



2020 - 2030

# USF Master Plan Updates

Goals Objectives & Policies

## Element 8: Conservation & Coastal Management

UNIVERSITY OF SOUTH FLORIDA

ST PETERSBURG CAMPUS

## TABLE OF CONTENTS:

### **Goals, Objectives, and Policies (GOP)**

#### **Element 8 Conservation**

Figure 8.a Conservation Management 10 Year Plan

#### **Element 8A Coastal Management**

Figure 8A.a Coastal Management 10 Year Plan



## Element 8:

# St Petersburg Conservation

## Element 8 Conservation

### Plan Framework for Conservation

The USFSP campus is located along Bayboro Harbor, which is designated as an Outstanding Florida Water and also recognized as a Manatee habitat area. This designation will require that stormwater treatment be provided at a volume of at least 50 percent more than what is required for standard retention areas. The entire USFSP campus, except for the southeast corner of Sixth Avenue South and Fourth Street South, is located within Flood Zone AE-8, an area of 100-year floods. Buildings must be constructed in accordance with the required design flood elevation contained in the City of St. Petersburg Building Code. The campus is located on soils designated as urban land according to the Soil Conservation Service of the United States Department of Agriculture. No detailed information regarding seasonal water table and permeability is available. The seasonal high water elevation is from 24" to 36" below grade. The USFSP campus is considered a "small quantity" generator of hazardous waste. Chemicals and solvents are generated by the marine science laboratory and research facilities. Removal is provided for on a routine basis.

(See Figure 8-a.)

### Goal

The Conservation goal of the USF St. Petersburg campus plan is to be a model for conservation policies to improve the environment and improve air, water and open space quality in the vicinity of the campus including Bayboro Harbor.

### Summary of Objectives and Policies

#### Objective 8.1:

**Identify mitigation techniques for traffic and parking, building projects and on-campus uses and to improve or maintain the level of air quality.**

**Policy 8.1.1:** USF St. Petersburg campus shall continue to participate in and consider those programs which will maintain or improve existing air quality on campus lands. Such programs include participation in local transportation management associations, transit routing and terminal servicing activities and the promotion of bicycle and pedestrian circulation improvements.

**Policy 8.1.2:** USF St. Petersburg campus shall reduce mobile sources of air pollution through Transportation Element policies designed to discourage dependence on the personal automobile as the primary transportation mode on campus, and to encourage alternative modes of transportation on campus (i.e., public transit, bicycles, etc.).

**Policy 8.1.3:** USF St. Petersburg campus shall minimize emissions of air pollutants from and within buildings on campus through the installation of appropriate filtering devices on fume hoods and by minimizing the storage and use of volatile and hazardous materials in campus buildings.

**Policy 8.1.4:** USF St. Petersburg campus shall determine the potential impacts on air quality before construction of parking structures. Parking structures shall be designed to facilitate rapid ingress and egress of vehicles to minimize idling time, and to maximize air flow through them to eliminate pockets of stagnation where pollutant levels can build up.

**Policy 8.1.5:** USF St. Petersburg campus should implement a program for the monitoring of both indoor and outdoor air quality. Indoor sampling shall occur at chemistry laboratories, kitchens, and other sites where fumes are produced. Outdoor sampling sites shall include parking lots and congested intersections. Failure to meet air quality standards adopted by the State Department of Environmental Protection shall result in an assessment of the probable cause and the preparation and implementation of a plan to improve and maintain air quality.

**Policy 8.1.6:** USF St. Petersburg campus shall explore and implement, as appropriate, alternative fuel vehicles for on-campus utilization.

#### Objective 8.2:

**Conserve and protect the quantity and quality of potable water sources.**

**Policy 8.2.1:** USF St. Petersburg campus shall not undertake activities on-campus, which would contaminate groundwater sources or

designated recharge areas unless provisions have been made to prevent such contamination or otherwise provide mitigation for such activities so as to maintain established water quantity and quality standards.

