

GOAL 1: To maintain a commitment to the protection of its ecosystems and natural lands of significant environmental importance to ensure that these resources are protected for the benefit of present and future generations, while accommodating the continued development and expansion of the campus’s built environment.

OBJECTIVE 1.1: To ensure that the UCF Department of Landscape and Natural Resources will continue to oversee and review the conservation element of the Campus Master Plan and to designate environmentally sensitive lands for protection based on state and regionally determined criteria.

POLICY 1.1.1: As established by the adoption of this Plan, the University shall maintain, in a natural state, all of those sites identified as Conservation on the Conservation Map (Figure 13-1). New areas shall be considered for potential designation as Conservation Areas based on documented conservation values, e.g., presence of imperiled or vulnerable species or natural communities or other features of state, regional, or local concern, because of declines or vulnerability to further losses of those species. Consistent with the Future Land Use Element, except for minimal structures and improvements necessary to ensure safe access and essential support functions, there shall be no construction in these areas except pursuant to an amendment to this Plan adopted in accordance with all applicable state and local requirements.

POLICY 1.1.2: The University shall continue to use the Future Land Use designation of “Conservation Easement” for the purposes of environmental protection of natural lands that are set aside in perpetuity pursuant to a recorded conservation easement. This designation will allow very low- impact for recreational and educational uses such as hiking, non-motorized boating, bird watching, horseback riding, fishing, primitive camping, nature study or other low-impact uses that are not in violation of recorded conservation easements.

OBJECTIVE 1.2: To conserve, manage, appropriately use, and protect native vegetative communities and wildlife habitat, and to maintain the natural areas within the campus as a system of interconnected wetlands and upland preserves, as shown on the Conservation Map (Figure 13-1).

POLICY 1.2.1: The University shall continue to coordinate with appropriate state and regional environmental agencies, such as the St. Johns River Water Management District (SJRWMD), Florida Fish and Wildlife Conservation Commission (FWC) and Florida Forest Service (FFS), to manage designated Conservation Areas appropriately. The scope of the work shall include, but is not limited to:

1. a Geographic Information System (GIS) database that includes digital overlays depicting the location of vegetative communities and management units within designated Conservation Areas;

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2. digital overlays depicting documented locations of imperiled or vulnerable species of plant communities (e.g., ranked as G1-G3 or S1-S3 by the Florida Natural Areas Inventory);
3. a land management plan that includes management and restoration techniques;
4. a monitoring and evaluation schedule and a description of compatible uses;
5. implementation of UCF's Weed Management Plan, detailing the methods for the removal and control of invasive, exotic plants in the designated Conservation Areas; and
6. development of specific guidelines to ensure the protection of the Arboretum.

POLICY 1.2.2: The University shall use Florida-friendly plant species in landscaped areas. . 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 withstand periods of drought and which require little fertilization and limited use of pesticides.

POLICY 1.2.3: The University shall remove all non-native invasive plants (whether grasses, shrubs or trees) listed as Category 1 invasive species by the "2013 Florida Exotic Pest Plant Council (FLEPPC) Invasive Species List" from the campus grounds. Limited use of Category 2 invasive species may be used in landscaped areas where there is limited chance of spread into adjacent natural lands. The Department of Landscape and Natural Resources will periodically survey campus lands for the presence of such species and will properly remove and dispose of these exotic species as defined in UCF's Weed Management Plan. If the exotic species fall within a Conservation Easement, approvals and/or permits for removal will be obtained from SJRWMD.

POLICY 1.2.4: The University shall manage established buffers, termed Riparian Habitat Protection Zones (RHPZ), of at least 50 feet of upland areas adjacent to identified on-campus wetland areas. These buffers will be maintained to protect required buffer plantings and will be managed for invasive, exotic species that may impact these areas. Where feasible, the buffer will be widened to better conserve wetland function.

POLICY 1.2.5: Prescribed burns of selected preserved areas of fire-maintained native habitats (i.e., sandhill, upland pine, pine flatwoods, etc.) shall be conducted periodically as conditions allow. Such activities will follow well-accepted ecological guidelines for prescribed burning, comply with all applicable regulatory guidelines, and include direct coordination with the UCF Administration, UCF departments of Facilities Planning and Construction, Landscape and Natural Resources, Facilities Operations, and Environmental

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Health and Safety ,the Florida Department of Agriculture and Consumer Services, Florida Forest Service; and the Orange County Fire Department. The Department of Landscape and Natural Resources will be responsible for conducting and coordinating the prescribed burn program. When conducting prescribed burns in conservation easements, SJRWMD approval will be obtained.

POLICY 1.2.6: The University shall continue to protect and conserve imperiled and vulnerable plant and animal species, including threatened and endangered species, and species of special concern, as required by the Endangered Species Act of 1973, as amended, Ch. 68A-27, F.A.C. Rules Relating to Endangered or Threatened Species, and federal and state management policies relating to the protection of threatened and endangered species, and species of special concern.

