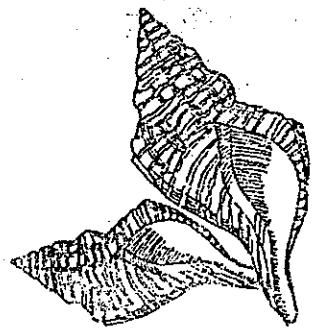
THE SANIBEL PLAN

The Comprehensive Land Use Plan
of the City of Sanibel
Pursuant to Section 163, Florida Statutes

Effective Date - October 11, 1997

CITY OF SANIBEL
LEE COUNTY, FLORIDA



PART 3.2. PROTECTION OF NATURAL, ENVIRONMENTAL, ECONOMIC AND SCENIC RESOURCES

The preservation and conservation of resources is a key component of the Sanibel Plan, its Vision Statement and objective to retain the character of the community.

This part of the Sanibel Plan establishes goals, objectives and policies for coastal zone protection, conservation, natural groundwater aquifer recharge, historic preservation and scenic preservation.

Section 3.2.1. Coastal Zone Protection Goals, Objectives and Policies

Pursuant to Chapters 163.3177(6)(g) and 163.3178, Florida Statutes and Chapter 9J-5.012(3) of the Florida Administrative Code. In particular, requirements stated in Chapters 9J-5.012(3)(b), 5 through 8 and 9J-5.012(3)(c), 4 through 7 of the Florida Administrative Code are addressed in Section 2.1.2. (Safety Goals, Objectives and Policies) of this Plan. Requirements stated in Chapters 9J-5.012(b)11 and 9J-5.012(c)12 of the Florida Administrative Code are addressed in Part 3.3 (Human Support Systems) of this Plan. In addition, requirements stated in Chapters 9J-5.012(3)(c)11 of the Florida Administrative Code are not applicable to the City of Sanibel.

Background Discussion

The purpose of this element, as stated in the Florida Administrative Code, 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.

The data and analyses for this element of the Sanibel Plan, pursuant to Chapters 163.3177(6)(g) and 163.3178, Florida Statutes and the minimum review criteria of Chapter 9J-5.012 of the Florida Administrative Code, are provided in the *1995 Evaluation and Appraisal Report for the Sanibel Plan*, adopted January 2, 1996.

The City of Sanibel is in the coastal area. Boundaries of the Coastal Area and Coastal High-Hazard Area:

As defined by the Coastal Zone Management Act of 1972, Volume 16, United States Codes, 1453-a, Sanibel is entirely within the coastal zone.

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.

As defined by the Florida Administrative Code, Chapter 9J-5.003, subsections 11 and 12, the City of Sanibel is entirely within the coastal area.

As defined by the Florida Administrative Code, Chapter 9J-5.003(19), the City of Sanibel is entirely within the coastal high-hazard area.

All resources of the island are coastal resources. Therefore, all elements of the Sanibel Plan are concerned with coastal management.

Water-Dependent and Water-Related Uses

Water-dependent uses in the City of Sanibel consist of recreation 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 roadways, wastewater disposal facilities, potable water facilities and drainage facilities. Community facilities, such as, administration buildings, a library, an elementary 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 virtually 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 near shore coastal zone.

Sanibel Island has approximately 31 miles of shoreline, 14 of which consist of sandy beaches. Beaches are one of the geographical characteristics that distinguish the City of Sanibel as a unique place that has inspired residents to preserve existing natural resources and to restore those which 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 both environmental and economic.

Sanibel's near shore 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 5 to 6 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 myriad life forms along with recreational resources that are greatly valued. Because of the form and location of Sanibel's beaches, during storm sieges 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 which 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: forming a system which permits 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 man's activities can be either positive and constructive, or damaging.

The overall philosophy of managing beaches is not only for people but for wildlife and in general letting nature take it's course. This includes a nonintervention 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, while providing at times short-term solutions to shoreline stabilization, 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.

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 Wildlife Refuge, under the authority of the federal government. The Mangrove Forest abuts the Pine Island Sound Aquatic Preserve.

Stormwater discharge into the estuary is controlled by the Tarpon Bay Weir. Other

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.

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 water 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.

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.

Policy 3.1. The City will continue to prohibit development seaward of the 1974 Coastal Construction Control Line.

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 which 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 recountouring 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 which 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 Sanibel Building Code.