**Policy 8.2.2 Deleted**

**Policy 8.2.3:** USF St. Petersburg campus shall construct new facilities in conjunction with appropriate flood zone requirements.

**Policy 8.2.4:** USF St. Petersburg campus shall minimize stormwater-borne pollutants generated as a result of University operations and maintenance practices through adherence to Stormwater Management Sub-Element (General Infrastructure Element 7).

**Objective 8.3:**

**Protect Bayboro Harbor, a designated Outstanding Florida Water.**

**Policy 8.3.1:** USF St. Petersburg campus shall recognize the Manatee habitat area and Outstanding Florida Water designation for Bayboro Harbor by the following actions:

- Restrict any expansion of land area into the harbor.
- Any expansion of boating activity associated with the research facilities shall be authorized and reviewed by appropriate agencies. Any new structures or replacement of existing structures will consider the use of materials free from pollutants such as creosote, copper, chromium or arsenate.
- USF St. Petersburg campus shall cooperate with the host community and the NPDES program, as appropriate, to further eliminate stormwater-borne pollutants into Bayboro Harbor.
- USF St. Petersburg campus shall construct a series of stormwater treatment facilities located within Harborwalk and open spaces providing reduction of stormwater pollutants prior to the eventual outfall into Bayboro Harbor. This will include the consideration of the use of Bioretention Landscape and structural features.
- USF St. Petersburg campus shall work with the City to reduce trash and debris entering Bayboro Harbor and periodically remove trash and debris from the basin.
- The design of proposed facilities shall not conflict with provisions of the Bayboro Harbor Redevelopment Plan.

**Objective 8.4:**

**Expand the use of conservation and energy saving techniques within the construction of new facilities.**

**Policy 8.4.1:** USF St. Petersburg campus shall continue to evaluate and implement, as appropriate, solar energy as an alternative source of power for irrigation systems, lighting, shuttles, phones, etc.

**Policy 8.4.2:** Energy conservation fixtures, air conditioning and lighting systems and other building specific energy use and management techniques shall continue to be a required element of all new buildings constructed on the campus.

**Policy 8.4.3:** USF St. Petersburg campus shall continue to implement a comprehensive water conservation program, to include, but not be limited to:

- The use of treated wastewater effluent for an expanded campus irrigation system and chilled water system make-up water,
- The use of automated timers and other irrigation flow monitoring mechanisms,
- Xeriscape landscape treatments for new building construction and new campus common areas, and
- The use of low flow and low flush fixtures in new building construction.

**Policy 8.4.4:** USF St. Petersburg campus shall consider, during development of building programs, the utilization of courtyards, arcades and other shade and ventilation techniques to further reduce energy demands. Landscaping and building orientation should also be considered.

**Objective 8.5:****Protect identified native vegetative communities.**

**Policy 8.5.1:** USF St. Petersburg campus shall protect any identified jurisdictional native vegetative communities from proposed development activities. These jurisdictional areas based upon the most recent Department of Environmental Protection criteria will be delineated prior to any proposed development.

**Policy 8.5.2:** USF St. Petersburg campus shall use plant species that are Florida-friendly plants and indigenous to the natural plant communities of the Tampa Bay area. In cases where non-invasive exotic plants are used to enhance the landscape, plantings shall be limited to those non-invasive species that are able to resist periods of drought and which require little fertilization and the use of pesticides.

**Policy 8.5.3:** USF St. Petersburg campus shall maintain and improve existing vegetative communities through the removal of ecologically undesirable vegetation. It is the intent of USF St. Petersburg to remove all non-native invasive plants (whether grasses, shrubs or trees) which are identified on the Exotic Pest Plant Council's "Florida's Most Invasive Species List" from the campus grounds. As these species are located on the campus, USF St. Petersburg campus shall coordinate with the Florida Department of Environmental Protection and other appropriate governmental entities to ensure the proper removal and disposal of these exotic species.

