



## 2. Summary of Existing Conditions

The purpose of this existing conditions report is to highlight current issues and opportunities present within the Study Area. It is these findings that will frame the preliminary carrying capacity thresholds and related transportation needs for the Refuge and the City. These findings will also provide a base for the development of alternative transportation scenarios for evaluation by project partners and the public. The summaries below can be found in greater detail under their respective sections (**Sections 3.0** thru **6.0**). This document is organized into four major topic areas: carrying capacity definition, the existing natural environment, the existing human environment, and the existing transportation environment.

### 2.1. Key Opportunities and Issues

#### 2.1.1. Carrying Capacity Definition

Carrying capacity definitions provide a foundation for examining interactions between indicators such as the supply or demand of a resource and the perceived quality of that resource. Strength of this project will come from the opportunity to collect candid input from project partners, stakeholders, and the public on thresholds unique to the Refuge and the City. These thresholds will be developed in parallel to the transportation alternatives and will be used to measure the performance of each project alternative.

At all times, it should be remembered that carrying capacity is a management concept, not a scientific theory. It will be the responsibility of project partners to decide appropriate limits (thresholds), define acceptable impacts to a desired condition, and lay the foundation for future policies that will be used in implementing alternative transportation decisions.

#### 2.1.2. Natural Environment

The Study Area is composed of fragile barrier island habitats that are subject to many different natural processes. It is these natural amenities that attract visitors to the City and are vital to the City's economic prosperity.

The island of Sanibel is home to seagrass beds, tidal flats, mangroves, hardwood hammocks, and coastal marsh, bays and inlets. These habitats support many types of flora and fauna. Estuarine habitats provide escape, feeding, breeding/spawning sites for fish and shellfish species, hardwood hammocks provide important habitat for migrant and over wintering songbirds, and mangroves provide nesting areas for colonial nesting birds. The Refuge provides diverse habitat for hundreds of animal species many of which are listed as endangered or threatened.

The greatest challenges posed to the wildlife present on Sanibel Island are the consequences of human development and intense seasonal tourism activities. These activities interfere with the natural processes, disrupting and altering the balance of the natural system.

As an example, surface water quality of freshwater wetlands including the Sanibel River been adversely affected by runoff from impervious surfaces, leaking septic tanks and fertilizers inappropriately or excessively applied to landscaped yards around homes, business, and resorts.



### 2.1.3. Human Environment

The City and its residents have clearly defined their vision for Sanibel Island. Specifically, the Sanibel Plan's Vision Statement asserts, "Sanibel is and shall remain a small town community whose members choose to live in harmony with one another and with nature; creating a human settlement distinguished by its diversity, beauty, uniqueness, character and stewardship." To achieve this vision the City's citizens must plan environmentally sensitive development within the finite supply of available land.

The finite supply of developable land has, until recently, resulted in greater real-estate demands with ever increasing property prices. These higher property prices limit the amount of affordable housing stock available to year-round residents. The challenge to the Study Area is to develop "sustainably," focusing on strictly managed redevelopment rather than new development. This point is further reinforced by the Sanibel Plan's 2004/2005 Evaluation and Appraisal Report which adopts higher building heights and reaffirms the City's commitment to ensuring redevelopment that is compatible with the overall fabric of the community.

The primary challenge to the Study Area's human environment is to develop in concert and balance with the natural systems of Sanibel Island, while continuing to provide a wealth of amenities and for the safety of its residents (year-round and seasonal).

### 2.1.4. Transportation Environment

The Study Area's transportation environment is composed of a network of two-lane, rural roads providing motor-vehicle access to most parts of the Study Area. This network also includes limited access to the Refuge. Primary access to Sanibel Island is provided by the Sanibel Causeway, a toll facility from mainland Lee County. The primary modes of transportation used on this roadway network include automobiles, mopeds/scooters, trucks, and tour buses (See **Figure 1.4**).

The City has implemented the most extensive shared use path system in Florida per capita and per area.<sup>7</sup> This shared use path system provides residents and visitors a safe corridor for walking, bicycling, and other pedestrian activities while providing alternate options to the automobile for travel.

There are many challenges inherent to a transportation network with only one point of access (Sanibel Causeway) to the region. The demand put on entering and exiting this single "chokepoint" stresses an already limited capacity rural roadway network which is further aggravated by increased seasonal visitation and emergency evacuation needs. The City has made a strong commitment to preserve the community character of the island by not adding capacity to the roadway network, as indicated in the Sanibel Plan—

*"This Transportation Element is founded on the City's belief that ever-increasing volumes of automobile traffic are not something like rainfall that has to be accepted."* (Sanibel Plan, 2007)

As a result, there are very few options to improve or alleviate any existing or forecasted automobile congestion. The extensive shared use path system does provide residents and visitors with an alternative to the congested roadway network. During stakeholder interviews in September 2008, participants indicated that even these shared use paths are experiencing pedestrian forms of congestion and that alternatives to the single occupant vehicles is needed.

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<sup>7</sup> City of Sanibel Comprehensive Shared Use Path Plan, DRAFT (2007)