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## FAU TREASURE COAST MASTER PLAN

### CONSERVATION ELEMENT

#### Goal 1

**To ensure the conservation, protection, and wise use of all natural ecosystems and natural resources on the University campus and in the context area.**

#### Objective 1A

**Protect air quality.**

##### **Policy 1A-1**

FAU shall develop a strategic plan by the end of 2001 for reducing the use of single occupant internal combustion vehicles for commuting. The strategy shall include incentives for encouraging the use of alternative modes of transportation such as public transportation, SFRTA/Tri Rail, FAU Shuttle, car pools, electric vehicles, bicycles, and other human powered modes of transportation. Upon the completion of the strategic plan, the adopted campus master plan shall be amended as necessary to include the results of the strategic plan.

##### **Policy 1A-2**

The University shall develop a plan by the end of 2001 for converting its vehicle fleet to less polluting fuels (i.e., electric, LNG, hydrogen, etc.).

##### **Policy 1A-3**

As the majority of the University property has been farmed and left devoid of native vegetation, the University shall develop a strategic plan by the end of 2001 for enhancing the landscaping on site with native plants and plants suited to xeriscape requirements.

##### **Policy 1A-4**

Restrict the use of fossil fuels to natural gas for heating and utility purposes.

##### **Policy 1A-5**

Encourage the increased use of public transportation by faculty, staff, and students. This may be accomplished by such tactics as: developing A fare-free zones with the provider public transportation, developing with the provider new or revised routes that offer improved convenience to a larger number of university patrons, on-site amenities at bus stops that offer better climatic protection, sense of safety, comfort, and convenient location, or special discounts or pass plans for university patrons. Increasing public awareness of such incentives through flyers, seminars, etc. will be a part of the process.

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### **Policy 1A-6**

Design and maintain facilities on site that use exhaust ducts for air discharge, to minimize the discharge of pollutants. FAU shall install appropriate filtering devices on fume hoods and minimize the storage and use of volatile and hazardous materials in campus buildings.

### **Policy 1A-7**

FAU 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 Florida Department of Environmental Protection (FDEP) shall result in an assessment of the probable cause and the preparation and implementation of a plan to improve and maintain air quality.

### **Objective 1B**

**Conserve, appropriately use, and protect the quantity and quality of current and projected water sources.**

#### **Policy 1B-1**

Reclaimed wastewater (grey water) will be used as it is made available by the local provider for all campus irrigation, maintaining water levels in lakes, fire protection and construction water.

#### **Policy 1B-2**

Conserve water resources and reduce chemical use through the use of xeriscape design principles including:

- Use of drought tolerant and native plant material;
- Use of low volume delivery fixtures;
- Zoned irrigation systems;

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- Moisture sensors and rain switches;
- Use of drought tolerant ground cover;
- Use of canopy trees; and
- Use of soil amendments and mulch to enable soils to retain moisture.

### **Policy 1B-3**

FAU shall mitigate the impacts of University generated storm water and minimize storm water-borne pollutants through the implementation of a system of Best Management Practices, which includes but is not limited to:

- Incorporating storm water management retention and detention features into the design of parks, trails, commons, and open spaces, where such features do not detract from the recreational or aesthetic value of a site;
- Use of slow release fertilizers and/or carefully managed fertilizer applications timed to ensure maximum root uptake and minimal surface water runoff or leaching to groundwater;
- Educating maintenance personnel about the need to maintain motor vehicles to prevent the accumulation of grease and other fluids on impervious surfaces, where they might be conveyed to surface or ground water by runoff, and the need to regularly collect and properly dispose of yard debris;
- Avoid the widespread application of broad spectrum pesticides by involving only purposeful and minimal application of pesticides, aimed at identified targeted species;
- Coordinating pesticide application with irrigation practices to reduce runoff and leaching to ground water;
- Use of turf blocks to minimize impervious surface area; and
- Incorporating features into the design of fertilizer and pesticide storage, mixing and loading areas that are designed to prevent/minimize spillage.

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### **Policy 1B-4**

Establish procedures to guard against accidental dumping or spillage of oils, solvents, paints, or other by-products of potentially toxic materials. Upon completion of the procedures, the adopted campus master plan shall be amended as necessary. "

### **Policy 1B-5**

Properly dispose of contaminants; do not deposit them into septic fields or other groundwater recharge areas.

### **Policy 1B-6**

The University shall not undertake activities on campus that 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 quality and quantity.

### **Policy 1B-7**

Design catch basins for storm water to include weirs to trap floating debris.

### **Policy 1B-8**

Implement a storm water drainage system maintenance program. The program shall ensure the appropriate passage and retention of storm water, as well as the maintenance of a vegetative or hard-surfaced base for the control of erosion.

### **Policy 1B-9**

The University shall implement a comprehensive water conservation program, to include:

- compliance with SFWMD conservation program requirements;
- limiting the hours of outdoor irrigation;
- the use of treated wastewater effluent (grey water) for an expanded campus irrigation system;
- the use of automated timers and other irrigation flow monitoring equipment;
- xeriscape landscaping procedures for new building construction and common areas;  
and

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- the use of ultra-low volume fixtures in new building construction.

### **Objective 1C**

#### **Conserve and appropriately use energy.**

##### **Policy 1C-1**

Utilize energy efficient building materials and methods in the construction of the new campus where feasible and cost effective.

##### **Policy 1C-2**

Implement a facility maintenance program to ensure energy conservation on the campus.

