HOW YOU CAN HELP TO PROTECT SANIBEL'S BEACHES

The future of Sanibel's beaches lies with all the residents of Sanibel and the users of the beaches. To help, you can:

- Abide by the regulations of the City of Sanibel and State of Florida. If you are unsure of an activity, call City Hall to get further information. Penalties for violations can be severe.
- Take your trash and equipment off the beach when you depart. Pick up someone else's trash if found, and deposit it in an appropriate receptacle.
- Use designated beach walkovers. Do not walk on or store towels and other equipment on native dune vegetation.
- Do not take live shells, starfish, or sanddollars.
- Keep your beachfront window treatments closed at night or lights which may shine on the beach extinguished. Also, extinguish or shield outside lights at night in the line-of-sight from the beach. If you can see your shadow from an artificial light source while standing on the beach at night, the light is in violation.
- Observe all signage related to nesting birds and sea turtles. Tampering with or even being on or within these areas may be a federal offense. It is especially important to keep all pets out of nesting areas.
- Enjoy Sanibel's beaches and dunes and encourage others to do the same. Observe the wildlife and unique plants found on the beach, and make a conscious effort to think about the protection of the beach environment for your and the beach's sake.

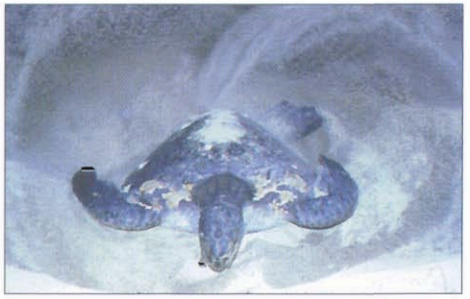


Photo courtesy of SCCF files

Photo courtesy of Wanda M. Slayton

The City of Sanibel Island-Wide Beach Management Plan was adopted in 1995 by the Sanibel City Council to compliment codes and regulations which protect and preserve the beach environment of Sanibel.

Coastal processes, natural resources, and beach management goals and strategies are addressed in this volume. Specific issues such as beach renourishment, storm protection, erosion, dune revegetation, and exotic plant species management are addressed in depth.

Further questions regarding Sanibel's beach ecosystem, regulations, or policy may be directed to Sanibel City Hall at (941) 472-3700.

SANIBEL FLORIDA
INCORPORATED
1974

The Jewel of Sanibel

Enjoying and Protecting the Environmental and Economic Significance of the Beaches of Sanibel Island

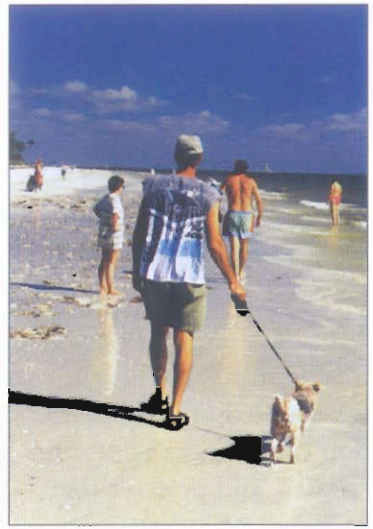
INTRODUCTION

Around 5,000 years ago, Sanibel's first beach was formed. This first beach was actually the beginning of the formation of the island located at the present day Wulfert area toward the northwest end of Sanibel. Currents in the Gulf of Mexico and occasional storms have suspended unconsolidated sand grains and redeposited them to form an ever changing or "dynamic" shoreline on the barrier islands of Southwest Florida. Even today, Sanibel's beaches and shoreline are always changing with areas of erosion and "accretion" or building. The ecology of Sanibel's beaches is complex and interactions between the adjacent coastal scrub, sub-tropical hardwood hammocks and interior freshwater wetlands as well as the Gulf waters out to the continental shelf are integral parts of the continued evolution and ecological health of today's beach.

Although one normally only considers the 11 miles of Gulf of Mexico shoreline as Sanibel's beach, another 3 1/2 miles of beach shoreline is located on the San Carlos Bay side of Sanibel. This beach is adjacent to the estuary where fresh and salt water meet. Southwest Florida's estuaries play a myriad of vital ecological roles as fish hatcheries and nurseries, shorebird nesting and foraging, and shellfish and invertebrate habitats. Sanibel's estuary beaches are smaller in width than the Gulf beaches, however, they play critical roles for shorebird forage and recycling of natural organic matter or "detritus" from the estuaries.

