13. CONSERVATION ELEMENT

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 A, an area of 100-year floods. This classification requires that base floor elevations for new construction be at nine feet above mean sea level. 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. Soil borings conducted immediately east of the campus have indicated the seasonal high waterline is approximately 30 inches 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 13-a.)

Goal

The Conservation goal of the USFSP 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 13.1. Identify mitigation techniques for traffic and parking, building projects and on-campus uses and to improve or maintain the level of air quality.

Policy 13.1.1. USFSP 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 13.1.2. USFSP 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 13.1.3. USFSP 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 13.1.4. USFSP 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 13.1.5. USFSP shall 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 13.1.6. USFSP shall explore and implement, as appropriate, alternative fuel vehicles for on-campus utilization.

Objective 13.2. Conserve and protect the quantity and quality of potable water sources.

Policy 13.2.1. USFSP 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 13.2.2. USFSP shall continue to monitor and test treated potable water on a daily and monthly basis.

Policy 13.2.3. USFSP shall continue to monitor all surface waters for compliance with existing standards for water quality.

Policy 13.2.4. USFSP shall construct new facilities in conjunction with appropriate flood zone requirements. The University shall, to the maximum practical extent, locate buildings outside of the Federal Emergency Management Agency's (FEMA) recognized 100-year flood zone. In those locations where encroachment into the floodplain is deemed unavoidable, USFSP shall abide by all agency regulatory requirements to provide compensatory flood storage areas.

Policy 13.2.5. USFSP 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 9).

Objective 13.3. Protect Bayboro Harbor, a designated Outstanding Florida Water.

Policy 13.3.1. USFSP shall recognize the Manatee habitat area and Outstanding Florida Water designation for Bayboro Harbor by the following actions:

1. Restrict any expansion of land area into the harbor.

2. 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.

3. USFSP shall cooperate with the host community and the NPDES program, as appropriate, to further eliminate stormwater-borne pollutants into Bayboro Harbor.

4. USFSP shall construct a series of stormwater treatment facilities located within the Central Lawn 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.

5. USFSP shall work with the City to reduce trash and debris entering Bayboro Harbor and periodically remove trash and debris from the basin.

6. The design of proposed facilities shall not conflict with provisions of the Bayboro Harbor Redevelopment Plan.

Objective 13.4. Expand the use of conservation and energy saving techniques within the construction of new facilities.

Policy 13.4.1. USFSP shall continue to evaluate and implement, as appropriate, solar energy as an alternative source of power for irrigation systems, lighting, shuttles, phones, etc.

Policy 13.4.2. 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 13.4.3. USFSP shall continue to implement a comprehensive water conservation program, to include, but not be limited to:

1. The use of treated wastewater effluent for an expanded campus irrigation system and chilled water system make-up water,

2. The use of automated timers and other irrigation flow monitoring mechanisms,

3. Xeriscape landscape treatments for new building construction and new campus common areas, and

4. The use of low flow and low flush fixtures in new building construction.

Policy 13.4.4. USFSP 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 13.5. Protect identified native vegetative communities.

Policy 13.5.1. USFSP 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 13.5.2. USFSP shall use plant species that are 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 13.5.3. USFSP shall maintain and improve existing vegetative communities through the removal of ecologically undesirable vegetation. It is the intent of USFSP 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, USFSP 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 13.5.4. USFSP 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:

1. Maps depicting the location of vegetative communities and management units within designated Conservation areas;

2. Identifying the University entity with responsibility for management of designated Conservation areas;

3. A description of how each management unit will be maintained or restored;

4. A monitoring and evaluation schedule;

5. A plan for the removal and control of exotic plants and wildlife; and

6. 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 13.6. To designate environmentally sensitive lands for protection based on state and locally determined criteria.

Policy 13.6.1. USFSP 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 13.6.2. During the initial planning phase of any physical changes to the campus, USFSP 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 13.7. To restrict USFSP activities known to threaten the habitat and survival of threatened and endangered species and species of special concern.

Policy 13.7.1. USFSP 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 13.7.2. USFSP shall continue to encourage and expand the use of its recycling program by creating awareness informational packages and providing convenient recycling centers.

Policy 13.7.3. USFSP shall coordinate on-campus recycling programs with those of local government in regard to materials collected, and disposal/collection procedures.

Policy 13.7.4. USFSP shall provide on-campus facilities for the collection and storage of hazardous materials used in USFSP operations as required by federal, state and local regulations.

Policy 13.7.5. USFSP 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 13.7.6. USFSP 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 13.7.7. 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 13.7.8. 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 USFSP staff. USFSP shall standardize the construction review process to assure adherence to appropriate master plan policies.

Policy 13.7.9. USFSP 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.