

**2.13 Conservation Element
Goals, Objectives and Policies
2010 – 2020 Campus Master Plan Update**

GOAL 1: Maintain a commitment to the protection of the University's ecosystems and 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 1.0: To use the UCF Landscape & Natural Resources as an oversight department for the conservation element of the Master Plan. Changes to the master plan will be reviewed by the Landscape & Natural Resources.

OBJECTIVE 1.1: To designate environmentally sensitive lands for protection based on state and regionally determined criteria.

POLICY 1.1.0: As established by the adoption of this Plan, the University shall maintain, in a managed natural state, all of those sites identified for conservation on the Future Conservation Areas Map (Figure 13-1). Consistent with 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 the requirements set forth herein

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 Future Conservation Areas 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, due to declines or vulnerability to further losses. 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 coordinate with appropriate state and regional environmental agencies, such as St. Johns River Water Management District (SJRWMD), Florida Fish and Wildlife Conservation Commission and Division of Forestry, to manage appropriately the designated Conservation areas. 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;
2. Digital overlays depicting documented locations of imperiled or vulnerable species of communities (e.g., ranked as G1-G3 or S1-S3 by the Florida Natural Areas Inventory);
3. A written management plan including management and restoration techniques; Monitoring and evaluation schedule and a description of compatible uses;
4. Implementation of UCF's Weed Management Plan, which details the methods for the removal and control of exotic plants in the designated Conservation Areas; and
5. Development of specific guidelines to ensure the protection of the Arboretum.

The adopted Campus Master Plan shall be amended, as needed, to incorporate the results and recommendations contained in the management study.

POLICY 1.1.3: The University hereby continues to use the future land use designation of "Conservation Easement Lands" for the purposes of environmental protection of lands that are set aside in perpetuity pursuant to a recorded Conservation Easement. This designation will allow very-low impact recreational or educational uses such as hiking, non-motorized boating, bird watching, horseback riding, fishing, primitive camping and nature study, that use natural amenities of such sites and such other uses that are not in violation of the recorded Conservation Easement.

POLICY 1.1.4: 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 Pollution Detection of Erosion and Sediment (NPDES) permit, to help minimize the destruction of soil resources be used during site development and use. Such methods shall include, but not be limited to:

- Phasing and limiting the removal of soil;
- Minimizing the amount of land area that is cleared;
- Limiting the amount of time bare land is exposed to rainfall; and
- Using temporary ground cover on cleared areas if construction or other stabilization is not imminent.

Special consideration is to be given to maintaining vegetative covered areas of high soil erosion (i.e., banks of streams, steep or long slopes, stormwater conveyances, etc.). Environmental Health & Safety will be responsible for updating the NPDES permit and coordinating NPDES activities.

POLICY 1.1.5: 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).

OBJECTIVE 1.2: To conserve, appropriately use, and protect native vegetative communities and wildlife habitat. To restrict University activities known to threaten the habitat and survival of imperiled and vulnerable species (inclusive of threatened and endangered species and species of special concern, as defined by Florida Fish and Wildlife Conservation Commission).

POLICY 1.2.1: The University shall maintain the natural areas within the campus as a system of interconnected wetlands and upland preserves, as shown on the Conservation Areas Map (Figure 13-1).

POLICY 1.2.2: The University shall use plant species that are indigenous to the natural plant communities of the Central Florida 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 1.2.3: It is the intent of the University 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. The Environmental Initiative and the Department of Landscape & 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 establish a buffer of at least 50 feet for upland areas adjacent to identified on-campus wetland areas located within the Riparian Habitat Protection Zone (RHPZ) of the Little Econlockhatchee River. Where feasible, the buffer will be widened to conserve wetland function.

POLICY 1.2.5: Before any encroachment into the buffer established in above referenced Policy is authorized and a plan of development 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, and acquire appropriate permit modifications from SJRWMD.

POLICY 1.2.6: Any proposed development adjacent to a designated conservation 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 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.

POLICY 1.2.7: 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 1.2.8: In order to consider the feasibility of plant or animal species relocation elsewhere on the campus, the University's Facilities Planning Director or Physical Plant Director shall provide the Landscape & Natural Resources department and the Department of Landscape & Natural Resources four (4) weeks minimum written notice of the pending development of an undeveloped natural vegetation site.

POLICY 1.2.9: Periodic prescribed burns of selected preserve areas of fire-maintained native habitat (i.e., sandhill, upland pine, pine flatwoods, etc.) shall be conducted as budgets allow, provided that such activities follow well-accepted ecological guidelines for prescribed burning, comply with all applicable regulatory guidelines, and include direct coordination with the UCF Administration, offices of UCF Facilities Planning, Landscape & Natural Resources, Physical Plant, Environmental Health & Safety, Community Relations, the Florida Department of Agriculture and Consumer Services' Division of Forestry, and the fire department of Orange counties. The Environmental Initiative & Arboretum will be responsible for conducting and coordinating the prescribed burn program. Prescribed burns planned within Conservation Easements, or previously permitted mitigation areas, will be reviewed and authorized by SJRWMD.

