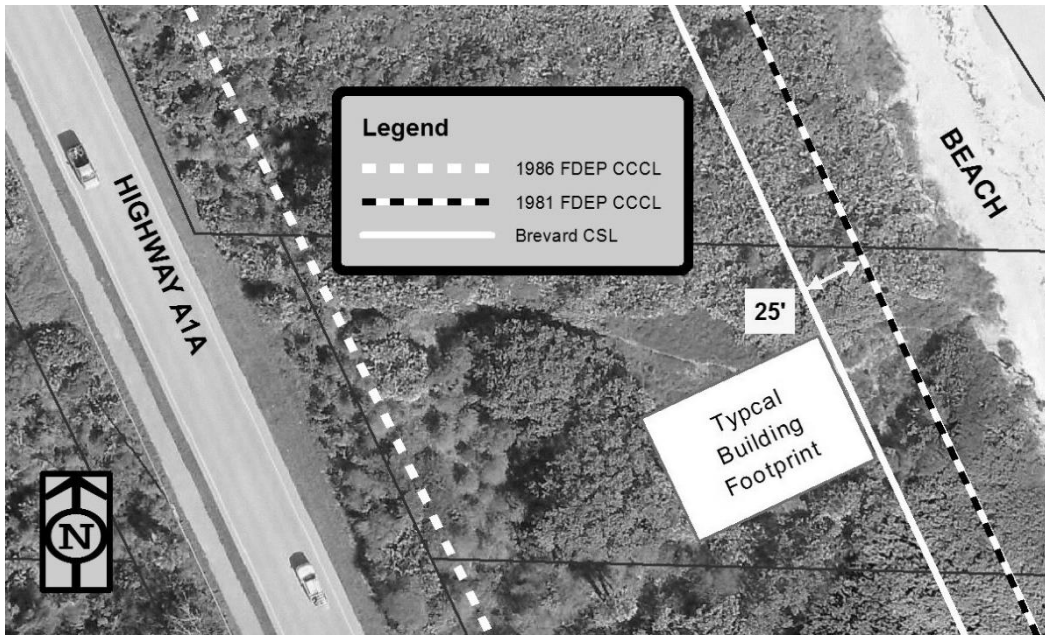


Figure 1

Note: Figure 1 is intended for illustrative purposes only. Actual delineations shall be determined by survey.

Beaches and Dunes

Objective 4

Brevard County shall implement and improve as necessary a comprehensive beach and dune management program which protects, enhances and restores a naturally functioning beach system as funding is available.

Policy 4.1

The Land Development Regulations shall maintain regulations governing the location, construction and maintenance of development adjacent to the Atlantic shoreline. Development seaward of the Florida Department of Environmental Protection (FDEP) 1981 Coastal Construction Control Line (CCCL), which coincides with the Brevard County Coastal Construction Line (CCL), shall be governed by the following conditions, at a minimum:

Criteria:

- A. The 1981 FDEP CCCL coincides with the Brevard County CCL, as adopted by Brevard County in Ordinance 85-17. The Brevard County Coastal Setback Line (CSL) is described as a line which is twenty five (25) feet west

of the 1981 FDEP CCCL by perpendicular measurement. Figure 1 schematically depicts the spatial relationship of these reference lines. Actual delineations shall be determined by survey.

- B. Oceanfront development shall be required to maintain at least 50% of the native dune vegetation on site. Native dune vegetation seaward of the FDEP 1981 Coastal Construction Control Line (CCCL) shall not be removed unless necessary for approved emergency vehicle access or coastal protection needs.
- C. In order to maintain the freshwater lens of the surficial aquifer and reduce saltwater intrusion, post-development groundwater recharge volume and rate shall equal pre-development recharge volume and rate.
- D. No new shoreline hardening structures shall be permitted in unincorporated Brevard County south of Patrick Air Force Base (PAFB) property or within the Archie Carr National Wildlife Refuge, with exception of emergency provisions as provided for in Florida Statutes Chapter 163.3187(1)(a) "Amendment of Adopted Comprehensive Plan".
- E. North of the PAFB, no new shoreline hardening structures should be permitted.
- F. Pursuant to Criteria C and D of this policy, if a shoreline hardening structure is deemed necessary, the following criteria shall apply:
 - 1. Vertical wood or concrete structures and rock revetments shall only be approved when less structural alternatives, such as beach renourishment, dune restoration and sandbag systems have been determined not to be feasible.
 - 2. All shoreline protection measures shall be designed to minimize adverse impacts to the naturally functioning beach and dune system and adjacent properties.
 - 3. The County may require dune restoration and revegetation as a component of the shoreline hardening approval both landward and seaward of the proposed structure.
 - 4. All shoreline protection shall be designed and constructed so as to not impede public access to or along the shore.
- G. Setbacks or other non-structural methods of shoreline protection shall be given the highest priority. Reducing setbacks from A1A will be

considered where it is necessary to maintain and maximize setback requirements from the ocean.

- H. Reconstruction of existing hard erosion control structures which are more than fifty (50) percent destroyed should be considered new construction and should be regulated as such, except for the maintenance of existing public navigational projects, such as Port Canaveral and Sebastian Inlet.
- I. Underground storage tanks or the storage of hazardous materials are not permitted.
- J. Septic tank or septic tank drainfields shall not be permitted seaward of the Brevard County Coastal Setback Line (CSL). Septic tanks shall be located landward of the most seaward portion of the habitable structure.
- K. All activities seaward of the 1986 FDEP Coastal Construction Control Line (CCCL) shall be subject to FDEP permitting requirements.

Policy 4.2

Brevard County shall enforce development restrictions associated with the Brevard Coastal Setback Line (CSL), and the Brevard County Coastal Construction Line (CCL) and re-evaluate the effectiveness of these lines from time to time as coastline changes dictate. The County shall provide FDEP with their findings and request a review of the FDEP Coastal Construction Control Line, if deemed appropriate.

Policy 4.3

Brevard County shall continue to adopt and enforce standards for maintenance or re-establishment of dune areas. These standards shall include, at a minimum, the following provisions:

Criteria:

- A. Native dune vegetation shall be maintained on site unless removal or alteration is permitted by both Brevard County and the Florida Department of Environmental Protection, or other appropriate regulatory agency.
- B. Public and private beach access shall be allowed only at designated cross-over structures or historical access sites.
- C. Erosion control strategies will be utilized at unimproved public access sites until these can be improved or alternate access provided.

- D. Dune cross-overs, boardwalks, walkways and other permissible structures seaward of the Brevard County Coastal Setback Line shall be elevated above dune vegetation and shall be designed to allow adequate light penetration.
- E. Shore-parallel boardwalks shall be prohibited seaward of the Coastal Setback Line, except as required for handicap access.
- F. Publicly owned dunes, especially those identified for beach access sites, which have been denuded or damaged by vehicular or pedestrian traffic shall be prioritized for dune renourishment and revegetation. Improvements or erosion controls shall be implemented at the time of renourishment to prevent further site degradation.
- G. Private property owners should be encouraged to re-establish dune vegetation which has been destroyed by non-designated access activities or storm damage.
- H. Structures and impacts that are necessary for public safety or meet the best public interest shall be permitted if approved by the Board of County Commissioners.

Policy 4.4

Brevard County's beach and dune restoration program shall include an analysis of environmental, financial and social criteria.

Criteria:

- A. The first priority for beach renourishment shall be given to the protection of life and property.
- B. Priority shall also be given to environmental considerations.
- C. Public areas which are heavily utilized for recreation, including surfing, fishing or swimming, shall be considered for beach or dune renourishment or restoration, as applicable. Long-term management of these areas shall be included with all site improvements.
- D. A feasibility or benefit/costs analysis should be performed for any renourishment project. Such analyses shall include, as appropriate, present and future benefits for property protection, recreation and tourism over the life of the project.

Policy 4.5

The County shall continue to utilize the information and materials available from the State regarding dune maintenance and revegetation and supplement these materials, as necessary.

Policy 4.6

Brevard County shall maintain an ongoing program to initiate and monitor data collection projects related to beach dynamics, sand transport and coastal processes. This program should include data generated by the Florida Department of Environmental Protection, the U.S. Army Corps of Engineers, the Florida Sea Grant College, universities and other appropriate agencies.

Policy 4.7

Brevard County shall develop an inter-local agreement with adjacent municipalities and the State of Florida for funding of beach maintenance and restoration programs.

Policy 4.8

Brevard County shall prohibit motorized vehicles on the dune and beach system except for governmental vehicles (police and sheriff), fire trucks, ambulances or vehicles necessary to repair utilities, or vehicles utilized during approved renourishment programs or approved scientific investigations. Pedestrian traffic within the vegetated dune areas shall be limited to emergency operations, scientific research, maintenance, cleaning or improvements as authorized by the Natural Resources Management Department and consistent with FDEP regulations.

Policy 4.9

Brevard County shall continue to collect and make available to the public information related to sea level changes.

Policy 4.10

Outer Continental Shelf (OCS) activities such as oil and gas exploration or mining adjacent to Brevard County are discouraged for several reasons. The County's beaches are the most heavily nested beaches by sea turtles in the western Atlantic. Impacts to water quality, beach quality and fisheries could negatively impact the threatened and endangered species that nest here. Brevard County should review and comment on all Outer Continental Shelf (OCS) and off shore drilling leases proposed for waters adjacent to the county. This policy does not discourage OCS sand and gravel mining conducted as part of Brevard County's shore protection and restoration strategy.

Water-Dependent Land Uses

Objective 5

By 2010, Brevard County shall develop and adopt guidelines which direct the location and management of water-dependent, water-related and water-enhanced facilities, giving highest priority to water-dependent uses along the Indian River Lagoon System in order to provide for the increased demand for these facilities.

Policy 5.1

Brevard County shall continue to implement performance standards for marinas and marine-related facilities within the coastal zone which include at a minimum: setbacks, height limitations, parcel size, architectural guidelines, seagrass protection, and the protection of water quality including the maintenance and containment of stormwater runoff and wash-down water for dry storage areas. Marina performance standards shall include the following minimum criteria:

Criteria:

- A. Existing marina facilities should be allowed to continue their operation provided these facilities meet the County's adopted operational standards.
- B. While the expansion of existing facilities is preferred over construction of new facilities, the development of new marinas must remain a viable alternative as many existing marinas will not be capable of meeting adopted operational and environmental standards.
- C. Policies and incentives should encourage new and expanded marina facilities to utilize dry storage to the fullest extent possible.
- D. New marina facilities shall retain all work area runoff in a separate retention area. In addition, the first inch of stormwater runoff from a 10-year 24-hour storm shall be retained on site.
- E. Prior to operation of any new marina fueling facility, a fuel management/spill contingency plan will be developed and provided to the Natural Resources Management Department for review. The plan shall describe methods to be used in dispensing fuel and all the procedures, methods, and materials to be used in the event of a fuel spill and shall meet Brevard County Fire Prevention Codes and Rules of the State Fire Marshall's office.

