

7.
CONSERVATION ELEMENT

Introduction

This Conservation Element includes Goals, Objectives and Policies that apply to the main campus and Alachua County Satellite Properties including lands in all land use categories. Policies under Objective 1.4 apply only to lands with the Conservation land use designation as identified herein. Conservation Areas within the University of Florida campus boundaries were determined from information provided by the University faculty and staff, aerial photo-interpretation, field surveyed wetland boundaries, Natural Resources Conservation Service (NRCS) (formerly the Soil and Conservation Service (SCS)) Soil Survey for Alachua County, National Wetland Inventory maps, the US Fish and Wildlife Service (USFWS), the Florida Fish and Wildlife Conservation Commission (FWC) and the current approved Stormwater Management Master Plan.

To ensure the viability and health of the Conservation Areas on campus, particular attention should be paid to preserve the functional and natural linkages between these systems. The lands designated as Conservation in this plan were used as the base layer to which all other future land uses are drawn. Future changes to the plan should follow the same philosophy and shape the pattern of future growth on campus by respecting Conservation Areas. Adjustments to Conservation Area boundaries in the 2020-2030 Campus Master Plan update reflect a strategy to increase protected uplands around Lake Alice and retain open space in the western reaches of campus by focusing development in the eastern third of campus. In this strategy, McCarty Woods is reduced to slightly more than one acre due to its relatively low ecological value and high potential as a development site contiguous to core campus. At the same time, ponds, creeks, and the 8-acre Bartram Carr Woods remain protected in the eastern part of campus. Conservation lands are increased in the buffer around Lake Alice Creek, and Conservation Areas increase overall by 7.3 acres on main campus.

Maps contained in this element identify Conservation Areas along with other important open space connections and features. Additionally, the following satellite properties contain Conservation land use designations that are mapped in the Future Land Use Element: Austin Cary Forest, Beef Unit, Dairy Unit, Lake Wauburg, Millhopper Unit, and Newnans Lake.

The Conservation land use definition is as follows: The Conservation land use classification identifies areas on campus that shall be preserved and managed to protect natural features including topography, soil conditions, archaeological sites, plant and animal species, wildlife habitats, heritage trees and wetlands. The preservation and management of natural features in Conservation shall be conducted in accordance with a Conservation Land Management Plan and policies of the Campus Master Plan. Allowable uses in Conservation areas are natural habitat preservation, water resource protection, teaching and research activities related to the natural resource, and nature parks with limited resource-based recreation. Stormwater facilities and utility conveyances shall be allowable on conditions of minimizing and mitigating any impacts with due consideration of the conservation intent of the Conservation land use.

Goal 1: Celebrate the Ecological Setting of the Campus by Preserving, Enhancing, Managing, and Appropriately Using its Natural Resources as Native Habitats for Flora and Fauna.

Objective 1.1: To preserve and enhance native vegetation communities and wildlife habitat on or adjacent to the main campus or satellite properties.

Policy 1.1.1: The University shall implement a program of regular monitoring in Conservation Areas, particularly on riparian zones, for the control of non-native plants and edge maintenance. Non-native invasive plants (whether grasses, shrubs or trees) that are identified on any of the following lists shall be removed from the campus grounds: The IFAS Assessment of Non-Native Plants in Florida's Natural Areas, the Department of Agriculture and Consumer Services' "Noxious Weed List" (Rule 5B-57.007, F.A.C) "Prohibited Aquatic Plant List" (Chapter SB-64.001, F.A.C.), and the Florida Exotic Pest Plant Council's "List of Invasive Plant Species". As these species are located on campus, the University 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. Exceptions to this policy (e.g., use of invasive non-native plants in academic research) must be approved and conditioned by the Lakes, Vegetation and Landscaping Committee. Current known locations of invasive plants in campus Conservation Areas is depicted in Figure 7-5.

Policy 1.1.2: University faculty and student groups with the necessary expertise shall be encouraged to assist in prioritizing exotic invasive plant removal and developing revegetation plans to reduce the possibility of reinvasion by exotic non-native species.

Policy 1.1.3: It is the intent of the University to remove non-native, nuisance animals where feasible.

Policy 1.1.4: Any proposed development adjacent to a designated Conservation Area shall be carefully sited and integrated into the existing landscape to have a minimal visual impact on the area. Landscape treatments shall preserve significant existing native vegetation, e.g. listed species and heritage trees, to allow a graduated transition from developed areas to Conservation Areas. The existing native vegetation shall serve to essentially buffer proposed development in order to maintain the natural and undeveloped character of the area.

Objective 1.2: To protect and conserve the natural functions of creeks, lakes, ponds, sinkholes, floodplains and wetlands on or adjacent to the main campus or satellite properties.

Policy 1.2.1: Encroachments into jurisdictional wetlands shall be required to receive prior permit approval from federal and state regulatory agencies. Wetlands, as defined in subsection 373.019(27) of the Florida Statutes and Chapter 62-340.200(19) of the Florida Administrative Code (FAC) include those areas that are inundated or saturated by surface water or ground water at a frequency or duration sufficient to support vegetation typically adapted for life in

hydric or alluvial soils. The wetland limits shall be delineated utilizing the methodology described in Chapter 62-340.300, FAC. Impacts include any activity which may negatively affect the vegetative composition, water quality, water quantity, hydrologic regime, soil composition or substrate of defined wetlands. All mitigation shall be in conformance with an approved permit from the appropriate Federal and State agencies (including agencies of the State).

Policy 1.2.2: An average of 50 feet and minimum of 35 feet upland buffer shall be identified and protected around all wetlands/water bodies that are not within a Conservation Area prior to construction of any new buildings. Where a buffer cannot be provided, mitigation of the buffer deficiencies shall be required and reviewed by the Lakes, Vegetation and Landscaping Committee. Exception to this policy will be made for replacements of existing buildings in the same location.

Policy 1.2.3: No development shall be permitted within the required upland buffer, unless appropriate minimization of impact and mitigation is approved by the Lakes, Vegetation and Landscaping Committee.

Policy 1.2.4: All ornamental landscaping improvements within required upland buffers shall use only native plants in a naturalistic way and shall be approved by Lakes, Vegetation and Landscaping Committee.

