

18. COASTAL MANAGEMENT

Information Sources

- George F. Young, interview notes, June 2002
- Sasaki Associates, Inc., interview notes, April, 2000
- Interviews between DRMP Staff and USF Staff, May, 2000
- 1995 Master Plan and Data and Analysis Report (part)
- Conservation Management Document, February, 1999
- Team meetings with USF Staff, June, 2000
- Individual interviews between DRMP Staff and USF Staff, June, 2000

Purpose

The purpose of this element to provide for the protection of residents and property in those campuses or portions of campuses within the coastal area of the host community, and to limit expenditures, and where appropriate, restrict development, in those areas subject to destruction by natural disaster within the coastal high hazard area.

The Coastal Management goal of USFSP campus plan is for campus development to enhance access and improve the environment of the Bayboro Harbor waterfront as well as strengthen emergency preparedness for the campus.

Data Requirements

(1)(A) Inventory all land uses and facilities on the USFSP property within the coastal area.

The entire 46-acre campus including its buildings, structures, roadways, and infrastructure system are located within designated flood plains. The peninsula containing the Marine Science facilities and DEP facilities and the property along Bayboro Harbor are contained by a concrete seawall which is owned and maintained by the University. The campus is located in Flood Zone A with a base flood elevation of 9 feet above mean sea level. All new structures are being constructed to meet those requirements.

The southern boundary of the campus is the existing seawall edge of Bayboro Harbor. For ease of circulation and maneuvering, the marine sciences peninsula has an existing impervious surface perimeter abutting the seawall. The academic portion of the campus abutting Bayboro Harbor is set back with an open space buffer extending from the peninsula west to Poynter Park.

(1)(B) Inventory natural features on the USFSP property within the coastal area.

As an urban campus which is utilizing previously developed urban property, there are no existing wetlands or significant vegetation cover on-site. Due to the Campus' location, it is subject to storm surges and tidal fluctuations. The most significant wildlife habitat in the region is located within Bayboro Harbor and Salt Creek which is designated as a manatee habitat.

(1)(C) As applicable, an inventory of on campus estuary conditions.

Not applicable.

(1)(D) Campus facilities designated as public hurricane shelters shall be identified and inventoried, including number of shelter spaces, responsible agencies, population to be served, and the nature of facilities provided. Where no such facilities exist on campus, the number of University-resident students, faculty and staff requiring public hurricane shelter, the number of public hurricane shelter spaces available (including any designated reserve for resident students), evacuation routes, transportation and hazard constraints on the evacuation routes, and evacuation times shall be inventoried.

The peninsula of the campus is located in Evacuation Zone A. The remaining portion of the campus for hurricane evacuation is located in Evacuation Zone B. Those areas with a level "A" designation would mean that it is affected by a Category 1 storm with storm surge heights of 4 to 7 feet above normal. Zone B, which is the remaining portion of the campus, would require evacuation during a Category 2 storm with storm surge height of 6 to 8 feet above normal. Currently, none of the existing structures on the campus are designated as public hurricane shelters. The closest hurricane shelter is the John Hopkins Middle School at 701 Sixteenth Street South. This hurricane evacuation shelter has a capacity of about 1,400 (source: www.sptimes.com/hurricane2000/pdf-files/pin-map-shelters.pdf). This would mostly affect resident students as the hurricane warnings generally provide enough lead time for the University to announce whether it will close to allow faculty and staff to evacuate from home if necessary.

It should be noted that during the 1985 Elena hurricane, over 60,000 residents were sheltered in South Pinellas County. This number was significantly higher than expected as demonstrated in the hurricane vulnerability study by the TBRPC in 1985. To evacuate from Pinellas County completely, the major evacuation

route is I-275 to Hillsborough County. Evacuation times and hazard constraints on the evacuation routes are not available.

(1)(E) *Inventory of existing beach and dune systems on the USFSP property.*

Not applicable.

(1)(F) *Inventory of public access facilities on the USFSP property.*

The boat docks and launching facilities that are currently on the peninsula are utilized by the DEP, the Marine Science facilities and, occasionally, the US Geological Survey. It has been indicated that general public access to the ramps or docs used for research should not be encouraged or permitted. The general USF community has access to the harbor via the Haney Landing Sailing Center and the USFSP Waterfront office, but there are no facilities available to the general public.

(1)(G) *Identification of Coastal High Hazard Areas*

The coastal high hazard area is defined under 9J-5 FAC to be those areas which have historically experienced destruction or severe damage or are scientifically predicted to experience damage from rapidly moving or storm-driven water. Tidal flooding occurs along Salt Creek due to the low height of existing seawalls. St. Petersburg is not as subject to the direct wave action and erosion as the western coast of Pinellas County. Therefore, St. Petersburg does not have a coastal Construction Control Line nor the construction standard established to regulate the more vulnerable development of the west coast of Pinellas County. The most vulnerable areas in the City are those which are designated within evacuation level "A" which would include the peninsula of the University's campus.

Analysis Requirements

(2)(A). *Measures to reduce exposure to hazards for buildings, structures and infrastructure identified above.*

The peninsula of the campus is located in Evacuation Zone A. The remaining portion of the campus is located in Evacuation Zone B. To reduce exposure to hazards for existing and future facilities, the University should design new facilities in accordance with the most up-to-date Standard Building Codes.