Policy 5.2

Brevard County should continue to develop and implement regulations governing live-aboards within the coastal zone. The regulations shall include the following criteria at a minimum:

Criteria:

- A. Floating structures shall be considered within live-aboard regulations. Floating structures shall be defined as: A vessel with no means of operative propulsion which is inhabited for thirty (30) consecutive days or more.
- B. Motorized live-aboard vessels shall be defined as vessels which are occupied for more than seven (7) consecutive days within Brevard County. These shall not include floating structures (as defined in Criterion A).
- C. The County shall investigate designating certain areas of the Indian River Lagoon for mooring of motorized live-aboard vessels which are not docked within marinas. Live-aboard vessels moored outside of marinas shall be required to utilize pump-out facilities or a municipal sewer facility if they are moored for over three (3) days.
- D. The County shall coordinate with the Marine Patrol to eliminate live-aboards permanently anchored outside of a marina or area specially designated for live-aboards.
- E. Floating structures shall be required to moor within marinas or to privately owned riparian property, and shall be connected to pump-out facilities or a municipal sewer facility.
- F. Live-aboards shall be considered as part of the community and will be considered as residential units when assessing impacts of such development on community facilities and services.

Policy 5.3

Retrofitting or modification of existing marina facilities within the coastal zone shall be required to meet the following minimum criteria:

Criteria:

- A. Stormwater retention/detention requirements established in the Stormwater Management Criteria Ordinance as adopted on August 23, 1993.

- B. Substantially expanded marina facilities shall retain all work area runoff. For those projects with combined detention areas of five (5) acres or greater, the work area runoff shall be retained in a separate retention area. In addition, the first inch of stormwater runoff from a 10-year, 24 hour storm event shall be retained on site or shall meet the water quality standards as required by the state, whichever is more restrictive. For projects with a combined detention area of less than five (5) acres, stormwater and work area runoff may be retained in a single retention/detention area.
- C. When ten (10) slips or ten (10) percent or more of the total number of slips, whichever is greater, are added, pumpout facilities shall be required, as recommended by the Marine Sanitation Study (1990), sufficient to accommodate the pump-out requirements concurrent with the total number of slips.
- D. Prior to operation of any new marina fueling facility or expansion due to an existing facility, a fuel management/spill contingency plan will be developed and provided to the Natural Resources Management Department for review. The plan shall describe methods to be used in dispensing fuel and all the procedures, methods, and materials to be used in the event of a fuel spill.

Policy 5.4

Brevard County shall continue to implement standards for marina siting within the coastal zone which shall address the following criteria at a minimum:

Criteria:

- A. All proposed marina siting projects in unincorporated areas of Brevard County shall come before the Board of County Commissioners for their review. Marina development may be considered within any appropriate zoning classification, if it is consistent with the performance standards developed by the County. Uplands at the marina site shall be greater than or equal to one acre. Residential marinas shall be allowed as a permitted use, subject to the boat facility siting criteria established in section B below and in the policies under Objectives 3 and 9 of the Conservation Element, in all of the current conditional use zoning classifications for residential/recreational marinas, except Recreational Vehicle Park (RVP) and Government Managed Lands (GML).
- B. At the beginning of the zoning process, all marina development proposals must submit a conceptual plan to be reviewed by the Natural Resources Management Department for compliance with the following boat facility

siting criteria:

PRELIMINARY ASSESSMENT CRITERIA

The following listed criteria are recommended as the preliminary test of suitability for boat facility siting.

1. Water Depth
 - a. Water depth at the proposed mooring area of the site shall be at least four (4) feet mean low water.
 - b. Water depth at the site must be adequate for the proposed vessel use such that there be a minimum of one foot clearance between the deepest draft of the vessel (including the engine) and the bottom at mean low water.
 - c. Proposed boat facilities in areas that contain seagrass shall not be approved unless water depth at the site's turning basin, access channel, and other such areas will accommodate the proposed vessel use to insure that a minimum of one (1) foot clearance is provided between the deepest draft of the vessel (including the engine) and the top of the resources at mean low water.
2. Seagrass
 - a. Marinas shall not be located in areas containing 10% or more seagrass.
 - b. Designated boat docking areas shall not be located over seagrasses.
 - c. Covered boat slips, covered walkways, or covered terminal platforms shall not be permitted in areas containing seagrass.
 - d. Boat docks using open mesh grating and pilings made from recycled materials (plastic/wood composites for example) are preferred to pressure treated wood. Any materials or permitted construction techniques proven to allow a minimum of 75% light transmittance may be exempt from design criteria e and f below in this subsection.
 - e. For Residential Marinas, main access docks and connecting or crosswalks shall not exceed six (6) feet in width.
 - f. Access piers should be located and designed to minimize their shadowing impact on seagrass.
 - g. Reasonable alteration to these criteria may be authorized to accommodate persons with disabilities.
3. Manatee Related Best Management Practices
 - a. Dock designs shall not entrap manatees or otherwise prevent them from accessing forage areas.
 - b. Docks with exposed reinforcement structures on floating docks shall be prohibited due to their potential to entrap or entangle manatees in the structure itself or in the marine debris that commonly occurs in these areas.

4. Water Quality
 - a. New seawalls or bulkheads should be prohibited along the Indian River Lagoon except as provided in Brevard County Code Section 62-3666 or when the project would improve the water quality by acting as a swale and reducing the amount of pollutants which would enter the Indian River Lagoon, where the placement of a seawall does not disturb existing native vegetation, prohibit the reestablishment of native vegetation, or where the reestablishment of native vegetation is not viable.
 - b. All facilities shall adhere to the provisions for surface water protection per the guidelines set forth in Brevard County Code Section 62-3666. The provisions for a shoreline protection buffer established in the Code and Conservation Element (CE) policies include the following:
 - Class I waters - 200 foot buffer – Conservation Element Policy 3.2 A
 - Class II waters - 50 foot buffer - Conservation Element Policy 3.3 A
 - Class III waters - 25 foot buffer – Conservation Element Policy 3.4 A
 - On lots with unarmored shorelines the waterward extent of the buffer is the mean high water line. On bulkheaded lots, the waterward extension of the buffer is established by the bulkhead line. A maximum width of 25 feet or 20% (whichever is greater) may be cleared for access.
5. Powerboat-To-Shoreline Ratios
 - a. ***Boat Facility Siting Zone A:*** In Boat Facility Siting Zone A, powerboat siting ratios shall be limited to one powerboat slip per 100 feet of contiguous linear shoreline that is owned or legally controlled by the applicant, as applied to all new and expanding boating facilities. Boat facilities in Zone A may qualify for a variance under Section e, Variance Criteria. Also, the establishment of new boating research, design, development or manufacturing facilities whose operations include on-water testing of motorized watercraft, are prohibited from locating in uplands within Boat Facility Siting Zone A.
 - b. ***Boat Facility Siting Zone B (Barge Canal):*** In Boat Facility Siting Zone B along the Barge Canal (as defined), powerboat siting ratios shall be limited to a 1:100 powerboat-to-shoreline ratio (tied to a parcel's deed). Any boat facility, which desires to exceed the 1:100 powerboat-to-shoreline ratio, must acquire additional development rights from other properties, which have linear shoreline parallel to the Barge Canal and adjoin the Port Canaveral control easement. Any development rights transferred must be recorded on both the selling and receiving parcels deeds.
 - c. ***Boat Facility Siting Zone C (Port Canaveral Harbor):*** In Boat Facility Siting Zone C, there shall be no powerboat-to-shoreline restrictions

within the Canaveral Harbor provided current slow speed regulations remain in effect.

- d. **Boat Facility Siting Zone D:** The map features described in Table 1 below are to be applied in Boat Facility Siting Zone D. Manatee habitat feature points per Table 1 shall be determined using the map series and data update schedule identified in Appendix C of this Element and using current site surveys for seagrass. In Boat Facility Siting Zone D, Manatee habitat feature points from Table 1 shall be summed and the sum shall be used in Table 2 below to determine the applicable powerboat-to-shoreline ratio per 100 feet of contiguous owned or controlled linear shoreline.

Limiting Habitat Features	Criteria for Evaluation (each increases the number of habitat features by 1, unless otherwise specified)
Manatee Abundance	<p>1st level: 10 or more manatees observed/overflight within 5 mile radius (1 point)</p> <p>2nd level: 25 or more manatees observed/overflight within 5 mile radius (2 points)</p>
Manatee Mortality	<p>1st level: # of watercraft mortalities within a 5 mile radius/total number of watercraft mortalities in Brevard (≥ 0.05 is significant) (1 point)</p> <p>2nd level: # of watercraft-related deaths within a 5 mile radius in the last 5 years/total number of watercraft mortalities in Brevard in the last 5 years (> 0.10 is significant) (2 points)</p>
Seagrass Class II, OFW, or Aquatic Preserves	<p>5% or more present on the project site is significant</p> <p>Site is located in one of these designated areas</p>
Offsetting Features	Criteria for Evaluation (each decreases the number of habitat features by 1)
Speed Zones Within 3 miles of Sebastian inlet	<p>Site is located within a year-round "Slow Speed" or "Idle Speed" Zone</p> <p>Site is located within 3 mile radius of Sebastian Inlet</p>

Table 1

# Manatee Habitat Features	Existing Facility	New Facility
0	5:100	4:100
1	5:100	4:100
2	3:100	2:100
3	2:100	1:100
4	1:100	1:100
5	1:100	1:100
6	1:100	1:100

Table 2

- e. **Variance Criteria:** It is recommended that a variance may be given to the powerboat-to-shoreline ratio for those existing marina and boat launching facilities subject to the 1 powerboat slip to 100 feet of owned contiguous shoreline restriction (1:100), provided the facility meets all the variance criteria listed below and can demonstrate that it will not have an adverse impact on manatees. If an existing facility meets all of the variance criteria, it may be permitted to increase the powerboat-to-shoreline ratio by 1:100 if the waters in and adjacent to the channels leading to the facility are designated "slow speed" or "idle speed" year-round as authorized by the Florida Manatee Sanctuary Act Chapter 68C-22.003, F.A.C. or other federal regulations or local ordinances, or if the facility is within 3 miles of the Sebastian Inlet. The facility may be allowed to increase the powerboat-to-shoreline ratio by 2:100 if both are applicable. In no case shall the maximum total buildout of 3 powerboat slips per 100 feet of owned contiguous shoreline (3:100) be exceeded. However, adherence to these criteria does not automatically ensure the applicant's ability to exceed the allowable powerboat restrictions as defined above. The plan restrictions will remain in effect, if at the time of review, additional information about manatees or the proposed facility indicates threats not addressed by these criteria. Consideration can be given for additional site-specific factors or operating practices (e.g. seasonal operation, etc.) that may be proposed by either the applicant or the County that may result in improved conditions for manatees or manatee protection. Nothing in this section shall exempt any marina from obtaining the usual required permits and/or authority from all applicable reviewing agencies with proper jurisdictional authority.

