Section 3.2.1. Coastal Zone Protection Element

Pursuant to Sections 163.3177(6)(g) and 163.3178, Florida Statutes.

Background Discussion

The purpose of this element is to plan for development activities and restrict such activities that would damage or destroy coastal resources and to protect human life and limit public expenditures in areas subject to destruction by natural disaster.

A summary of the data and analyses for this element of the *Sanibel Plan*, pursuant to Sections 163.3177(6)(g) and 163.3178, Florida Statutes is provided in this sub-section.

The City of Sanibel is in the Coastal Area and in the Coastal High-Hazard Area.

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.

Boundaries of the Coastal Area and Coastal High-Hazard Area are established:

- As defined by Florida Statues, Section 163.3178(2)
 (h);
- As defined by the Coastal Zone Management Act of 1972, Volume 16, United States Codes, 1453-a

 As defined by the Florida Coastal Management Act of 1978, Section 380, Part II, Florida Statutes

The City of Sanibel is entirely within the coastal zone.

Pursuant to *Florida Statues, Section 163.3178*, most of the City of Sanibel is within the Coastal High-Hazard Area. An illustration showing the Coastal High-Hazard Area is provided in this Section.

All resources of the Island are coastal resources. Therefore, all elements of the *Sanibel Plan* are concerned with coastal management. For practical considerations, the *Sanibel Plan* considers all lands within the City as being located in the Coastal Area and in the Coastal High-Hazard Area.

Water-Dependent and Water-Related Uses

Water-dependent uses in the City of Sanibel consist of recreational beaches, marinas, boat ramps and a fishing pier. Water-related uses in the City consist of residential uses and resort housing uses.

Most of the shoreline of the City of Sanibel is currently developed. The Future Land Use Element projects only conservation, recreation and residential uses on the shoreline. Any new facilities that provide boat access to water must be developed in a manner that is compatible with the preservation of the natural scenic beauty and residential use of the shoreline.

Infrastructure

The infrastructure in the City of Sanibel includes road-ways, wastewater treatment facilities, potable water facilities and

drainage facilities. Community facilities such as administration buildings, a library, a public elementary/middle school, cultural facilities and active recreational facilities are also located in the coastal zone.

The City of Sanibel is connected to the mainland by the Sanibel Causeway and to Captiva Island by a bridge. Both of these facilities are under the jurisdiction of Lee County.

In the City of Sanibel there are no existing or planned public shore protection structures on the Gulf of Mexico. There are existing upland shoreline structures; however, these one-time protection structures are currently located a considerable distance landward of mean high water.

Natural Resources

Areas of coastal flooding, within the 100-Year Floodplain, include all the land area within the City of Sanibel.

Since all of the City of Sanibel is within the coastal area, and therefore the entire *Sanibel Plan* addresses coastal management, the balance of the Coastal Zone Protection Element emphasizes Sanibel's nearshore coastal zone.

Sanibel Island has approximately 40 miles of shoreline, 15 of which consist of sandy beaches. Beaches are one of the geological characteristics that distinguish the City of Sanibel as a unique place. These beaches have inspired residents to preserve existing natural resources and to restore those that have been compromised by human influences. This effort is apparent in shoreline preservation. Today, Sanibel's coastline contains very little coastal armoring, which may disrupt the natural beach environment in a variety of ways and may also act as a barrier to recreational access along the

beach. The importance of the City of Sanibel's beaches is scenic and historic as well as environmental and economic.

Sanibel's nearshore coastal zone includes two very divergent plant communities, those of the mangrove forest and those of the beach strand and beach ridges. These are opposite in appearance and in many other characteristics, yet perform many of the same very important functions with regard to environmental equilibrium.

The beach and dune system in the City of Sanibel runs along the Gulf of Mexico from Blind Pass to Point Ybel and along San Carlos Bay from Point Ybel to Tarpon Bay. The elevation of the Gulf beach ridge is generally five to six feet above mean sea level, with the highest elevation of approximately 12 feet.