**Policy 8.5.4:** USF St. Petersburg campus shall coordinate with other governmental agencies relative to the conservation, protection and management of the native vegetative communities and marine and aquatic habitats. Within two years after adoption of the master plan, the University shall coordinate with the Florida Fish and Wildlife Conservation Commission and other appropriate state and regional environmental agencies to conduct a management study for designated Conservation areas. The scope of this study shall include, but not be limited to:

- Maps depicting the location of vegetative communities and management units within designated Conservation areas;
- Identifying the University entity with responsibility for management of designated Conservation areas;
- A description of how each management unit will be maintained or restored;
- A monitoring and evaluation schedule;
- A plan for the removal and control of exotic plants and wildlife; and
- A description of compatible uses.
- The adopted campus master plan shall be amended as needed to incorporate the results and recommendations contained in the management study.

**Objective 8.6:****To designate environmentally sensitive lands for protection based on state and locally determined criteria.**

**Policy 8.6.1:** USF St. Petersburg campus shall continue to protect and conserve threatened and endangered species of plants and animals, and species of special concern, as required by the Endangered Species Act of 1973, as amended, Chapter 39, F.A.C., and federal and state management policies relating to the protection of threatened and endangered species, and species of special concern.

**Policy 8.6.2:** During the initial planning phase of any physical changes to the campus, USF St. Petersburg campus shall perform a census of wildlife and plants in the area to be affected. Plants or animals identified in the "Official Lists of Endangered and Potentially Endangered Fauna and Flora in Florida", which is updated periodically by the Florida Fish and Wildlife Conservation Commission, or otherwise afforded protection by the host communities and state and federal agencies, shall be noted. Protection plans for those identified species shall be formulated consistent with those of the host communities and appropriate state and federal agencies.

**Objective 8.7:****To restrict USF St. Petersburg campus activities known to threaten the habitat and survival of threatened and endangered species and species of special concern.**

**Policy 8.7.1:** USF St. Petersburg campus shall prepare an on-going evaluation of monitoring and disposing of chemical and research wastes. Opportunities for new technologies to assist in transporting and disposing of such wastes shall be continuously evaluated.

**Policy 8.7.2:** USF St. Petersburg campus shall continue to encourage and expand the use of its recycling program by creating awareness informational packages and providing convenient recycling centers.

**Policy 8.7.3:** USF St. Petersburg campus shall coordinate on-campus recycling programs with those of local government in regard to materials collected, and disposal/collection procedures.

**Policy 8.7.4:** USF St. Petersburg campus shall provide on-campus facilities for the collection and storage of hazardous materials used in the University operations as required by federal, state and local regulations.

**Policy 8.7.5:** USF St. Petersburg campus shall maintain, in a managed natural state, all of those sites identified for preservation on the Future Conservation Areas Map (Figure 13-a). No construction is anticipated in these areas except for minimal structures and improvements necessary to ensure safe access and essential support functions.

**Policy 8.7.6:** USF St. Petersburg campus shall continue to require the use of best management construction practices, including the use of soil stabilizers, silt screens, surface moisture applications and other techniques to reduce the impact of development activities.

**Policy 8.7.7:** Any proposed development adjacent to an environmentally sensitive area shall be carefully sited and integrated into the existing landscape to have minimal visual impact on the area. Landscape treatment shall preserve significant existing vegetation to allow a gracious transition from developed areas to undeveloped areas to preserved areas. The existing vegetation shall serve to essentially buffer proposed development in order to maintain the natural and undeveloped character of the area.

**Policy 8.7.8:** Copies of land development criteria and standards which reflect the policies contained in the adopted campus master plan shall be provided to design consultants and appropriate USF St. Petersburg staff. USF St. Petersburg campus should standardize the construction review process to assure adherence to appropriate master plan policies.

**Policy 8.7.9:** USF St. Petersburg campus personnel shall, when encountering listed species, follow procedures and seek consultation with the appropriate agencies including the Florida Fish and Wildlife Conservation Commission and United States Fish and Wildlife Service.