Criteria:

- 1) The facility is not located within a 1st or 2nd level manatee aggregation area (using the Manatee Abundance Habitat Feature as defined in 5 d of this Policy and in the Table above), or other area where sensitive manatee activities occur.
 - 2) The facility must provide net benefit to manatees and/or their habitat. For example, facilities may include a manatee “refuge” space as part of the design, a conservation easement, restoration of adjacent wetlands such as mangrove or seagrass restoration to increase the net coverage of the nearby area, reduced nutrient input to receiving waters, requiring prop guards on any high traffic vessels such as water taxis or dive boats or rental boats, etc. The marina construction and subsequent uses will neither destroy nor negatively impact mangrove and benthic (seagrass, hard bottom, etc.) communities and the water quality.
 - 3) The facility must have sufficient water depth, as stated in B. 1. a. of this Policy, in the marina basin and in any access channel, and does not require any new dredging or filling that would degrade shallow water habitat (this may exclude maintenance dredging, or pile installation). Entrance/exit channels near marinas shall be adequately marked if marina repairs or expansion are proposed.
 - 4) The site shall contain appropriate signage (including vessel speed and manatee information signs), and provide educational material advising boaters of essential manatee habitats in the vicinity.
 - 5) Multi-family residential docking facilities will require that all vessels moored at the site be registered to individuals residing at the site.
 - 6) The marina has adequate water circulation, tidal flushing, and meets State of Florida and local water quality standards.
 - 7) Before expanding and exceeding the allowable powerboat slips defined above, an existing facility must demonstrate not less than 85% occupancy over the previous 2 years of operation. New facilities should be able to demonstrate the need for additional boat slips in the vicinity based on occupancy of existing marina slips within the boater sphere of influence. The boater’s sphere of influence shall be a five (5) mile radius.
6. Boat Ramps
In order to minimize adverse impacts to manatees, boat ramps are best located in areas with few natural resources, with relatively low manatee

abundance and relatively low watercraft-induced manatee mortalities, and with deep water access and marked navigation channels. Boat ramp siting or expansion in Brevard County shall be evaluated using the following criteria:

- a. All sites considered by Brevard County for new or expanded boat ramp facilities shall be evaluated for site suitability prior to acquisition and development.
- b. All proposed new boat ramps or the expansion of existing boat ramps in the unincorporated areas of Brevard County shall be brought before the Board of County Commissioners for their review.
- c. The siting of new or the expansion of existing boat ramp facilities shall be limited to areas that meet the Preliminary Assessment Criteria for water depth stated in section B. 1. a. of this Policy.
- d. The siting of new or the expansion of existing boat ramp facilities shall be prohibited in areas that meet or exceed the 2nd level of manatee abundance or the 2nd level of manatee mortality as shown in Table 1 above.
- e. The siting of new or expansion of existing boat ramp facilities shall be prohibited in areas with greater than 5% seagrass coverage including all ramps, docks, access walkways, finger piers, mooring areas, turning basins, and ingress and egress pathways.
- f. The siting of new or the expansion of existing boat ramp facilities shall be required to meet the criteria included in Policy 3.3 E of the Conservation Element and Section B. of this Policy with the exception of Seagrass (5.4 B. 2.), Manatee Related Best Management Practices (5.4 B. 3.), and Water Quality (5.4 B. 4.).
- g. All sites considered for the siting of new or the expansion of existing boat ramp facilities shall be evaluated for the number of habitat features present using the Boat Ramp Feature Assessment table below and using the manatee mortality and abundance criteria as defined under Manatee Habitat Features in the glossary.
- h. Boat Facility Siting Zone A is not considered preferable for additional boat ramp siting due to the high number of habitat features present. In Boat Facility Siting Zone A, a site that has less than 2 habitat features based on the criteria in the Boat Facility Feature Assessment may be considered for a new or expanded boat ramp with up to a maximum of 15 parking spaces.
- i. In Boat Facility Siting Zone B (Barge Canal), the establishment of a new public or private boat ramp for public use shall be the same requirements as for the development of a new or expanded marina as described in Boat Facility Siting Zone B (5.4 B. 5.). For the purposes of boat ramps, one boat-trailer parking space shall be considered the

equivalent of one powerboat slip. New or expanded boat ramps on the Barge Canal which are associated with a marina and which are to be used solely by the tenants of that marina for the launching of boats stored at that marina shall not be limited in the number of parking spaces.

- j. In Boat Facility Siting Zone C (Port Canaveral Harbor), the siting of new or expansion of existing boat ramps shall be unrestricted.

<p>LIMITING HABITAT FEATURES</p> <p>Manatee Abundance</p> <p>Manatee Mortality</p> <p>Class II, OFW, or Aquatic Preserves</p>	<p>Criteria for Evaluation (each increases number of habitat features by 1, unless otherwise specified)</p> <p>1st level: 10 or more manatees observed/overflight within 5 mile radius (1 point)</p> <p>2nd level: 25 or more manatees observed/overflight within 5 mile radius (2 points)</p> <p>1st level: # of watercraft mortalities within a 5 mile radius/total number of watercraft mortalities in Brevard (≥ 0.05 is significant) (1 point)</p> <p>2nd level: # of watercraft-related deaths within a 5 mile radius in the last 5 years/total number of watercraft mortalities in Brevard in the last 5 years (> 0.10 is significant) (2 points)</p> <p>Site is located in one of these designated areas</p>
<p>Offsetting Features</p> <p>Speed Zones Within 3 miles of an inlet</p>	<p>Criteria for Evaluation (each decreases the number of habitat features by 1)</p> <p>Site is located within a year-round “Slow Speed” or “Idle Speed” Zone</p> <p>Site is located within 3 mile radius of Sebastian Inlet</p>

**Table 3
Boat Ramp Feature Assessment**

- k. In Boat Facility Siting Zone D, a site with no more than 2 habitat features shall be considered suitable for siting of a new boat ramp or the expansion of an existing boat ramp. Sites with 0 or 1 habitat feature shall be eligible for a boat ramp with up to a maximum of 40 boat trailer parking spaces. Sites with 2 habitat features shall be eligible for a boat ramp with up to a maximum of 15 boat trailer parking spaces.
- l. Boat Ramp Variance Criteria: The ability to secure additional parking slots at public ramps could be reconsidered by the FWC if additional law enforcement, additional preservation, or impact reduction along the lagoon is demonstrated.
- m. The following specific sites are identified individually to address existing boat ramp deficiencies in Brevard County and are exempted from the boat ramp siting criteria above:

- 1) It is recommended that Brevard County's relocation of the Pineda Landing facility include 36 parking spaces.
 - 2) It is recommended that Brevard County provide 50 additional parking spaces by expanding existing public ramp facilities or by developing a new location in the south mainland area. The expansion of an existing facility or the siting of a new facility, as provided for above shall minimize impacts to manatees and natural resources and should be evaluated by the Boat Ramp Manatee Habitat Feature Assessment as defined above. It is recommended that the evaluation result in a score of no greater than two habitat features. The County will screen sites to select the most appropriate and coordinate with FWC staff on the site selection.
- C. Commercial/industrial and commercial/recreational marina development within commercial, heavy and light industrial and planned industrial park land use designations shall require a Conditional Use Permit. Residential/recreational marinas shall be a permitted use in these land use designations.
- D. Residential/recreational marinas may be considered within residential land use designations with a Conditional Use Permit and a Binding Development Plan.
- E. No fueling or repair facilities are permitted within residential zoning classifications.
- F. When locating new marinas or expanding existing marinas, biologically productive habitats shall be preserved to the fullest extent possible. Mitigation is the last resort for habitat destruction, and shall be of a two-to-one or greater ratio of in-kind replacement.
- G. Marina facilities shall be located where maximum physical advantage for flushing and circulation exists, where the least dredging and maintenance are required, and where marine and estuarine resources will not be significantly affected.
- H. Marina basins shall be sited where there is an existing basin and access channel with an average water depth of three (3) feet below mean low water, except at the shoreline.
- I. Marinas and docking facilities should be approved which require minimal or no dredging or filling to provide access by canal, channel or road.

Preference shall be given to marina sites with existing channels. In the event that dredging is required, the mooring areas and the navigation access channels shall not be dredged to depths greater than eight (8) feet. Any required dredging operations shall utilize appropriate construction techniques and materials to comply with state water quality standards, such as turbidity screens, hydraulic dredges, properly sized and isolated spoil deposition area to control spoil dewatering. All dredging activities must be done with effective turbidity controls. Where turbidity screens or similar devices are used, they should be secured and regularly monitored to avoid manatee entrapment.

- J. Marinas shall be located in areas with good flushing and circulation. New marina or substantially expanded facilities shall be designed to take advantage of existing water circulation and shall not adversely affect existing circulation patterns. Improvement of circulation shall be a consideration when expanding or upgrading existing facilities. However, any buffer zone established by the Florida Department of Environmental Protection Shellfish Environmental Assessment Section (FDEP-SEAS) shall be maintained.
- K. The proposed site shall be compatible with existing land use designations. Marinas shall demonstrate that they have sufficient upland areas to accommodate all needed support facilities. These standards include, but should not be limited to, adequate parking, work areas and retention areas for stormwater and work area runoff, and shoreline protection buffers.
- L. Marina facilities shall not degrade water quality below existing Florida Department of Environmental Protection water classification standards.
- M. Marinas shall not be located in approved or conditionally approved shellfish harvesting waters or Class II waters, or other environmental areas designated by the County so as to substantially and materially have a negative impact on these waters.
- N. Commercial/recreational and commercial/industrial marinas shall not be located in Aquatic Preserves, or Outstanding Florida Waters, or other environmental areas designated by the County so as to substantially and materially have a negative impact on these waters.
- O. Construction of multi-slip docking facilities and boat ramps shall be directed to locations where there is quick access to deep, open water at least eight (8) feet in depth (dredgeable), where the multi-slip docking

facilities take the place of several single-slip docks and allow public access to the water, and where the associated increase in boat traffic will be outside of known manatee aggregation areas, and where seagrass beds or other wetlands supporting manatee habitat will not be disturbed.

- P. All marina facilities shall comply with manatee protection measures established in Conservation Element Policy 9.9.

Policy 5.5

Brevard County shall require hurricane plans to be submitted to the Florida Division of Emergency Management in conjunction with marina site plans for review.

Policy 5.6

Marinas within the coastal zone shall be inspected annually by Brevard County and results of these inspections shall be coordinated with other agencies. Inspections shall be coordinated with existing programs and duplication with existing inspection programs shall be avoided. It is recommended that inspection of commercial marinas occur as part of the business license renewal procedure. Items to be inspected and reviewed may include the following.

