Land Use Data & Analysis

Comprehensive Plan Amendment for Long Term Master Plan

Plum Creek Envision Alachua Sector Plan

December 2013
(EASP – Data and Analysis – Land Use)

ENVISION ALACHUA

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1. INTRODUCTION

Envision Alachua

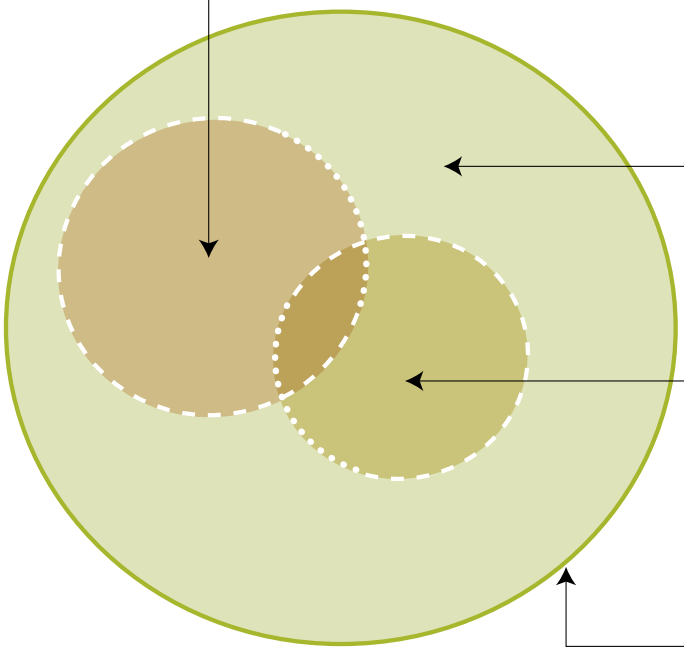
Plum Creek Timber Company, Inc. (Plum Creek) has convened a nearly two-year community visioning and planning process, Envision Alachua, to develop a long-term master plan for its property in Alachua County. The process has been distinguished by a program of Task Force work sessions, Community Workshops, Educational Forums, Technical Advisory Group consultation, and a comprehensive project website (www.envisionalachua.com) documenting the evolving vision.

The primary goals of the Envision Alachua planning process include:

- Engage in a transparent planning process and open dialogue with the community representing economic development, business, local government, education, conservation, and communities in Alachua County.
- Explore opportunities for Plum Creek lands in East County that are suitable for uses other than timber.
- Explore potential future economic development and conservation scenarios to achieve long-range economic, environmental, and community goals.
- Identify land use strategies to guide future sustainable community development.
- Ensure the protection of natural resources.
- Enhance and promote the economic progress of East County.
- Create an opportunity for a unique partnership and collaboration between the public and private sectors.

During Phase I of Envision Alachua, the Community Task Force defined a series of goals and planning principles that lead to identifying primary, secondary, and supporting land use categories. In defining such categories, the Task Force aimed to make a distinction between areas suitable for conservation (primary); job creating uses (primary); areas where residential, commercial, and educational uses should be accommodated (secondary); and areas that support recreational uses, community amenities, and environmental education (supporting) (**Figure 1**). The Task Force identified a preference for compact development patterns (as opposed to the current zoning of one residential unit per five acres), making more lands available for economic development, large scale environmental conservation, agriculture, and timber to maximize the achievement of community goals and minimize water and energy use (**Figure 2**). Additionally, the Task Force identified Plum Creek lands framed by State Route 20 (SR 20), State Route 26 (SR 26), and US Route 301 (US 301) in East County as potential areas for the primary and secondary uses noted above.

The Envision Alachua Task Force Vision for Plum Creek lands emphasizes the following key land use elements:



1A **Primary Use: Economic Development and Jobs Creation**

Land use concepts will emphasize economic development and related employment opportunities including:

- Manufacturing
- Agriculture
- Logistics
- Research and development
- Other job-creating uses to be determined

1B **Primary Use: Conservation and Natural Resource Protection**

Land use concepts will include significant acreage designated for:

- Wildlife corridors
- Ecosystem restoration
- Active forest management with conservation easements

2 **Secondary Uses**

In addition to economic development and conservation opportunities, land use concepts will also include:

- Residential areas so people can live close to work
- Commercial activities to support nearby residents
- Educational facilities such as a job training center, community college campus, UF facility, etc.

3 **Supporting Uses**

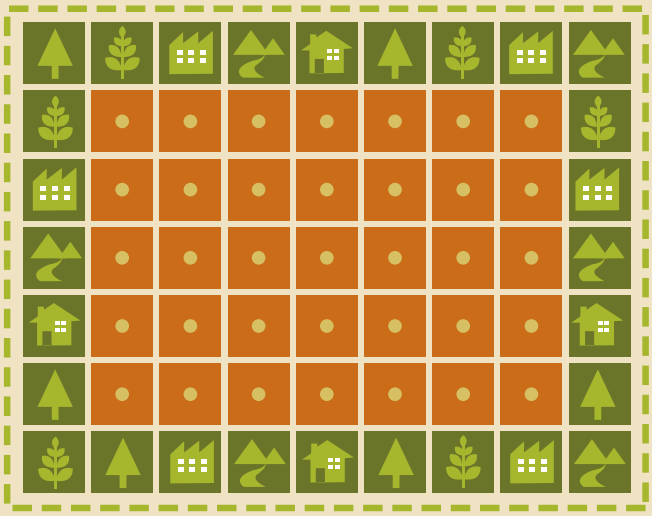
In addition to employment, housing and related services, land use concepts will also include:

- Recreational opportunities such as trails (for walking, running and hiking), hunting, boating, etc.
- Social and cultural activities and related community amenities
- Environmental education facilities

Note: The relative size of the circles above is meant to convey the relative proportion of Plum Creek lands devoted to each land use element as embodied in the Envision Alachua Task Force vision.

Figure Source: Envision Alachua Task Force Vision, Goals and Planning Principles, MIG Inc., May 2012

FIGURE 1
ENVISION ALACHUA TASK FORCE LAND USE VISION



TODAY'S LAND USE

Current zoning allows one residential unit per five acres, producing unintended consequences of development sprawl and missed opportunities for large-scale environmental conservation.

TASK FORCE VISION

The Envision Alachua Task Force prefers a more compact development pattern, making more lands available for economic development, large scale environmental conservation, and agriculture and timber to maximize community goals and minimize water and energy use.

Figure Source: Envision Alachua Task Force Vision, Goals and Planning Principles, MIG Inc., May 2012

FIGURE 2
ENVISION ALACHUA TASK FORCE LAND USE DEVELOPMENT PATTERN VISION

Building upon the work of the Task Force in Phase I, Sasaki Associates (Sasaki), an interdisciplinary planning and design firm, was retained by Plum Creek for Phase II of Envision Alachua to prepare a land use analysis and vision for Plum Creek lands in Alachua County. Sasaki worked in close partnership with the community and a diverse team of technical specialists to further develop the land use vision. As part of Phase II, a Technical Advisory Group (TAG) was organized by Plum Creek. The TAG provided input into the land use and conservation strategies for Plum Creek lands in Alachua County to inform the 60,136 acre Sector Plan (**Figure 3**). TAG membership included representatives from agencies familiar with the history and planning context of Alachua County, and with large-scale land use planning and policy decisions in the County and the State. It also included individuals with specialized technical expertise in economics, conservation and community planning as well as liaisons from the Task Force. The planning process findings and outcomes as presented in this report have been presented for review and comment to members of the TAG, Task Force, and community at large.

This Land Use Analysis Report provides data and analysis in support of Plum Creek's Envision Alachua Sector Plan (EASP) application for Comprehensive Plan Amendment. The content of this report is intended to address Chapter 163.3245 of the 2013 Florida Statutes' intent to "promote and encourage long-term planning for conservation, development, and agriculture on a landscape scale." It is structured around the Chapter's application requirements to include existing conditions analyses (environmental and community context), framework map (land use and density), and principles and guidelines relative to urban form, development patterns and future land use interrelationships. The report further explains the land use planning process carried out by the consultant team to prepare the Framework Map for the Envision Alachua Sector Plan (**Figure 4**).

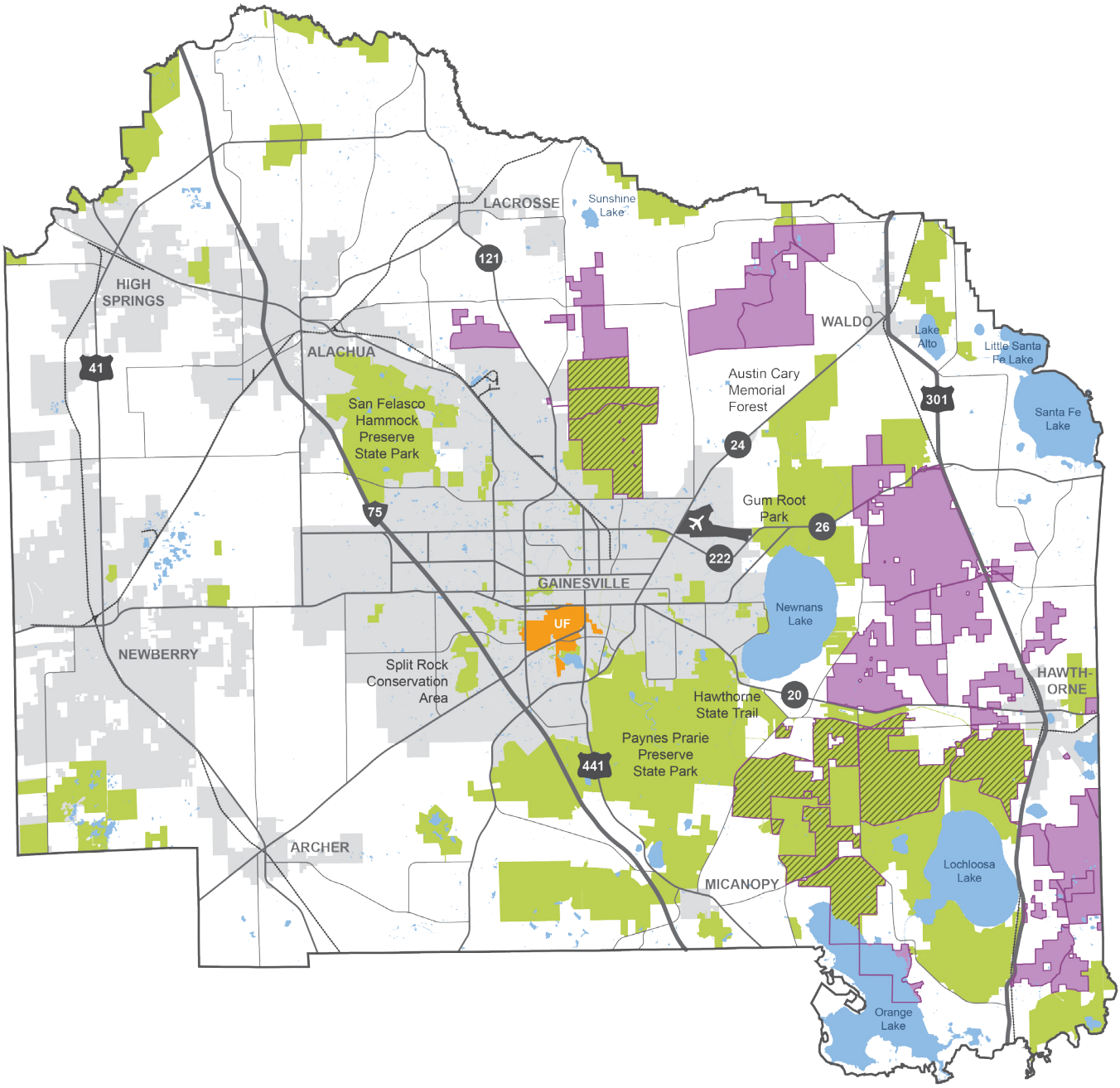


FIGURE 3

PLUM CREEK ENVISION ALACHUA PROPERTY

Data Source: Alachua County GIS, Plum Creek

- PLUM CREEK EASP PROPERTY
- PLUM CREEK EXISTING CONSERVATION EASEMENT
- ALACHUA COUNTY EXISTING CONSERVATION
- MUNICIPALITIES & URBAN CLUSTER

0 8,000 16,000 32,000 48,000 feet

0 5 10 miles

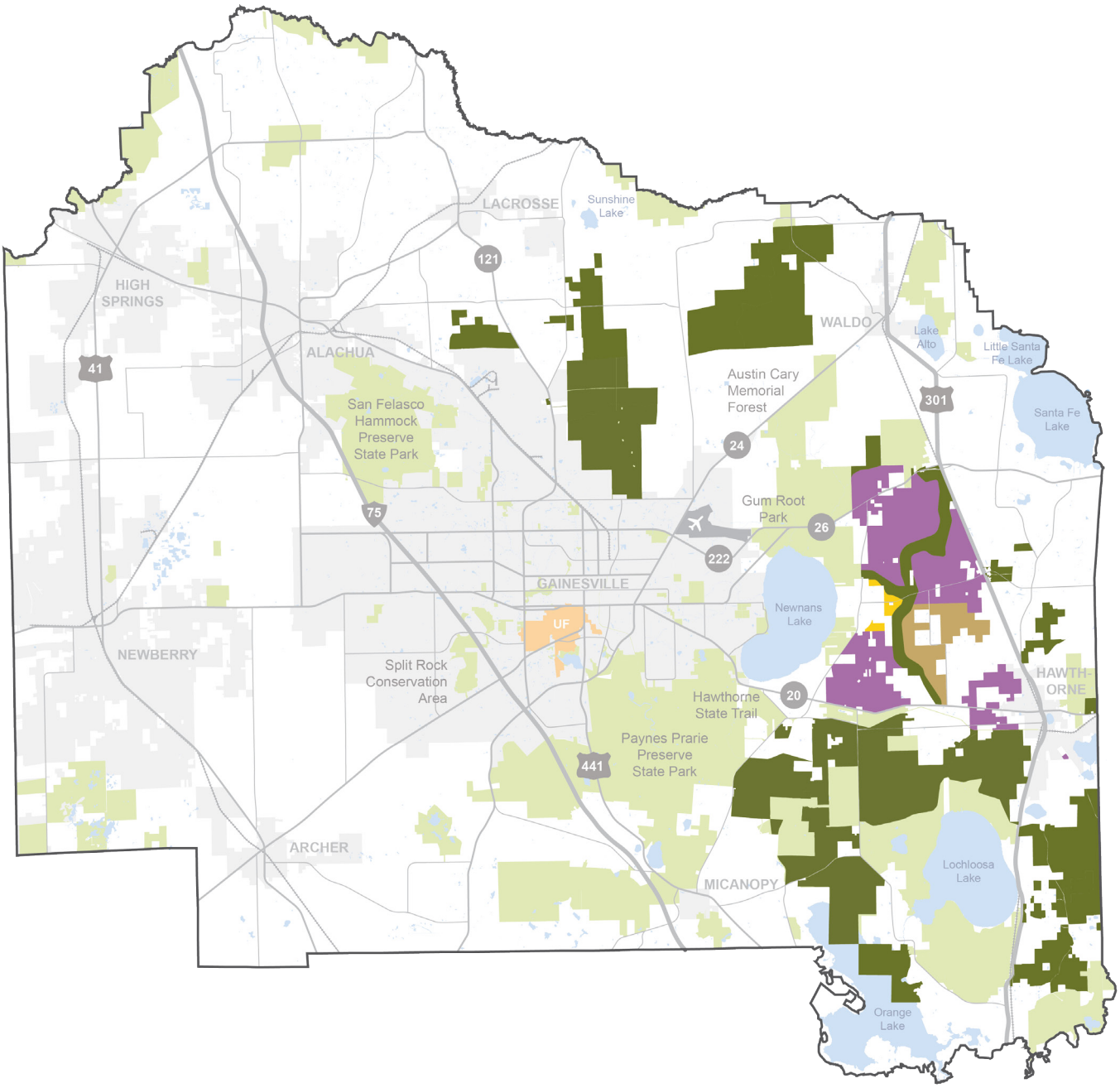


FIGURE 4

ENVISION ALACHUA FRAMEWORK MAP

Data Source: Alachua County GIS, Plum Creek

Land Use Strategy Summary

The Sector Plan Land Use Analysis provides the following summary of findings and recommendations related to land use planning for Plum Creek's property in Alachua County:

Establish Conservation Framework

The land use analysis, together with the environmental analysis conducted by Breedlove, Dennis & Associates, Inc. (BDA) (Environmental Data and Analysis Report, BDA, November 2013), has identified significant areas for Conservation Land Use based upon their contribution to regional landscape linkages, contiguity with existing conservation lands, and opportunity to contribute to the conservation and enhancement of natural resources, community watersheds, and natural preserves. Plum Creek lands within the Envision Alachua Sector Plan include 22,865 acres (38% of Plum Creek's EASP property) subject to conservation easements. An additional 23,216 acres of conservation is proposed as part of the Sector Plan for a total existing/ proposed conservation of more than 46,000 acres, or 76% of Plum Creek's EASP property.

Utilize Existing Infrastructure

A subset of Plum Creek's property in East County is served by substantial existing infrastructure, while other Plum Creek property is more isolated from existing infrastructure and provides opportunities for key regional landscape linkages. Those lands which are framed by SR 20, SR 26, and US 301 and the CSX railroad in East County have been identified as a focus for future economic development, in part because of the presence of existing infrastructure in the area.

Ensure Economic Progress

The land use analysis, informed by the Envision Alachua community planning process, is guided by the goal of creating a progressive community development model with future opportunities for job creation and institutional partnerships. The capacity and quality of existing transportation infrastructure, coupled with the economic engine of local institutional and commercial anchors, suggests an opportunity for an "Economic Progress Corridor" along SR 20, linking from east to west, the University of Florida, the City of Gainesville and East Gainesville, Plum Creek lands, and the City of Hawthorne.

Reinforce & Enhance Local Communities

Plum Creek lands in East County are strategically positioned to support the protection and enhancement of existing communities including Windsor, City of Hawthorne, and East Gainesville. Priorities for Windsor and other rural clusters include maintaining the rural character and the historic fabric of the community and respecting adjacencies with regard to edge conditions. The City of Hawthorne is well positioned at the nexus of SR 20, US 301, and the CSX rail line for future economic development opportunities. Similarly, East Gainesville, with its location between downtown Gainesville and East County, is well positioned for future expansion of economic opportunities.

Concentrate Economic Development

The physical configuration of Plum Creek land in East County—with its framing east-west connections of SR 20 and SR 26 and its north-south connections of US 301 and the rail line—suggests a concentrated "corners strategy" for future development. This strategy is further reinforced by the conservation framework.

Provide Land Use Flexibility

The land use analysis suggests a long-term vision which promotes short- and medium-term economic development opportunities and retains flexibility to capitalize on future opportunities in response to evolving market characteristics, while providing certainty with respect to such factors as environmental conservation and community preservation.

Promote Innovative Development Patterns

The land use analysis suggests the concept of an integrated development pattern of Centers, connected and organized by a system of corridors. This pattern promotes an efficient and flexible framework for diverse land uses, the protection of natural resources, and the efficient use of land through compact urban form and connected, pedestrian-friendly, healthy communities. The goal of this development form is to support employment-focused, compact, pedestrian-friendly mixed use development and avoid the negative impacts of urban sprawl such as traffic congestion, infrastructure costs, and environmental degradation.

Explore Preliminary Design Vision

Plum Creek lands are characterized and organized by three infrastructure systems: natural, built/constructed, and social/knowledge. The confluence of these three existing infrastructure systems provides the physical planning rationale for locating future economic and community development in East County. Within East County, the integration of these three systems through inspired 21st century community design will provide an enduring structure to guide future development.

Define Long-Term Framework

Based upon the land use analysis, a framework map has been proposed as the first step in the creation of a long-term master plan (**Figure 4**). The Framework Map identifies four main land uses: Conservation, Employment Oriented Mixed Use, Rural, and Agriculture. The allowable uses, densities, and intensities within each of these four land use categories have been identified based upon an understanding of market forces and analysis of case studies.

2. EXISTING CONDITIONS ANALYSIS

CHAPTER CONTENTS

Plum Creek is the largest private landowner in Alachua County, controlling over 65,000 acres located throughout the northern and eastern portions of the county (**Figure 5**). Of these 65,000 acres, 60,136 acres are part of the Sector Plan. All areas have a future land use designation of rural/ agriculture in the Alachua County Comprehensive Plan and are zoned for agriculture/timber production (**Figure 14)**. Approximately 23,000 of these acres have a conservation easement. Current zoning for the remaining +/- 37,000 acres allows for one residential unit per five acres. Any proposal to use the lands for other uses such as commercial or job-generating activities would require Plum Creek to request an amendment to the county's Comprehensive Plan future land use category.

As part of the Land Use Analysis, existing physical conditions were assessed at three scales: regional, county, and East County. This analysis included existing urban and rural communities, existing and planned infrastructure, existing conservation lands, wetlands, floodplain, waterways, silviculture, and agriculture. Several data sources were utilized in the preparation of the existing conditions analysis, including the following:

- Alachua County Geographic Information Systems (GIS)
    - *Water bodies*
    - *County municipalities*
    - *County roads*
    - *County parks*
    - *County conservation lands and easements*
    - *County railroads*
    - *County Future Land Use, Reserve and Extra-Territorial Areas*
- Plum Creek GIS
    - *Plum Creek property*
    - *Timber stand data*
    - *Timber roads*
    - *Graded roads*
    - *2008 aerial wetlands*
    - *Plum Creek Alachua County ESA files*
- US Geological Survey (USGS) Hydrologic Database
    - *Stream data*
    - *Watersheds*
    - *Water management districts*
    - *Historical Gainesville maps*
- Federal Emergency Management Agency (FEMA)
    - *100-year flood data*
- Florida Geographic Data Library (FGDL)
    - *5-foot contours*
- University of Florida GeoPlan Center
    - *Florida Ecological Greenways Network*
    - *Florida Statewide public and private conservation lands*
- St. John's River Water Management District (modified in 2013 by BDA)
    - *Wetland data*

The primary goal of the existing conditions analysis was to assess the suitability of Plum Creek's land holdings in Alachua County for uses other than timber, including future economic development and natural resource conservation. The Phase I Envision Alachua process yielded a community vision, goals, and guiding principles to inform Plum Creek's decision making as it explores potential opportunities for lands in East County. The analysis conducted during Phase II aimed to bring physical planning and a technical lens to the emerging community land use concepts.

The findings of the existing conditions analysis—including the environmental analysis and community context analysis—are included below and organized under the primary headings of Regional Context, Alachua County Context, and East County Context.

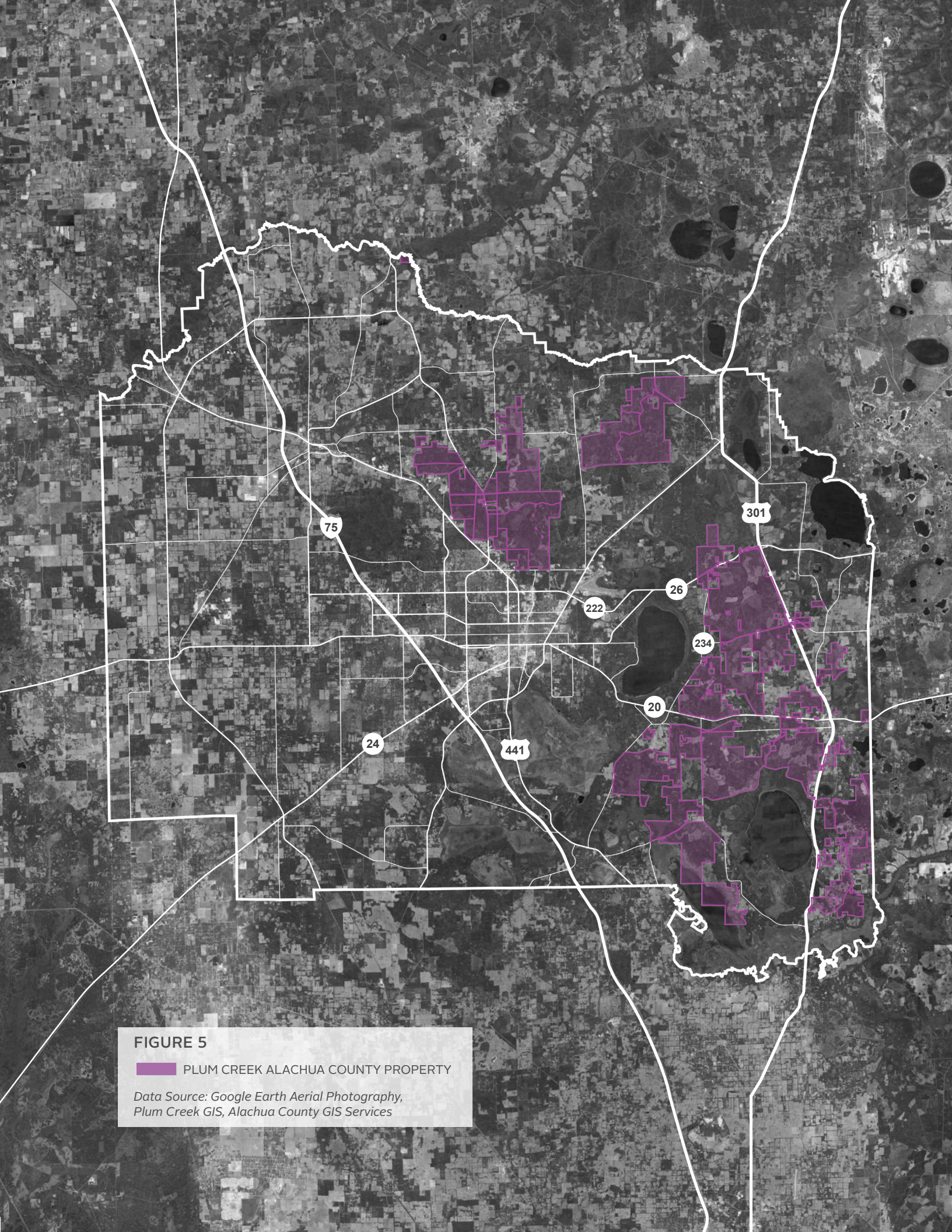


FIGURE 5

PLUM CREEK ALACHUA COUNTY PROPERTY

Data Source: Google Earth Aerial Photography, Plum Creek GIS, Alachua County GIS Services

2.1 REGIONAL CONTEXT

Environmental Analysis

Florida's natural resources contribute significantly to the state's economy and quality of life. Noted as a hotspot of biodiversity, Florida ranks fourth in the nation in endemic species and is fourteenth in public lands with a strong legacy of conservation (**Figure 6 and 7**). While many recognize the value of this landscape in terms of wildlife, recreation, and timber, it also provides essential ecosystem services such as natural storm water treatment and storage and flood attenuation. In order to ensure the long-term viability of these systems in today's rapidly changing world, an understanding of these complex natural systems is necessary to identify ways to balance conservation goals and provide sustainable economic growth.

Prior to settlement, most of Alachua County and northern Florida was a vast and complex mosaic of pine flatwoods, sandhills, floodplains and wetlands. Fragments of this original landscape remain today, with many wetland and upland plant communities highly modified from their original composition. However, in recent decades, joint efforts between public and private landowners, including Plum Creek, have begun to form a framework to stitch this fragmented landscape back together.

In an effort to secure and strengthen connectivity between core ecological hubs across the state, Florida's Ecological Greenway Network (FEGN) highlights opportunities to maintain a statewide ecological hub and linkage strategy (**Figure 8**). Backed by extensive research and analysis, this network strives to connect the State's green infrastructure system and to guide land acquisition and conservation efforts. Lands secured within this network help to mitigate the impacts of landscape fragmentation and ensure the flow of critical ecosystem services and abundant natural resources, supporting Florida's diverse economy.

In northern Florida, one substantial outcome of this effort has been the planning of a regional scale linkage known as the Ocala to Osceola (O2O) corridor. Part of the Florida Wildlife Corridor initiative, this public-private partnership aims to strengthen landscape connectivity between two of Florida's largest conservation hubs in addition to protecting several important watersheds.