**Objective 8.8:**

**Expand the use of conservation and energy saving techniques with the planning, design, and construction of new facilities.**

**Policy 8.8.1:** The design of new buildings shall be consistent with the climatic response and sustainability guidelines contained in the USF Design and Construction Guidelines and Standards

<https://www.usf.edu/administrative-services/facilities/design-construction/guidelines-standards.aspx>"

**Policy 8.8.2:** Energy conservation fixtures, air conditioning and lighting systems and other building specific energy use and management techniques shall continue to be a required element of all new and renovated buildings constructed on the campus.

**Policy 8.8.3:** USF St. Petersburg campus shall consider, during development of building programs and design, the building orientation, increased daylighting measures, utilization of courtyards, arcades and other shade and ventilation techniques to further reduce energy demands.

**Policy 8.8.4:** USF St. Petersburg campus shall consider, during development of building programs and design, use of low-maintenance, local, durable, and sustainable materials, with priority placed on durable materials with long term life cycle benefit.

**Policy 8.8.5:** USF St. Petersburg campus shall require all major new construction and renovation projects to seek USGBC LEED certification with goal of achieving Silver rating or above. Commissioning is required on all projects. The University has a target of energy saving of 15-20% above the ASHRAE 90.1-2016 Baseline.

**Policy 8.8.6:** Copies of land development criteria and design standards which reflect the policies contained in the adopted Campus Master Plan, USF Design and Construction Guidelines and Standards, <https://www.usf.edu/administrative-services/facilities/design-construction/guidelines-standards.aspx> and Final Climate Action Plan shall be provided to design consultants and appropriate University staff. USF St. Petersburg campus shall standardize the construction review process to assure adherence to appropriate Master Plan and Design and Construction Guideline policies.



# UNIVERSITY of SOUTH FLORIDA

## 2020 - 2030 St. Petersburg Campus Master Plan Update

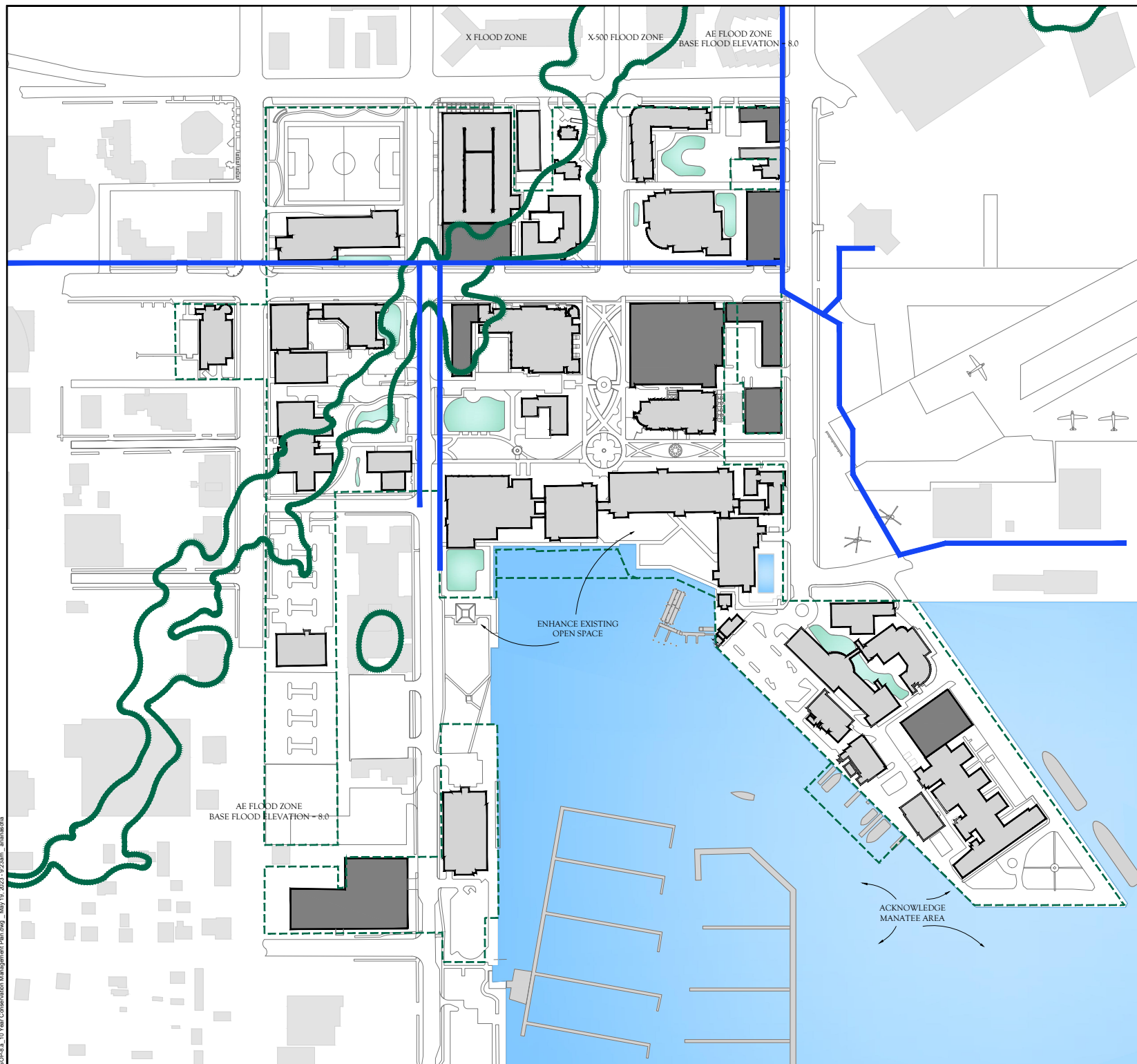
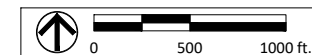
- Planning Area
- FEMA Flood Zone Line
- Reclaimed Water Main
- Existing USFSP Facilities
- Proposed USFSP Facilities