Existing facilities should be evaluated and retrofitted in accordance with the revised Standard Building Codes.

New buildings shall be constructed in accordance with the public shelter standards and criteria established by the American Red Cross and Hillsborough County Emergency Planning Operations. The Board of Trustees, with concurrence for the local emergency management office and Department of Community Affairs, may exempt a building or a part thereof because of the building's location, size, or some other characteristic.

(2)(B). *Analysis of impact of any proposed development on natural resources*

The University shall continue to construct new facilities in accordance with applicable Natural Resource regulations including, but not limited to those of the Florida Department of Environmental Protection, Florida Fish and Wildlife Conservation Commission, Southwest Florida Water Management District, and United States Fish and Wildlife Service.

(2)(C). *Analysis of impacts of any Proposed development on Estuarine Environmental Quality.*

A Stormwater Master Plan was prepared for the University for the 1995 Master Plan by GGI. This effort recognizes that stormwater quality treatment needs to be provided on a Campus-wide basis. This effort also recognizes that portions of the campus were built prior to the implementation of various stormwater ordinances and, therefore, do not conform. An effort to bring the entire campus into conformance with the various ordinances is proposed at varying levels throughout the campus. The 10-year master plan is also proposing additional open space through the closure of existing roads and rights-of-way. Pedestrian plazas and landscaping will be provided within these new open spaces. It is anticipated that with these improvements impacts to the estuarine environmental quality may be reduced.

(2)(D). *Analysis of Host Community's Plans and Procedures for Hurricane Shelter needs.*

No campus buildings are designated hurricane shelters. The Tampa Bay Regional Planning Council (TBRPC) is responsible for the preparation of regional hurricane evacuation plans. Their studies utilized the Sea, Lake and Overland Surge Hurricane Model (SLOSH). The SLOSH model considers hypothetical hurricanes ranging from a Category 1 (least intense) to a Category 5

(most intense). The peninsula of the campus is located in evacuation Zone A, and the remaining portion of the campus is in evacuation Zone B. All of the Pinellas County evacuation corridors include travel through either Hillsborough County or Pasco County. The Pinellas County Planning Department has divided the County into north and south sections. In addition, they have identified primary and secondary shelter locations in both north and south district. The John Hopkins Middle School is the closest to the University. The 1995 Master Plan indicated that there was a capacity of 32,154 in the primary hurricane evacuation shelters. Capacity for an additional 13,132 was identified in within secondary shelters in South Pinellas County. There is no current data available on the hurricane evacuation shelter capacity in South Pinellas County. All shelters are operated by the American Red Cross and operate on a first come first serve basis.

(2)(E) Analysis of availability of large tracts of open space that might be suitable for use in staging emergency resources.

The peninsula of the campus is located in evacuation Zone A, and the remaining portion is in evacuation Zone B. In the City's Disaster Recovery Plan, the largest tract of open space that they have identified as suitable for staging of emergency resources is located at the Thunderdome in western Downtown. Due to the location of the campus within these evacuation zones, it is anticipated that immediately after a hurricane occurrence that portions of the campus could still be flooded and would not be suitable for staging. If emergency requirements were to force staging within the campus area, the parking lot west of Fourth Street South and South of Sixth Avenue South could be appropriate. This location is the farthest away from the waterfront and is close to medical facilities.

(2)(F) Projection of Future Hurricane Shelter Needs.

Pinellas County's population will continue to grow including population in the hurricane evacuation zones. This growth will increase the number of people evacuating these zones prior to a hurricane, to shelters and along evacuation routes. Pinellas County is in the process of implementing a number of options to increase hurricane evacuation response including computerized traffic signalization allowing for increased percentage of green time for evacuation routes at key intersections. Road improvements which are along critical evacuation routes have also been identified and prioritized. Pinellas County and TBRPC have identified that additional shelters will be required. This is partially

due to the increase in population including the number of hospital beds, nursing homes and population over the age of 75 that will not evacuate to in-land areas.

No data with which to analyze projections has been received to date. The University shall continue to prepare and provide an awareness information package to enrolling students and faculty as to the evacuation plans including on- and off-campus shelter locations and evacuation routes.

(2)(G) *Adequacy of Existing Beach and Dune Protection and Enhancement Features*

The campus shoreline is established by a concrete reinforced seawall. There are no beaches or dunes on site.

(2)(H) *Analysis of Capacity of and Need for Public Access Facilities to the Beach or Shoreline*

The 1995 Master Plan identified the closure of existing City rights-of-way and roads for the creation of pedestrian open space and plazas. Acting as extensions of Downtown St. Petersburg, the city block configuration encourages pedestrian access. The 1995 Master Plan also proposed the expansion of the open space along Bayboro Harbor eastward towards the peninsula as well as unifying it with Poynter Park to the west. Due to the on-going research and operations on the peninsula by the Marine Science Department and the DEP, public access should be limited. While the City did not allow for most of the proposed road closures, the open space along the waterfront (except for the peninsula) has been extended and improved and the public has full access to it.

The University shall evaluate, as appropriate, opportunities for the public to have access to the peninsula. Concerns regarding safety, access and coordination with the City of St. Petersburg shall be considered.