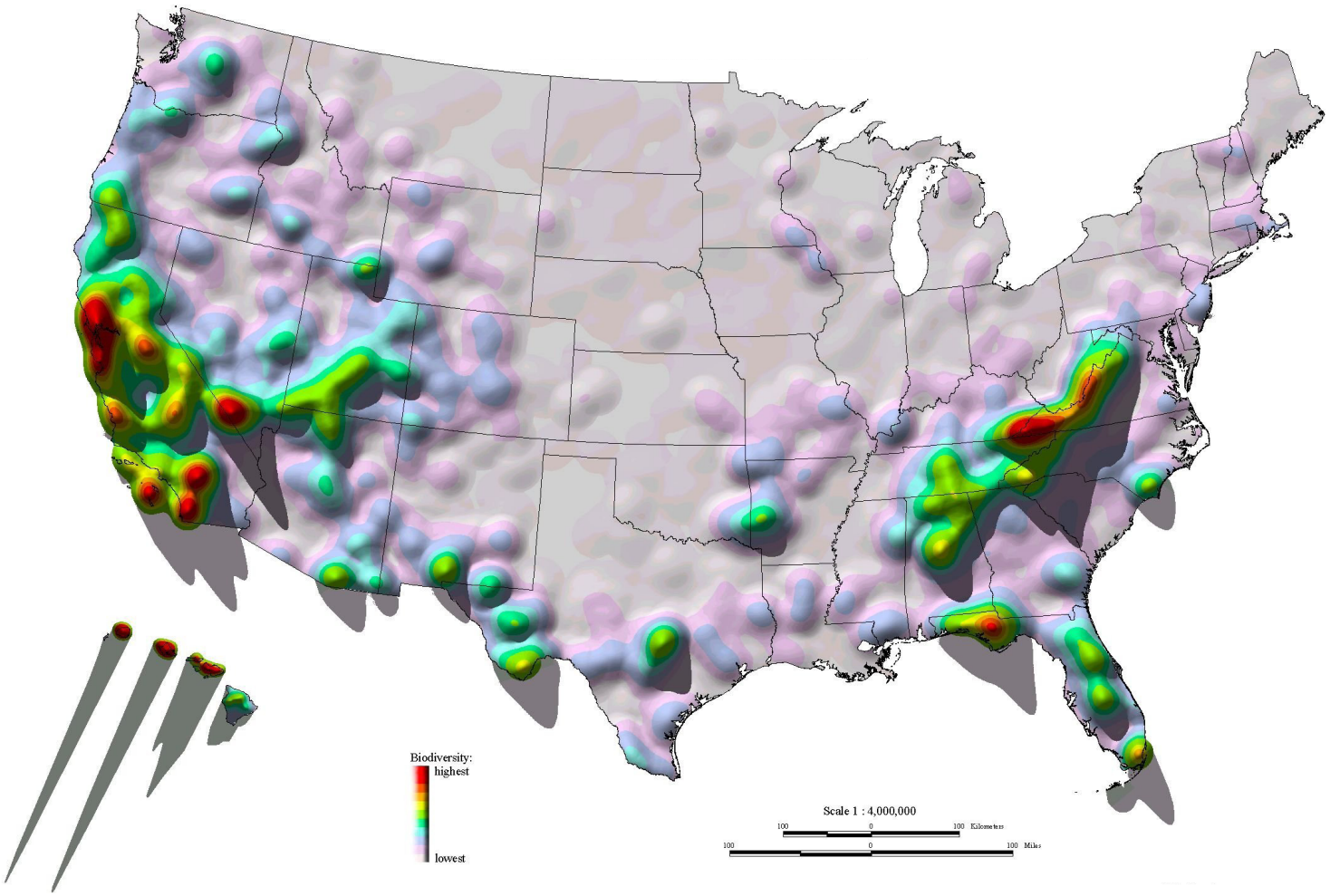
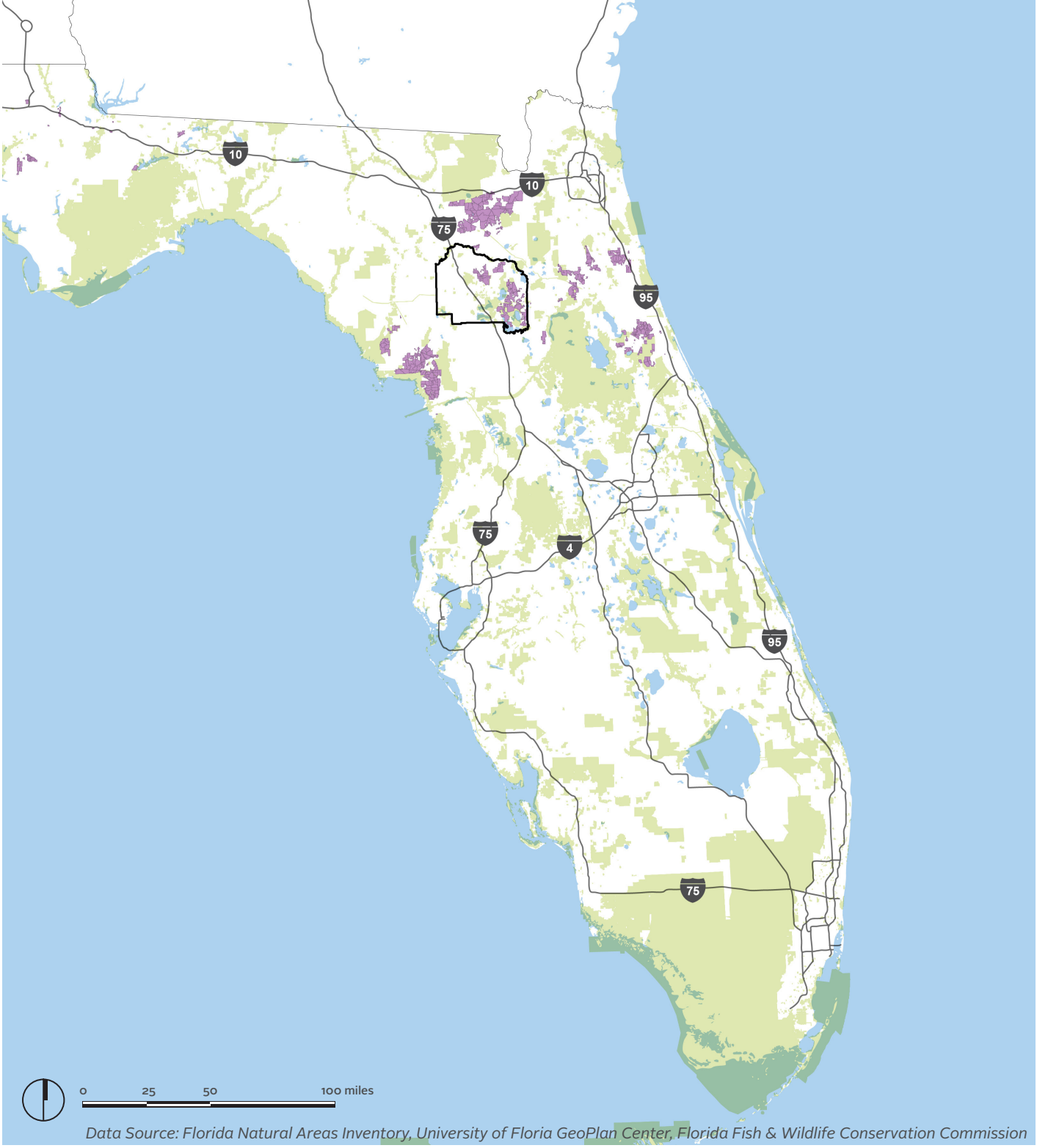


Figure Source: 2002. States of the Union: Ranking America's Biodiversity. NatureServe Report Prepared for: The Nature Conservancy, Arlington, Virginia.

FIGURE 6
REGIONAL BIODIVERSITY HOTSPOTS



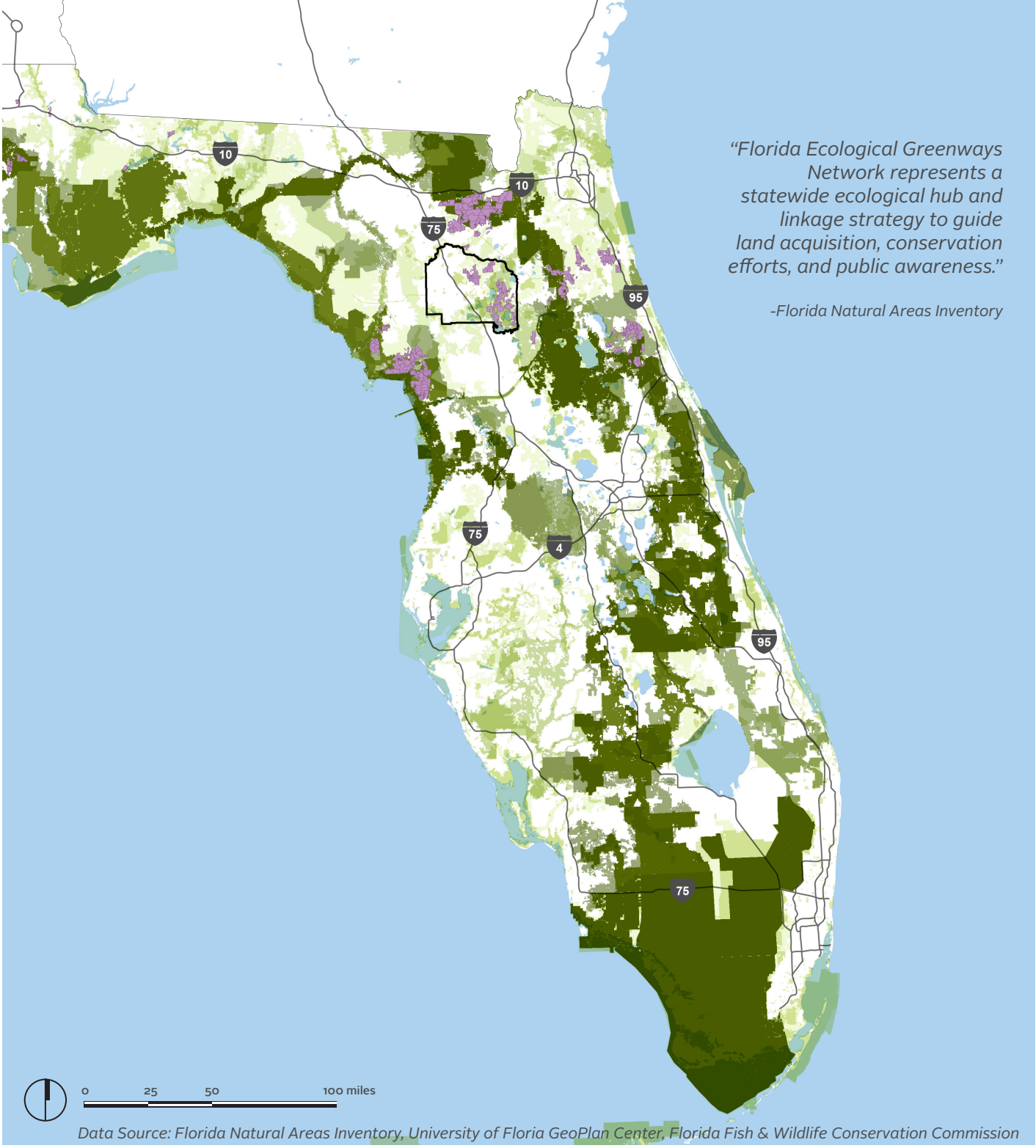
Data Source: Florida Natural Areas Inventory, University of Floria GeoPlan Center, Florida Fish & Wildlife Conservation Commission

FIGURE 7

FLORIDA STATEWIDE PUBLIC & PRIVATE CONSERVATION LANDS

PLUM CREEK PROPERTY STATEWIDE

PUBLIC & PRIVATE CONSERVATION LANDS



"Florida Ecological Greenways Network represents a statewide ecological hub and linkage strategy to guide land acquisition, conservation efforts, and public awareness."

-Florida Natural Areas Inventory

Data Source: Florida Natural Areas Inventory, University of Floria GeoPlan Center, Florida Fish & Wildlife Conservation Commission

FIGURE 8

FLORIDA STATEWIDE CONCEPTUAL GREENWAYS (FLORIDA ECOLOGICAL GREENWAYS NETWORK)

PLUM CREEK PROPERTY STATEWIDE
CRITICAL LINKAGES 1
CRITICAL LINKAGES 2
PRIORITY 1
PRIORITY 2
PRIORITY 3*
PRIORITY 4
PRIORITY 5
PRIORITY 6

**PLUM CREEK'S ALACHUA COUNTY LANDS ARE RATED PRIORITY 3.*

Community Context Analysis

Alachua County is strategically located within the technology-rich north/central Florida region. This regional context is distinguished by a triangle of economic centers—Tampa, Orlando, and Jacksonville—which may be characterized as a "Geography of Innovation" (**Figure 9**). Alachua County is well positioned to participate in and capitalize on regional economic opportunities.

The Geography of Innovation is enhanced by a significant transportation infrastructure which includes major roadway networks, national/international airports, and port facilities linking the region's innovation clusters to the state, the nation, and beyond. For example, to the south of Alachua County the Interstate 4 corridor connects Tampa to Orlando and the Space Coast, anchored by NASA and a host of related companies. North of Alachua County, Jacksonville is distinguished by its International Airport and cargo port (JAXPORT), one of the largest along the Atlantic coast.

Within this Geography of Innovation, world-class research and technology institutions are leading key growth sectors including agritechnology, life sciences, information technology, aviation/aerospace, and sustainable energy, among others. These innovative endeavors are bolstered by university partnerships which include the University of North Florida, the University of Central Florida, and the University of Florida in Gainesville. As demonstrated at Lake Nona Medical City, for example, university partnerships create a fertile ground within the region for the transfer of new technologies from institutional research to commercial realization.