Criteria:

- A. Pumpout facilities/marine sanitation devices, if required.
- B. Compliance with power/sailboat mix, if required.
- C. Spill prevention, control, containment and cleanup plans.
- D. Waste collection and disposal methods.
- E. Fire fighting equipment, if required.
- F. Monitoring of marina basin water quality for bacteriological levels to insure compliance with state and federal standards. Live-aboards at marinas shall be inspected to ensure that marine sanitation devices (MSDs) are present and operational. If a water monitoring program is required, water-dependent uses shall be assessed an annual fee adequate to fund a water quality monitoring program.

Policy 5.7

Brevard County shall investigate the utilization of tourist taxes or boating improvement funds to develop public boat launching facilities and related amenities.

Policy 5.8

Brevard County should consider the acquisition of property for boat ramps in their recreational purchasing program.

Policy 5.9

All new boat ramps should have parking areas constructed utilizing permeable pavement where appropriate and have the proper stormwater management system in place.

Policy 5.10

Brevard County shall review shore-line development within the coastal zone in order to maximize opportunities for water-dependent land uses. The following criteria, at a minimum, shall be utilized.

Criteria:

- A. Water-related uses shall be built on uplands.
- B. Development which is feasible only through creation of land by dredging and filling of areas below the mean high water line shall not be approved. Exceptions may be considered where overriding benefit to the natural resource can be demonstrated.
- C. Water-dependent commercial and industrial uses may be considered for siting adjacent to the Indian River Lagoon.
- D. Water-related commercial and industrial uses may be considered for siting only adjacent to Class III waters of the Indian River Lagoon.

Policy 5.11

The Brevard County Land Development Regulations shall include a provision for water-enhanced commercial development within the coastal zone. Such uses shall be permitted as Conditional Uses within the BU-1 zoning category.

Policy 5.12

Brevard County should develop and implement a water and sediment quality monitoring program for water-dependent users, man-made canals and other selected areas with significant upland runoff within the coastal zone.

Criteria:

- A. Brevard County shall establish a classification program for the various water dependent uses.
- B. Brevard County shall establish a water quality monitoring program for each of the designated classes of water dependent uses.

- C. Water-dependent uses shall be assessed an annual fee adequate to fund the required water quality monitoring program.
- D. The County shall require the activity to cease if adopted water quality standards are not maintained.
- E. Continued operation resulting in degradation of the water quality below accepted standards shall result in a fine, as established by Brevard County.
- F. Waiver provisions should be included for operations below an established threshold.
- G. This program shall be in coordination with the Florida Department of Environmental Protection and other appropriate agencies.

Policy 5.13

Brevard County shall support environmentally and economically sound development of Port Canaveral and related facilities, which is consistent with this Comprehensive Plan (Policy 5.4 of the Transportation Element).

Policy 5.14

Brevard County should continue to monitor boating activity and boat facility demand.

Policy 5.15

During rezoning and other development order approval reviews, Brevard County should give immediate shoreline use priorities (in descending order of priority) to:

Criteria:

- A. Water-dependent uses such as fish, shellfish and wildlife production, recreation, water dependent industry and utilities, marinas and navigation;
- B. Water-related uses such as certain utilities, commerce and industrial uses;
- C. Water-enhanced uses such as some recreation uses;
- D. Non-water dependent or related activities such as residential; and

- E. Of lowest priority are those uses which are non-water_dependent, non-water enhanced and which result in an irretrievable commitment of coastal resources.

Policy 5.16

Brevard County should encourage the construction of marine sanitation device (MSD) pumpout facilities.

Policy 5.17

Brevard County shall utilize available management plans in developing standards for marina siting and other water-dependent uses. These management plans include, but are not limited to, Aquatic Preserve Management Plans, the Surface Water Improvement Management (SWIM) Plan and the IRLCCMP.

Coastal High Hazard Areas

Objective 6

Limit future public expenditures for infrastructure and service facilities which subsidize growth within the coastal high hazard areas of Brevard County. Expenditures for public land acquisition or enhancement of natural resources shall be encouraged.

Policy 6.1

Brevard County shall designate coastal high hazard areas to be those areas below the elevation of the Category 1 storm surge elevation as established by a Sea, Lake and Overland Surges from Hurricanes (SLOSH) computerized storm surge model, as defined in Chapter 163, Florida Statute (see Maps 3a, 3b, and 3c).

Policy 6.2

Brevard County shall not support or finance new local transportation corridors which lie within the coastal high hazard area or areas zoned as Environmental Area, except where there are no other cost-feasible alternatives. Corresponding improvements may only be considered when the facilitation of such improvements is needed to support the densities programmed on the Future Land Use Map (FLUM) series of the Comprehensive Plan.

Policy 6.3

Brevard County should not locate sewer and water transmission lines within the coastal high hazard area, except where there is no practical and cost-feasible alternative due to engineering, safety and cost considerations, lack of alternative existing rights-of-way, or for septic to sewer conversion projects selected specifically to improve ground and surface water quality.

Policy 6.4

If County utility lines are relocated for any purpose, they should be located outside of the coastal high hazard area, except where there is no cost-feasible alternative.

Policy 6.5

Public facilities, except for recreational facilities, shall not be located by Brevard County within the coastal high hazard area, except where there are no other cost-feasible alternatives. Corresponding improvements may only be considered when the facilitation of such improvements is needed to support the densities programmed on the Future Land Use Map (FLUM) series of the Comprehensive Plan.

Policy 6.6

Brevard County shall continue to implement the Transfer of Development Rights program which has been established to transfer density from transfer districts within the coastal high hazard area to receiving districts outside of the coastal high hazard area.

Policy 6.7

Brevard County shall review federal and state development proposals which are to be located within the coastal high hazard areas, and shall support those projects which are consistent with this Plan.

Policy 6.8

The existence of sewer, water, roadways or other public infrastructure shall not be considered adequate rationale for an increase in zoning density or intensity within the coastal high hazard area.

Policy 6.9

Once public acquisition of recreation and/or conservation lands occurs within coastal high hazard areas, the Future Land Use Map shall be amended to designate the same as Recreation or Conservation lands. Such redesignation shall not serve as a basis for increasing established residential density designations in said coastal high hazard area.

Coastal Residential Densities

Objective 7

Limit densities within the coastal high hazard area and direct development outside of this area.

Policy 7.1

Brevard County shall not increase residential density designations for properties located on the barrier island between the southern boundary of Melbourne Beach and the Sebastian Inlet.

Policy 7.2

Brevard County shall continue its program of land acquisition and management for recreation and preservation, contingent upon availability of funding.

Policy 7.3

Brevard County shall maintain the Brevard County Comprehensive Emergency Management Plan (BrevCEMP). This plan shall be consistent with this Comprehensive Plan, and shall be coordinated with the municipalities, the appropriate state and federal agencies, and be approved by the appropriate state agency(s).

Policy 7.4

Public facilities, such as hospitals, wastewater treatment plants or fire stations, shall not be located on causeways.

Hurricane Evacuation

Objective 8

Reduce excessive evacuation times where they currently exist, and maintain all other evacuation times within the acceptable standard. Acceptable evacuation standards will be reviewed and updated as necessary but shall not exceed the times indicated in the current Brevard County Comprehensive Emergency Management Plan

Policy 8.1

Brevard County shall maintain acceptable hurricane evacuation times based upon the following:

Criteria:

- A. The most current behavioral response scenario.
- B. The requirement to evacuate prior to sustained tropical storm force (40 mph) winds.

Policy 8.2

Brevard County shall coordinate with the municipalities and appropriate state agencies to develop Evacuation Zone Management Plans to reduce evacuation times above the current optimum behavioral response time. The following shall be considered, at a minimum:

Criteria:

- A. Roadway and other infrastructure improvements and funding mechanisms.
- B. Programs designed to improve the behavioral response to hurricane evacuation orders.
- C. Land use strategies.

Policy 8.3

Brevard County Emergency Management shall continue to coordinate with NASA to allow evacuation of North Merritt Island through Kennedy Space Center, if necessary.

Policy 8.4

Brevard County shall identify roadway and operational improvements to the hurricane evacuation network based upon the number of people who cannot be evacuated within an optimum evacuation time limit.

Criteria:

- A. Priority shall be given to improvements serving the zone with the highest number of people remaining after the current optimum evacuation time.
- B. The remaining improvements shall be given priority in descending order according to the number of people remaining after the optimum evacuation time.
- C. Brevard County, in cooperation with the Florida Department of Transportation, shall identify key hurricane evacuation routes that are vulnerable to flooding, erosion and critical points of congestion during the established evacuation time.
- D. Brevard County shall present recommended roadway, operational and maintenance improvements to the appropriate implementing and funding agencies.

Policy 8.5

In those areas where citizens cannot be evacuated within the evacuation standards in the Brevard County Emergency Management Plan adopted January 1, 2008, development orders may be deferred until such time as adequate evacuation capacity has been programmed.

Policy 8.6

Brevard County shall consider hurricane evacuation times, as well as other factors, in determining the timing and priority of roadway improvements which are programmed by the Board of County Commissioners.

Policy 8.7

Brevard County shall cooperate with the Red Cross and other agencies to develop an on-going public education program to notify the public as to the necessity to evacuate as quickly as possible in order to reduce or eliminate evacuation times in excess of the optimum behavioral response time.

Policy 8.8

Brevard County's Comprehensive Emergency Management Plan (BrevCEMP) shall be consistent with the state comprehensive emergency management plans.

Policy 8.9

Based upon hurricane vulnerability concerns and excessive evacuation times, new mobile home development or recreational vehicle parks shall not be permitted on the barrier island, to the extent permitted by law. Expansions to an existing mobile home development may be permitted if such development results in a decrease in land use intensity and an overall reduction in programmed residential densities and is consistent with the character of the surrounding area.

Policy 8.10

Brevard County shall require a hurricane management plan which reduces excessive hurricane evacuation time for existing recreational vehicle park development within the south beaches.

Policy 8.11

Brevard County shall encourage the State of Florida to identify a dedicated funding source for the improvement of primary hurricane evacuation routes, such as US 192, SR 528, SR 520 and Interstate 95. The funding source should be in addition to state and federal funds already received by Brevard County for urban area roadway improvements.

Hurricane Shelters

Objective 9

Provide adequate, safe hurricane shelter space to meet the needs of the at risk and special needs population (“shelter space” shall be considered to include both private and public shelters).

Policy 9.1

Brevard County shall continue to cooperate with the Red Cross and State Emergency Management to provide an emergency shelter manager training course and encourage interested citizens of Brevard County to become shelter managers.

Policy 9.2

Brevard County Office of Emergency Management shall continue to cooperate with the Red Cross to develop a public education program on hurricane preparedness, including the locations of hurricane evacuation shelters and the need for emergency shelter managers.

Policy 9.3

Brevard County shall cooperate with the Red Cross in designating appropriate public and private structures as hurricane shelters.

Policy 9.4

Brevard County shall utilize the Housing and Human Services Department to provide appropriate facilities and adequate staffing for the special needs shelters.