Policy 1.2.5: All proposed development projects within 50 feet of a wetland shall be submitted to the appropriate Water Management District for review in the design phase of the project.

Policy 1.2.6: New Development within the 100-year floodplain, as mapped for the University's current Master Stormwater Permit is discouraged and shall be prohibited unless it can be demonstrated that such development has elevated base floor elevations at least 1 foot above the 100-year floodplain, preferably two feet, and has provided for compensating storage elsewhere on the proposed building area site. If compensating storage is not necessary to protect other structures, the development may mitigate by funding stormwater enhancements that help address problems within the floodplain. Examples include, in-stream erosion control measures and low impact development techniques as addressed in the Stormwater Element of this Master Plan. For 100-year floodplains not mapped in the University's current Master Stormwater permit, the Federal Emergency Management Agency's (FEMA) 100-year floodplain mapping shall be used as best available data.

Policy 1.2.7: An average of 75 feet and minimum of 50 feet upland buffer shall be identified and protected around all wetlands/water bodies prior to construction of any new buildings for all Satellite properties in unincorporated Alachua County. Where a buffer cannot be provided, mitigation of the buffer deficiencies shall be required and reviewed by the Lakes, Vegetation and Landscaping Committee. Exception to this policy will be made for replacements of existing buildings in the same location.

Policy 1.2.8: An average of 100 feet and minimum of 75 feet upland buffer shall be identified and protected around all wetlands/water bodies prior to construction of any new buildings for all Satellite properties in unincorporated Alachua County that have a documented federally and/or state regulated vertebrate wetland/aquatic dependent animal species within 300 feet of

the surface water or wetland . Where a buffer cannot be provided, mitigation of the buffer deficiencies shall be required and reviewed by the Lakes, Vegetation and Landscaping Committee. Exception to this policy will be made for replacements of existing buildings in the same location.

Policy 1.2.9: Provide native planted riparian and upland zones, preferably as a minimum 50' buffer zone, to alleviate erosion, filter contaminant run-off, and reduce algae-supportive light in littoral zones. Within these planted zones and while maintaining the natural systems, cautiously and selectively create targeted view sheds with review and approval of the Lakes, Vegetation and Landscaping Committee.

Policy 1.2.10: Return the manicured edges of water bodies, particularly Dairy Pond, Jennings Creek, Yulee Preserve, and Lake Alice Creek, to their natural condition with expanded native planting zones.

Policy 1.2.11: Daylight piped streams to the greatest extent possible to further the development of the campus natural flow ways and to promote infiltration of surface water runoff while also managing erosion to reduce stream incising and downstream sedimentation build-up.

Objective 1.3: To restrict University activities known to threaten the habitat and survival of endangered and threatened species on or adjacent to the main campus or satellite properties.

Policy 1.3.1: The University shall continue to protect and conserve endangered and threatened species of plants and wildlife, and species of special concern, as required by the Endangered Species Act of 1973, as amended, Chapter 379.2291, F.S., and Chapter 68A-27, F.A.C. and Chapter 581, F.S., and Chapter 5B-40, F.A.C., and federal and state management policies relating to the protection of threatened and endangered species and species of special concern.

Policy 1.3.2: During the initial planning phase of any physical changes to the campus, the University shall perform an analysis of wildlife and plants in the area to be affected. All plants (Chapter 5B-40, F.A.C.) and animals (Rule Chapter 68A-27 F.A.C.) identified as threatened and endangered species and species of special concern by Federal and State agencies shall be noted. Protection plans for these listed species, if documented on site, shall be formulated that are consistent with those of the appropriate local, state and federal agencies.

Policy 1.3.3: University personnel shall follow procedures and seek consultation with the appropriate agencies as identified in the Florida Fish and Wildlife Conservation Commission's Wildlife Conservation Guide when any alterations to land or water bodies are proposed for a site where a listed species is likely or known to occur.

Objective 1.4: To preserve, enhance, manage and appropriately use wetlands and uplands, wildlife habitat, and water resources, while also enabling outdoor teaching and research opportunities on all of the University's designated Conservation Areas (the following policies under this Objective are only applicable within Conservation Areas, as identified on the Future Land Use Map, unless otherwise stated within the policy).

Policy 1.4.1: Conservation Area Land Management (CALM) Plan, including specific plans for each designated Conservation Area(s), shall be reviewed, updated and approved by the Lakes, Vegetation and Landscaping Committee as changes are necessitated.

Policy 1.4.2: CALM plans developed for each Campus Master Plan Alachua County Satellite Property that contains Conservation land use designations shall be implemented and monitored. Such management plans shall address measures to reduce the potential for or impacts of wildfires as applicable.

Policy 1.4.3: Preserve and restore natural habitat functions on all campus Conservation Areas as identified in each area's management plan, with particular emphasis on developing and implementing management plans to restore areas in Conservation Future Land Use that do not currently function as natural habitats.

Policy 1.4.4: The University shall seek funding to implement the recommendations contained in the Conservation Area Land Management Plan, Landscape Master Plan and Lake Alice Trails Plan.

Policy 1.4.5: Maintain hydrologic function and improve water quality, utilizing innovative best management practices (BMPs) in line with the University's teaching mission.

Policy 1.4.6: Support the University's teaching and research mission by coordinating with departments involved in ecological research.

Policy 1.4.7: Improve appearance, security and controlled access in all campus Conservation Areas, consistent with the Landscape Master Plan, Lake Alice Trails Plan, Conservation Land Management Plan and Campus Master Plan.

Policy 1.4.8: New exterior lighting installations within Conservation Areas shall be discouraged. Exceptions must be evaluated and approved by the University's Lakes, Vegetation, and Landscaping Committee.

Policy 1.4.9: All new utility distribution systems or stormwater treatment facilities in Conservation Areas shall evaluate alternatives, demonstrate necessity, minimize impacts and be placed underground, unless it is deemed that underground placement will create undue hardship or disturb habitat for listed species. A utility installation plan must be submitted to and approved by the University's Lakes, Vegetation and Landscaping Committee for any utility installation in a Conservation Area.

