

13 conservation

GOAL 1: It is the goal of the University to ensure the conservation, protection, and wise use of all natural ecosystems and natural resources on University property.

NATURAL ECOSYSTEM

The Florida Atlantic University (FAU) campus, in particular the areas identified by the University as conservation areas, serves as a habitat for a variety of species, including two protected species: the gopher tortoise (*Gopherus polyphemus*) and the Florida burrowing owl (*Athene cunicularia*). According to the latest Protected Species Assessment conducted by Miller Legg in August 2018, there is an estimated population of 154 gopher tortoises and 24-28 burrowing owls on campus within the identified Management Units.

Objective 1A: FAU's Conservation Committee has identified priority areas for protection due to their environmental sensitivity and significance as wildlife habitats (Figure 13.1). In order to realize the University's objective to conserve, protect, and appropriately utilize native vegetative communities and significant wildlife habitats, FAU will continue to implement the following policies:

- **Policy 1A-1:** Areas identified as Conservation Areas shall be set aside as open space preserves for gopher tortoises, burrowing owls, native plant communities, and other plant and animal species that are listed as endangered, threatened, rare, or as species of special concern by federal, state, regional, or local agencies. These areas shall remain protected from development and all other activities that may diminish their natural value and functions.
- **Policy 1A-2:** Continue to perform regular Protected Species Assessments and Habitat Assessments to track protected species population trends and inform habitat management practices.
- **Policy 1A-3:** Continue to follow a management plan for the protection of campus native wildlife, including all endangered, threatened, and species of special concern. This plan is to be coordinated with the FAU Conservation Committee, Florida Fish and Wildlife Conservation Committee, and other appropriate governmental entities to ensure proper management of species found in Florida's Endangered and Threatened Species List.



- **Policy 1A-4:** Continue to follow a management plan for the protection of native plant communities and endangered, threatened, and rare plant species. This plan is to be coordinated with the FAU Conservation Committee and other appropriate governmental entities to ensure the proper management of plant species which are listed as endangered, threatened, and commercially exploited by the Florida Department of Agriculture and Consumer Services.
- **Policy 1A-5:** Continue to remove all non-native invasive plants identified in the Florida Exotic Pest Plant Council List of Invasive Plant Species from the campus grounds.





Figure 13.1 Conservation & Natural Buffer Areas

WATER

Objective 1B: To conserve and protect current and future water sources, FAU will continue to implement the following policies:

- **Policy 1B-1:** Continue to use exclusively reclaimed wastewater (gray water) for irrigation.
- **Policy 1B-2:** Conserve water resources and reduce chemical use through the use of xeriscape design principles including use of drought tolerant non-invasive and native plant material, zoned irrigation systems, low volume irrigation systems, moisture sensors and rain switches, drought tolerant ground cover, and soil amendments and mulch to retain soil moisture. See Element 16, Landscape Design Guidelines for further guidance.
- **Policy 1B-3:** Continue to comply with South Florida Water Management District (SFWMD) water conservation program requirements and implement voluntary initiatives when feasible.
- **Policy 1B-4:** Complete a basic water usage audit with the help of resources such as the SFWMD Self-Assessment Guide for Commercial and Institutional Water Efficiency Improvement.
- **Policy 1B-5:** Implement water-saving measures requirements for new building construction such as use of ultra-low volume fixtures and xeriscape landscaping procedures. See Element 15, Architectural Design Guidelines for further guidance.
- **Policy 1B-6:** Protect water quality in campus lakes by providing vegetated littoral zones composed of native vegetation.

Objective 1C: In order to mitigate University-generated stormwater and minimize stormwater-born pollutants, FAU will implement the following policies:

- **Policy 1C-1:** Establish procedures to properly dispose of contaminants and guard against accidental dumping or spillage of soils, solvents, paints, or other byproducts by Physical Plant.
- **Policy 1C-2:** Minimize the development of facilities within the floodplain.
- **Policy 1C-3:** Continue to implement Best Management Practices for Stormwater. See Element 9, General Infrastructure, Sub-Element Stormwater Management for further guidance.