POLICY 1.2.10: 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 1.2.11: The University shall continue to protect and conserve imperiled and vulnerable species, including 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 1.2.12: 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). The upland preserve located in the north portion of the campus will continue to serve as the gopher tortoise relocation area for tortoises, until the carrying capacity has been reached for that parcel (as defined by the Florida Fish and Wildlife Conservation Commission). Fencing to prevent the tortoises from entering nearby roadways will be established, contingent upon availability of funds. The University shall explore the future protection of upland habitat to serve as a gopher tortoise relocation and management site.

POLICY 1.2.13: During the initial planning phase of any physical changes to the campus, the University 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 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.

POLICY 1.2.14: University personnel shall, when encountering listed species, follow procedure and seek consultation with the appropriate agencies as identified in the Florida Fish and Wildlife Conservation Commission "Wildlife Methodology Guidelines," dated January 15, 1988.

POLICY 1.2.15: The University shall implement the Restoration Plan for the Conservation Easement within the Arboretum, created by the University with assistance from SJRWMD that details efforts to reestablish the appropriate ecological managed landscape in the 7.85-acre Conservation Easement.

OBJECTIVE 1.3: To conserve, appropriately use, and protect the quantity and quality of projected water sources.

POLICY 1.3.1: The University shall move forward with the plan of replacing potable water irrigation with the reclaimed water connection to the Iron Bridge Treatment plant in Seminole County.

POLICY 1.3.2: The University shall explore every opportunity to plant wetland species around existing and future ponds on campus throughout the planning period.

POLICY 1.3.3: The University shall explore the idea of developing a wildlife corridor connecting the wildlife habitat from the southeast portion of campus to the preserve areas on the north side.

POLICY 1.3.4: The University shall continue to monitor and test raw well water, destined for potable use, on a daily and monthly basis per DEP requirements.

POLICY 1.3.5: The University shall continue to monitor and test treated potable water on a daily and monthly basis per DEP requirements.

POLICY 1.3.6: The University shall continue to monitor Lake Claire for compliance with existing surface water quality standards. The Environmental Initiative will monitor for parameters identified under the University's NPDES program. The Department of Environmental Health & Safety will monitor Lake Claire for human health-based water quality criteria.

POLICY 1.3.7: The University shall continue to implement a comprehensive water conservation program, to include the use of:

1. treated wastewater effluent for an expanded campus irrigation system and chilled water system make-up water;
2. 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 1.3.8: 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, waste- and storm-water systems are found in the General Infrastructure Element (Section 2.9).

OBJECTIVE 1.4: To maintain or improve existing air quality on campus.

POLICY 1.4.1: 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 & Natural Resources, Sustainability & Energy Management, and the Landscape & Natural Resources) shall hold joint annual meetings to evaluate this subject.

POLICY 1.4.2: 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 and means of vehicular power (e.g., solar cells, hydrogen fuel cells, bio-fuels, hybrids).

POLICY 1.4.3: 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 & Safety.

POLICY 1.4.4: 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 1.4.5: The University shall continue its indoor air quality program and shall implement a program for the monitoring outdoor air quality. The Civil & Environmental Engineering Department shall advise the Environmental Health & Safety Department of ambient air quality conditions on campus. Grants or in-house programs to periodically monitor ambient outdoor air should be sought. Failure to meet federal or state air quality standards shall result in an assessment of the probable cause and the preparation and implementation of a plan to improve and maintain air quality.

OBJECTIVE 1.5: To maximize on-campus reclamation of hazardous materials and consumer products.

POLICY 1.5.1: All University buildings shall be designed with facilities to accommodate collection, storage and disposal of recycled materials.

POLICY 1.5.2: The University shall coordinate on-campus recycling programs with those of local government in regard to materials collected, and disposal/collection procedures.

POLICY 1.5.3: 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 1.5.4: The University shall implement academic programs that promote awareness of environmental impacts of resource recycling.

POLICY 1.5.5: The University shall continue to enforce hazardous materials handling and storage procedures per the recommendations of UCF Environmental Health & Safety.

POLICY 1.5.6: The University shall use only licensed hazardous waste transportation and disposal companies.

GOAL 2: To maintain a commitment to the conservation of the University's 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's built environment.

OBJECTIVE 2.0: 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 & Energy Management.

POLICY 2.1.1 Energy-conserving 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 2.1.2: Where feasible, existing buildings shall be retrofitted with energy conservation lighting fixtures.

POLICY 2.1.3: UCF's Department of Sustainability & Energy Management will 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.