Policy 1.4.10: All Stormwater improvement projects within Conservation Areas shall conform to

the intent of being in a conservation area. This means that these improvements will emphasize wildlife habitat, use native vegetation and be designed to blend in with the natural environment. All new or expanded stormwater improvements that do not relate to on-going maintenance shall be reviewed by the Lakes, Vegetation and Landscaping Committee for approval.

Policy 1.4.11: Provide passive recreation opportunities for the public to experience natural features of the campus through corridors and spaces including those in the Lake Alice Trail Plan on Figure 1-8.

Policy 1.4.12: Provide interpretive signage where appropriate, beyond the NATL, to educate the community about the natural systems of the campus and, where applicable, about habitat restoration efforts.

New Policy 1.4.13: Human intervention in Conservation Areas not addressed by other Campus Master Plan policies (e.g. lighting, utilities, trails, stormwater treatment and signage) shall be limited to activities that demonstrate the ability to enhance the ecological function of the Area or the ability of people to experience the natural environment through resource-based passive recreation, teaching and research.

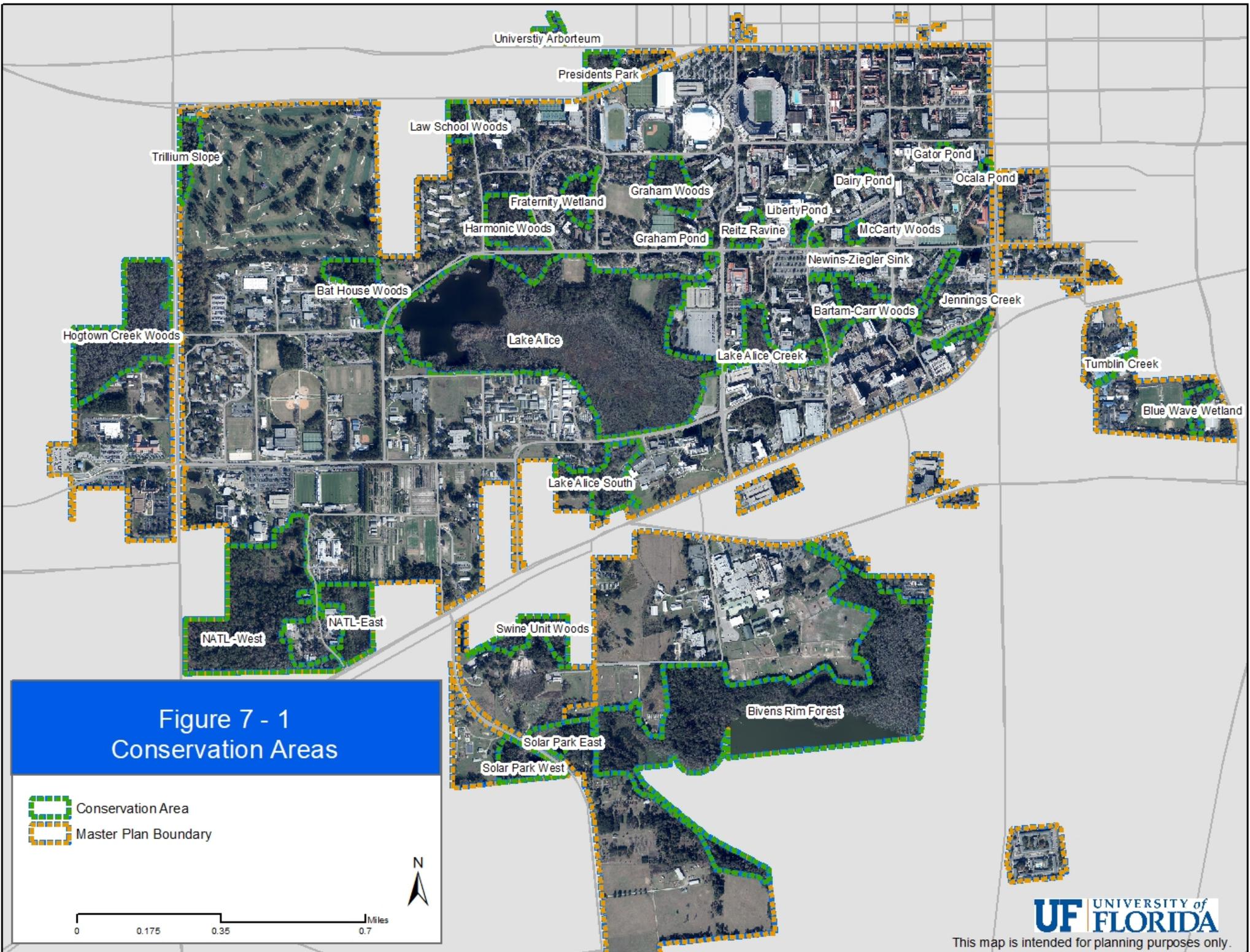
Policy 1.4.14: The University shall work with faculty to manage Bartram Carr Woods and the western portion of McCarty Woods as Teaching Labs to support environmental teaching and learning similar to the established Natural Area Teaching Lab (NATL).

Policy 1.4.15: Development activity that necessitates a land use change reducing the size of a designated Conservation Area and that is inconsistent with that area's management plan is strongly discouraged. Such development activity must meet the requirements of State and Federal agencies and provide the evaluation of alternatives and impact minimization strategies as specified in the Future Land Use Element. However, if such development is deemed necessary following these evaluations, then mitigation for Conservation Areas shall be required. The mitigation shall be approved by the Lakes Vegetation and Landscaping Committee, and may be in the form of either: 1) designation of land in the Conservation land use classification with similar function and value; 2) acquisition and preservation of property in Alachua County with similar function and value at a 10:1 (acquired land: impacted land) ratio with preference for acquisition of conservation land adjacent to other Preservation Areas (as identified in the Alachua County Comprehensive Plan); and/or 3) fund the enhancement and restoration of designated Conservation Areas equal to the monetary value of land acquisition described in the previous option.

Objective 1.5: Protect and improve air quality through the proper control and reduction of airborne pollutants.