FIRM Panel # 12103C0219G  
 September 3, 2003  
 AE Zone, In Special Flood Hazard Area  
 X - 500 Zone, 500 Year Flood  
 Outside 500 Year Flood  
 X Zone, Outside Special Flood Hazard Area

**Element 8**  
 Conservation

**GOP Figure 8.a**  
 Conservation Management  
 10 Year Plan

**Date**  
 ADOPTED 06/13/2023







## **Element 8A:**

# **St Petersburg Coastal Management**

## Element 8A Conservation / Coastal Management

### Plan Framework for Coastal Management

The campus is located within the existing urban grid network of downtown St. Petersburg. The southern boundary of the campus is the existing seawall edge of Bayboro Harbor. For ease of circulation and maneuvering, the southern most extent of the campus, known as the 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 the City owned Poynter Park. It should be noted that any enhancements to Poynter Park need to be approved by the City and be consistent with the existing Conservation Easement in order to allow for the continued use of this area by the public as a Passive Park, pursuant to the City Charter and City Code. In addition reference should be made to Downtown Waterfront Master Plan (DWMP) which recommends that Poynter Park be leveraged as a south end park for special events, local gatherings and USFSP programmed activities. Access to the water and areas to sit under shade should be considered in this park environment.

Haborwalk, a significant pedestrian walkway, was developed following the vacation of Seventh Avenue South between First and Second Streets South and Second Street South between Sixth and Seventh Avenues South. Additional open spaces/plazas or building sites could be created by the vacation of existing streets or alleys in conformance with City requirements. According to the flood insurance rate map prepared by the Federal Emergency Management Agency (FEMA), the entire USFSP campus, except for the southeast corner of Sixth Avenue South and Fourth Street South, is located within Flood Zone AE-8, an area of 100-year floods. Buildings must be constructed in accordance with the required design flood elevation contained in the City of St. Petersburg Building Code. Bayboro Harbor, Salt Creek, and a portion of the Port of St. Petersburg are identified as Manatee habitat areas. Special consideration should be associated with any expansion of boating activity within Bayboro Harbor. With proper treatment of stormwater in conjunction with the increased open space along the bayfront, it appears that the 10-year master plan (2025 update) will not have any negative effects on coastal management.