The beach is the most obviously dynamic, often ephemeral, landscape in man's experience. It absorbs the force of the sea and provides habitat and feeding for a myriad of life forms along with recreational resources that are greatly valued. Because of the form and location of Sanibel's beaches, during storm surges they are powerfully battered by wind and water; however, they are exceptionally attractive during long periods of good weather and, as a dividend, yield such a rich array of seashells that they are famous the world over. The intense storms of wind and rain that deposit shells and shell fragments on the beach at the same time inundate and wash away portions of it. These are responsible for dramatic shoreline accretion and erosion.

The value of mangroves for habitat, as a food source and as a wave buffer is becoming universally acknowledged. Mangroves form a system that permits the highest water quality and the most suitable estuarine habitat.

All species of mangroves are critically important to the Island and estuarine ecosystem and must be preserved as an invaluable resource.

Beach Management

The beach is an area where the effects of human activities can be either positive and constructive or damaging.

The overall philosophy of managing beaches is not only for people but for wildlife. In general, that philosophy is to let nature take its course. This includes a non-intervention policy by the City of Sanibel in regard to erosion processes and active encouragement of retreat from eroding stretches of beach. However, the City does encourage dune restoration.

A preference is given to non-structural solutions for shoreline protection and stabilization such as beach renourishment, revegetation and locating or redeveloping structures sufficiently far back from harm's way, rather than reliance on structural solutions. Structural solutions such as breakwaters, bulkheads and seawalls provide, at times, short-term solutions to shoreline stabilization, but do so at the expense of adversely impacting adjoining properties and inhibiting customary access to shorelines.

In 1995, the City of Sanibel completed the Sanibel Island Beach Management Plan. Following an extensive study, a comprehensive report was prepared by the City's Natural Resource Director, Robert K. Loflin, Ph.D. and the consulting firm of Humiston and Moore Engineers. The resultant plan contains the following components: coastal processes, natural resources, coastal activities and impacts, beach access and

public lands, beach management goals and objectives and management strategies.

Beach Renourishment Areas

The City of Sanibel relies on the natural functions of the beach and dune system for shoreline protection. The maintenance of the natural function of the Gulf Beach, Gulf Beach Ridge, Bay Beach and Mangrove Forest Zones provides the primary measures to protect beaches and dunes.

The City of Sanibel undertook the shoreline and beach renourishment project in the Blind Pass Area at the extreme northern end of Sanibel to offset erosion attributed to the Blind Pass groin/jetty, and in the Gulf Pines/Gulf Shores area. It is anticipated that the north end project will require supplemental renourishment.

Outside the jurisdiction of the City of Sanibel, to the north on Captiva Island, continued beach renourishment is planned. Because the management of beaches on Captiva Island (in unincorporated Lee County) has significantly impacted the shoreline of Sanibel, it is imperative that this situation be addressed in the Intergovernmental Coordination Element of the Plan. To that end, in February 2006, Lee County and the Captiva Erosion Prevention District completed a beach renourishment project that included Sanibel's northernmost shoreline, Blind Pass and Bowman's Beach.

Estuarine Water Quality

The City of Sanibel contains a large area of Mangrove Forest. The Mangrove Forest is predominantly in the J. N. "Ding" Darling National Wildlife Refuge, under the authority of the

Federal government. The Mangrove Forest abuts the Pine Island Sound Aquatic Preserve.

In 2006, a culvert was constructed under Sanibel-Captiva Road linking Clam Bayou and Dinkins Bayou to improve the water quality of these waters in the Aquatic Preserve.

Stormwater discharge into the estuary is controlled by the Tarpon Bay weir. Other discharges into coastal waters, although not directly into the estuary, are tidal canals, the Shell Harbor canal inlet, Sanibel Harbors canal inlet and Sanibel Isles canal inlet. However, freshwater enters the estuary principally from outside the jurisdiction of the City.

The Island's estuaries and aquatic habitats are being negatively impacted by the lack of a comprehensive and environmentally sound water management plan for Lake Okeechobee and the resulting water releases from the Lake into the Caloosahatchee River and Estuary. The nutrient-rich water releases into the Caloosahatchee River and Estuary have resulted in the growth of toxic blue-green algae blooms and red drift algae outbreaks. These blooms have been associated with fish kills, impacts on shellfish, destruction of seagrass beds, mangroves and breeding grounds for many fish species, and impacts on recreational and commercial fishing. This nutrient runoff may have also contributed to a perceived long-term trend of more frequent, more severe and longer duration of destructive red tide events and severe impacts to the J. N. "Ding" Darling National Wildlife Refuge and aquatic preserves. In addition, water released from Lake Okeechobee also carries large amounts of suspended sediment that is deposited in the mouth of the river and can be re-suspended by wave action. These impacts could lead to serious degradation in estuarine water quality and potentially

irreversible impacts to seagrasses and other estuarine resources.