Policy 1.5.1: The University shall monitor indoor and outdoor air quality, and minimize emissions of air pollutants from and within buildings by adhering to the Fume Hood Policy and Indoor Environmental Quality Policy developed and implemented by the Environmental Health and Safety Office.

Policy 1.5.2: The University shall continue to comply with the regulations set forth in the Clean Air Act, Title 40 Code of Federal Regulations (CFR) as applicable.



University Arboretum

Presidents Park

Law School Woods

Trillium Slope

Gator Pond

Ocala Pond

Graham Woods

Dairy Pond

Fraternity Wetland

Liberty Pond

Harmonic Woods

Graham Pond

Reitz Ravine

McCarty Woods

Bat House Woods

Newins-Ziegler Sink

Hogtown Creek Woods

Lake Alice

Bartam-Carr Woods

Jennings Creek

Lake Alice Creek

Tumblin Creek

Blue Wave Wetland

Lake Alice South

NATL-West

NATL-East

Swine Unit Woods

Bivens Rim Forest

Solar Park East

Solar Park West

-  Conservation Area
-  Master Plan Boundary



0 0.175 0.35 0.7 Miles



UF UNIVERSITY of FLORIDA

This map is intended for planning purposes only.

Figure 7 - 1
Conservation Areas

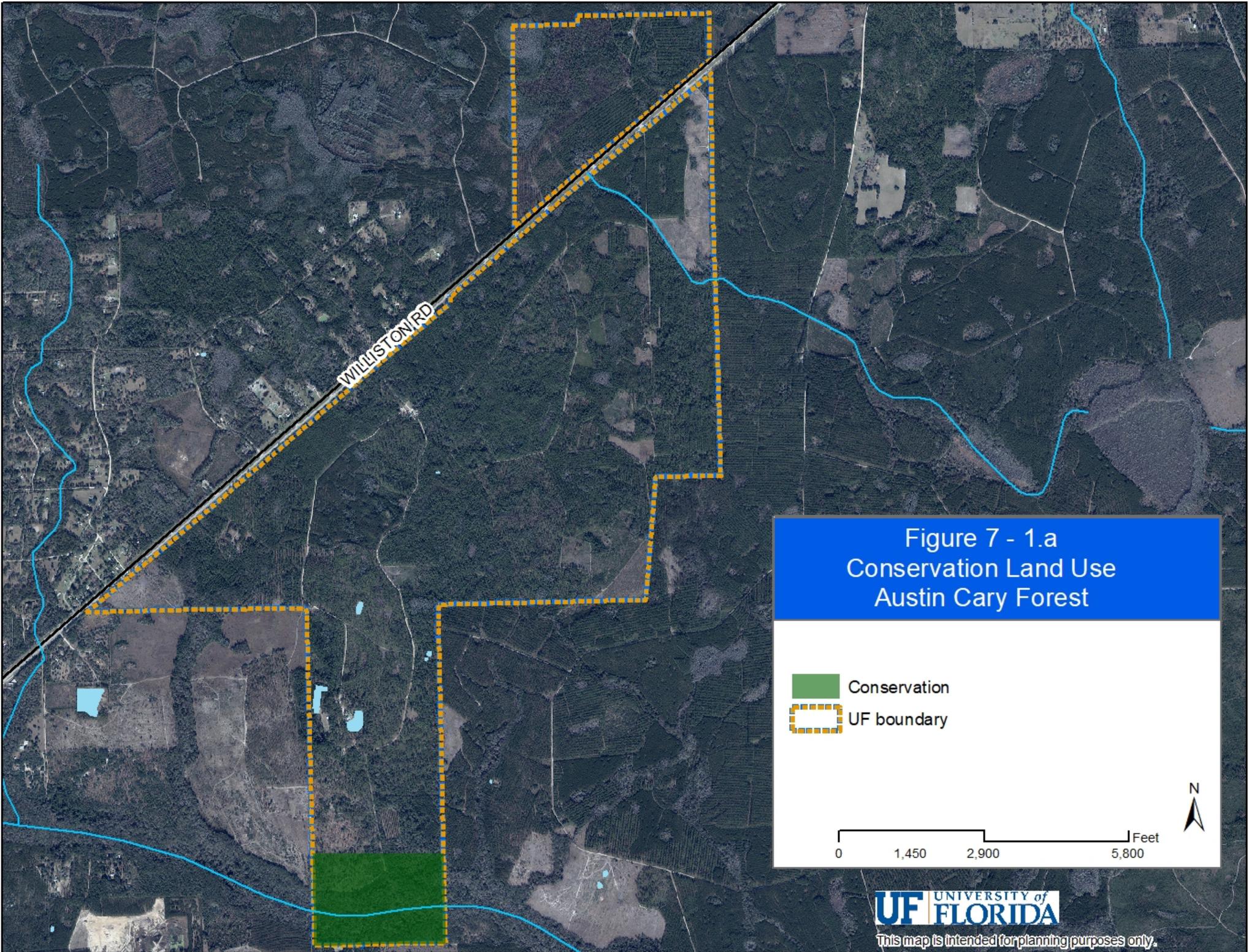


Figure 7 - 1.a
Conservation Land Use
Austin Cary Forest

- Conservation
- UF boundary

0 1,450 2,900 5,800 Feet



This map is intended for planning purposes only.



GR 225

Figure 7 - 1.b
Conservation Land Use
Beef Research Unit

- Conservation
- UF boundary

0 750 1,500 3,000 Feet



BURNETTS LAKE BLVD.

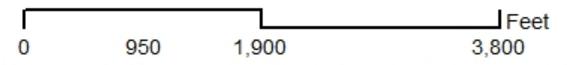
SR 121

CR 237

US 441

Figure 7 - 1.c
Conservation Land Use
Dairy Unit

-  Conservation
-  UF boundary



This map is intended for planning purposes only.