Policy 9.5

Brevard County shall support the School Board in their efforts to utilize enhanced hurricane shelter protection standards for all reconstruction and new development in accordance with FS 235.26.

Policy 9.6

Public buildings within Brevard County should be reviewed to determine if qualified to be utilized as hurricane sheltering. Beginning in the year 2000, all newly constructed public buildings shall meet the criteria established for enhanced shelter protection in the State Requirements for Educational Facilities (SREF).

Policy 9.7

Brevard County shall study the feasibility of increasing residential construction standards to reduce hurricane shelter deficits and ensure the delivery of safe housing for citizens of Brevard County.

Policy 9.8

Brevard County shall develop a hazard mitigation strategy in its land development regulations which prohibits the development of new recreational, mobile or manufactured housing and the expansion of existing recreational, mobile or manufactured housing unless the developer/owner has provided emergency sheltering sufficient to house a minimum of 50% of the residents of that development.

Policy 9.9

Brevard County will encourage all existing recreational, mobile or manufactured housing communities to have emergency shelters and a hurricane management plan that will result in faster evacuation times for their residents.

Post-Disaster Redevelopment

Objective 10

Expedite post-disaster recovery and reduce or eliminate the future risk to human life, and public and private property from natural hazards via recovery and re-development strategies adopted in the BrevCEMP.

Policy 10.1

Brevard County shall review all non-emergency and long-term redevelopment proposals utilizing the following:

Criteria:

- A. If utility lines, including but not limited to sewer, water, gas, electric and cable TV, must be relocated after a storm event, they should be permanently located landward (west) of the 1986 FDEP Coastal Construction Control Line and underground, except for feed lines servicing individual parcels. Repair of these lines on a temporary basis to protect health and safety shall be permitted in their existing locations.
- B. Underground storage tanks which are located seaward of the Brevard County Coastal Setback Line (CSL) shall be relocated landward (west) of the 1986 FDEP Coastal Construction Control Line.
- C. Water-dependent commercial uses seaward of the 1981 FDEP Coastal Construction Control Line which are damaged by more than 50% of their assessed value or fair market value as determined by an MAI appraisal supplied by the property owner may be reconstructed seaward (east) of the 1981 FDEP CCCL consistent with the coastal zone construction requirements.

- D. Water-related commercial uses seaward (east) of the 1981 FDEP Coastal Construction Control Line which are damaged by more than 50% of their assessed value or fair market value as determined by an MAI appraisal supplied by the property owner should be relocated landward (west) of the 1981 FDEP CCCL unless the project has no feasible alternative and is found to be in the public interest.
- E. Water-enhanced commercial uses seaward (east) of the 1981 FDEP Coastal Construction Control Line which are damaged by more than 50% of their assessed value or fair market value as determined by an MAI appraisal supplied by the property owner should be relocated landward (west) of the 1981 FDEP CCCL.
- F. If non-habitable minor structures which are damaged by more than fifty (50) percent of their assessed value or fair market value as determined by an MAI appraisal supplied by the property owner are reconstructed, they shall be relocated and constructed in compliance with coastal zone construction requirements.
- G. Brevard County should develop a program for the possible relocation of residential housing, if required after a natural disaster.

Policy 10.2

The replacement of infrastructure shall be constructed in conjunction with existing development or as part of an integral network of infrastructure.

Policy 10.3

Brevard County should analyze those public structures within the coastal zone which are most likely to be damaged or destroyed during a hurricane. The analysis shall be coordinated by the Planning and Development Department and shall consider the following, at a minimum:

Criteria:

- A. The cost effectiveness of relocation versus repair shall be analyzed.
- B. Alternatives shall be considered in the light of mitigative impacts, growth management consistency, impacts to the public, timeliness, legal issues, environmental impacts and cost.
- C. The following alternatives, at a minimum, shall be analyzed:
 - 1. Repair of the structure to the pre-disaster conditions.
 - 2. Repair of the structure to the pre-disaster conditions with physical protective structures, as may be legally permissible, such as

- seawalls or revetments when consistent with policy 5 of this element.
3. Vertical relocation of the structure, e.g. elevating roadways with bridges.
 4. Relocation further inland.
- D. Reconstruction or relocation of SR A1A and other roadway segments within the coastal high hazard area shall be included within this study.
- E. Analysis of County service center and other facilities shall be in conjunction with the County's Space/Needs Assessment.
- F. Those structures within the high risk vulnerability zone to be included are the Central Brevard Service Complex, District II Commission Office, District II Road and Bridge, County Sign Shop, public libraries and County fire stations.
- G. The study shall be consistent with the East Central Florida Regional Planning Council studies. The hurricane scenarios and loss estimates shall be consistent with the Hurricane Loss Study and shall be coordinated with other appropriate agencies.
- H. The impact of sea level rise and the projected 30-year erosion line shall also be analyzed.

Policy 10.4

In the event of a disaster, all infrastructure and other County owned improvements, which were not included within the above outlined study, shall be analyzed to determine the cost effectiveness of relocation versus repair.

Policy 10.5

The Brevard County shall provide copies of building permits which have been issued for storm damage repair to the County Hazard Mitigation Team for their evaluation for identification of areas susceptible to repeated damage by hurricane erosion and flooding.

Policy 10.6

Brevard County shall continue to conduct disaster related exercises at regular intervals, as determined by the Emergency Management Office, or in conjunction with the East Central Florida Regional Planning Council, Local Emergency Planning Committee and other state or federal agencies.

Policy 10.7

As identified in the BrevCEMP, Emergency Support Function 18 (ESF 18) shall be the primary lead to conduct a post-disaster evaluation to assess property damages necessary for disaster relief and post-disaster redevelopment funds. The ESF 18 should have available a listing of property values coordinated with land use maps to facilitate such property assessment procedures. County staff, such as the Planning and Development Department, will be utilized as manpower.

Policy 10.8

The BrevCEMP shall be coordinated with other local, regional and state entities. As additional interagency hazard mitigation reports are received, they shall be reviewed and incorporated into the BrevCEMP.

Policy 10.9

Brevard County should require that when utility lines, including, but not limited to sewer, water, gas, electric and TV cable, are relocated for any purpose, they shall be placed underground.

Coastal Access

Objective 11

Provide adequate public access to the beach, estuarine and river shorelines consistent with public needs and the shoreline's natural resource requirements.

Policy 11.1

Brevard County shall acquire new beach access sites, improve existing sites or provide alternative access to non-designated beach access points. The following minimum criteria shall apply:

Criteria:

- A. Acquisition and site improvements of those areas of the beach identified as most deficient for beach access shall be given the highest priority. Efforts shall be undertaken to provide public access to all of Brevard County's beaches consistent with the FDEP's criteria for state cost-share funding for beach management.
- B. Site improvements, parking facilities and drainage shall be secondary to improvements to the naturally functioning dune system.
- C. Access shall be consistent with the standards included in the Recreation and Open Space Element of this Plan.

- D. Priority shall be given to those sites which are heavily utilized for beach recreation.
- E. Brevard County shall make efforts to balance the demand for beach access with the protection of the beach and dune habitat and species.

Policy 11.2

Brevard County shall complete the Beach and Riverfront Acquisition Program, contingent upon availability of funding, with priority being given to the acquisition of land to fulfill the Identified Needs, as adopted by the Brevard County Board of County Commissioners.

Policy 11.3

Brevard County shall prioritize future improvements to those oceanfront properties, contingent upon availability of funding, which have been purchased and are identified for additional beach access development.

Policy 11.4

Brevard County shall continue to coordinate with all beachfront municipalities the continued development and implementation of the Brevard County Beach Management Program. The Beach Erosion Advisory Committee, established by Chapter 70-603, Laws of Florida, should continue to function as a mechanism to communicate with the beachfront municipalities on beach-related issues and as the primary technical advisory committee to the Board of County Commissioners on the beach program.

Policy 11.5

Brevard County shall continue to pursue funds for dune revegetation to be used when constructing dune crossovers as replacements for unimproved dune access.

Policy 11.6

Brevard County shall coordinate with the Florida Department of Transportation in providing waterfront access on causeways and bridges.

Policy 11.7

Brevard County shall require private property owners to allow public use of beaches which are renourished with public funds. Access can be accomplished through publicly owned access points or improved dune crossovers located on easements.

Policy 11.8

Brevard County shall review beachfront development to ensure that it does not interfere with public access in those instances where the public has established ocean

access-ways through private lands by prescription, prescriptive easement or other legal means. The developer may improve, consolidate, or relocate such public access provided it is consistent with this Plan.

Policy 11.9

Brevard County shall investigate the feasibility of acquiring narrow strips of land along the Indian River Lagoon, where such areas could provide visual access or provide parking for passive recreation within the Lagoon.

Port Canaveral

Objective 12

Brevard County will continue to identify provisions of the Port Master Plan which it considers inconsistent with the Coastal Management Element of the County Comprehensive Plan and will continue to offer to coordinate with Port Canaveral in resolving any inconsistencies. Brevard County shall continue to request copies of proposed plan amendments submitted for transmittal to the Department of Economic Opportunity and shall continue to review and comment on such amendments to the Port Master Plan consistent with the County's procedure for reviewing plans of other jurisdictions and Chapter 163.3177 (6) (g).

Policy 12.1

Brevard County shall continue to cooperate with the Port Canaveral Authority and the Florida Inland Navigation District in the identification of suitable spoil disposal sites within unincorporated Brevard County.

Recreational and Commercial Working Waterfronts

In 2005 and 2006, the Legislature recognized that there is an important state interest in facilitating boating and other recreational access to the state's navigable waters. This access is vital to recreational users and the marine industry in the state, to maintaining or enhancing the \$57 billion economic impact of tourism and the \$14 billion economic impact of boating in the state annually, and to ensuring continued access to all residents and visitors to the navigable waters of the state. The Legislature recognizes that there is an important state interest in maintaining viable water-dependent support facilities, such as public lodging establishments, boat hauling and repairing and commercial fishing facilities, and in maintaining the availability of public access to the navigable waters of the state. The Legislature further recognizes that the waterways of the state are important for engaging in commerce and the transportation of goods and people upon such waterways and that such commerce and transportation is not feasible

unless there is access to and from the navigable waters of the state through recreational and commercial working waterfronts.

The purpose of the Brevard County Working Waterfront Objective is to implement the relevant and mandated provisions of Chapter 2005-157, and Chapter 2006-220 of the Laws of Florida. The Legislature requires that local governments, through their comprehensive plans, address development activities that diminish access to the state's navigable waters. The recreation and open space element of all local comprehensive plans now must include waterways. (F.S. § 163.3177(6)(e)) In addition, all coastal counties and municipalities in Florida now have a legislatively-mandated duty to include, in the coastal management element of their Comprehensive Plan, strategies that will be used to preserve recreational and working waterfronts. (F. S. § 163.3178(2)(g)) Further, coastal counties must amend the future land use element of their comprehensive plan to create "regulatory incentives and criteria" that encourage the preservation of recreational and commercial working waterfronts. More specifically, the purpose is to protect and promote Brevard County as a recreational and commercial working waterfront community; protect and improve public access to the shorelines and waters of Brevard County; preserve and protect the cultural heritage and physical character of the area as a working waterfront community; and enhance the aesthetic character of the area by directing development in a manner that maintains the working waterfront identity of the County.