The peninsula of the campus is located in Evacuation Zone A, and the remaining portion of the campus is located in Evacuation Zones B through E. According to the City's Emergency Recovery Plan, the largest tract of open space that has been identified as suitable for staging of emergency resources is located at the Tropicana Field complex situated just west of the downtown core. Due to the location of the campus within these evacuation zones, it is anticipated that immediately after a hurricane, portions of the campus could still be flooded and would not be suitable for staging. The hurricane shelters located at John Hopkins Middle School at 701 Sixteenth Street South and Campbell Park Elementary School at 1051 Seventh Avenue South are the closest designated hurricane shelters to the campus. It should be noted that these hurricane shelters operate on a first-come, first-served basis. Currently, none of the existing structures on campus are designated as disaster shelters.

### Goal

The Coastal Management goal of the 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.

### Objective 8A.1:

**Continue coordination with the local communities and agencies for the evacuation and coordination of USF St. Petersburg campus facilities related to natural or man-made disasters.**

**Policy 8A.1.1:** USF St. Petersburg campus shall continue its on-going working relationship with the host community, Regional Planning Council, American Red Cross and other agencies as appropriate to ensure that evacuation plans are monitored and kept current.

**Policy 8A.1.2:** USF St. Petersburg campus shall provide awareness information to enrolling students and faculty as to the evacuation plans including shelter locations and routes.

**Policy 8A.1.3:** USF St. Petersburg campus has determined that no buildings or structures on campus can or should be identified as public shelters due to functional utilization and our proximity to Bayboro Harbor.

**Policy 8A.1.4:** Deleted

**Policy 8A.1.5:** Deleted

**Policy 8A.1.6:** USF St. Petersburg campus shall construct new facilities in accordance with the Florida Building Code as amended and flood zone regulations.

**Policy 8A.1.7:** USF St. Petersburg campus shall cooperate with the City regarding the National Pollutant Discharge Elimination System (NPDES) program.

**Policy 8A.1.8:** The University shall adhere to its emergency recovery plan, which addresses such issues as "restarting" the campus after a natural disaster. Issues such as road cleaning, facility start-up, reuse of facilities, operations, etc., should be considered as well as coordination with the host community.

**Policy 8A.1.9:** Should additional open tracts of land be necessary for the staging of emergency equipment and personnel, the parking lot east of Fourth Street South and south of Eighth Avenue South shall be designated the approved location.

**Policy 8A.1.10:** USF St. Petersburg shall implement a program for identifying and eliminating deficiencies related to conformance of USF St. Petersburg campus facilities with current coastal management standards.

**Objective 8A.2:**

**Develop a hurricane evacuation plan for on-campus housing residents.**

**Policy 8A.2.1:** A plan and process for the orderly evacuation of campus residents has been developed and can be found in the USF St. Petersburg Emergency Operations Manual.

**Objective 8A.3:**

**Improve pedestrian access to the Bayboro Harbor waterfront by coordination with the Poynter Park and proposed new campus open space.**





**Policy 8A.3.1:** USF St. Petersburg campus, through its master plan program, shall provide enhanced access to the academic portion of Bayboro Harbor waterfront. This open space should be coordinated with the Poynter Park to the west and the open space plazas within the new campus greenways and plazas.