The Island Water Association deactivated its brine water discharge into the Gulf of Mexico and now uses an injection well to discharge brine deep into the ground.

In addition to these limited numbers of point source discharges into coastal waters, there are land uses in the City of Sanibel that may contribute nonpoint source pollution into coastal waters. These land uses are marinas, boat docks and golf courses.

The City has actively pursued Island-wide conversion from septic systems to central sewage treatment in accordance with the City's Master Plan for Wastewater Treatment. This conversion has been the single most critical action to protect water quality. Through implementation of the Master Plan for Wastewater Treatment, nearly 100 percent of the land uses in the City of Sanibel are connected to the Sanibel Sewer System.

The potential for disaster from oil spills looms over every beach community and even more so for areas with mangrove forests. Continued vigilance, as practiced by the Sanibel City Council, to object to any and all offshore oil exploration plans is necessary to minimize the likelihood for an oil spill in the Gulf to contaminate local beaches.

There are no proposed facilities in this Plan that will alter the circulation patterns of the estuary.

Coastal Access and Carrying Capacity of the Beach

The City of Sanibel has a large number of public accesses to the beach. These public beach access facilities are widely distributed throughout the Island. All of the public beach access facilities are supported by limited parking areas; however, there are large parking areas at the major beach parks. The Resort Housing District provides private beach access for a significant percentage of Sanibel's seasonal population.

The maintenance of a natural beach as a vital natural resource is important to the community's quality of life and the economy of the City. For a variety of environmental, social, economic and historic reasons, it is important that the carrying capacity of the beach for wildlife is not diminished.

The carrying capacity and environmental quality of the Island's natural coastal areas cannot be sustained if both off-Island and on-Island physical growth and visitation pressures are not addressed. Lee County's permanent population grew to 618,754 in 2010. During the peak winter season, the Island's population increases, on average, to 31,000 people. A record 4,686,000 tourists visited Lee County in 2011, many attracted by the County's beaches. Sanibel's world class beaches constitute about one third of the linear mileage of beaches in Lee County accessible by car.

To preserve the natural condition of Sanibel beaches, there is a need to determine acceptable limits of change, if any, to the Gulf Beach Zone. The establishment of new public accessways to the beach and the expansion of parking areas at existing beach accessways should only be approved if these areas of human activity will not cause further infringement on the carrying capacity of the beach for wildlife.

The City will continue to monitor the conditions of its beaches over time and assess the extent to which any observable negative changes can be attributed to human activities. The City should broaden this monitoring of its beaches, when necessary, to better establish baseline conditions. The City should look for cost-effective ways to include measurements of human activities on the beach, as part of its monitoring of the beaches. The City should work in consultation with the efforts of organizations such as the U.S. Fish & Wildlife Service, the Florida Fish & Wildlife Conservation Commission, the Florida Department of Environmental Protection, the Sanibel Captiva Conservation Foundation and Florida Gulf Coast University, that have the interest, knowledge and ability to help determine the carrying capacity of the beaches on Sanibel, to ensure that this important resource is maintained.

The City may need to implement programs and measures that further protect the beaches on Sanibel, if development and other human activity is diminishing the viability of this important natural resource.

There are two marinas in the City of Sanibel providing dock space for approximately 100 boats. Canals and waterways adjacent to many private homes and condominiums provide additional boat dock space.

The City of Sanibel provides a public fishing pier on San Carlos Bay and a public boat ramp facility (two ramps) near the Sanibel Causeway.

A need for additional boat ramps and fishing piers has not been identified in the Recreation and Open Space Element of this Plan. Although not identified as a need, the Plan for Recreation and Open Space suggests that the City explore the feasibility of providing additional opportunities for boat access to water, provided that no additional inlets are cut from the Gulf or the bay.