Objective 13

To establish a comprehensive program to promote and protect public access to the marine and coastal waters of the County, and to ensure the economic viability of recreational and commercial working waterfronts.

Policy 13.1

The County shall identify, inventory and characterize all existing publicly-accessible recreational and commercial working waterfronts in Brevard County on a parcel-by-parcel basis, including but not limited to parking facilities for beach and shoreline access, coastal roads, facilities providing scenic overlooks, public lodging establishments, docks, wharfs, lifts, wet and dry marinas, boat ramps, boat hauling and repair facilities, commercial fishing facilities, boat construction facilities, and other support structures over the water and shall continue to maintain this inventory.

Policy 13.2

The County shall identify, inventory and characterize all private facilities that would otherwise qualify as recreational or commercial working waterfronts because they provide access to the marine and coastal waters of the County and shall continue to maintain this inventory.

Policy 13.3

The County should identify, inventory and characterize all parcels suitable for future development as publicly-accessible recreational and commercial working waterfronts in Brevard County. Suitable for future development includes vacant parcels and developed parcels not currently being used for water dependent activities which, because of their proximity, biophysical nature or other factors, could become recreational and commercial working waterfronts through a change in land use.

Policy 13.4

The County should identify, inventory and characterize existing right-of-ways, easements and other public property interests adjacent to or capable of providing public access or enhancing public access to the shorelines and waters of Brevard County.

Policy 13.5

The County should assess the future demand for public water access to the shorelines and waters of Brevard and shall establish activity-based levels of service standards for public water access.

Policy 13.6

The Brevard Marine Advisory Council shall continue to review and make recommendations to the Board concerning recreational and commercial working waterfronts in Brevard County.

Policy 13.7

The County shall continue to develop strategies to ensure continued public access to navigable waters through the identification and implementation of regulatory incentives and criteria.

Policy 13.8

The County shall prioritize recreational and commercial working waterfronts in existing or new land acquisition programs to purchase suitable parcels or the non-water dependent development rights to suitable parcels as determined by the inventory created under the Coastal Management Element of the comprehensive plan. Current funding strategies can include tourist taxes, or boating improvement funds to develop public launching facilities and related amenities.

Criteria:

- A. Funding may come from fees, bonds, community redevelopment district financing, or other sources as approved by Board, and may be supplemented through revenue sharing with appropriate state and federal programs.

- B. The County's share of revenue collected from boating registration fees shall be spent on boating infrastructure projects pursuant to Chapter 328.72(15), F.S.

Policy 13.9

The County shall not vacate, diminish, or otherwise impair publicly-owned pathways, sidewalks, roads, parking areas, docks or boat launching facilities, and other access points that are currently used, or susceptible to use, by the public to access the shorelines unless specific findings are made demonstrating that the action is necessary and suitable mitigation measures are or will be in place and only after a public hearing and decision by a super majority of the Board of Commissioners. (currently in Board Policy)

Policy 13.10

The County shall continue to inventory the waters of Brevard County to determine appropriate sites for one or more managed anchorages and/or mooring fields that shall be available to the boating public on a first come, first served basis. If one or more suitable sites are found, the County may establish a publically accessible-managed anchorage and mooring field(s), taking into account environmental protection requirements and the concerns of shore side residents.

Policy 13.11

The County should develop incentives for encouraging private waterfront property owners to make their properties available for public use for purposes that are consistent with the uses permitted in recreational and commercial working waterfronts.

Coastal Development and Redevelopment

Objective 14

Create procedures to allow consideration of the changing dynamics of flooding, sea level rise, and storm surge in growth management decisions within the unincorporated areas of Brevard County over short, mid, and long-term planning horizons.

Policy 14.1

The County should utilize a range of sea level rise projections as recommended in the adopted East Central Florida Regional Resilience Action Plan (RRAP), as amended, for planning purposes based upon vulnerability, risk, project service life of a facility or growth management.

Policy 14.2

The County should consider designating Adaptation Action Areas (AAAs), as allowed by Florida Statute, as a mechanism to prioritize resilient planning, infrastructure investments, and strategies to address current and future flood impacts in areas identified as vulnerable to coastal flooding, storm surge, and sea level rise.

Policy 14.3

Using best available data, the County should consider identifying areas vulnerable to current and future flooding impacts which may benefit from nature-based design standards and/or Low Impact Development projects that reduce run-off; mitigate flood impacts; provide for the on-site absorption, capture, and reuse of stormwater; and preserve and restore natural drainage characteristics.

Policy 14.4

The County should consider the results of the Vulnerability Analysis when planning for development, redevelopment, and improvements to critical facilities and infrastructure.

Policy 14.5

The County should consider initiatives within the Brevard County Emergency Operations Local Mitigation Strategy (LMS) and ECFRPC RRAP that focus on solutions for flood impacts; and develop methodologies for prioritizing public project expenditures based on a cost-benefit analysis, feasibility, and short- versus long-term benefits.

Policy 14.6

The County must develop mechanisms to evaluate and recommend new design and development standards for public and private infrastructure projects that consider future climate conditions, and amend Land Development Regulations to reduce obstacles that hinder nature-based design standards and/or Low Impact Development unless it can be clearly demonstrated that:

- a. Strict application will be contrary to the public interest;
- b. The public values being protected are insignificant and strict application will result in an excessive hardship to the project;
- c. Strict application will place an excessive hardship on the project, and an alternative action is available which is equal to or superior than the original requirements in reaching the policy's objective, or
- d. The activity is not financially feasible for the local government.

Policy 14.7

The County should identify development and redevelopment performance standards designed to minimize or withstand permanent and/or temporary inundation

from flooding, sea level rise, and storm surge. These standards may include increased freeboard elevations, the consideration of future tailwater elevations for stormwater infrastructure, and/or multi-use temporary flood storage areas.

Policy 14.8

The County should continually identify strategies and engineering solutions that minimize the loss of flood storage capacity in all floodplains and areas vulnerable to natural hazards such as flooding, storm surge, and sea level rise, and consider incorporating them into the Land Development Regulations.

Policy 14.9

Based on the 2021 Resilient Brevard Community Survey, completed by the ECFRPC, the County must encourage nature-based design standards and/or Low Impact Development design for development and redevelopment within areas vulnerable to current and future flooding impacts unless it can be clearly demonstrated that:

- a. Strict application will be contrary to the public interest;
- b. The public values being protected are insignificant and strict application will result in an excessive hardship to the project;
- c. Strict application will place an excessive hardship on the project, and an alternative action is available which is equal to or superior than the original requirements in reaching the policy’s objective, or
- d. The activity is not financially feasible for the local government.

Such adaptation strategies may include:

- a. Multi-use stormwater parks,
- b. Bioswales as stormwater management techniques,
- c. Green streets,
- d. Reduced impervious areas,
- e. Florida-friendly landscaping/xeriscaping, and
- f. Ecological asset preservation (e.g., tree canopy, natural areas, mangroves, wetlands, dunes, aquifer recharge areas).

Policy 14.10

The County should educate the community about flood mitigation principles, strategies, and engineering solutions that can be implemented to protect property and reduce insurance losses.

Policy 14.11

The County should pursue private and public funding sources for the implementation of flood resiliency strategies – including, but not limited to, avoidance, protection, accommodation, strategic relocation - within areas identified as vulnerable to current and future flooding impacts. As funding opportunities arise, the County should consider removing real property structures from coastal FEMA flood zones through acquisition of repetitive loss properties, for use as green space or stormwater management.

Policy 14.12

The County should continue to implement policies within the Comprehensive Plan, including but not limited to the Conservation Element, to ensure avoidance and minimization of impacts to natural coastal ecosystems, including wetlands, floodplains, aquifer recharge areas, and dunes.

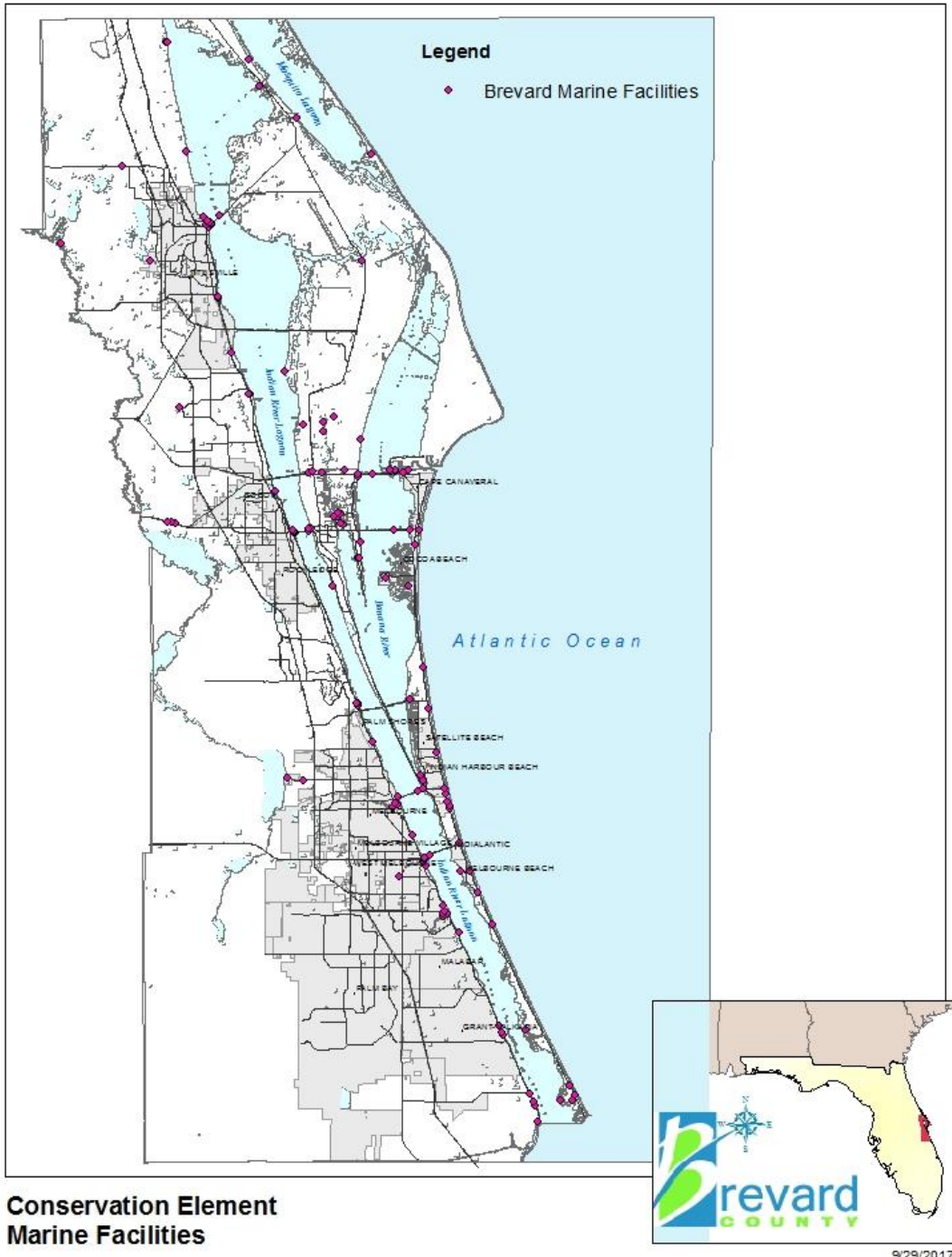
Policy 14.13

The County should continue to analyze best available data to maintain or update relevant and current coastal hazard vulnerability projections and update maps, as applicable. The County should continue to identify and understand the risks, vulnerabilities, and opportunities for strategies within short, mid, and long-term planning horizons as established in the RRAP Formal Recommendation, as amended.