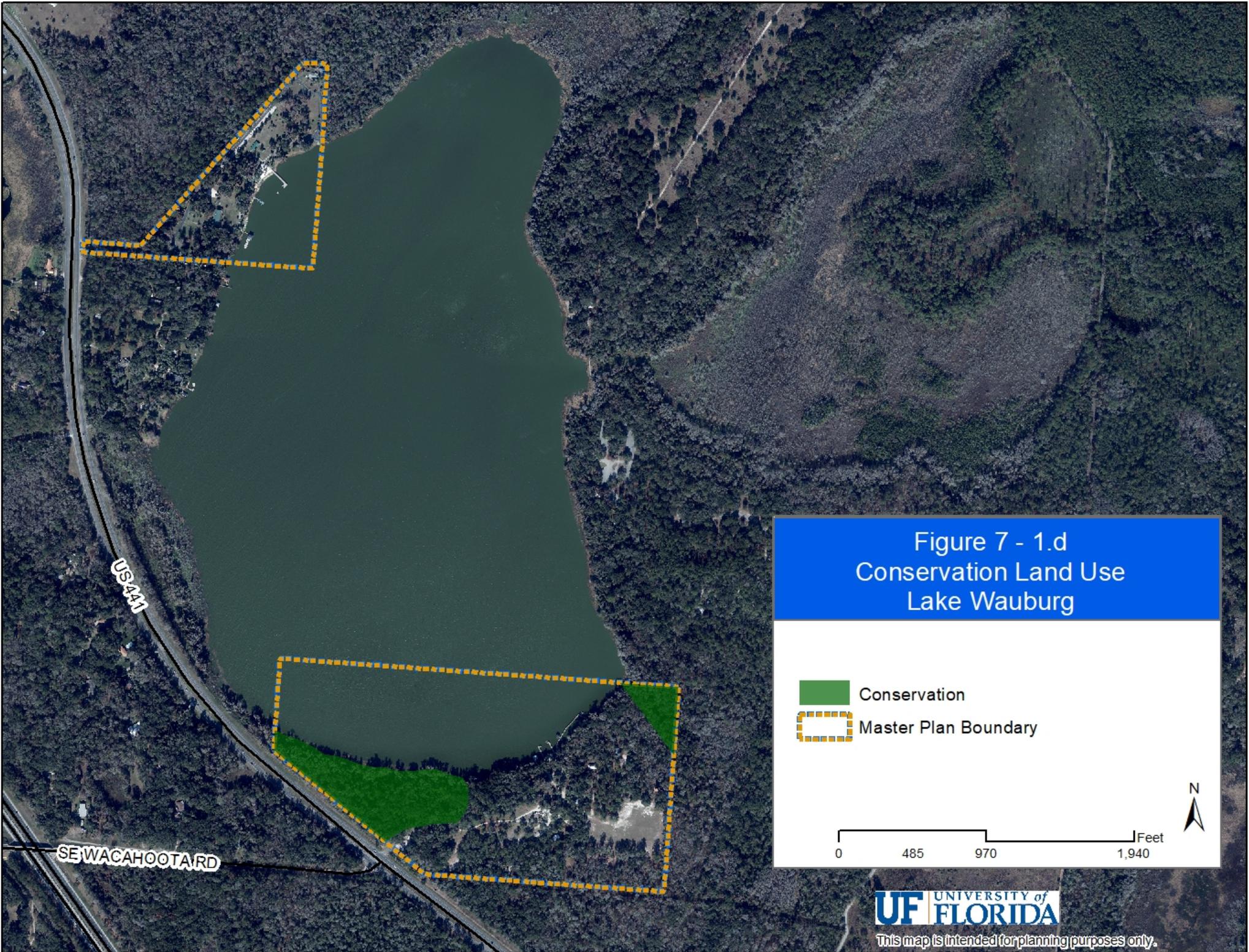


Figure 7 - 1.d
Conservation Land Use
Lake Wauburg

- Conservation
- Master Plan Boundary

0 485 970 1,940 Feet



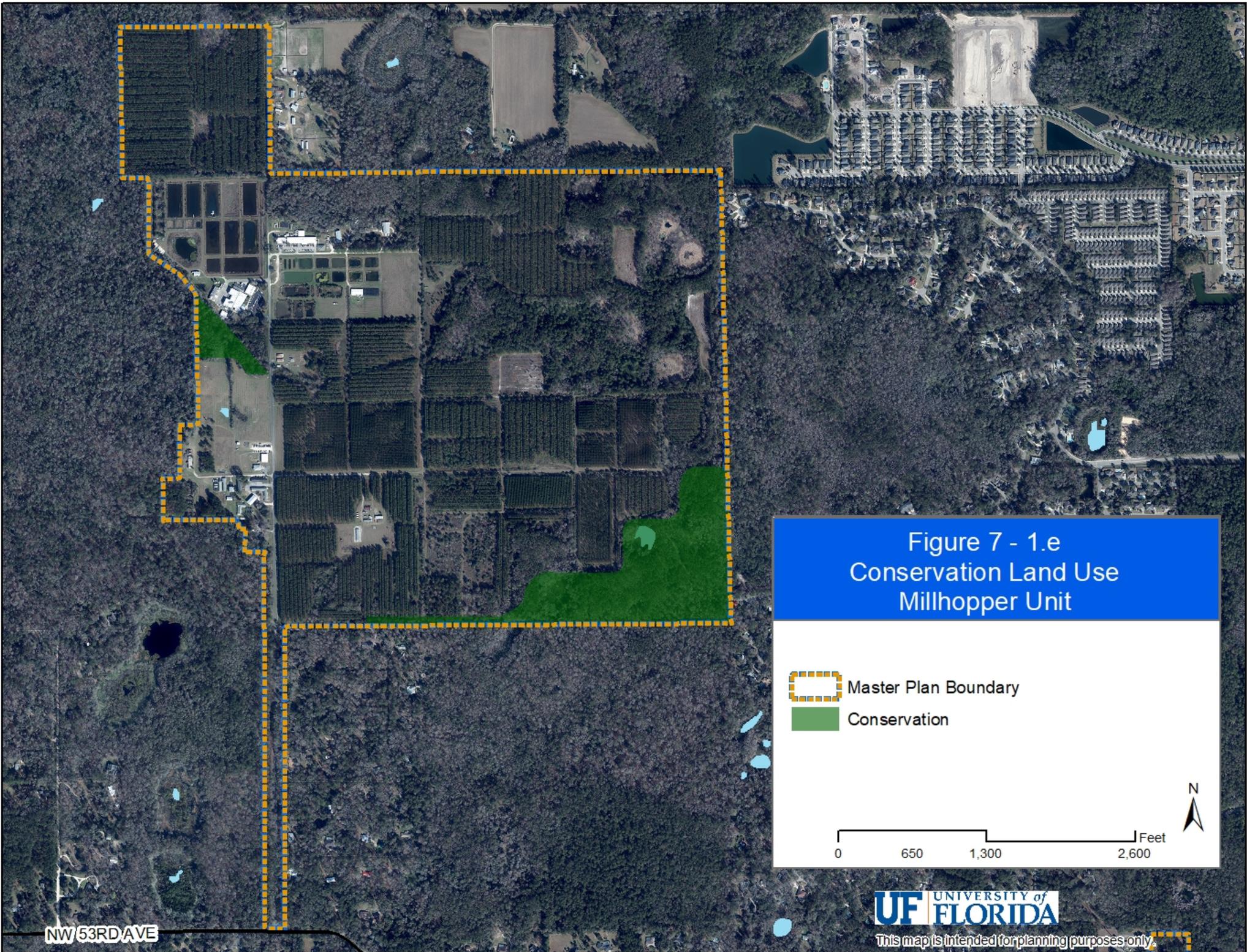


Figure 7 - 1.e
Conservation Land Use
Millhopper Unit

-  Master Plan Boundary
-  Conservation

0 650 1,300 2,600 Feet



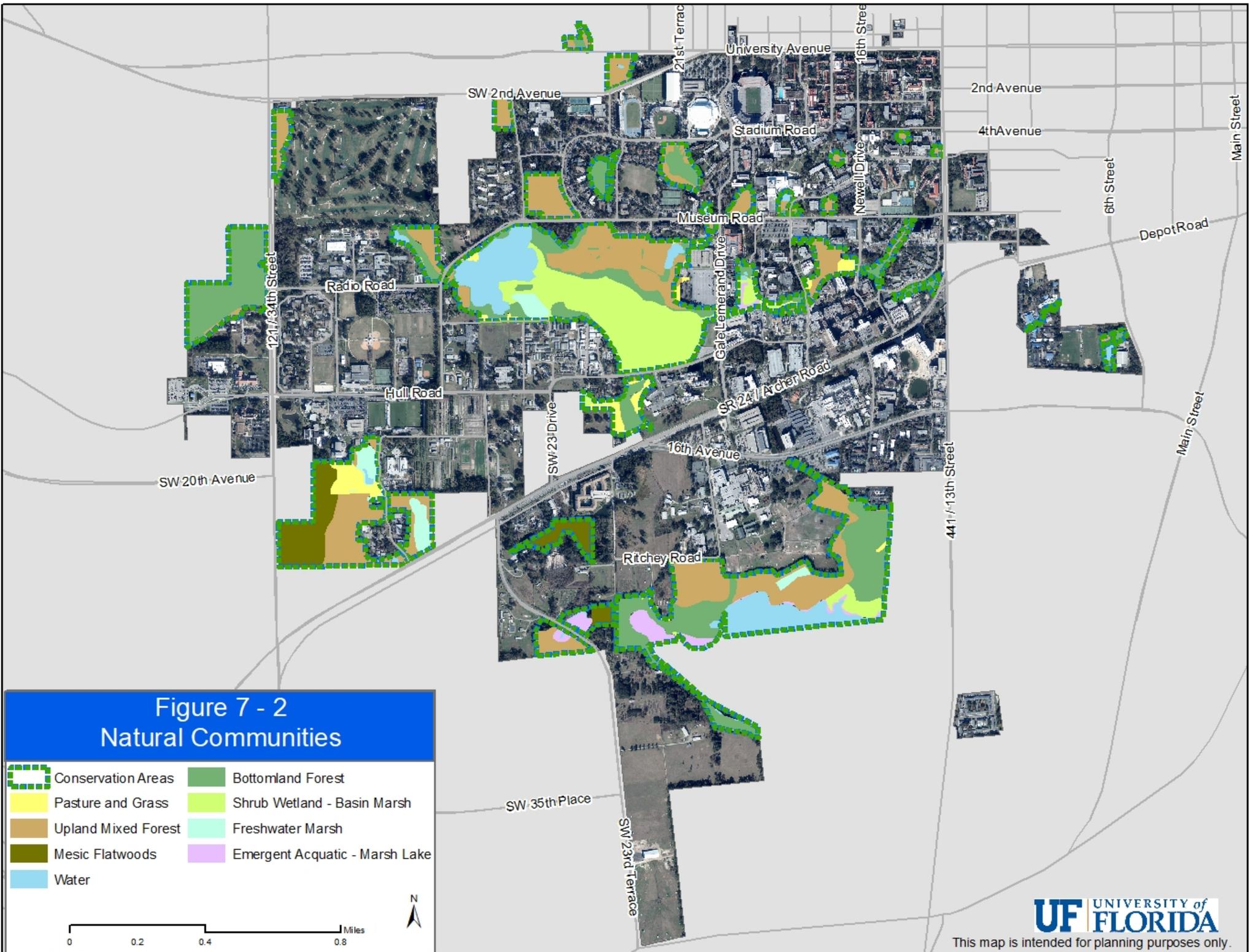


Figure 7 - 1.f
Conservation Land Use
Newnans Lake

- Conservation
- Master Plan Boundary

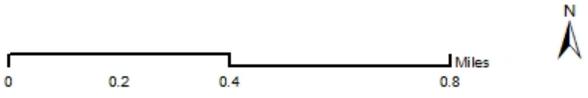
0 395 790 1,580 Feet





**Figure 7 - 2
Natural Communities**

- Conservation Areas
- Pasture and Grass
- Upland Mixed Forest
- Mesic Flatwoods
- Water
- Bottomland Forest
- Shrub Wetland - Basin Marsh
- Freshwater Marsh
- Emergent Aquatic - Marsh Lake