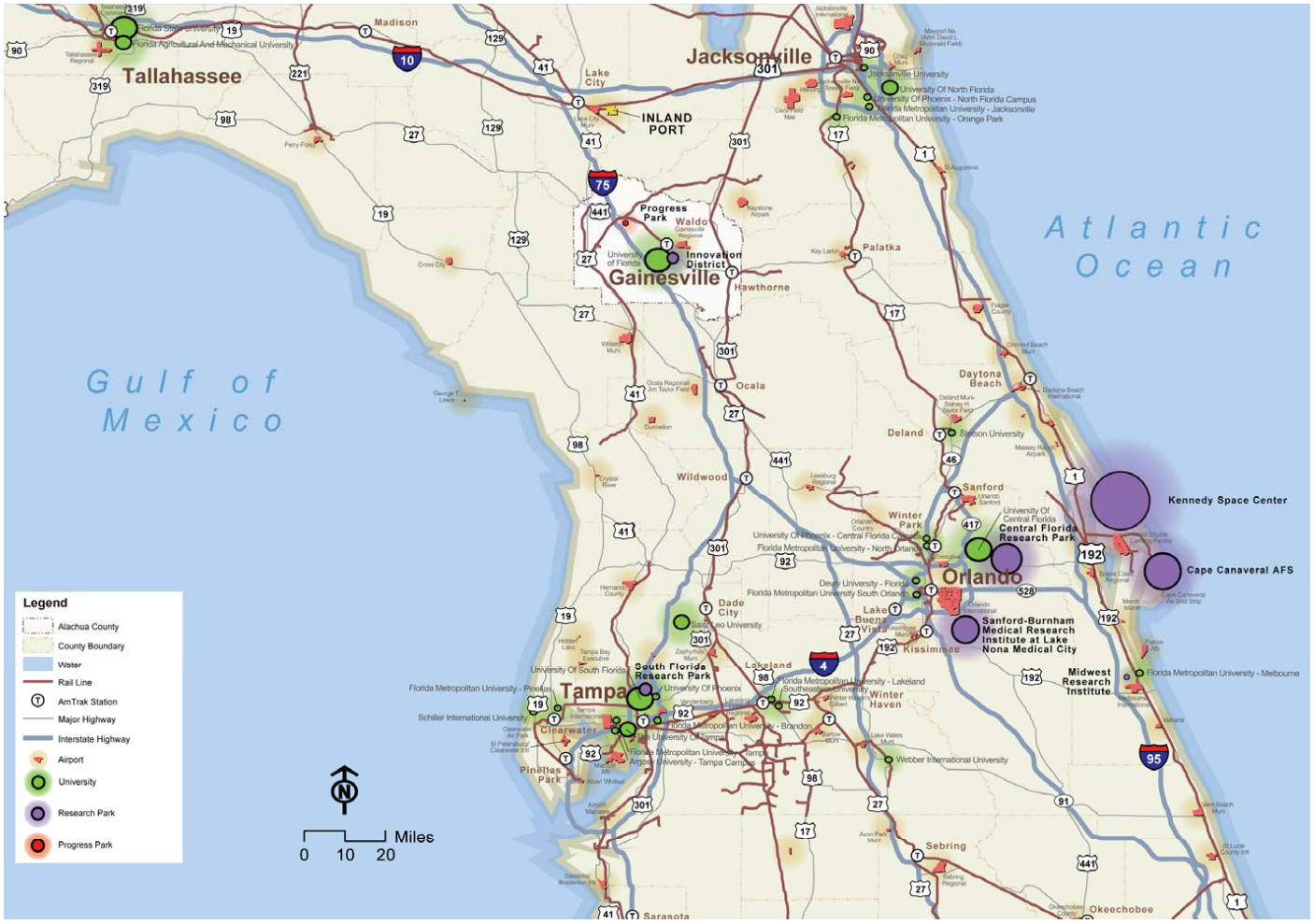


FIGURE 9
GEOGRAPHY OF INNOVATION

Figure Source: ESRI data and maps (2010), Geodata.gov (2005), compiled by MIG, Inc.

2.2 ALACHUA COUNTY CONTEXT

Environmental Analysis

Approximately 38% (22,865 acres) of Plum Creek's EASP property is subject to existing conservation easements. While Plum Creek's property occurs outside of critical and high priority regional scale linkages such as the O2O Corridor, study of FEGN (Florida Ecological Greenways Network) and CLIP (Critical Land and Waters Identification Project) geographic data layers suggest potential for local linkages and conservation opportunities across Alachua County. Several areas are mapped as strategic ecosystems according to the Alachua County Ecological Inventory studies of 1987 and 1996 (as noted in Environmental Data and Analysis Report, BDA, November 2013). These studies identify and rank surrounding ecosystems based on ecological, hydrological and management parameters to determine their relative importance. With the highest ranking ecosystems within Plum Creek's property proposed for protection, these strategic landholdings in combination with additional public and private conservation lands could provide supporting connections to the O2O Corridor, the "Emerald Necklace" (an Alachua County land conservation initiative to establish a network of greenways managed to support the protection, enhancement, and restoration of functional and connected natural systems while providing unique opportunities for resource-based recreation), and other statewide greenways in addition to protecting aquifer recharge (BDA, Figure 10) and critical water supply protection areas for Alachua County and surrounding areas (BDA, Figure 11).

Potential landscape connections identified in the planning process have been summarized on the following pages and can be found in **Figures 10 and 11**.

Significant East-West Linkages

- **Santa Fe River floodplain**, along the northern edge of Alachua County, extending from the Suwanee River to the west, adjacent to Plum Creek's northern tracts, to Camp Blanding and the O2O/Florida Wildlife Corridor to the east.
- **Goethe to Ocala linkage,** connecting strategic ecosystems from Goethe State Forest to the southwest to Paynes Prairie, through Plum Creek property south of SR 20 to Longleaf Flatwoods Reserve, Lochloosa Wildlife Conservation Area, Ocala National Forest and the O2O/Florida Wildlife Corridor to the east.

Significant Supporting Linkages

- **Lochloosa Creek floodplain**, extending through Plum Creek's property east of Newnans Lake, with potential wetland and upland connectivity (Lochloosa Flatwoods) to strategic ecosystems north and south (Austin Cary Flatwoods, Moran's Prairie, Lochloosa Forest Additions).
- **Newnans Lake and adjacent conservation areas**, extending north and west through Plum Creek's tracts around Newnans Lake, connecting strategic ecosystems along Newnans Lake to Lochloosa Forest West (south) and Ausin Cary and Northeast Flatwoods (north).

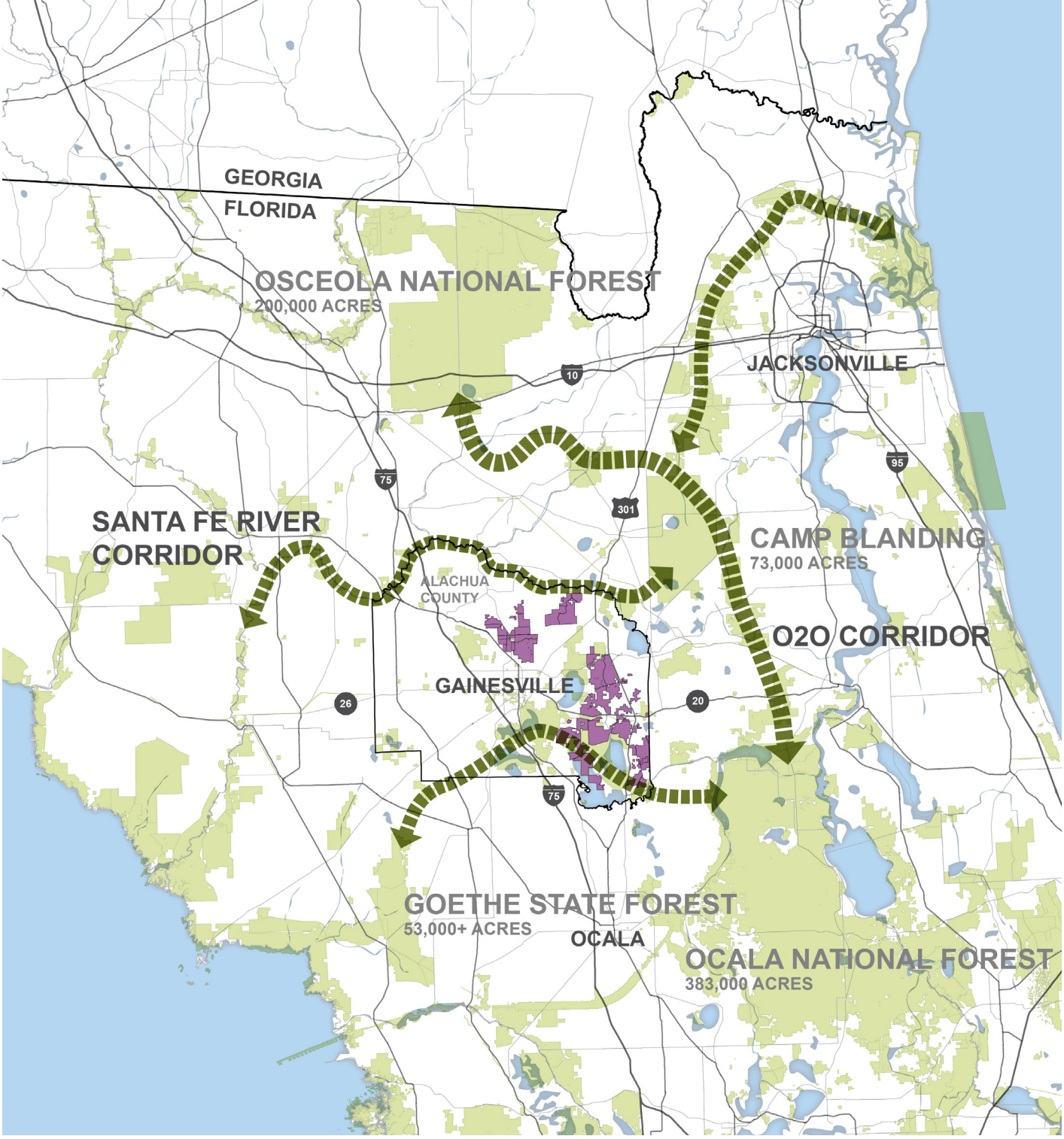


FIGURE 10
NORTHERN FLORIDA REGIONAL LANDSCAPE

Data Source: University of Florida GeoPlan Center

PUBLIC/PRIVATE CONSERVATION
LANDSCAPE LINKAGES
PLUM CREEK PROPERTY IN ALACHUA COUNTY

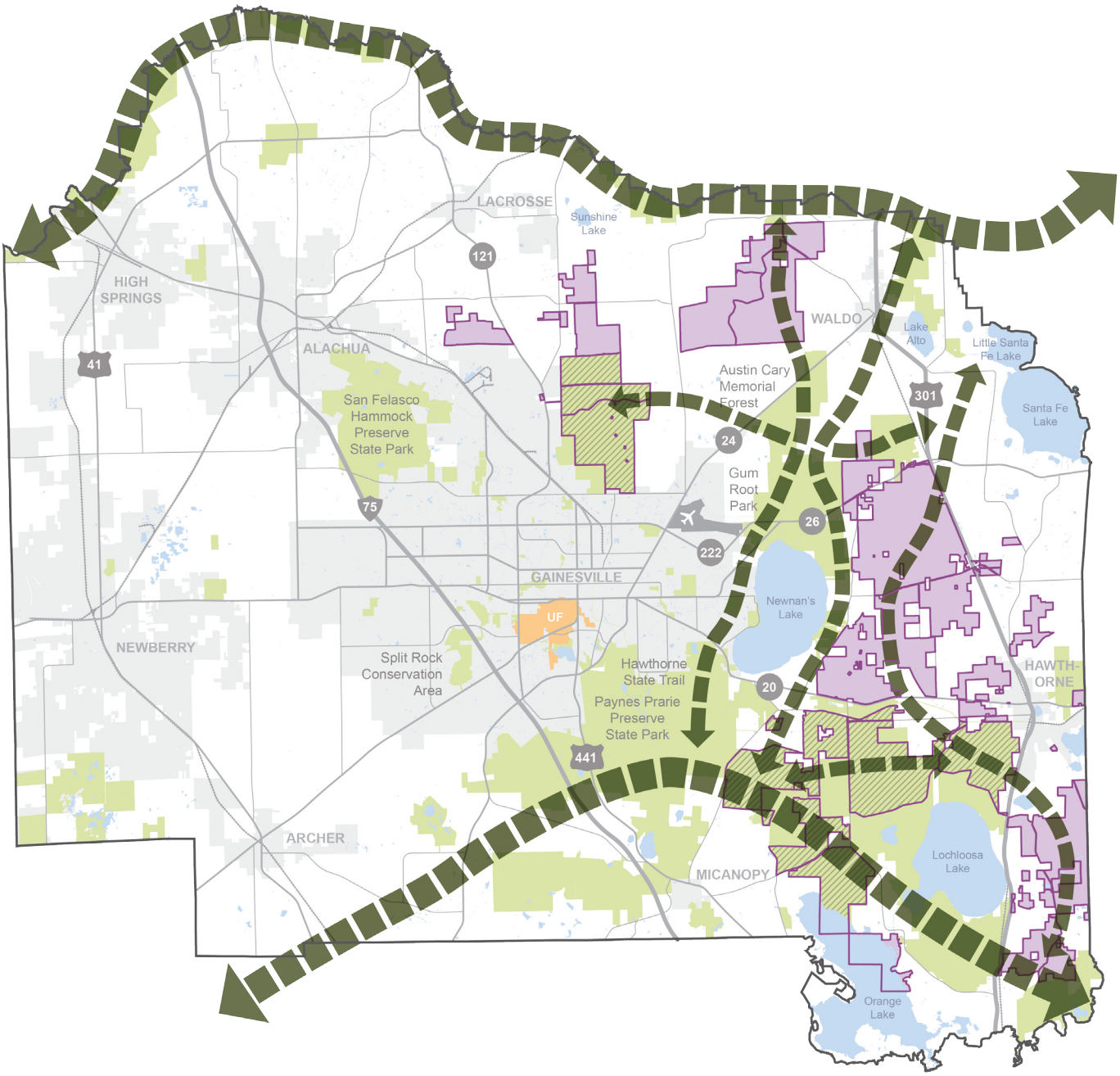


FIGURE 11

ALACHUA COUNTY LANDSCAPE LINKAGES

Data Source: Alachua County GIS Services,

- PLUM CREEK EASP PROPERTY
- EXISTING PLUM CREEK CONSERVATION EASEMENT
- CONSERVATION LAND
- MUNICIPALITIES & URBAN CLUSTER
- LANDSCAPE LINKAGES

0 8,000 16,000 32,000 48,000 feet

0 5 10 miles

Community Context Analysis

Alachua County includes nine incorporated cities and towns, of which Gainesville is the largest by land area and population. The county is served by a network of transportation infrastructure. Two key north-south road connections serve the county: I-75 and US 301. I-75 passes through the central and western portion of the county, providing connections to regional and national markets. US 301, which runs through East County along the eastern border of Plum Creek's land holdings, connects the county to Sarasota/Tampa to the south and Jacksonville and beyond to the north. Two other principal north-south arterials include US Route 441, which runs through the center of Gainesville, and US Route 41 in West County.

A series of radial roads connect surrounding counties and the outer reaches of Alachua County into the Gainesville core. The Alachua County Comprehensive Plan identifies two principal arterials linking Gainesville to East County, SR 20 and State Road 24 (SR 24), and one minor arterial to East County, SR 26, which positions Plum Creek's land holdings generally located between SR 20 and SR 26 for economic development. A CSX railroad line parallels US 301 in East County. The Gainesville Regional Airport is located in East Gainesville.