##### **Policy 1C-3**

Implement and continue to monitor on a follow-up basis the Campus-Wide Energy Surveys funded by Florida Energy Office, which will identify and prioritize energy savings measures and projects.

##### **Policy 1C-4**

Seek Florida Energy Office grants to assist in the upgrading of equipment and studying of procedures to save energy.

##### **Policy 1C-5**

Institute review procedures for mechanical and electrical equipment replacement that shall guarantee improved energy efficiency with the incorporation of new equipment.

##### **Policy 1C-6**

Encourage full-time students to purchase discounted passes for public transportation services to increase mass transit on and to the campus.

##### **Policy 1C-7**

Encourage walking and biking on campus through Transportation Element policies designed to reduce dependence on the single-occupant automobile as the primary transportation mode.

##### **Policy 1C-8**

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The University will continually evaluate "green lights" programs. Annually, a list of programs will be developed which are feasible within funding provided by s.235.435, F.S. The adopted campus master plan will be amended as necessary to include results of this study.

### **Policy 1C-9**

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 on campus.

### **Policy 1C-10**

Determine and implement appropriate measures to assist compliance by all University community members with the Florida Solid Waste Management Act of 1988. This will include efforts to expand, enhance and promote existing programs to recycle suitable materials collected on campus, as well as the recycling of materials other than those currently collected.

### **Policy 1C-11**

Strategically locate shade trees to mitigate passive solar radiation and to funnel breezes.

## **Objective 1D**

**Conserve, appropriately use and protect native vegetative communities and wildlife habitat.**

### **Policy 1D-1**

The campus, in general, has been maintained in its natural environment and has considerable native vegetation, wetlands and protected wildlife habitat.

### **Policy 1D-2**

There are known habitats of endangered and threatened plant and wildlife species and species of special concern on the campus. The University will establish a task force to determine the appropriate response to restrict University activities that may be detrimental to the noted species. The task force will utilize the resources and expertise of the FAU Biology Department and other appropriate entities of the University and base its decisions on Federal and State guidelines.

### **Policy 1D-3**

Develop an Invasive Plant Species Management Plan by the end of 2000 to remove all invasive plants (whether trees, grasses or shrubs) which are identified on the Exotic Pest Plant Council's "Florida's Most Invasive Species List" from the University property. The

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plan shall be prepared by a professional experienced in invasive plant eradication in natural areas. The plan shall be coordinated with the St. Lucie County Department of Environmental Resources Management (ERM) and other appropriate governmental entities to ensure the proper removal and disposal of these invasive plants. The adopted campus master plan will be amended, as necessary, to include the results of the Invasive Plant Species Management Plan.

### **Policy 1D-4**

In the event that any of the University's land becomes designated as environmentally sensitive, the University will continue to base its determination of appropriate action on Federal and State guidelines plus the expertise of the Biology Department and the University's Conservation Coalition, or similar group that may exist at the time.

### **Policy 1D-5**

In order to protect wildlife and vegetative communities in the interim while management plans are being developed, during the initial planning phase of any physical change to the campus, the University shall perform a census of wildlife and plants in the area to be affected. Plants or animals identified "Official Lists of Endangered and Potentially Endangered Fauna and Flora in Florida" will be noted and the appropriate agencies will be notified, as identified in the Florida Game and Fresh Water Fish Commission's (FGC) "Wildlife Methodology Guidelines". The environmental Coalition Steering Committee will provide input regarding facility development projects to Facilities Planning until the management plans are in place.

### **Policy 1D-6**

Continue to monitor gopher tortoises *on-site*. In the event that gopher tortoises migrate to the developed campus, they will be relocated to "preserves" within the campus development in compliance with the aforementioned FGC Guidelines.

### **Policy 1D-7**

In the future, if state and local criteria are revised which will add existing wildlife and/or vegetative communities to a protected status, FAU shall amend the adopted campus Master Plan, as necessary, to include any new protected species and/or annotate "preserves" for environmentally sensitive vegetative communities.

## **Objective 1E**

**Protect and conserve the natural functions of the soils, rivers, flood plains, and wetlands.**

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### **Policy 1E-1**

Protect soils by requiring construction practices that minimize soil erosion caused by water or wind. Such practices may include the use of erosion screens; sod, seed, or mulch; phasing and limiting the removal of vegetation; minimizing the amount of land area that is cleared; or wetting soils to prevent wind-borne soil erosion. Strategies for minimizing soil erosion shall be included in the Soil and Water Resources Protection Guidelines.

### **Policy 1E-2**

Protect water quality in the open water on site. Coordinate with South Florida Water Management District (SFWMD) to protect the open water bodies from activities that may adversely impact the water quality and other values and functions (e.g., wildlife habitat).

## **Objective 1F**

**To maximize on-campus reclamation of hazardous materials and consumer products.**

### **Policy 1F-1**

All University buildings shall be designed with facilities to accommodate collection, storage and disposal of recycled materials.

### **Policy 1F-2**

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

### **Policy 1F-3**

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

### **Policy 1F-4**

The University shall encourage academic programs that promote awareness of environmental impacts of resource recycling.

### **Policy 1F-5**

The University shall implement hazardous materials handling and storage procedures to include as a minimum the proper containerization, classification and labeling of all hazardous waste.

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**Policy 1F-6**

The University shall utilize only licensed hazardous waste transportation and disposal companies.