The University shall coordinate with the Florida Fish and Wildlife Conservation Commission to maintain and manage gopher tortoise populations located within the campus' natural areas and designated Conservation Areas (Figure 13.1). Upland preservation areas may serve as gopher tortoise relocation sites until the carrying capacity has been reached for that specific parcel (as defined and permitted by the Florida Fish and Wildlife Conservation Commission). Silt fencing will be installed to prevent re-located tortoises from entering nearby roadways and help them adapt to their new relocation site. The University shall explore the future protection of upland habitats to serve as a gopher tortoise relocation and management site.

POLICY 1.2.7: University personnel shall, when encountering listed species, follow procedure and seek consultation with the Florida Fish and Wildlife Conservation Commission and U.S. Fish and Wildlife Service.

OBJECTIVE 1.3: To restrict activities that may threaten the habitat and survival of imperiled and vulnerable habitat (such as wetlands) and plant and animal species (Threatened, Endangered, and Species of Special Concern as defined by Florida Fish and Wildlife Conservation Commission).

POLICY 1.3.1: Any proposed development adjacent to a designated Conservation Area shall be carefully sited and integrated into the existing landscape to have minimal visual and environmental impact on the area. Landscape treatment shall preserve significant existing vegetation to allow a gradual transition from developed areas to undeveloped areas to preserved areas. The existing vegetation shall serve to buffer proposed development in order to maintain the natural and undeveloped character of the area. Biological and hydrological impacts to designated Conservation Areas shall be avoided or minimized.

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POLICY 1.3.2: Before any encroachment into a designated buffer (as defined in Policy 1.2.4, above) is authorized and a plan of development is approved, the University shall review all available environmental and economic options (including the costs of mitigation). If this review indicates that encroachment into the buffer is the only viable option, then the University shall pursue all reasonable efforts to minimize and mitigate any unavoidable impacts. A permit shall be obtained from the SJRWMD if proposed improvements are within a District conservation easement.

POLICY 1.3.3: Copies of land development criteria and standards that reflect the policies contained in the adopted Campus Master Plan shall be provided to design consultants and appropriate University staff. The University shall standardize the construction review process to ensure adherence to appropriate Master Plan policies.

POLICY 1.3.4: In order to consider the feasibility of plant or animal species relocation elsewhere on the campus, the University's Facilities Planning and Construction director shall provide the Department of Landscape and Natural Resources with four (4) weeks minimum written notice of the pending development of an undeveloped natural vegetation site.

POLICY 1.3.5: The University 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 1.3.6: During the initial planning phase of any physical changes to the campus, the University shall perform an environmental assessment and 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 annually by the Florida Fish and Wildlife Conservation Commission, or otherwise afforded protection by the host communities and state and federal agencies, or ranked as G1-G3 (critically imperiled globally, imperiled globally, or vulnerable globally) or S1-S3 (same, but assessed as state scale) 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 prior to construction activities.

OBJECTIVE 1.4: To conserve, appropriately use, and protect the quantity and quality of regional water sources.

POLICY 1.4.1: The University shall require that appropriate methods of controlling soil erosion and sedimentation, as outlined in the University's Department of Environmental Protection (DEP) National Pollutant Discharge Elimination System (NPDES) permit, be applied to help minimize the destruction of soil resources during site development. Actions are taken to fulfill each of the

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five (5) Stormwater Management Program's Minimum Control Measures that UCF is required to implement as outlined in our Phase II MS4 NOI with Florida Department of Environmental Protection (FDEP). Compliance is monitored continuously by UCF, and reported on biennially to the FDEP.

- Public education is promoted through various different platforms, such as brochures stocked at the kiosks in our natural areas and information on our website. Signs are also posted along environmentally sensitive areas and on the stormwater curb inlets to inform citizens that stormwater flows into a waterway and dumping is not permitted.
- Volunteer clean-up events and our adopt-a-pond and adopt-a-road programs involve the public in stormwater pollution prevention and awareness.
- Our underground stormwater infrastructure is being mapped so that we can detect and eliminate illicit discharge in a more timely manner.
- Construction site stormwater runoff is controlled through BMPs that are predetermined by the contractor and approved by UCF. Since 2011, these BMPs have been monitored monthly for proper maintenance by UCF.
- Landscape and Natural Resources runs a street sweeper to prevent pollution from entering waterways. Storm drains and baffle boxes are inspected and maintained by the UCF stormwater coordinator for debris build-up. Good housekeeping measures include natural pesticides and fertilizers used where possible. Records are kept for each application. Stormwater ponds are maintained by a contractor and monitored by UCF.

Landscape and Natural Resources shall be responsible for updating the NPDES permit and coordinating NPDES activities.

The University shall minimize stormwater-borne pollutants generated as a result of University operations and maintenance practices through adherence to General Infrastructure Element policies (see section 2.9).