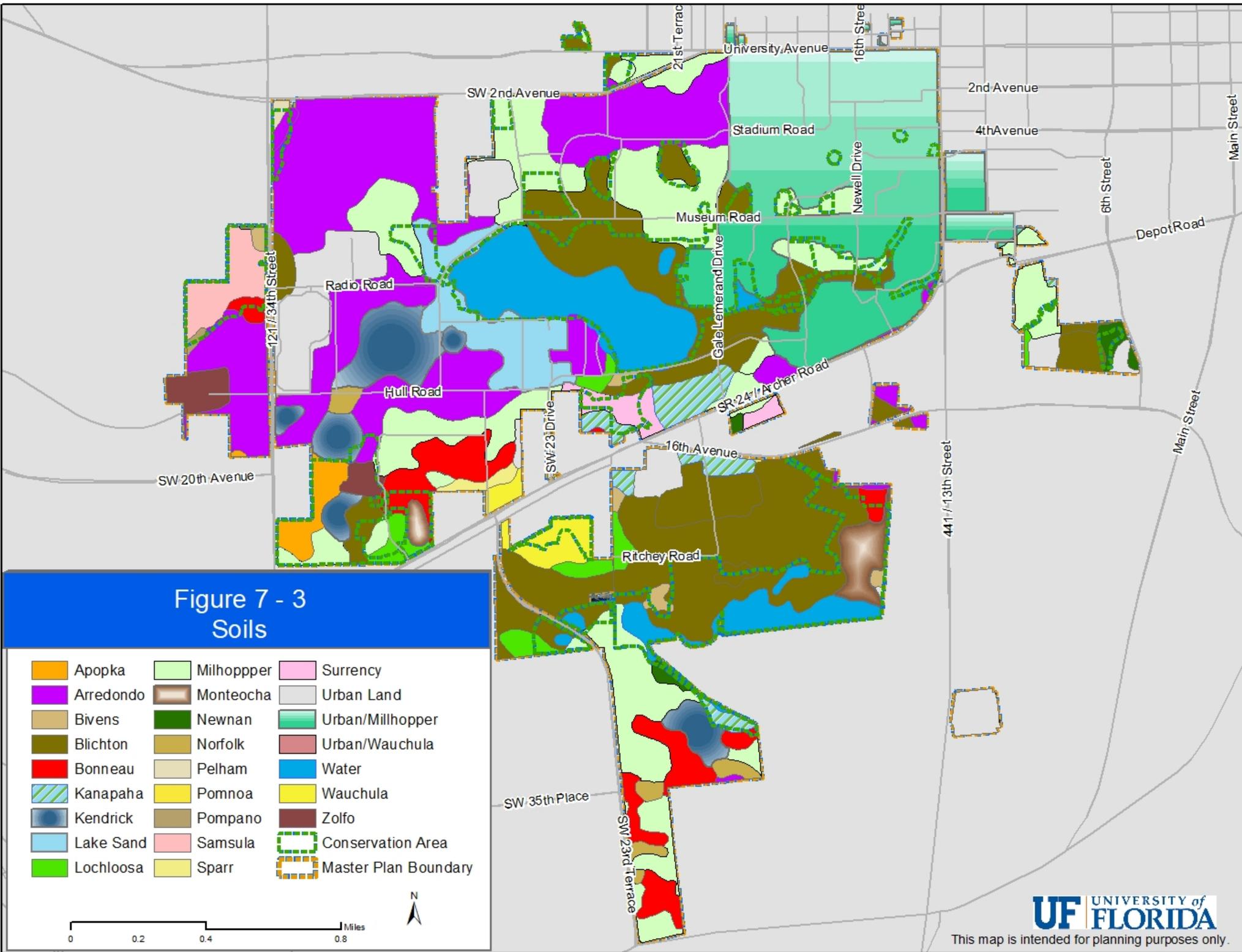
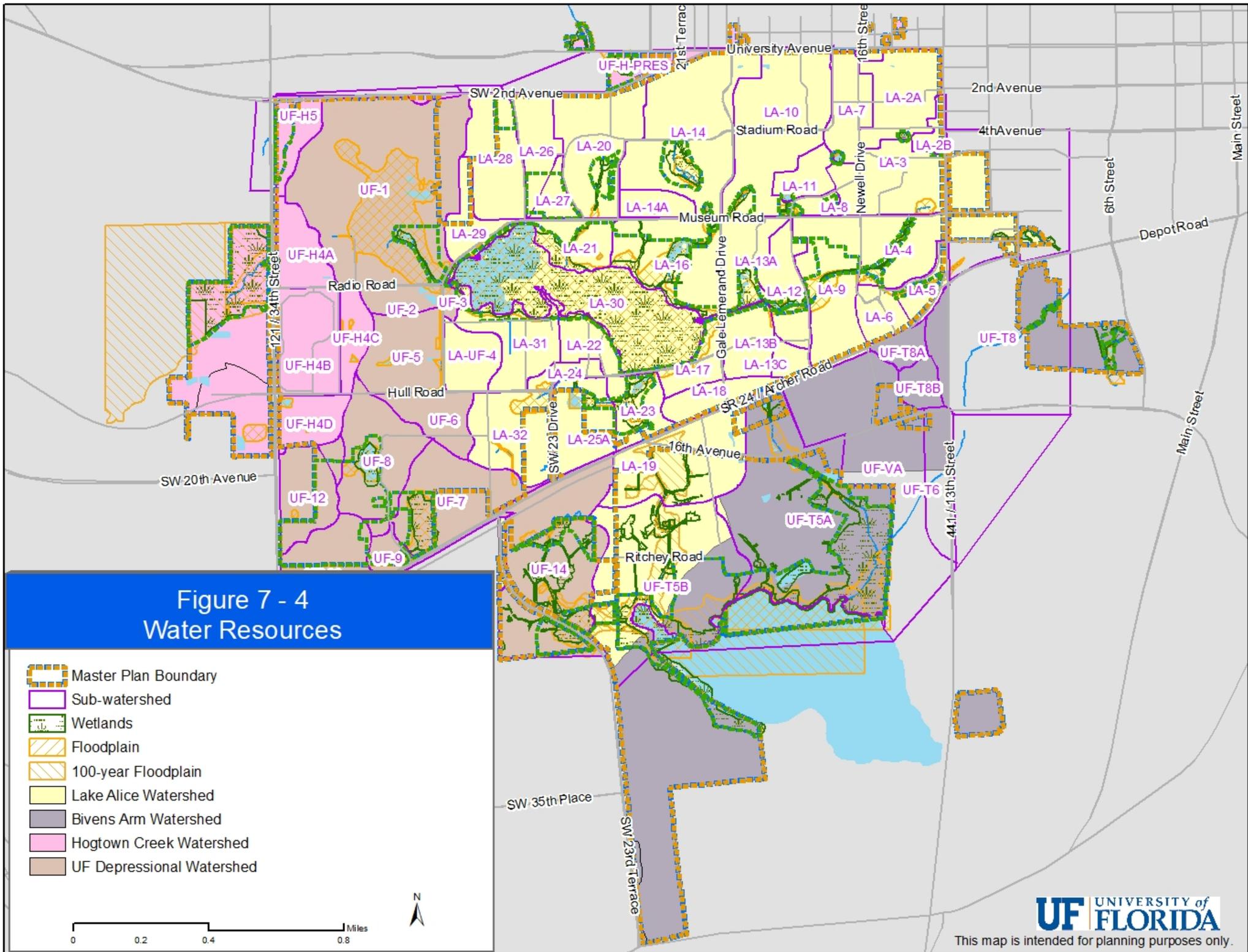
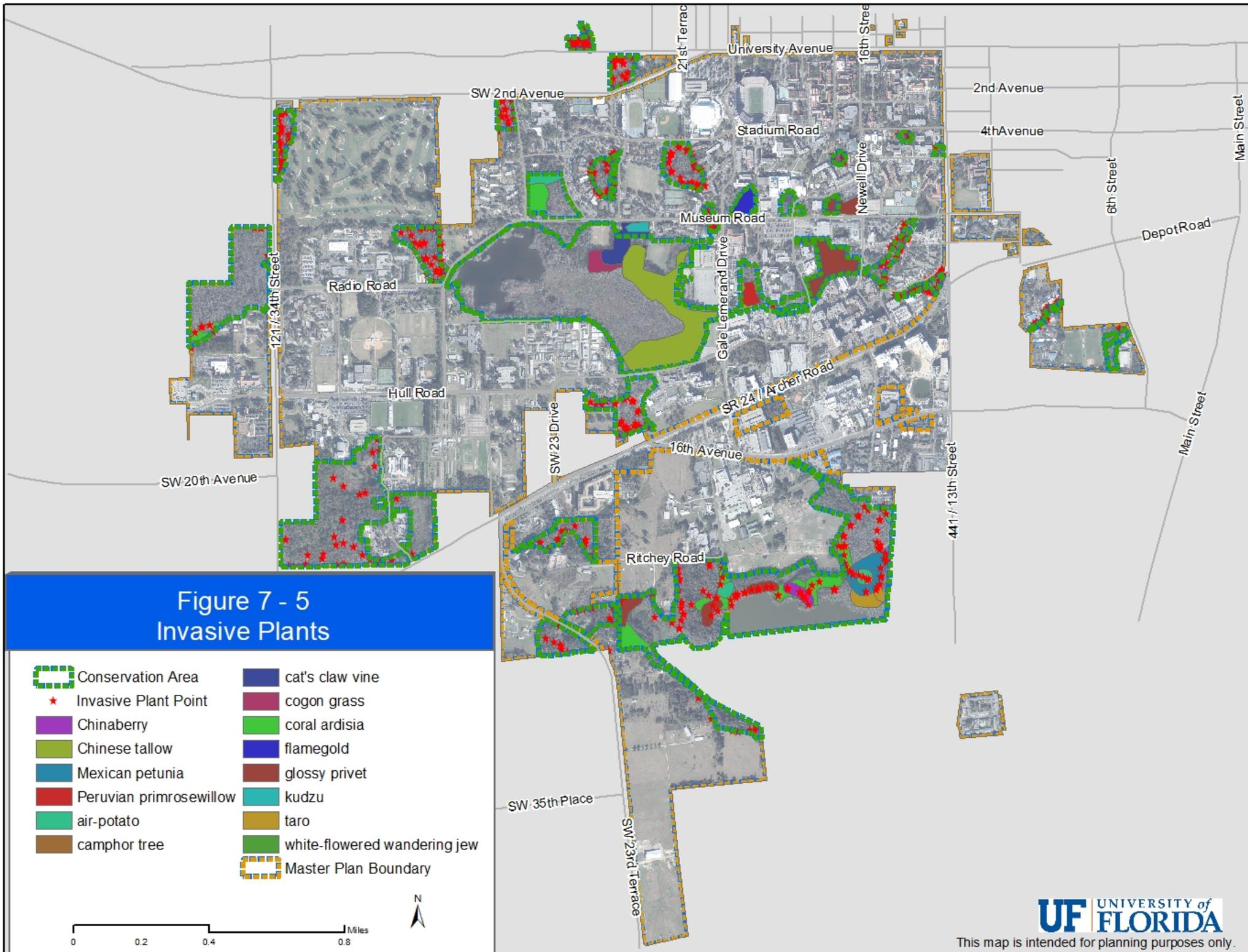


Figure 7 - 4
Water Resources

-  Master Plan Boundary
-  Sub-watershed
-  Wetlands
-  Floodplain
-  100-year Floodplain
-  Lake Alice Watershed
-  Bivens Arm Watershed
-  Hogtown Creek Watershed
-  UF Depressional Watershed

0 0.2 0.4 0.8 Miles





**Figure 7 - 5
Invasive Plants**

- | | |
|-------------------------|------------------------------|
| Conservation Area | cat's claw vine |
| Invasive Plant Point | cogon grass |
| Chinaberry | coral ardisia |
| Chinese tallow | flamgold |
| Mexican petunia | glossy privet |
| Peruvian primrosewillow | kudzu |
| air-potato | taro |
| camphor tree | white-flowered wandering jew |
| Master Plan Boundary | |

0 0.2 0.4 0.8 Miles