Plan for Coastal Zone Protection

The Sanibel Plan, in all its elements, establishes policies and regulations necessary to assure orderly and balanced use and preservation consistent with sound conservation principles, of all living and nonliving coastal resources. The ecological planning principles and assumptions to be used in the determination of suitability and extent of permitted development are established in the Purpose of this Plan, and in the Conservation Element and the Future Land Use Element. The Land Development Code includes environmental performance standards so that irreversible and irretrievable commitments of coastal zone resources are avoided on Sanibel.

Management and regulatory techniques, consistent with the Sanibel Island Beach Management Plan, shall be set forth in the Land Development Code.

It is the intent of this Plan for Coastal Zone Protection to set forth policies which are not inconsistent with the State of Florida regulations and criteria in order to preserve the natural beach and dune system in all beach areas, both natural and developed, and to restore and maintain a natural dune in developed areas by rigorously restricting the use of armoring for erosion control purposes.

Provisions of the Plan

1. The City of Sanibel should maintain its program of periodic monitoring of beach profiles and beach

conditions. An annual report should be prepared based on the monitoring data. A major objective for the long-term ecological health of Sanibel's beaches is to restore the dune system (Upper Beach Zone) to the point where it functions as a contiguous and intact habitat. Such an integrated upper beach will not only provide for the mutually beneficial coexistence of man and natural flora and fauna as fellow coastal residents but will also function in accumulating and stabilizing vital sands in a continuous protective barrier.

- 2. Maintain natural beaches to accommodate both tourists and residents for recreational purposes in order to enhance property values and tourism and reduce competition for limited beach space between humans and wildlife.
- 3. Maintain natural beaches for the protection they afford against erosion from severe but non dune-overtopping storms and to avoid damage to upland structures from erosion caused by those storms.
- 4. Maintain natural beaches for the protection they afford against erosion from severe but non dune-overtopping storms to avoid damage to evacuation routes from erosion caused by those storms.
- 5. Dune enhancement may be accomplished by regulating activities that are detrimental to natural dune vegetation and sand accumulation, such as illegal landscape trimming of natural vegetation, unrestricted pedestrian access and beach furniture and recreational equipment deployment and storage. These may be

- accomplished through more thorough enforcement of restrictions on trimming vegetation, improved pedestrian accessways, such as dune walkovers, and better regulation of beach paraphernalia.
- It should be the policy of the City of Sanibel to consider coastal armoring only as an alternative of last resort for the protection of public Additionally, in cases where infrastructure. coastal armoring is considered acceptable, it should be accompanied by a beach nourishment project, except in certain site-specific situations on the bay shoreline that involve closing a gap in an otherwise continuously armored section of shoreline. Sand bags may be considered as a temporary solution to erosion in emergency situations, and conventional armoring may be considered for the protection of vital public interests such as hurricane evacuation routes. Under all other circumstances, the use of armoring shall generally be prohibited along the Sanibel Island coastline.
- 7. Existing bayfront seawalls should have rip-rap revetments placed in front of them (unless determined to be a threat to the endangered smalltooth sawfish) to reduce wave interaction with the flat vertical surface as long as such revetments do not interfere with seagrass beds and the seawall alignment is reasonable. Such rip-rap areas as well as existing rip-rap revetments along the bay shoreline should be designed as planters to accommodate planting with mangrove and buttonwood.

- 8. It should be the policy of the City of Sanibel to provide official input to the State during the State permit application review process for activities which have a high potential for affecting the sand budget. These activities include shoreline armoring with seawalls or revetments, groins, the jetty at Blind Pass, breakwaters, and the use of near shore shoals as a source of sand for beach nourishment. This will ensure that the permit includes conditions for adequate monitoring and mitigation.
- 9. Roads damaged due to beach erosion should be repaired on a higher priority than the beach, as a safety issue, if the roads serve as hurricane evacuation routes. It is recommended that such evacuation routes be repaired and be protected with armoring. Such sections of shoreline armored out of necessity must be restored with beach nourishment, leaving the armoring buried as defense against future storm damage.
- 10. Sand overwash deposited in residential areas or on roads, which requires removal in the aftermath of a storm, should be restored to the beach and dune system.
- 11. If inlet closure causes environmental degradation in the interior waterway, these inlets should be studied to determine if reopening the inlet through either mechanical or hydraulic dredging would be appropriate. The decision on reopening the inlet should be based on water quality issues, fisheries issues or mangrove and other sensitive wetland issues. If activities such as sand

placement for nourishment of adjacent beaches contribute to the closure, such that the closure cannot be considered a natural event, then the inlet should be reopened to restore natural processes.