Alachua County is distinguished by several commercial, institutional anchors, and environmental assets. Major institutions include Shands Hospital, Santa Fe College, and the University of Florida (UF). Plum Creek's land holdings in East County are 10 miles from the UF campus via SR 20 and 11 miles via SR 26. I-75 serves a significant commercial corridor within the county. Additionally, Alachua County is home to six state parks, including the 21,000-acre Paynes Prairie Preserve State Park, which also is a National Natural Landmark. The Gainesville-Hawthorne State Trail, a sixteen mile rail-trail state park, connects downtown Gainesville to the City of Hawthorne in East County (**Figure 12**).

The county's historic pattern of growth has been toward the west, as depicted in USGS historic topographic maps from 1966 and 2012 (**Figures 13a—b**). The construction of Interstate 75 (I-75), as part of the original interstate highway plans of the 1950s, accelerated growth toward the western portion of the county.

The community context analysis at the county scale included a review of the Alachua County Future Land Use Map and Reserve Areas and Extra-Territorial Areas (**Figures 14—16**).

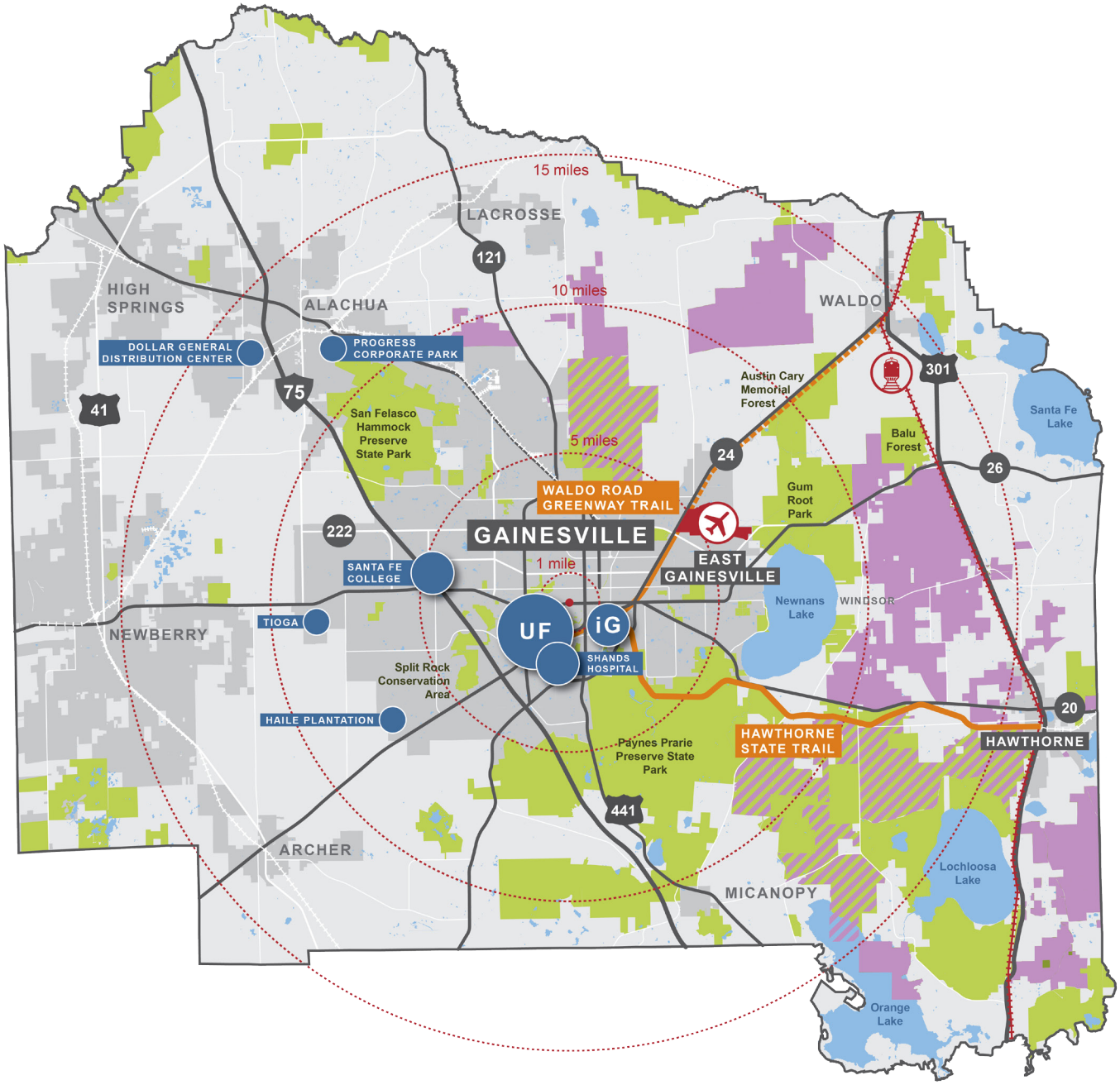


FIGURE 12

ALACHUA COUNTY ANCHORS AND ASSETS

Data Source: Alachua County GIS Services

- PLUM CREEK EASP PROPERTY
- EXISTING PLUM CREEK CONSERVATION EASEMENT
- MUNICIPALITIES & URBAN CLUSTER

0 8,000 16,000 32,000 48,000 feet

0 5 10 miles

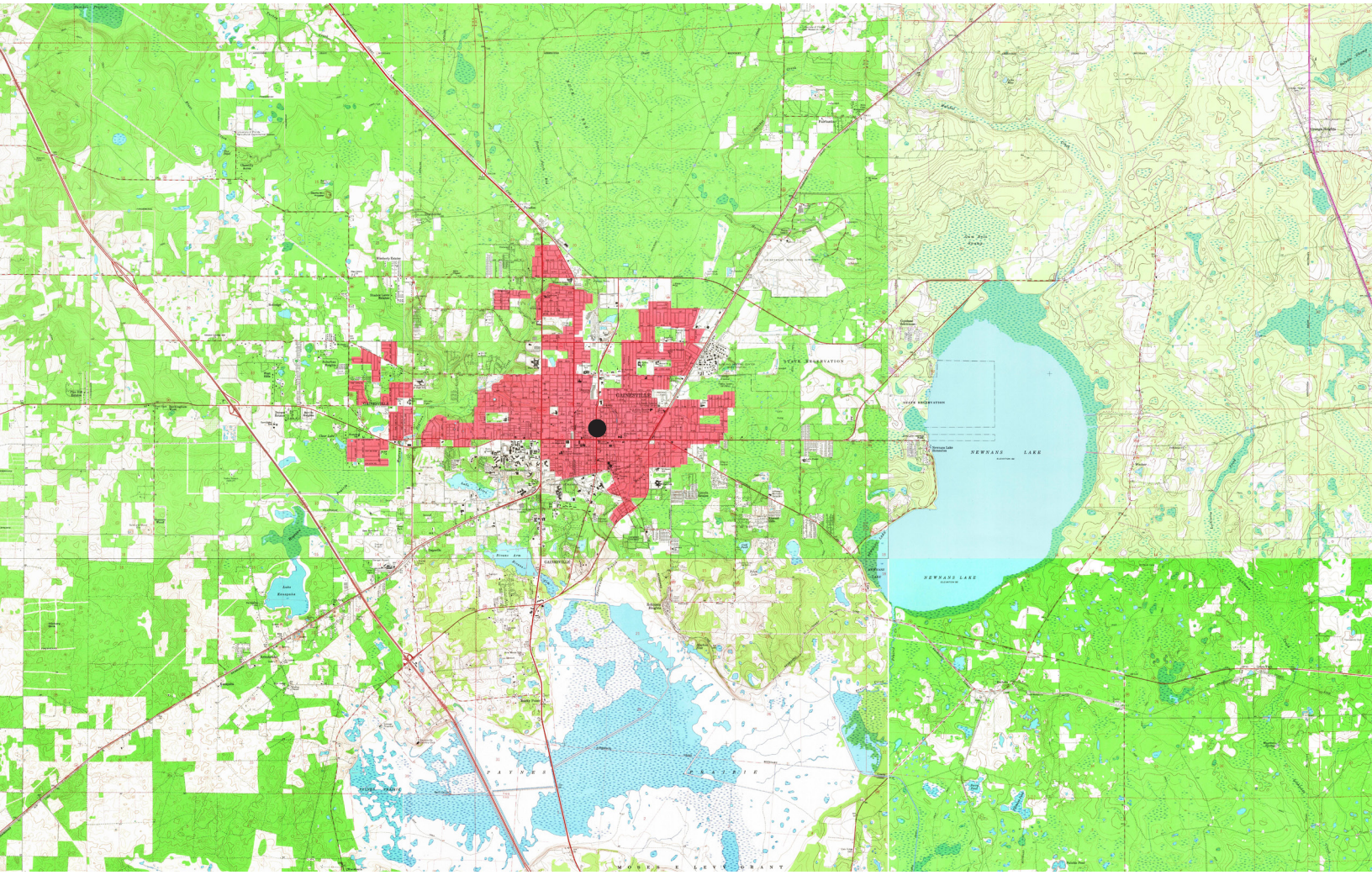


Figure Source: US Geological Services Maps 1966 Set

FIGURE 13a
GAINESVILLE DEVELOPMENT PATTERNS (1966)

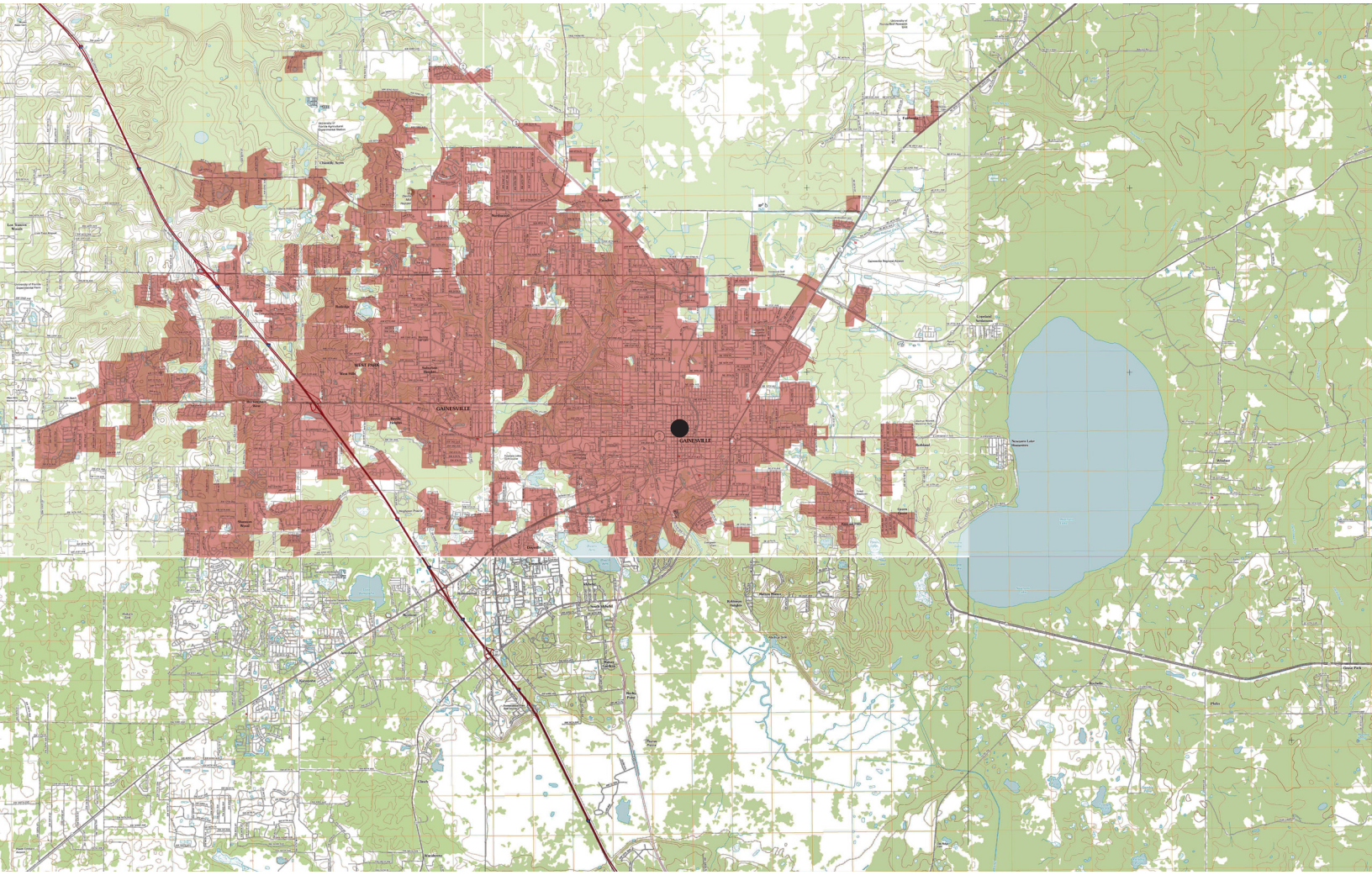


Figure Source: US Geological Services Maps 2012 Set

FIGURE 13b
GAINESVILLE DEVELOPMENT PATTERNS (2012)

Alachua County Future Land Use Map

Alachua County has prepared a Future Land Use map which depicts urban development through 2030 within the Urban Cluster. The Future Land Use categories are defined in the County's Comprehensive Plan and are to be implemented in conjunction with the plan's goals, objectives and policies.

Alachua County's Future Land Use Map suggests continued future growth to the west within the Urban Cluster. Plum Creek's lands currently fall under the Rural/Agriculture future land use category, with a maximum development gross density of 1 unit per 5 acres. Any proposal to use the lands for other uses such as commercial or job-generating activities would require Plum Creek to request an amendment to the County's Comprehensive Plan.

The Future Land Use Map identifies a series of thirteen rural cluster areas, several of which are adjacent to or contained in part on Plum Creek lands, including Rochelle, Windsor, Grove Park, Campville, Orange Heights, Lochloosa, and Cross Creek. Rural clusters are small settlements typically outside of an urban cluster which serve as focus areas for existing rural communities. Within rural clusters, development is permitted with residential lot sizes of one acre or greater on private wells and septic, or on lots as small as one-half acre for development on a central water system. Plum Creek's Sector Plan lands adjacent to or partially contained within rural cluster areas will be carefully addressed through strategies to protect existing community edges by maintaining the permitted uses and standards as provided by the Rural/Agriculture land use category, as well as through vegetative buffers and conservation lands.