APPENDIX A

LIST OF MAPS

Map	Title
1	Marine Facilities
2	Evacuation Routes
3a, 3b, 3c	Coastal High Hazard Areas



Map 1
Marine Facilities

Map 1 Legend
(Webpage Note: Reverse Side of Map - Enlarged for Display Online)

MAP REF #	STREET	CITY	WATERBODY
1	2000 Jones Av.	Mims	Indian River
2	801 Marina Road	Titusville	Indian River
3	451 Marina Road	Titusville	Indian River
4	419 N. Washington Ave.	Titusville	Indian River
5	41 N. Broad Street	Titusville	Indian River
6	S. Washington Ave. North of SR 50	Titusville	Indian River
7	4749 S. Washington Ave.	Titusville	Indian River
8	River Moorings Drive	N. Merritt Island	Indian River
9	1300 E. Hall Rd.	Merritt Island	Banana River
10	505 Glen Cheek Dr.	Port Canaveral	Port Canaveral
11	520 Glen Cheek Drive	Port Canaveral	Port Canaveral
12	628 Glen Cheek Drive	Port Canaveral	Port Canaveral
13	960 Mullet Road	Port Canaveral	Port Canaveral
14	350 SeaRay Dr.	Merritt Island	Barge Canal
15	2700 Harbortown Drive	Merritt Island	Barge Canal
16	800 Scallop Dr.	Port Canaveral	Port Canaveral
17	910 Mullet Road	Port Canaveral	Port Canaveral
18	290 Marine Harbor Drive	Merritt Island	Barge Canal
19	2750 Tingley Drive	Merritt Island	Barge Canal
20	6701 N. Atlantic Ave.	Cape Canaveral	Banana River
21	6815 N. Atlantic Ave.	Cape Canaveral	Banana River
22	Winar Drive	Merritt Island	Sykes Creek
23	20 Myrtice Ave.	Merritt Island	Indian River
24	14 Myrtice Ave.	Merritt Island	Indian River
25	P.O. Box 1886	Cocoa	Indian River
26	12 Marina Isles Blvd.	Indian Harbor Beach	Banana River
27	96 Willard St. Unit 101	Cocoa	Indian River
28	410 E. Cocoa Beach Cswy.	Cocoa Beach	Banana River
29	1872 E. 520 Cswy.	Merritt Island	Banana River
30	1872 E. 520 Cswy.	Merritt Island	Banana River
31	96 Willard St. Unit 101	Cocoa	Indian River
32	480 Cocoa Beach Cswy.	Cocoa Beach	Banana River
33	100-104 Riverside Dr.	Rockledge	Indian River
34	582 S. Banana River Dr	Merritt Island	Banana River

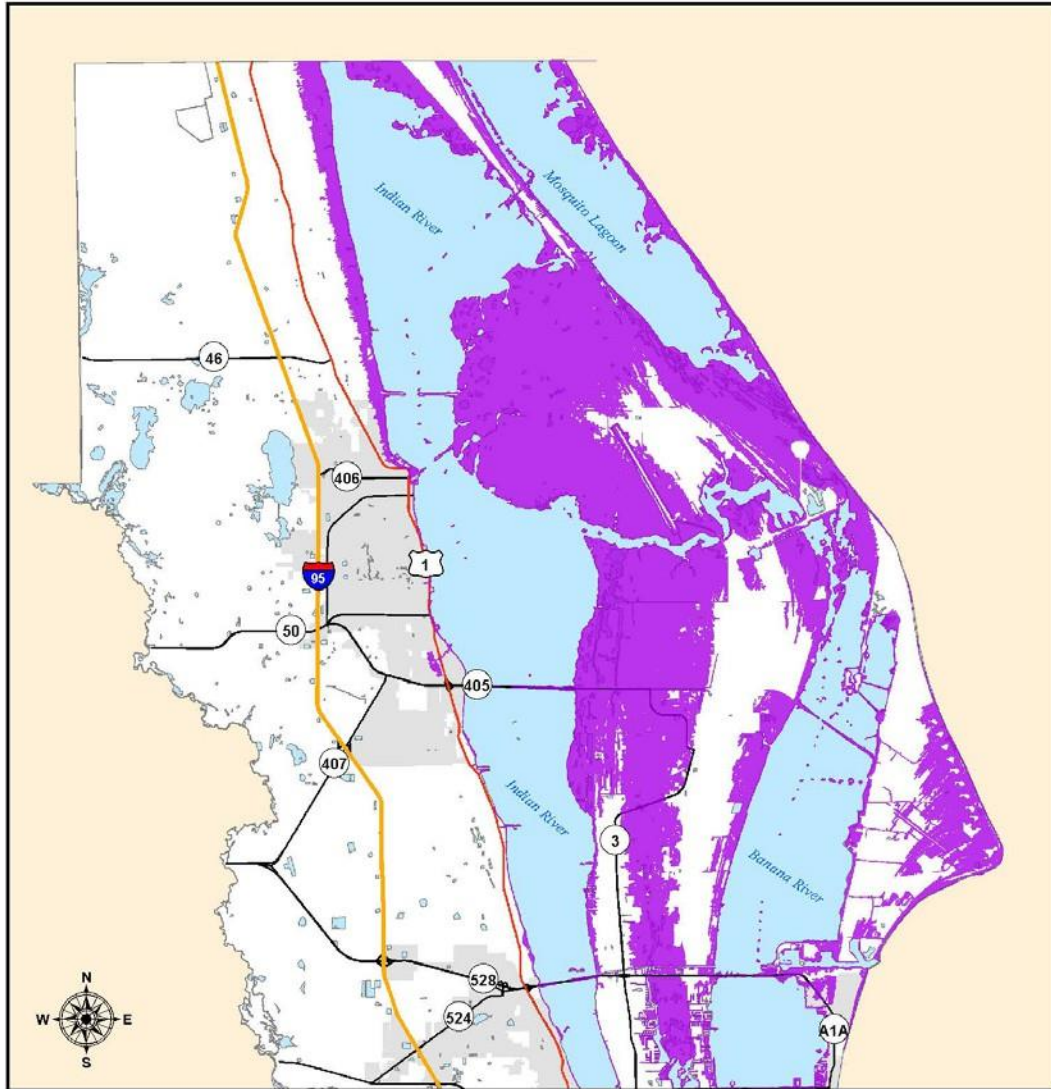
35	1025 Riveredge Drive	Rockledge	Indian River
36	200 S. Banana River Drive	Merritt Island	Banana River
37	1360 S. Banana River Dr.	Merritt Island	Banana River
38	1825 Minuteman Cswy.	Cocoa Beach	Banana River
39	1611 Minuteman Cswy.	Cocoa Beach	Banana River
40	1525 Minuteman Cswy.	Cocoa Beach	Banana River
41	2705 S. Tropical Trail	Merritt Island	Indian River
42	760 S. Brevard Ave.	Cocoa Beach	Banana River
43	2290 S. Hwy A1A	Cocoa Beach	Banana River
44	3360 S. Atlantic Ave.	Cocoa Beach	Banana River
45	5695 U.S. Highway 1	Viera	Indian River
46	199 Utopia Circle	Merritt Island	Indian River
47	1629 Atlas Ave.	PAFB	Banana River
48	Tequesta Harbor	Merritt Island	Indian River
49	6155 N. U.S. Hwy 1	Melbourne	Indian River
50	6175 N. Harbor City Blvd.	Melbourne	Indian River
51	5435 N. U.S. Highway 1	Melbourne	Indian River
52	4399 N. Harbor City Blvd.	Melbourne	Indian River
53	876 Marina Road	PAFB	Banana River
54	10 Palmer Road	Indian Harbor Beach	Banana River
55	1399 Banana River Drive	Indian Harbor Beach	Banana River
56	100 Datura Drive	Indian Harbor Beach	Banana River
57	96 E. Eau Gallie Cswy.	Melbourne	Indian River
58	587 Young Street	Melbourne	Eau Gallie River
59	1135 U.S. Highway 1	Melbourne	Eau Gallie River
60	911 N. Harbor City Blvd.	Melbourne	Eau Gallie River
61	729 N. Harbor City Blvd.	Melbourne	Indian River
62	705 S. Harbor City Blvd.	Melbourne	Indian River
63	2210 S. Front Street.	Melbourne	Crane Creek
64	1202 E. River Drive	Melbourne	Crane Creek
65	1208 E. River Drive	Melbourne	Crane Creek
66	1308 E. River Drive	Melbourne	Crane Creek
67	Riverside Drive	Melbourne Beach	Indian River
68	160 Versailles Drive	South Beaches	Indian River
69	Landings Road off A1A	South Beaches	Indian River
70	Solway Drive off A1A	South Beaches	Indian River
71	Ocean Way off A1A	South Beaches	Indian River
72	4220 Dixie Hwy NE	Palm Bay	Turkey Creek

COASTAL MANAGEMENT ELEMENT

73	4350 Dixie Hwy NE	Palm Bay	Indian River
74	5001 Dixie Hwy NE	Palm Bay	Indian River
75	3800 U.S. Highway 1	Valkaria	Indian River
76	750 Mullet Creek Rd.	South Beaches	Indian River
77	240 Hammock Shore Dr.	South Beaches	Mullet Creek
78	4660 U.S. Highway 1	Grant	Indian River
79	5185 U.S. Highway 1	Grant	Indian River
80	6075 U.S. Highway 1	Grant	Indian River
81	8525 U.S. Highway 1	Micco	Indian River
82	9502 S. A1A	South Beaches	Indian River
83	8685 N. U.S. Highway 1	Micco	Indian River
84	4015 Main Street	Micco	Sebastian River
85	6485 S. U.S. Highway 1	Rockledge	Indian River
86	6533 S. U.S. Highway 1	Melbourne	Indian River
87	4263 N. U.S. Highway 1	Melbourne	Indian River
88	2459 Pineapple Ave.	Melbourne	Indian River
89	1477 Pineapple Ave.	Melbourne	Indian River

COASTAL MANAGEMENT ELEMENT

Brevard Coastal High Hazard Area Map



Category 1

Coastal High Hazard Area

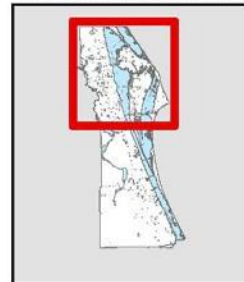
Source: East Central Florida Regional Planning Council
Regional Evacuation Study Program - Storm Tide Atlas



Map generated by best available data on 4/29/2022. Map subject to change, please contact Brevard County for map confirmation.

