

APPENDIX T

COASTAL ZONE MANAGEMENT CONSISTENCY DETERMINATION

**FLORIDA COASTAL ZONE MANAGEMENT PROGRAM
FEDERAL CONSISTENCY EVALUATION PROCEDURES
ST. LUCIE COUNTY SOUTH BEACH AND DUNE RESTORATION PROJECT
ST. LUCIE COUNTY, FLORIDA**

1. Chapter 161, Beach and Shore Preservation. The intent of the coastal construction permit program established by this chapter is to regulate construction projects located seaward of the line of mean high water and which might have an effect on natural shoreline processes.

Response: St. Lucie County, the applicant for the proposed project, has submitted the proposed project plans and information to the state in compliance with this chapter.

2. Chapters 186 and 187, State and Regional Planning. These chapters establish the State Comprehensive Plan, which sets goals articulating a strategic vision of the State's future. Its purpose is to define in a broad sense, goals, and policies that provide decision-makers directions for the future and provide long-range guidance for an orderly social, economic and physical growth.

Response: The appropriate federal, state, and local agencies have participated in project review and comment during the planning process. The project meets the primary goal of the State Comprehensive Plan through preservation and protection of shorefront development and infrastructure.

3. Chapter 252, Disaster Preparation, Response and Mitigation. This chapter creates a state emergency management agency, with the authority to provide for the common defense; to protect the public peace, health, and safety; and to preserve the lives and property of the people of Florida.

Response: The proposed project involves the placement of beach compatible material onto an eroding beach as a means to protect residents, development, and infrastructure located along the Atlantic shoreline within St. Lucie County. Therefore, this proposed project is consistent with the efforts of the Division of Emergency Management. The project proposes appropriate mitigation for unavoidable impacts to nearshore hardbottom habitat.

4. Chapter 253, State Lands. This chapter governs the management of submerged state lands and resources within state lands. This includes archeological and historical resources; water resources; fish and wildlife resources; beaches and dunes; submerged grass beds and other benthic communities; swamps, marshes and other wetlands; mineral resources; unique natural features; submerged lands; spoil islands; and artificial reefs.

Response: The proposed beach nourishment would increase recreational beach and potential sea turtle nesting habitat. No seagrass beds, swamps, marshes and other wetlands; mineral resources, unique natural features, spoil islands, or artificial reefs occur within or adjacent to the areas proposed for dredging, beach fill placement, or mitigation. The proposed project would comply with the intent of this chapter.

5. Chapters 253, 259, 260, and 375, Land Acquisition. This chapter authorizes the state to acquire land to protect environmentally sensitive areas.

Response: This project proposes no land acquisition.

6. Chapter 258, State Parks and Aquatic Preserves. This chapter authorizes the state to manage state parks and preserves. Consistency with this statute would include consideration of projects that would directly or indirectly adversely impact park property, natural resources, park programs, management, or operations.

Response: No state parks or preserves occur within the project area.

7. Chapter 267, Historic Preservation. This chapter establishes the procedures for implementing the Florida Historic Resources Act responsibilities.

Response:

A Phase I cultural resources survey was performed for the project in October 2007 (New South Associates, 2008). The survey extended from the Martin/St. Lucie County line to approximately 0.5 miles north of the St. Lucie County Nuclear Power Plant.

The Phase I survey consisted of background desktop research, field investigations including surface reconnaissance, systematic shovel testing, using a metal detector in areas adjacent to where historic shipwrecks have been recorded, artifact identification and analysis, and preparation of a report. With the exception of two shipwreck sites, all previously recorded historic and prehistoric sites are located on or west of the back dune along U.S. A1A or west of A1A, which is well outside of the project area. The field survey uncovered no evidence of the previously recorded sites.

The study recommended that the project avoid areas near previously recorded underwater sites and undisturbed areas of back dune where previously recorded sites are located. The survey found no evidence of any new or previously recorded sites or artifacts over 50 years old in the project fill template. The final report recommended a finding of no project effect on cultural resources listed, or eligible for listing, in the National Register of Historic Properties, or otherwise of historical, archaeological, or architectural value; and recommended no further investigation of the area. The Florida Department of State – Division of Historical Resources reviewed the survey report and, in a letter to the U.S. Army Corps of Engineers

(USACE) on April 15, 2008, concurred with the report findings and recommendations. Upon SHPO recommendation, further County investigation of a small area adjacent to the proposed borrow site not previously surveyed ("Area 5") led to a concurrence letter from SHPO on January 20, 2011 stating that "the proposed activities within the portion of Area 5 surveyed in this investigation will have no effect on cultural resources listed, or eligible for listing, on the NRHP.

8. Chapter 288, Economic Development and Tourism. This chapter directs the state to provide guidance and promotion of beneficial development through encouraging economic diversification and promoting tourism.

Response: The proposed beach nourishment would provide more space for recreation and protect recreational facilities along the receiving beach. The project remains consistent with the goals of this chapter, which encourages creation of additional space for recreation.

9. Chapters 334 and 339, Public Transportation. This chapter authorizes the planning and development of a safe balanced and efficient transportation system.

Response: This project would not impact the public transportation system.

10. Chapter 370, Saltwater Living Resources. This chapter directs the state to preserve, manage and protect the marine, crustacean, shell and anadromous fishery resources in state waters; to protect and enhance the marine and estuarine environment; to regulate fishermen and vessels of the state engaged in the taking of such resources within or without state waters; to issue licenses for the taking and processing products of fisheries; to secure and maintain statistical records of the catch of each such species; and, to conduct scientific, economic, and other studies and research.