- 12. Any dune walkovers destroyed by storms should be repaired because they protect the natural dune and dune vegetation that allows the dune to grow through the trapping of windblown sand.
- 13. In cases where structures are considered to impede or have the potential to impede pedestrian traffic along the coastline, such structures should be prohibited, or if existing, altered or removed, so as to maintain lateral access along the shoreline.
- 14. The prohibition on live shelling should be continued and widely advertised, accompanied by an education program. Severe violations should be considered serious enough to cite and fine perpetrators.
- 15. The prohibition on docks in San Carlos Bay where they constitute a threat to seagrasses should be continued.
- 16. The use of vehicles on the beach should continue to be regulated. Approval should be given only for beneficial purposes such as turtle patrol and removal of exotic vegetation, as well as approved police patrols and emergency vehicles responding to emergencies that occur on the beach.

- 17. To assist both shorebirds and shell-seekers and to maintain the natural function and appearance of the beach, raking and scraping of naturally occurring beach wrack should be prohibited, except when undertaken or authorized by the City in the interest of public health, safety and welfare. During certain periods of the year, during nesting season for the least terns and snowy plovers, raking the beach may be in violation of the Federal Endangered Species Act and State-protected species regulations.
- 18. Only permit lighting that conforms to standards that will not interfere with turtle nesting or hatchlings return to the sea and that will not interfere with the natural appearance of the beach.
- 19. Beach areas where nesting pairs of shorebirds are observed should be designated as off limits to predatory creatures, such as feral cats, iguanas, and raccoons.
- 20. The Lee County Emergency Management Plan for oil spills needs to be evaluated for sufficiency in protecting sensitive mangrove and other wetland areas. The plan should include a provision for rapid deployment of oil booms at strategic locations such as Blind Pass, Clam Pass and the entrance of Tarpon Bay. The ability to rapidly seal off these strategic locations could prevent contamination of large sections of shoreline, and equipment for this should therefore be available locally. Additionally, any perceived changes in potential for oil spills, either from offshore or

inland waterway operations, should trigger a review of the Emergency Management Plan by the Lee County and City of Sanibel staffs.

Goals, Objectives and Policies

Goal Statement:

Protect and appropriately manage the natural resources of the coastal area to ensure the conservation or enhancement of the natural functions of the coastal ecosystem as the development anticipated in the Future Land Use Element of the Plan occurs and prohibit new development and redevelopment for human habitation in the Gulf Beach and Bay Beach Zones.

Objective 1

To protect, conserve or enhance wetlands, wildlife habitat and living marine resources, ensure that the natural functions of the City's ecological zones are maintained by continued implementation of the development regulations and performance standards established in the Land Development Code.

Policy 1.1. Ensure that the Future Land Use Element of this Plan is consistent with the maintenance and enhancement of the natural functions of the City's ecological zones by including in the Land Development Code varying limitations on development according to the ecological zone and best management practices.

Policy 1.2. Retain low intensity use for the interior (Lowland Wetlands Zone) and tidal (Mangrove Forest

Zone) wetlands, prohibit commercial and intensive land uses in these zones.

Policy 1.3. Ensure maintenance of the natural functions of the Interior Wetlands Conservation District by continued implementation of the development regulations and performance standards established in the Land Development Code and best management practices.

Policy 1.4. Ensure that dredge and fill activities are undertaken in compliance with Land Development Code requirements, as well as the requirements enforced by the Department of Environmental Protection, the South Florida Water Management District and the Army Corps of Engineers.

Policy 1.5. Public and private developments that produce unavoidable damage to wetland areas will implement wetland restoration or mitigation projects.