Preservation land use areas identified on the Future Land Use Map are located primarily to the south of SR 20. These areas include Paynes Prairie Preserve State Park and lands surrounding Lochloosa Lake. Preservation land use areas also include, for example, lands to the north and east of Newnans Lake including the San Felasco Hammock Preserve State Park.

FIGURE 14
ALACHUA COUNTY FUTURE LAND USE MAP 2030

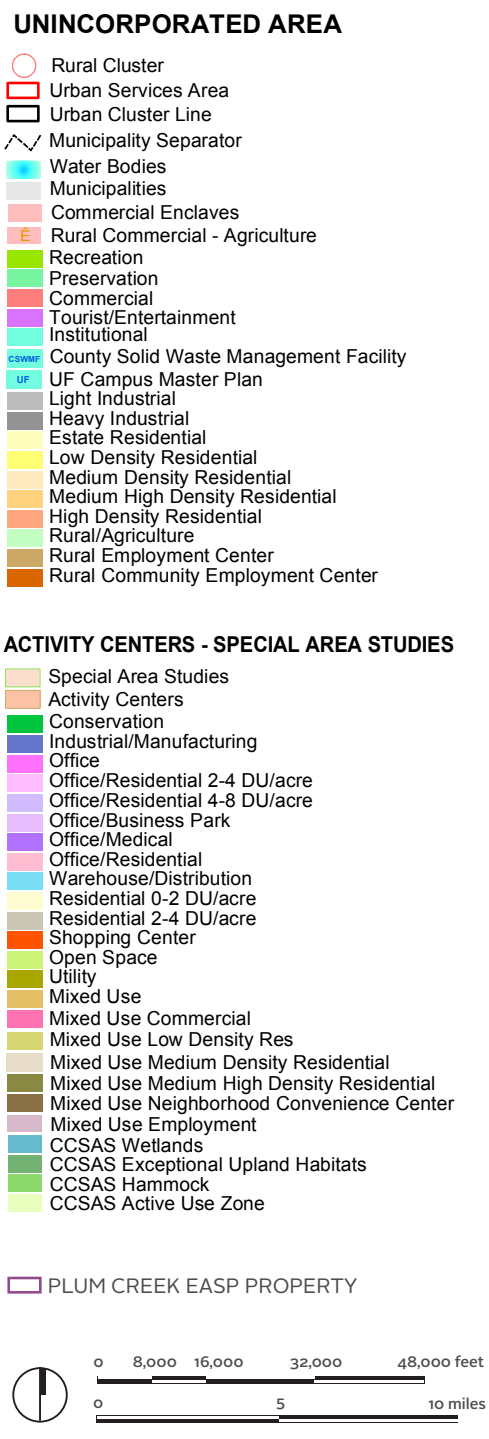
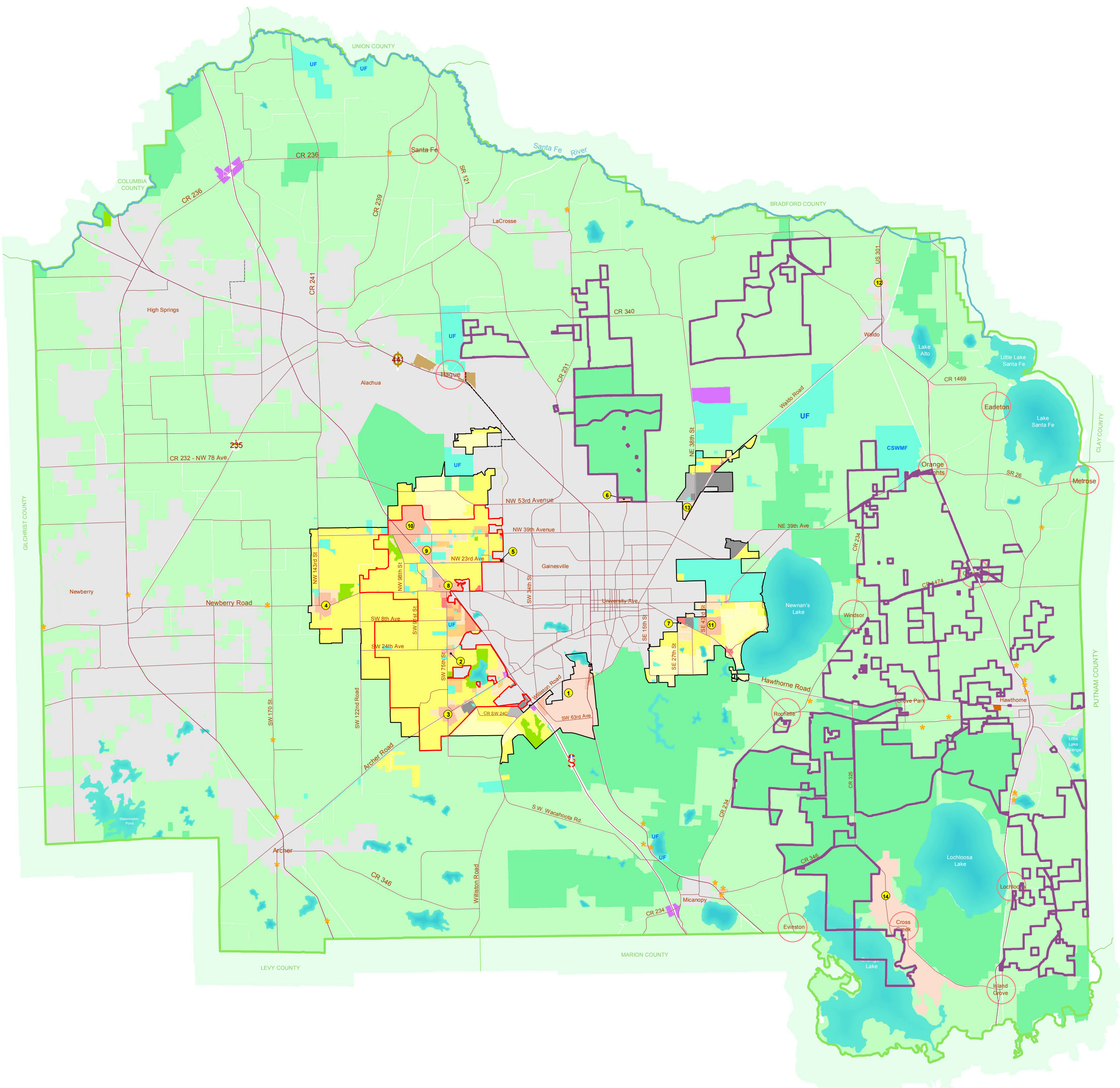


Figure Source: Alachua County Department of Growth Management


UNION COUNTY
UF
Santa Fe River
CR 236
Santa Fe
SR 121
COLUMBIA COUNTY
CR 239
BRADFORD COUNTY
LaCrosse
CR 241
High Springs
CR 340
Waldo
Lake Alto
Little Lake Santa Fe
CR 1469
Hague
Alachua
CR 231
Waldo Road
Earleton
Lake Santa Fe
CLAY COUNTY
NE 39th St
CR 232 - NW 78 Ave
235
CSWMF
Orange Heights
SR 26
Melrose
NW 53rd Avenue
NW 39th Avenue
NE 39th Ave
GILCHRIST COUNTY
NW 23rd Ave
Gainesville
CR 234
CR 1474
Newberry
Newberry Road
NW 143rd St
NW 98th St
SW 34th St
University Ave
Newnan's Lake
Windsor
SW 8th Ave
SW 91st St
SE 15th St
SE 27th St
SW 24th Ave
PUTNAM COUNTY
SW 75th St
Hawthorne Road
Williston Road
Grove Park
Hawthorne
Rochelle
SW 170 St
SW 122nd Road
CR SW 24C
SW 63rd Ave
Archer Road
S.W. Wacahoota Rd.
CR 325
Lochloosa Lake
Archer
CR 346
Williston Road
Micanopy
CR 234
Evinston
Cross Creek
Lake
Island Grove
LEVY COUNTY
MARION COUNTY

Alachua County Reserve Areas and Extra-Territorial Areas

Approximately 1,300 acres of Plum Creek's lands in East County, north and south of SR 20, fall under the City of Hawthorne's Urban Reserve Area. These lands are currently zoned as Rural/ Agricultural. Reserve Areas are designated pursuant to the Alachua County Boundary Adjustment Act which governs annexation in Alachua County (Chapter 225, Alachua County Code). The Reserve Areas are the exclusive areas within which the corresponding municipality—in this case Hawthorne—may annex property for urban growth. Extra-Territorial Areas are designated for some municipalities as areas for joint planning as provided by inter-local agreement.

Plum Creek's Sector Plan lands between East Gainesville and the City of Hawthorne were identified by the Envision Alachua Task Force as a primary location for potential employment oriented development to support and enhance the two communities and provide proximate new employment opportunities.

FIGURE 15
ALACHUA COUNTY RESERVE AND EXTRA-TERRITORIAL AREAS

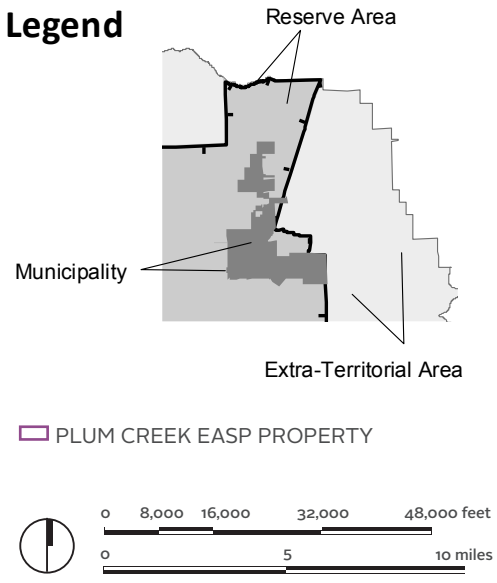
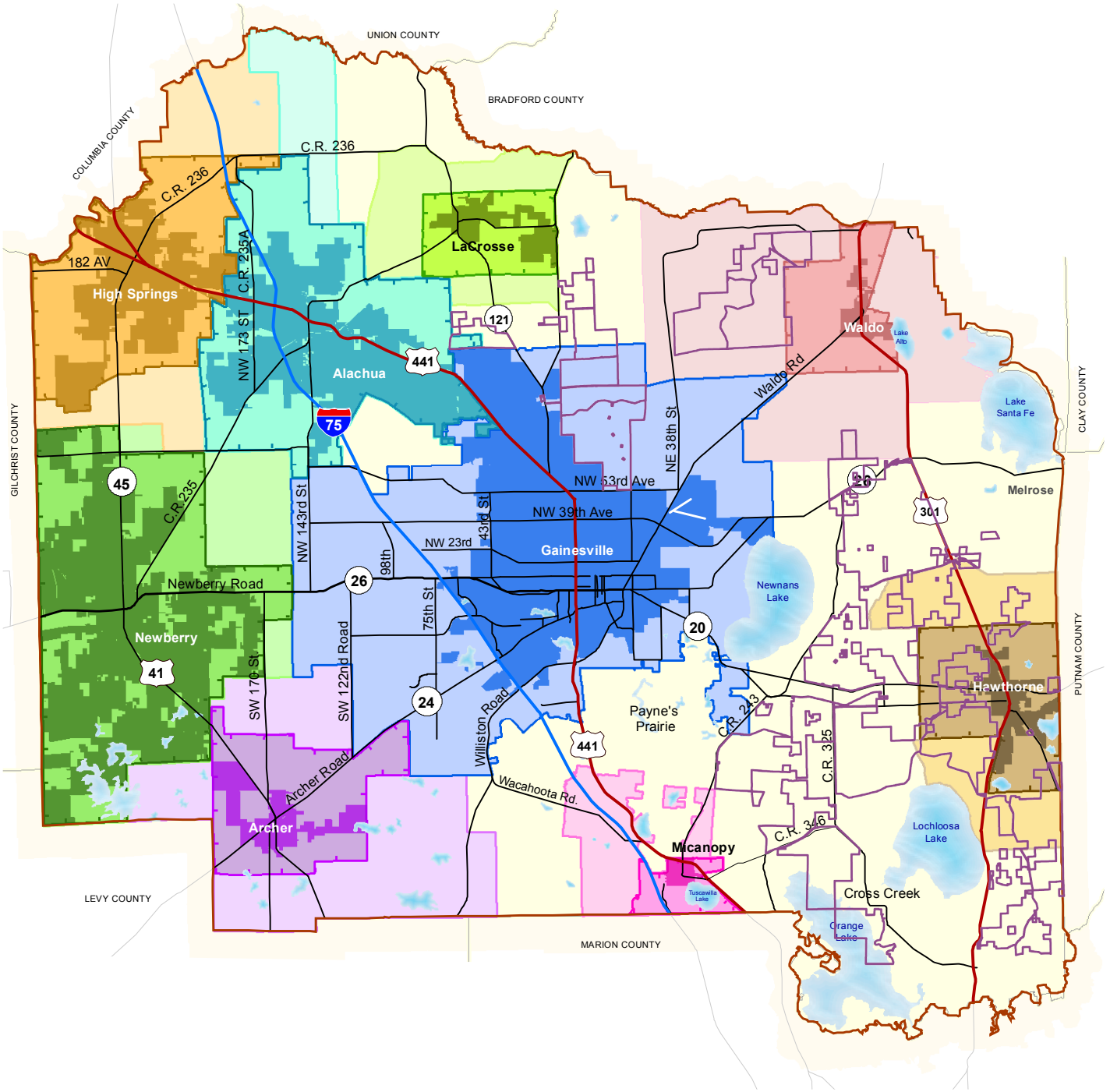


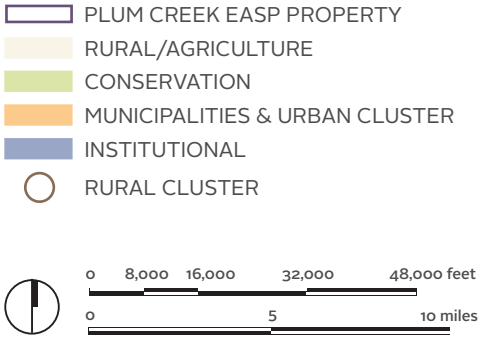
Figure Source: Alachua County Department of Growth Management