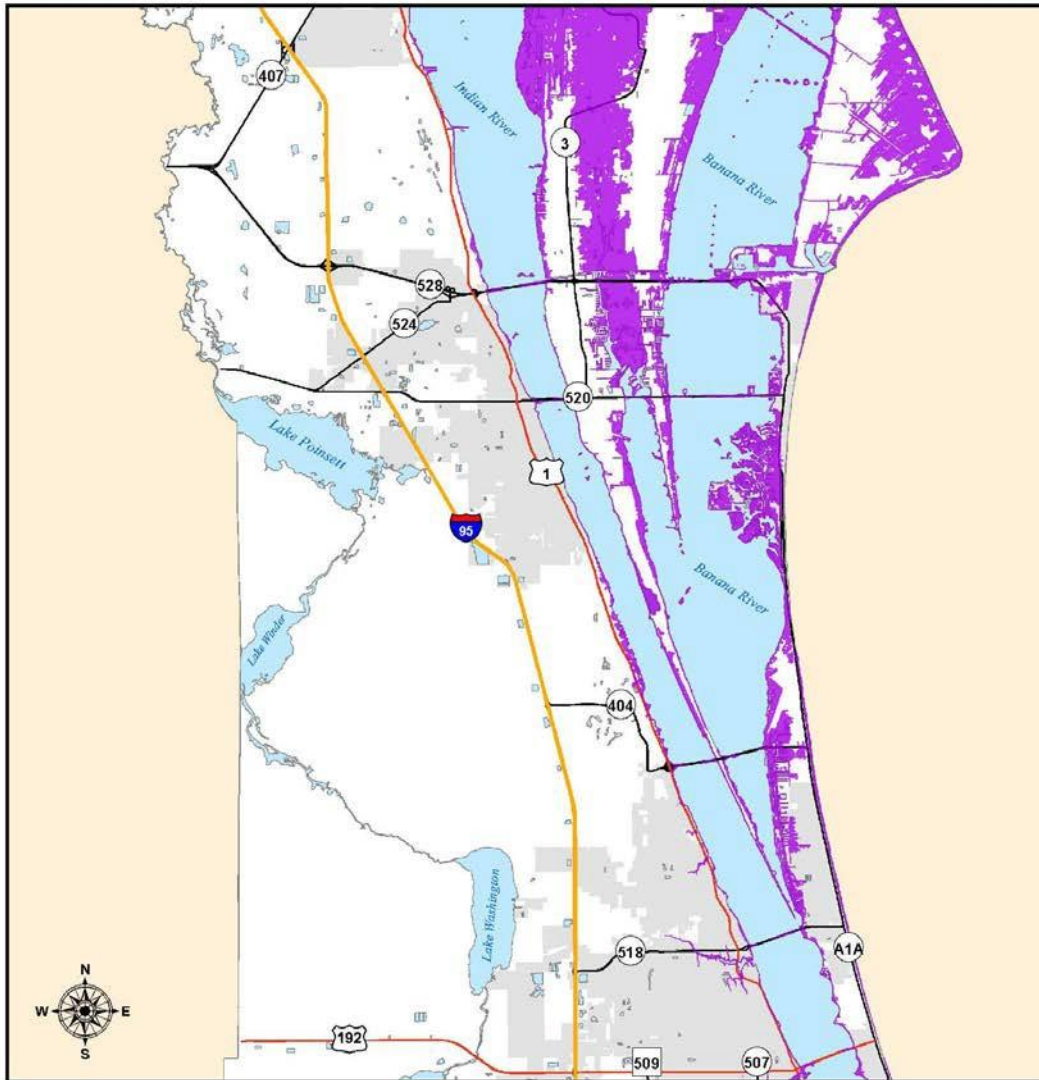
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North Brevard CHHA Region Display



Map 3a
Coastal High Hazard Area (north Brevard region)

Brevard Coastal High Hazard Area Map



Central Brevard CHHA Region Display

Category 1

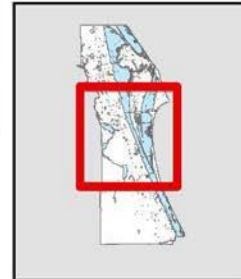
 Coastal High Hazard Area

Source: East Central Florida Regional Planning Council
Regional Evacuation Study Program - Storm Tide Atlas



Map generated by best available data on 4/29/2022. Map subject to change, please contact Brevard County for map confirmation.

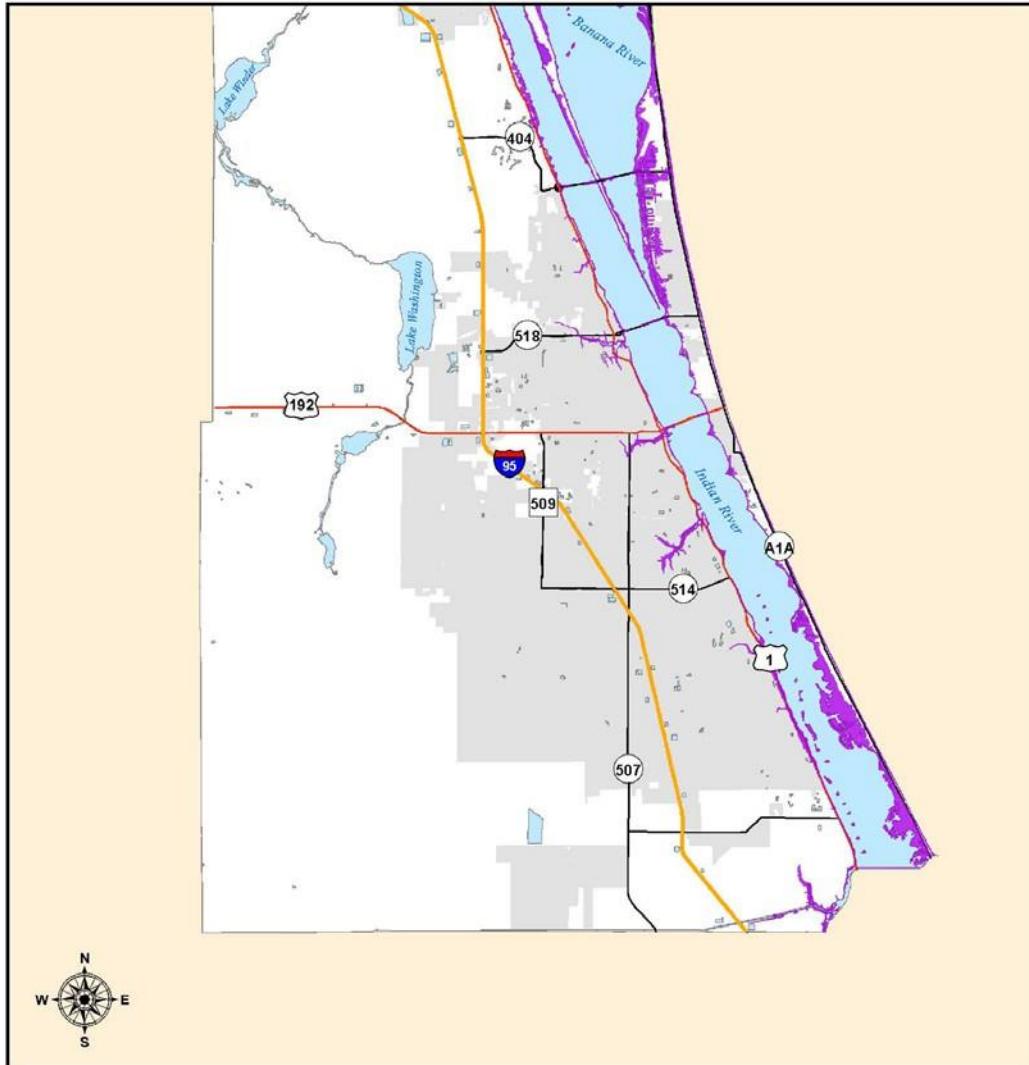
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Map 3b Coastal High Hazard Areas (central Brevard region)

COASTAL MANAGEMENT ELEMENT

Brevard Coastal High Hazard Area Map



Category 1

 Coastal High Hazard Area

Source: East Central Florida Regional Planning Council
Regional Evacuation Study Program - Storm Tide Atlas



Map generated by best available data on 4/29/2022. Map subject to change, please contact Brevard County for map confirmation.

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South Brevard CHHA Region Display



Map 3c
Coastal High Hazard Area (south Brevard region)

APPENDIX

LIST OF FIGURES

Figure	Title	Page
1	Diagram Reflecting the Spatial Relationship between the FDEP 1981 Coastal Construction Control Line (CCCL) and the Brevard County Coastal Setback Line (CSL)	6

MANATEE HABITAT FEATURE MAP SERIES AND UPDATE SCHEDULE

MAPS:

1. **Submerged Aquatic Vegetation (SAV)** - 1994 coverage supplied with the draft MPP.

Source:

St. Johns River Water Management District
(904) 329-4500

Update Schedule: As available

2. **Manatee Abundance (Aerial Surveys)** - September 1997-September 1999 map supplied with the draft MPP.

Source:

Florida Fish and Wildlife Conservation Commission
Bureau of Protected Species Management
(904) 922-4330

Update Schedule: As available

3. **Manatee Mortality** - Watercraft-related or Total Manatee Mortality (all causes) from 1974-2001 supplied with the draft MPP.

Source:

Florida Fish and Wildlife Conservation Commission
Bureau of Protected Species Management
(904) 922-4330

Update Schedule: As available

4. **Manatee Protection Boat Speed Zones** - October 2000 as provided with the draft MPP, or more recent data.

Source:

Florida Fish and Wildlife Conservation Commission
Bureau of Protected Species Management
(904) 922-4330

Update Schedule: As needed

5. **Manatee Freshwater Sources Map** - March 1994 as provided with the MPP.

Source:

Brevard County
Natural Resources Management Department
(321) 633-2016

Update Schedule: As available

6. **Class II Waterbody, Outstanding Florida Waterway (OFW), or Aquatic Preserve - 2001** as provided in the MPP.

Source:

Florida Department of Environmental Protection
Division of Surface Water Quality
(850) 245-8427

Update Schedule: As available