Policy 1.6. Encourage the dedication of portions of wetlands not utilized for development to the City or a nonprofit conservation entity by including incentives for such dedication in the Land Development Code.

Policy 1.7. General, not site specific, priorities for wetland acquisition will be established for the City's wetland acquisition program.

Policy 1.8. Continue the maintenance of wetlands acquired by or dedicated to the City and included in the Environmentally Sensitive Lands Conservation District so as to restore their natural condition, to the extent practicable.

Objective 2

To maintain or improve estuarine environmental quality, ensure that the natural functions of the mangrove and adjacent ecological zones are maintained by continued implementation of the development regulations and performance standards established in the Land Development Code and best management practices.

Policy 2.1. No new point source discharges for wastewater effluent into coastal waters should be permitted.

Policy 2.2. New point source discharges for stormwater runoff into coastal waters should be avoided to the extent possible.

Policy 2.3. New boat docks in the waters of the Pine Island Sound Aquatic Preserve will comply with the requirements of the Land Development Code and the requirements of the Department of Environmental Protection.

Policy 2.4. The City shall remain vigilant and proactive in its insistence that the regulation, design and operation of water releases from Lake Okeechobee will not further degrade the quality of coastal waters and the estuaries of Southwest Florida. It is the City's intent to convince the South Florida Water Management District and the U. S. Army Corps of Engineers to change policy so that the waters surrounding Sanibel are no longer threatened. The Sanibel City Council is approaching the water quality problem on three tracks:

- 1) through public education,
- 2) in the policy and legislative arena; and
- 3) as a last resort, through potential litigation.

Policy 2.5. The City shall also remain vigilant and proactive in its insistence that other jurisdictions adopt and implement policies to ensure that surface water runoff from other jurisdictions into the Caloosahatchee River watershed will not further degrade the quality of water in near Island coastal waters, including the estuaries within the boundaries of the City.

Objective 3

To protect the beach and dune system, thereby protecting shoreline development from coastal erosion and storm events, ensure that structures are setback landward of the 1974 Coastal Construction Control Line and that the natural functions of the Gulf Beach and Gulf Beach Ridge ecological zones are maintained by continued implementation of the development regulations and performance standards established in the Land Development Code and best management practices.

Policy 3.1. The City will continue to prohibit new development and redevelopment in the Gulf Beach Zone (i.e., seaward of the 1974 State Coastal Construction Control Line). Existing buildings located seaward of the 1974 Coastal Construction Control Line that are substantially damaged by a natural disaster are allowed to build-back in their pre-disaster location.

Lawfully existing accessory swimming pools and other accessory structures located in the Resort Housing District that are located seaward of the State's 1974 Coastal Construction Control Line may be reconstructed in their existing location provided there are no other feasible locations available on the site that are not in the Gulf Beach Zone.

Policy 3.2. The City's controlling beach management policy is to not interfere with the natural coastal processes. When intervention becomes necessary, the City will first take measures that work with, not against, the natural coastal processes. Only after this preferred policy has proven unworkable, will any type of shoreline hardening be considered.

Policy 3.3. Seawalls, bulkheads and other hardened shoreline structures that reflect, rather than absorb, wave energy are prohibited in the Gulf Beach Zone and on all properties with frontage on the Gulf of Mexico, except that hardened, rip-rap type structures which absorb wave energy may be installed to protect essential public infrastructure from damage or destruction caused by erosion.

Policy 3.4. Hardened shoreline structures, which primarily reflect, rather than absorb, wave energy are prohibited. A hardened shoreline structure which primarily absorbs, rather than reflects, wave energy may be permitted as a temporary and emergency measure, and as the only practical means of protecting upland major habitable structures which are in immediate danger of collapse from damage or destruction caused by coastal erosion. Additional factors to be considered are protection of the beach-

dune system, siting and design criteria for the protective structure, impacts on adjacent properties, preservation of public beach access, protection of native coastal vegetation and nesting marine turtles and their hatchlings. These structures must be removed once the immediate danger has passed and other remedial measures can be taken.

Policy 3.5. Excavation that results in lowering the elevation of the Gulf Beach Ridge is prohibited.

Policy 3.6. Removal of sand and sediments from the Gulf beach is prohibited; however, there may be instances where beach re-contouring may be appropriate to support beach preservation efforts.