UNION COUNTY
BRADFORD COUNTY
COLUMBIA COUNTY
GILCHRIST COUNTY
CLAY COUNTY
PUTNAM COUNTY
LEVY COUNTY
MARION COUNTY
C.R. 236
182 AV
High Springs
C.R. 235A
NW 173 ST
LaCrosse
Alachua
121
441
75
Waldo
Lake Alto
Waldo Rd
Lake Santa Fe
NE 38th St
NW 53rd Ave
NW 39th Ave
NW 23rd
43rd St
Gainesville
26
301
Melrose
45
C.R 235
NW 143rd St
98th
Newberry Road
Newberry
41
SW 170 St
SW 122nd Road
75th St
24
Williston Road
Archer Road
Archer
Newnans Lake
20
Payne's Prairie
C.R. 243
C.R. 325
Hawthorne
Wacahoota Rd.
Micanopy
C.R. 346
Lochloosa Lake
Cross Creek
Orange Lake
Tuscawilla Lake

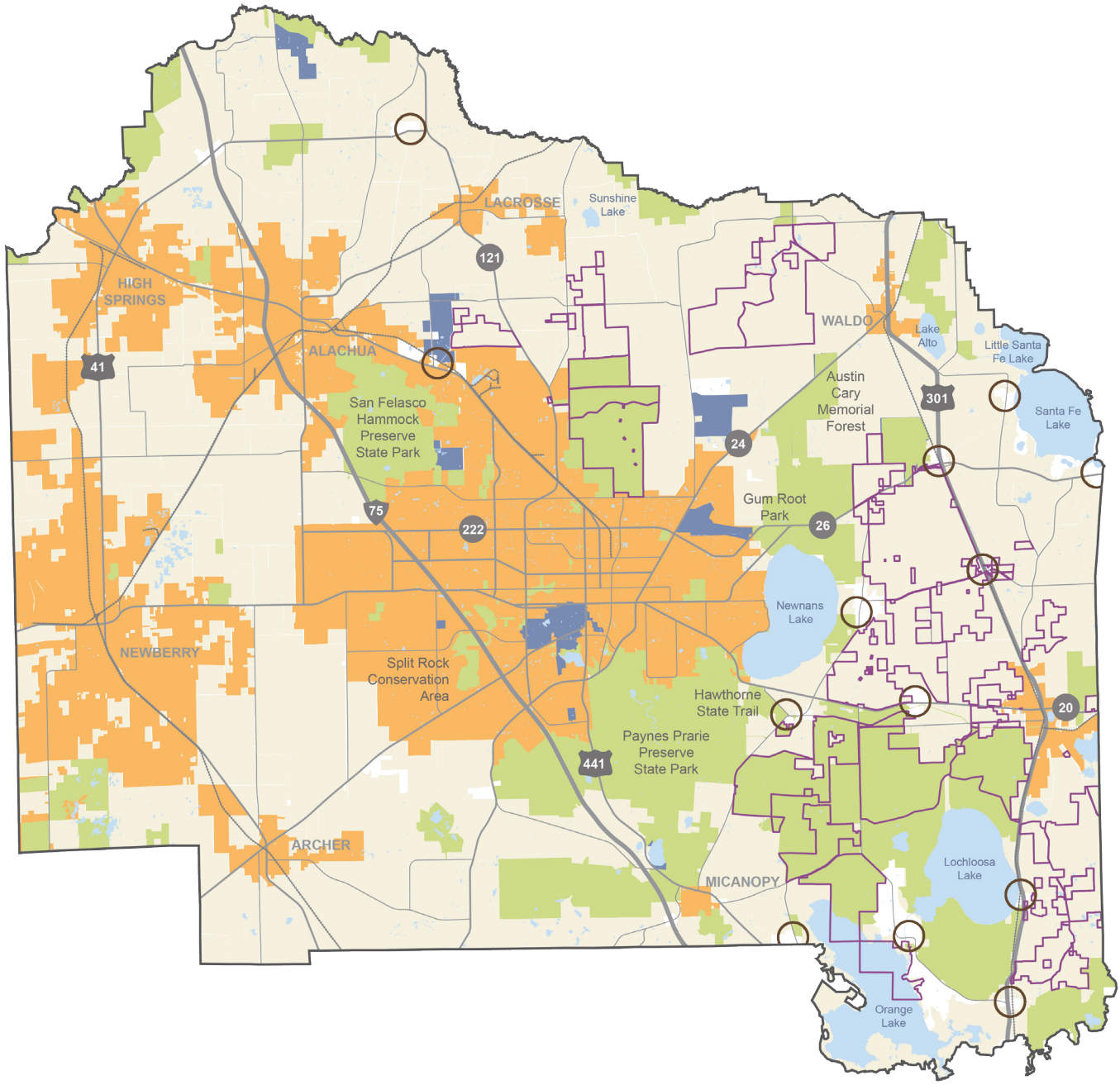
Future Urban and Conservation Lands

A composite of Alachua County's Future Land Use Map showing the designations of Urban Cluster, Rural Clusters, Conservation Land Use, and Rural/Agriculture Land Use is shown in **Figure 16**. Plum Creek's property in Alachua County is shown on the map with a purple outline. As the composite map illustrates, Plum Creek will need to request a change to the County's Comprehensive Plan for land uses other than Rural/Agriculture.

FIGURE 16
ALACHUA COUNTY FUTURE LAND USE AND PLUM CREEK PROPERTY



Data Source: Alachua County GIS Services


LACROSSE
Sunshine Lake
HIGH SPRINGS
121
ALACHUA
41
WALDO
Lake Alto
Little Santa Fe Lake
Austin Cary Memorial Forest
301
Santa Fe Lake
San Felasco Hammock Preserve State Park
24
75
222
Gum Root Park
26
Newnans Lake
NEWBERRY
Split Rock Conservation Area
Hawthorne State Trail
20
Paynes Prarie Preserve State Park
441
ARCHER
MICANOPY
Lochloosa Lake
Orange Lake

2.3 EAST COUNTY CONTEXT

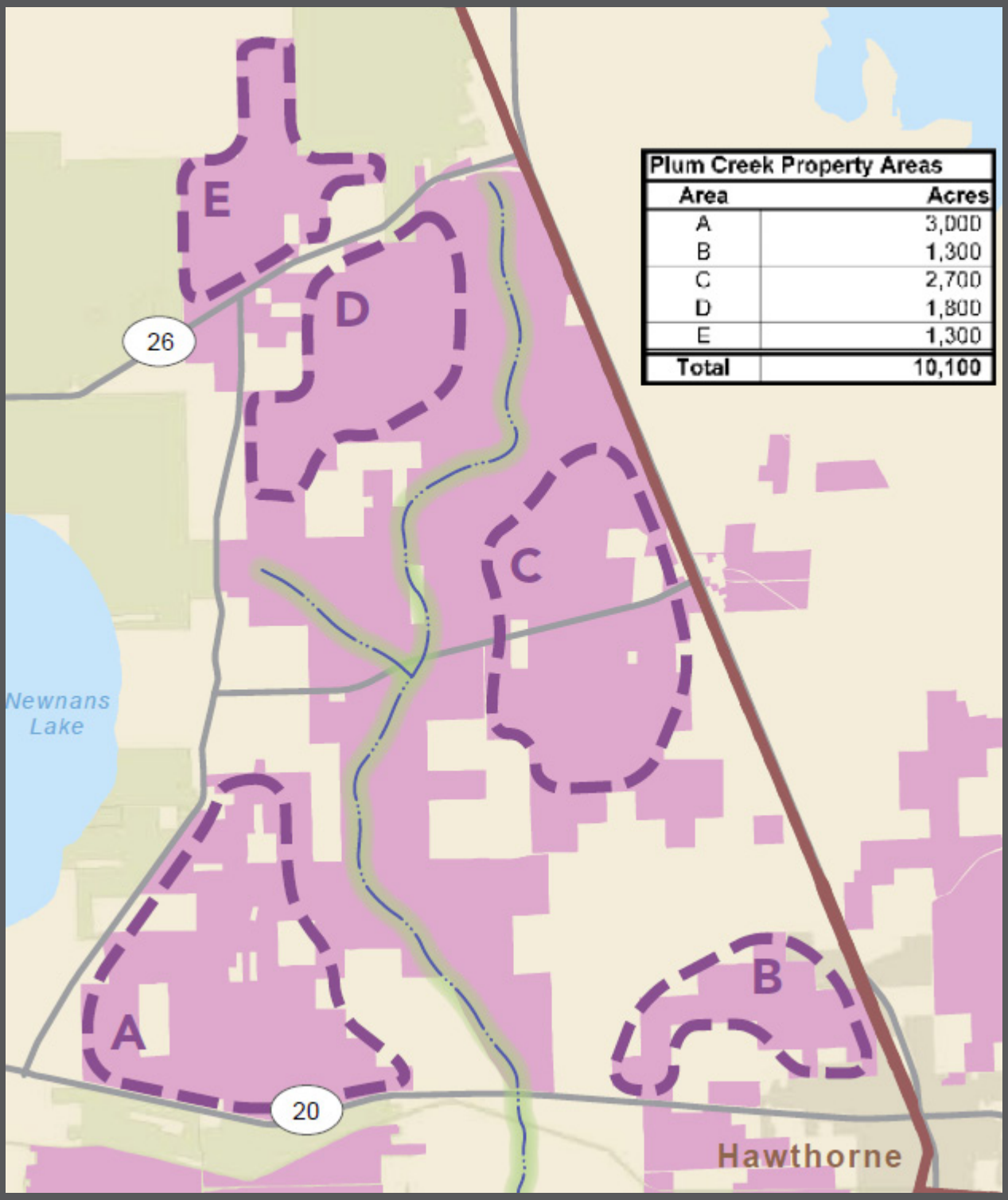


Figure Source: Envision Alachua Task Force Vision, Goals and Planning Principles (pg. 61), MIG Inc., May 2012

FIGURE 17
EMERGING LAND USE CONCEPT AREAS MAP

During Phase I of Envision Alachua, the Community Task Force defined a series of goals and planning principles that lead to identifying primary, secondary, and supporting land use categories. In defining such categories, the Task Force aimed to make a distinction between areas suitable for conservation (primary); job creating uses (primary); areas where residential, commercial, and educational uses should be accommodated (secondary); and areas that support recreational uses, community amenities, and environmental education (supporting).

Task Force members identified Plum Creek lands framed by SR 20, SR 26, and US 301 in East County as potential areas of focus for the primary, secondary, and supporting uses noted above. These areas are depicted on the Emerging Land Use Concept Areas map which is published in the Phase 1 report, Vision, Goals and Planning Principles for Plum Creek's Lands in Alachua County, May 2012 (**Figure 17**).

Following the Task Force recommendation, additional analysis was carried out to evaluate and confirm the suitability of these East County lands for economic development, conservation, and a range of secondary and supporting uses. This analysis, which includes study of environmental factors and community context, is explained in this section.

Environmental Analysis

In order to more accurately identify and further refine which land holdings and landscape features hold the greatest conservation potential, existing ecological analyses from Breedlove, Dennis & Associates, Inc. (BDA) environmental scientists were reviewed in addition to CLIP 2.0 (aggregated and individual data layers) and supplementary study area specific data sets. This information was verified with selective field-level ground-truthing by BDA scientists throughout the Envision Alachua planning process.

For Plum Creek's East County lands, several key geographic data sets were reviewed, but were not limited to: elevation, watersheds, wetlands, 100-year flood zone, industrial timber lands, and protected wildlife species. Analysis mapping of these environmental characteristics is included in **Figures 18** through **24**.

Lochloosa Creek was identified as a significant ecological linkage for potential protection as the "most significant environmental feature of the Property that is not under conservation easement", as noted by BDA. Additionally, large wetland systems and adjacent uplands, which border the creek, support connectivity to surrounding public lands and protect the integrity of the greater system. In determining the conservation potential for large wetland systems throughout the site, patch size served as a guide with greater emphasis given to connected wetlands and the largest intact patches. These large patches provide essential core habitat supporting numerous wildlife species, while having reduced vulnerability to external pressures and increased resilience. Noting the diverse habitat requirements of the protected wildlife species with moderate to high likelihood of occurrence on site, it was recognized that potential conservation lands should include a significant connected upland component in addition to the wetland areas. Several of the upland species identified by BDA (BDA, Table 3) require habitats that are more characteristic of pre-settlement upland vegetation communities. In an attempt to determine upland areas with the greatest potential for restoration, further research revealed that the oldest and highest quality woodlands from a conservation perspective were inversely related to the industrial forest/upland areas.

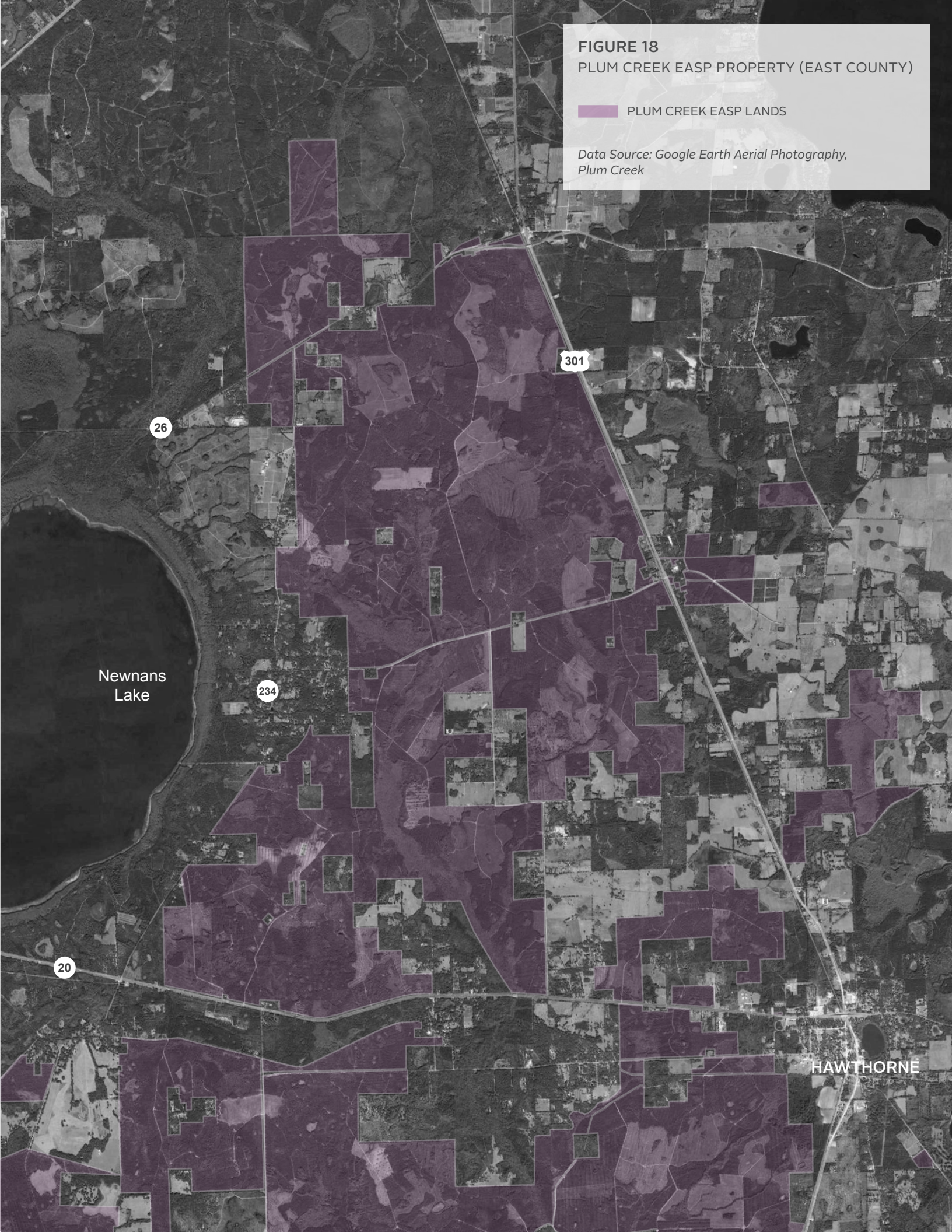


FIGURE 18
PLUM CREEK EASP PROPERTY (EAST COUNTY)