POLICY 1.4.2: The University shall use reclaimed water, sourced from the Iron Bridge Treatment plant in Seminole County, for irrigation.

POLICY 1.4.3: The University shall explore every opportunity to plant native wetland species around existing and future ponds on campus throughout the planning period.

POLICY 1.4.4: The University shall continue to monitor and test raw well water, destined for potable use, on a daily and monthly basis per DEP requirements.

The University shall continue to monitor and test treated potable water on a daily and monthly basis per DEP requirements.

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The University shall continue to monitor Lake Claire for compliance with existing surface water quality standards. The Department of Landscape and Natural Resources will monitor for parameters identified under the University's NPDES program. The Department of Environmental Health and Safety will monitor Lake Claire for human health-based water quality criteria.

POLICY 1.4.5: The University shall continue to implement a comprehensive water conservation program, to include:

1. the use of treated waste water 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. Florida-Friendly[®] landscape treatments for new building construction and new campus common areas;
4. the use of low-flow and low-flush fixtures in new building construction as appropriate; and
5. implementation of the water conservation plan submitted by the University to the SJRWMD, which is a basis for issuing the University's consumptive use permit.

POLICY 1.4.6: 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 quantity and quality standards.

NOTE: Details concerning the physical operation of the University's potable, wastewater and stormwater systems are found in the General Infrastructure Element (Section 2.9).

POLICY 1.4.7: The University shall continue to maintain and update the University Spill Prevention Control and Countermeasures Plan. The University shall inspect and maintain all petroleum storage tanks to prevent oil discharges from occurring and to prepare the University to respond in a safe and effective manner to mitigate the impacts of discharge to navigable waterways.

OBJECTIVE 1.5: To maintain or improve existing air quality on campus.

POLICY 1.5.1: The University shall continue to participate in and consider those programs that will maintain or improve existing air quality on campus lands. Such programs include: the area apartment shuttles, the on-campus black and gold-line shuttles, participation in local transportation management associations, LYNX connections, and the promotion of bicycle and pedestrian circulation improvements. This includes the development of bicycle paths that would connect to existing Orange and Seminole County networks to accommodate faculty, staff, and student access. The Parking and Traffic and Master Planning Committees, along with designated University departments (such as Landscape

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and Natural Resources and Sustainability and Energy Management)) shall hold joint annual meetings to evaluate this subject.

POLICY 1.5.2: The University shall reduce mobile sources of air pollution through Transportation Element policies designed to discourage dependence on personal automobiles as the primary transportation mode on campus, and to encourage alternative modes of transportation on campus (i.e., public transit, bicycles, etc.) and alternative fuels as means of vehicular power (e.g., solar cells, hydrogen fuel cells, bio-fuels, and hybrids).

POLICY 1.5.3: The University shall minimize emissions of air pollutants by minimizing the storage and use of volatile and hazardous materials in campus buildings, as established by the Department of Environmental Health and Safety.

POLICY 1.5.4: The University shall determine the potential impacts on air quality before construction of parking facilities. 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 1.5.5: The University shall continue to comply with its Air Operating Permit 0950015-009-AO. The University shall monitor and maintain records, provide compliance testing, and maintain stationary combustion equipment and pollution controls to ensure emissions are within permitted parameters. The University shall meet federal and state air quality regulations prior to construction of stationary combustion equipment.

OBJECTIVE 1.6: To maximize on-campus reclamation of hazardous materials and consumer products.

POLICY 1.6.1: All University buildings shall be designed with facilities to accommodate collection, storage, and disposal of recycled materials.

POLICY 1.6.2: The University shall coordinate on-campus recycling programs with those of local government in regard to materials collected and disposal/collection procedures.

POLICY 1.6.3: 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 1.6.4: The University shall implement academic programs that promote awareness of environmental impacts of resource recycling.

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POLICY 1.6.5: The University shall continue to enforce hazardous materials handling and storage procedures per the recommendations of the Department of Environmental Health and Safety.

POLICY 1.6.6: The University shall use only licensed and permitted hazardous waste transportation and disposal companies.

GOAL 2: To maintain a commitment to the conservation of its energy resources to ensure that these resources are protected for the benefit of present and future generations, while accommodating the continued development and expansion of the campus' built environment.

OBJECTIVE 2.1: The University shall continue to implement a variety of existing programs and conserve the use of energy on the campus through the Department of Sustainability and Energy Management.

POLICY 2.1.1 Energy-conserving fixtures, air conditioning, and lighting systems, as well as 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 2.1.2: Where feasible, existing buildings shall be retrofitted with energy conservation lighting fixtures.

POLICY 2.1.3: UCF's Department of Sustainability and Energy Management shall serve as the University's principal advisor and approval authority for ensuring that the standards and practices for design, construction, and operation of all UCF facilities are consistent with LEED practices.