Policy 3.7. Access to the beach for new development will be confined to elevated walkways, subject to approval required by state agencies.

Policy 3.8. Australian pines in the Gulf Beach Zone will be selectively thinned and replaced with hardy native dune vegetation.

Objective 4

Give priority to water-dependent and water-related uses that are compatible with the residential and conservation/open space character of the shoreline.

Policy 4.1. Priority ranking for water-dependent and water-related uses are as follows:

Conservation uses Residential uses Water-oriented recreation that is compatible with the conservation features of the beach, available to the public

Marinas, available to the public

Policy 4.2. Marinas will be located only in a Special Use District to ensure protection for the environment and compatibility with surrounding land uses, by establishing criteria and performance standards for the Special Use District, in accordance with procedures set forth in the Land Development Code.

Objective 5

To accommodate existing and projected public need, the numerous existing public accessways to the beach will be retained through the long-range planning period of this Plan.

Policy 5.1. The City will enforce the public access requirements of the Coastal Zone Protection Act of 1985.

Policy 5.2. Existing public accessways to the beach will be retained by new developments.

Objective 6

Ensure that development and building standards for new construction and redevelopment are appropriate for structures located in the coastal high-hazard area.

Policy 6.1. Implement development and building standards for coastal high-hazard area construction

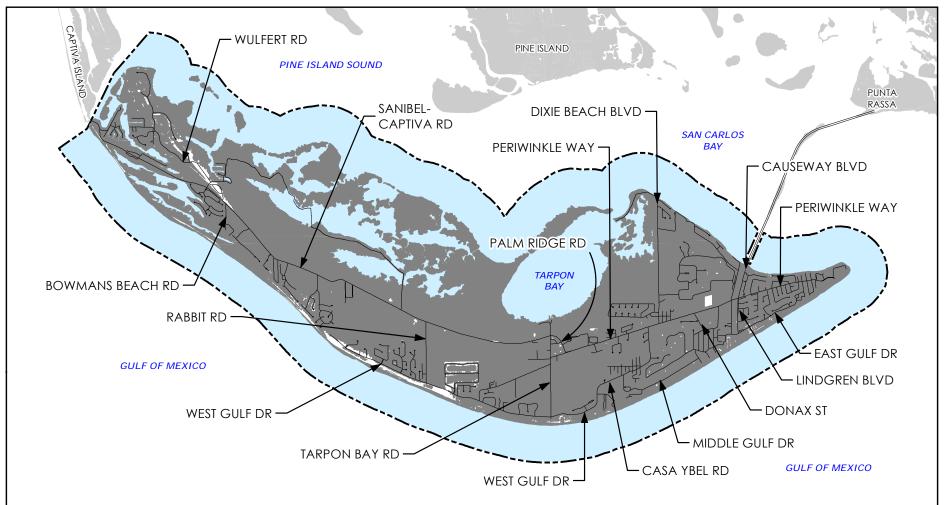
through the Sanibel Land Development Code and the Florida Building Code.

Objective 7

Ensure that preservation of the natural beaches and beach carrying capacity for wildlife is maintained for environmental, social, economic and historic reasons, all of which are essential to the community's quality of life and economy.

Policy 7.1. Development, redevelopment and commercial activities shall not measurably degrade the use of the beach habitat by indigenous and migratory species of wildlife.

Policy 7.2. Development and human activities shall be limited to a level of use that can be accommodated and continued without irreversible impairment of the beach's natural resource productivity.



Legend



Coastal High-Hazard Area

(Areas Below Category 1 Storm Surge Line, pursuant to Florida Statutes, Section 163.3178(2)(h).)

For practical considerations, the *Sanibel Plan* considers all lands within the City as being located in the Coastal High-Hazard Area.

SOURCE:

Storm surge / SLOSH data provided by SWFRPC via Lee County GIS.

- 1. Surge limits are based on still water storm tide height elevation above NAVD88 at high tide with no wave setup.
- 2. Total Storm Tide limits were derived from Maximum of Maximums surge heights over LIDAR based digital elevation.

Prepared by the Planning Department.



COASTAL HIGH-HAZARD AREA