EROSION CONTROL

Objective 1D: In order to protect and conserve the natural functions of soils, FAU will implement the following policies:

- **Policy 1D-1:** Require construction practices that minimize soil erosion. 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 erosion. Strategies for minimizing soil erosion shall be included in the Soil and Water Resources Protection Guidelines.

AIR QUALITY

Objective 1E: In order to reduce air emissions and preserve the quality of air on campus, FAU will implement the following policies:

- **Policy 1E-1:** Reduce use of single occupant internal combustion vehicles for commuting to and from campus and encourage the use of public transportation by the campus community. Continue to provide shuttle services to mitigate single occupant vehicle trips within campus. See Element 11, Transportation for further guidance.
- **Policy 1E-2:** Transition FAU's vehicle fleet to less polluting fuels (i.e. electric, LNG, hydrogen, etc) by 2028.
- **Policy 1E-3:** Encourage walking, biking, and skateboarding as the preferred forms of transportation within the campus by providing appropriate infrastructure, shade, and landscape elements that encourage these forms of travel. See Element 16, Landscape Design Guidelines for further guidance.
- **Policy 1E-4:** Continue to increase the number of trees on campus. See Element 16, Landscape Design Guidelines for further guidance.
- **Policy 1E-5:** Design and maintain facilities that use exhaust ducts for air discharge to minimize the discharge of pollutants. Install appropriate filtering devices on fume hoods and minimize the storage and use of volatile and hazardous materials in campus buildings.
- **Policy 1E-6:** Implement a program for the monitoring of 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 established 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.

ENERGY

Objective 1F: To conserve and appropriately use energy, FAU will implement the following policies:

- **Policy 1F-1:** Continue to reduce campus-wide energy consumption expenditures through a combination of reducing the cost of the energy consumed and reducing total energy usage to comply with State and Federal mandates for energy use reductions.
- **Policy 1F-2:** Invest in energy conservation measures such as those outlined in 1013.23, F.S.
- **Policy 1F-3:** Continue to use campus-wide Energy Management Control System to monitor, control, and optimize energy usage.
- **Policy 1F-4:** Transition all campus lighting to LED technology.
- **Policy 1F-5:** Require all new buildings to incorporate energy conservation fixtures, systems, and other energy use and management techniques. See Element 15, Architectural Design Guidelines for further guidance.
- **Policy 1F-6:** Institute review procedures for mechanical and electrical equipment replacement that guarantee improved energy efficiency with the incorporation of new equipment.
- **Policy 1F-7:** Upgrade campus chillers and boilers to more efficient equipment.
- **Policy 1F-8:** Pursue cogeneration of electricity and steam from waste heat where it can be demonstrated that energy savings will result.
- **Policy 1F-9:** Pursue grants to assist in the implementation, study, and development of renewable energy and energy conservation technologies and procedures (e.g. The Renewable Energy and Energy Efficient Technologies Grant Program)
- **Policy 1F-10:** Consider use of photovoltaics in the development of new facilities and implement when appropriate.



MATERIAL RECOVERY

Objective 1G: To maximize on-campus reclamation of consumer products and hazardous materials:

- **Policy 1G-1:** Determine and implement appropriate measures to assist compliance by all University community members with the Florida Solid Waste Management Act (SWMA), including efforts to expand, enhance, and promote existing programs to recycle suitable materials collected on campus.
- **Policy 1G-2:** Integrate facilities to accommodate collection, storage, and disposal of recycled materials in all new buildings.
- **Policy 1G-3:** Coordinate on-campus recycling programs with those of local government in regard to materials collected, and disposal/ collection procedures.
- **Policy 1G-4:** Provide on-campus facilities for the collection and storage of hazardous materials as required by federal, state and local regulations.
- **Policy 1G-5:** Implement hazardous materials handling and storage procedures to include as a minimum the proper containerization, classification and labeling of all hazardous waste.
- **Policy 1G-6:** Utilize licensed hazardous waste transportation and disposal companies.