ENVIRONMENT and ECONOMICS

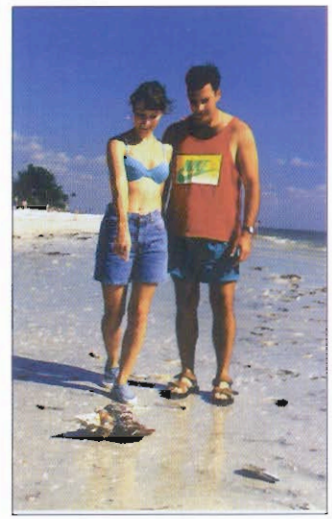
The larger Gulf beaches can be said to consist basically of three zones; the **intertidal zone** (between low and high tide), the **mid-beach zone** (the sandy area), and the **upper-beach zone** (the dune area). The **intertidal zone** is home to numerous marine creatures from fishes to sand fleas. The web of life is sustained here with small invertebrates acting as prey for shorebirds, mollusks (snails) and crustaceans (crabs and shrimp) feeding on other marine animals and fish attracting larger desirable game fish for the ambitious fisherman to test his skill. Here, the sand is naturally deposited and removed to continue the dynamic process of beach building and reshaping, and the avid shell seeker may stoop to find that perfect shell being lapped by the gentle surf. Over 400 varieties of molluscs have been identified by their shells from Sanibel beaches. The **mid-beach zone** is the area of white sand which is used extensively for recreation. Human recreation can become so intense at times as to preclude wildlife use, especially during the winter months. This area is a virtual "sand bank" for future deposits and sometimes withdrawals. One may also encounter natural and manmade "flotsam and jetsam" at the mid-beach zone. Storms often deposit seagrass and algae as well as crab traps, and debris on the beach. Red tide events may also occasionally produce dead fish. These events are natural and most debris is part of the cycle of the beach. Although odiferous at times, the debris usually washes out with tides and may actually offer forage opportunities that is particularly important for migratory birds. Numerous federally listed shorebird species require this habitat to nest and rear young. An area usually containing specially adapted native vegetation characterizes the **upper-beach zone**. This diverse group of vegetation exists amidst the harshest environmental conditions of salt spray, desiccation, high heat, and ultraviolet radiation. The vegetated area or "dune" is home to many animal species equally adapted to these conditions and often times, found no where else on Sanibel such as the six-lined race runner lizard and Eastern coachwhip snake. The native dune plant species are exceptionally suited to prevent beach erosion from storms and run-off due to their extensively matted root systems.



The aesthetic and economic value of the beaches on Sanibel is often times hard to quantify. Annually more than three million cars traverse the causeway to Sanibel. Many visitors and residents are attracted to the beach contributing to millions of dollars in annual revenue generated by beachgoers. The ecosystems provided to wildlife by intact, naturally functioning beaches result in increased wildlife usage. An enormous amount of dollars is spent annually by persons viewing and photographing wildlife as well as collecting shells. Native beach dune vegetation on Sanibel aids in the protection of structures and the loss of the beach itself to erosion. Wind-blown sand is actually trapped by the vegetation, accumulates and helps to build the beach.

REGULATIONS

Since the City's incorporation in 1974, the residents and elected officials of Sanibel have recognized the importance of protecting and preserving beaches in a "natural condition." Many progressive local regulations (Some of the more notable ones are listed below) and state statutes have aided in the protection of Sanibel's beaches for the environmental and economic benefit of wildlife and people.



- Live shelling is prohibited to protect this valuable resource for future generations.
- Raking of natural beach debris (grass, algae, fish etc.) is not allowed. Handpicking of these items and manmade garbage is authorized.
- Excavation or large hole digging is illegal (especially to dispose of debris).
- Storage of beach equipment (chairs, umbrellas, tents, boats etc) is not authorized on the dune and only on the rest of the beach during the daylight hours. This equipment must be removed and stored off the beach and dune between 9:00 PM and 7:00 AM when not in use.
- Lights (interior and exterior) should not illuminate the beach year-round. This maintains aesthetics and sea turtle protection.
- Dogs should be leashed at all times for public safety and protection of shore birds.
- Mowing of the dune area is prohibited and only native vegetation is authorized for planting in this area.
- Vehicles (including golf carts) are not authorized on the beach or dune.
- Fires and fireworks are not authorized on the beach.