Response:

Motile species such as fish and epifaunal crustaceans will be able to avoid the area during construction and seek favorable environmental conditions. Non-motile autotrophic organisms and infaunal invertebrates will be temporarily lost. However, these organisms are highly adapted to the periodic burial by sand in the intertidal zone. As demonstrated from past scientific investigations concerning the recolonization success of the benthic communities seaward of nourished beaches, the loss of nonmotile invertebrates is expected to be a short-term impact. These organisms are highly fecund and are expected to return to pre-construction levels within one year following construction.

Nourishment activities will occur outside of the sea turtle nesting season. The FDEP permit and contract specifications will contain protective measures specifically designed to avoid adverse impacts to manatees and sea turtles that may be foraging in the area. It is not expected that sea turtles would be significantly impacted by this

project. In fact, sea turtle nesting habitat should be increased as a result of increased beach width.

The County's preferred alternative would impact approximately 0.57 acres of hardbottom habitat (identified in 2010 aerial photography and ground-truthed by CSA International, Inc.). Hardbottom impacts would occur by the placement of sand fill on the project beach and subsequent sand movement as the sand fill equilibrates, as well as impacts of pipeline scraping on hardbottom habitat.

Characteristics of the nearshore hardbottom habitat environment include naturally high turbidity, sedimentation, and large temporal variations in rock exposure and sand burial. The impacts from the proposed project would likely occur mainly along the inshore (landward) portion of the hardbottom. This area typically features the greatest natural degree of sedimentation. As longshore and cross shore currents transport the sand away from the project area, impacts from the project will decrease between nourishment intervals, anticipated to occur in approximate 10-year cycles. Less than one-half the initially impacted area will remain buried between beach renourishment events. St. Lucie County expects that renourishment events will require about 1/3 the sand required by this initial nourishment project.

Project formulation has included avoidance and minimization of impacts and mitigation of unavoidable impacts to the nearshore hardbottom and associated saltwater living resources. To compensate for hardbottom impact, the project would construct mitigation reef in the nearshore waters of the project area. The mitigation reef would consist of four to six foot diameter clean limestone boulders placed in a single layer in areas with an existing veneer of sand (at least 9 inches but less than four feet deep) over rock substrate. Reef placement would occur in water depths ranging from 12 to 15 ft (-12 to -15 ft NAVD88), the shallowest depth practical for successful artificial reef construction and similar in depth to impacted hardbottom. The constructed reef structures would locate approximately 300 to 1,000 feet from the project area shoreline. Results of similar mitigation reefs in the region indicate that the mitigation reef should foster recruitment and coverage of algae, worm rock, and other epifauna similar to the impacted hardbottom community. Multiyear biological and physical monitoring would assess impacts to hard ground and performance of the mitigation reef relative to project expectations.

Coordination with the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) is ongoing. Concurrence by these agencies will constitute compliance with this chapter.

11. Chapter 372, Living Land and Freshwater Resources. This chapter establishes the Game and Freshwater Fish Commission and directs it to manage freshwater aquatic life and wild animal life and their habitat to perpetuate a diversity of species with densities and distributions which provide sustained ecological, recreational, scientific, educational, aesthetic, and economic benefits.

Response: The project will have no significant effect on freshwater aquatic life or wild animal life.

12. Chapter 373, Water Resources. This chapter provides the authority to regulate the withdrawal, diversion, storage, and consumption of water.

Response: This project does not involve water resources as described by this chapter.

13. Chapter 376, Pollutant Spill Prevention and Control. This chapter regulates the transfer, storage, and transportation of pollutants and the cleanup of pollutant discharges.

Response: The contract specifications will prohibit the contractor from dumping oil, fuel, or hazardous wastes in the work area and will require the contractor to adopt safe and sanitary measures for the disposal of solid wastes. Contract specifications will require an approved spill prevention plan before contractor receipt of a notice to proceed.

14. Chapter 377, Oil and Gas Exploration and Production. This chapter authorizes the regulation of all phases of exploration, drilling, and production of oil, gas, and other petroleum products.

Response: This project does not involve the exploration, drilling, or production of gas, oil or petroleum products. Therefore, this chapter does not apply.

15. Chapter 380, Environmental Land and Water Management. This chapter establishes criteria and procedures to assure that local land development decisions consider the regional impact nature of proposed large-scale development.

Response: The proposed renourishment project will not have any regional impact on resources in the area. Therefore, the project is consistent with the goals of this chapter.

16. Chapter 388, Arthropod Control. This chapter provides for a comprehensive approach for abatement or suppression of mosquitoes and other pest arthropods within the state.

Response: The proposed project will not further the propagation of mosquitoes or other pest arthropods.

17. Chapter 403, Environmental Control. This chapter authorizes the regulation of pollution of the air and waters of the state by the Florida Department of Environmental Regulation (now a part of the Florida Department of Environmental Protection).

Response: An Environmental Impact Statement for the proposed project impacts has undergone review by the appropriate resource agencies including the FDEP. Environmental protection measures implemented by the project will ensure that no lasting adverse effects on water quality, air quality, or other environmental resources will occur. The state will provide project Water Quality Certification before construction starts. The project complies with the intent of this chapter.

18. Chapter 582, Soil and Water Conservation. This chapter establishes policy for the conservation of the state soil and water through the Department of Agriculture. Land use policies will be evaluated in terms of their tendency to cause or contribute to soil erosion or to conserve, develop, and utilize soil and water resources both onsite or in adjoining properties affected by the project. Particular attention will be given to projects on or near agricultural lands.

Response: The proposed project will not occur near or on agricultural lands. Therefore, this chapter does not apply.