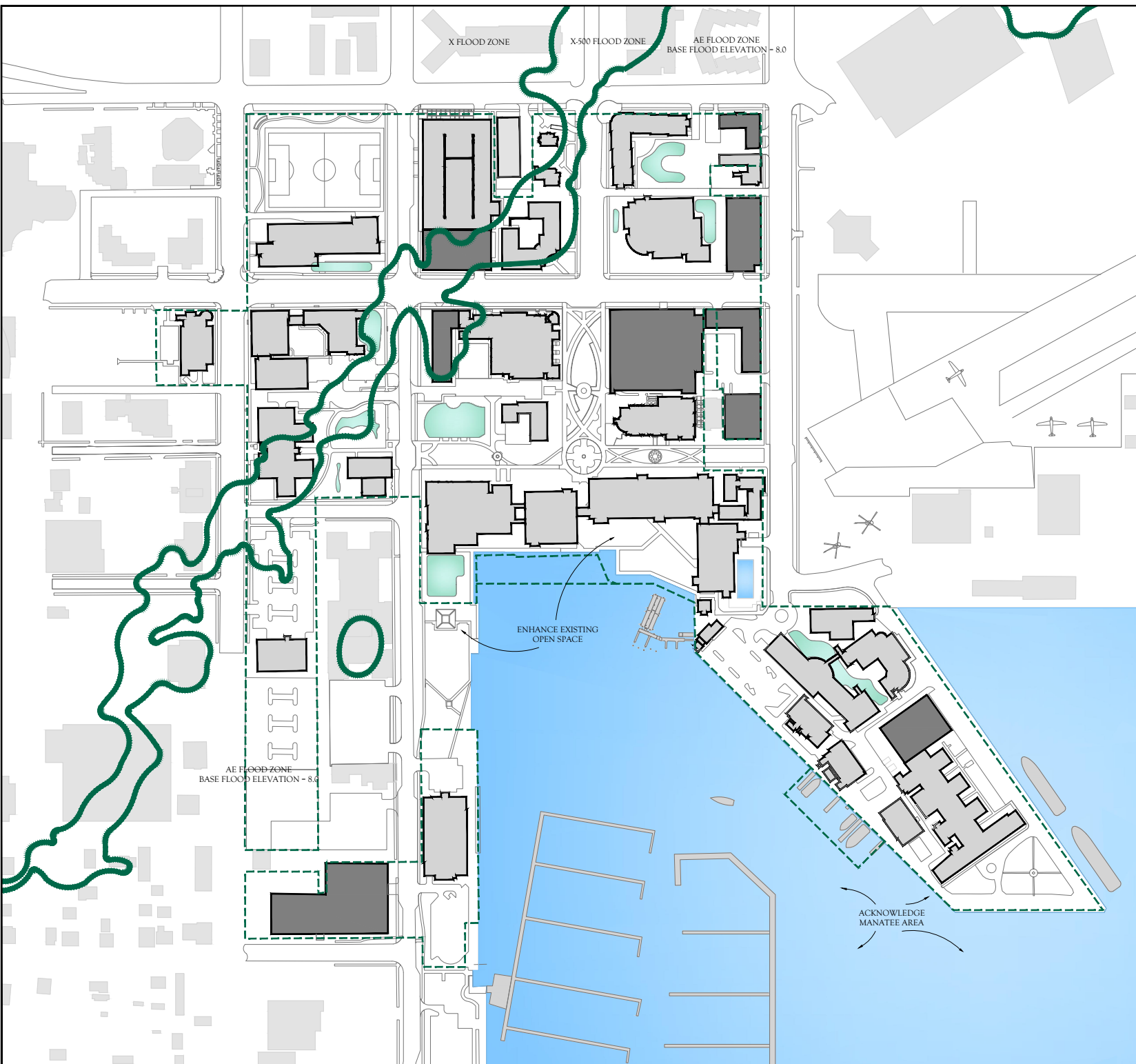
**Policy 8A.3.2:** In the interest of public safety, USF St. Petersburg campus discourages public access to those areas of the peninsula defined as staging areas for research vessels and marine related functions.



# UNIVERSITY of SOUTH FLORIDA

2020 - 2030  
St. Petersburg Campus  
Master Plan Update

-  Planning Area
-  FEMA Flood Zone Line
-  Existing USFSP Facilities
-  Proposed USFSP Facilities



**Element 8**  
Conservation

**GOP Figure 8A.a**  
Coastal Management 10  
Year Plan

**Date**  
ADOPTED 06/13/2023