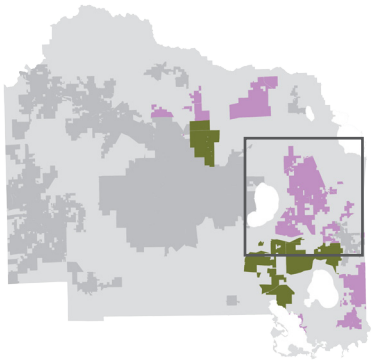
PLUM CREEK EASP LANDS

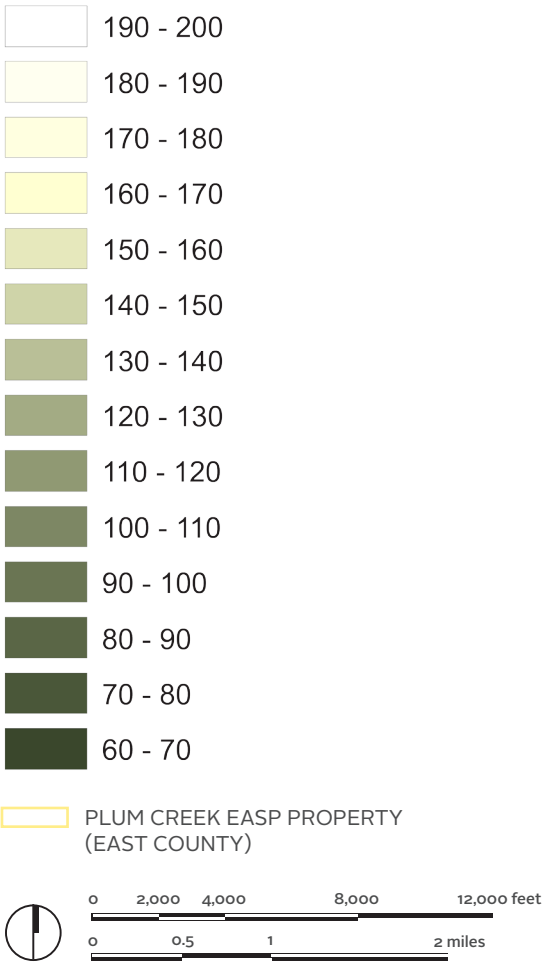
Data Source: Google Earth Aerial Photography, Plum Creek

Elevation (5 foot contours)

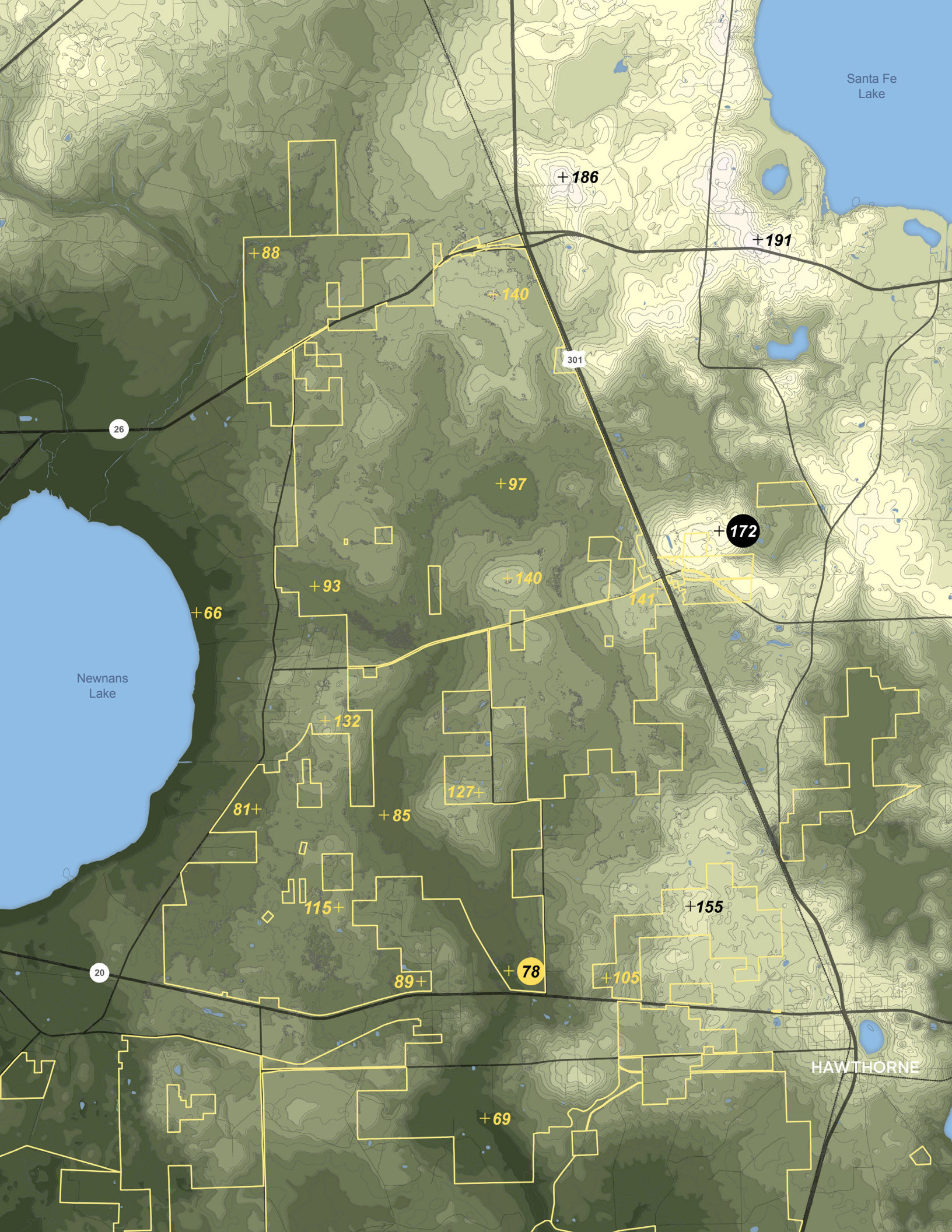
Figure 19 notes the general topography of the tract and surrounding landscape. With most of the study area forming a basin draining into Lochloosa Creek, a low ridge (<130' and lower) flanks the western portion of the tract with the highest elevations (140'-170') in the north and east. The lowest areas of the tract (<80') are along the Lochloosa Creek corridor near the southern portion of the tract.

FIGURE 19
ELEVATION ANALYSIS





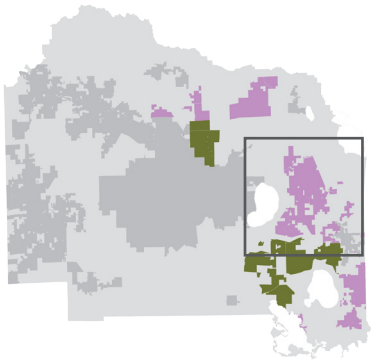
Data Source: Florida Geographic Data Library


Santa Fe Lake
+186
+191
+88
+140
301
26
+97
+172
+93
+140
141
+66
Newnans Lake
+132
127+
81+
+85
115+
+155
20
+78
89+
+105
HAWTHORNE
+69

Watersheds

To better understand the potential impacts to surrounding waters, **Figure 20** identifies the watersheds in the study area. The majority of the East County lands are within the Orange Lake Watershed. Orange Lake, Lake Lochloosa, and Lochloosa Creek (below SR 20A / County Road 2082) area recognized as "Outstanding Florida Waters" which are protected by a more stringent set of DEP or Saint John's River Water Management District requirements.

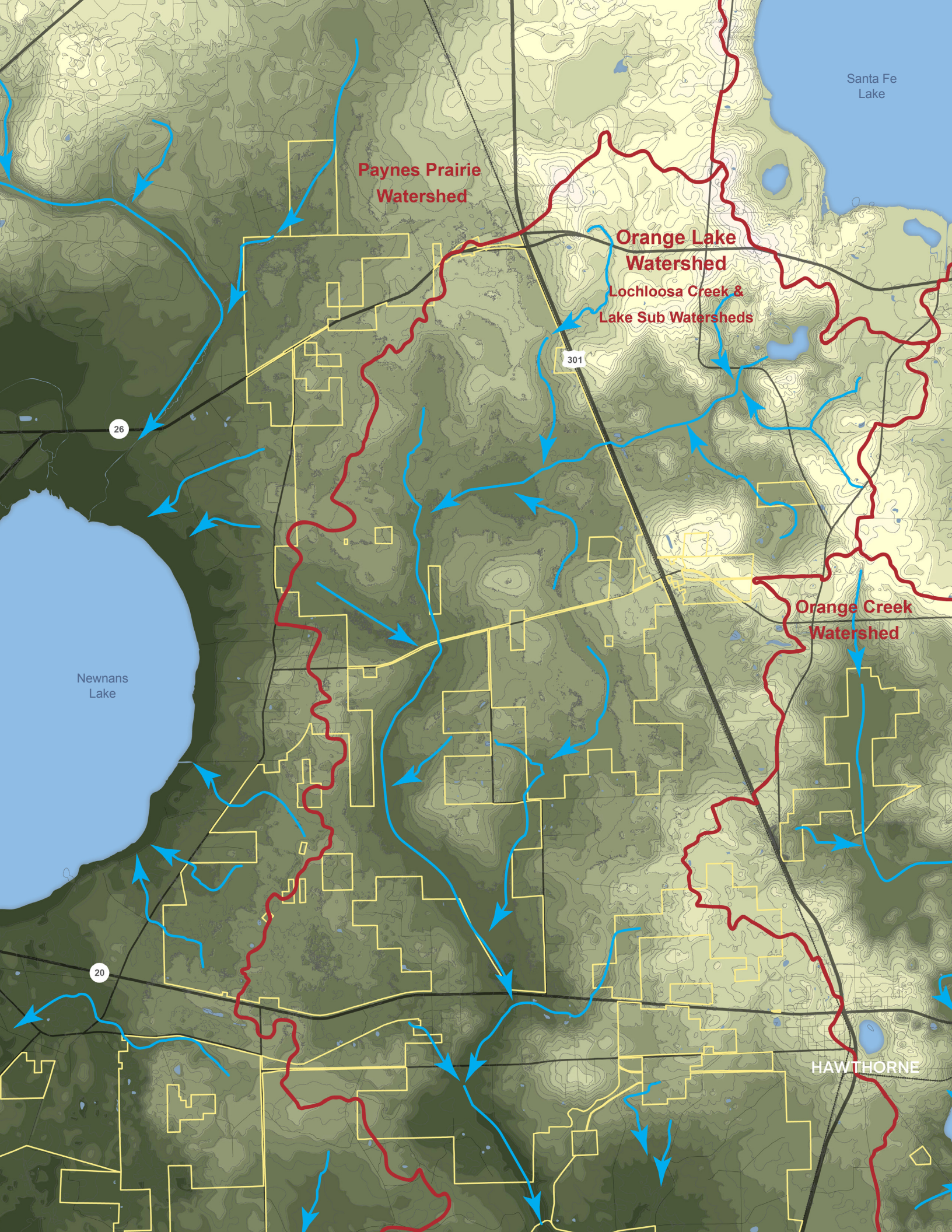
FIGURE 20
WATERSHED ANALYSIS



PLUM CREEK EASP PROPERTY (EAST COUNTY)
WATERSHEDS
WATERWAYS

0 2,000 4,000 8,000 12,000 feet
0 0.5 1 2 miles

Data Source: Florida Geographic Data Library, Florida's Water Management Districts, USGS National Hydrologic Database

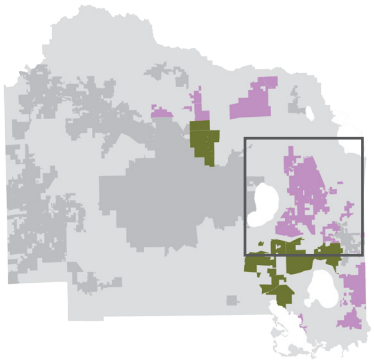

Santa Fe
Lake
Paynes Prairie
Watershed
Orange Lake
Watershed
Lochloosa Creek &
Lake Sub Watersheds
301
26
Orange Creek
Watershed
Newnans
Lake
20
HAWTHORNE

Significant wetlands

Figure 21 highlights significant isolated and connected wetlands in East County totaling approximately 4,000 acres. In the analysis phase, significant wetland areas were categorized based on size and connectivity in order to highlight areas with the greatest conservation potential for planning purposes.

- **Connected wetlands** – Connected wetlands provide a natural linkage for wetland specific species and comprise approximately 2,100 acres of the East County lands.
- **Isolated wetlands larger than 40 acres** – Large wetland patches with conservation potential (~800 acres) are noted as having components of more diverse and complex vegetation communities, with silviculture influencing the edges and varying portions of some areas.
- **Isolated wetlands between 5 and 40 acres** – Variable in composition and complexity, isolated wetlands comprise approximately 700 acres of the East County lands. However, influence from surrounding silvicultural activities increases as these isolated patches decrease in size.
- **Isolated wetlands less than 5 acres** – These smaller wetlands exist predominantly as isolated wet pockets within and heavily influenced by surrounding silvicultural activities. These areas comprise approximately 400 acres.

FIGURE 21
WETLANDS

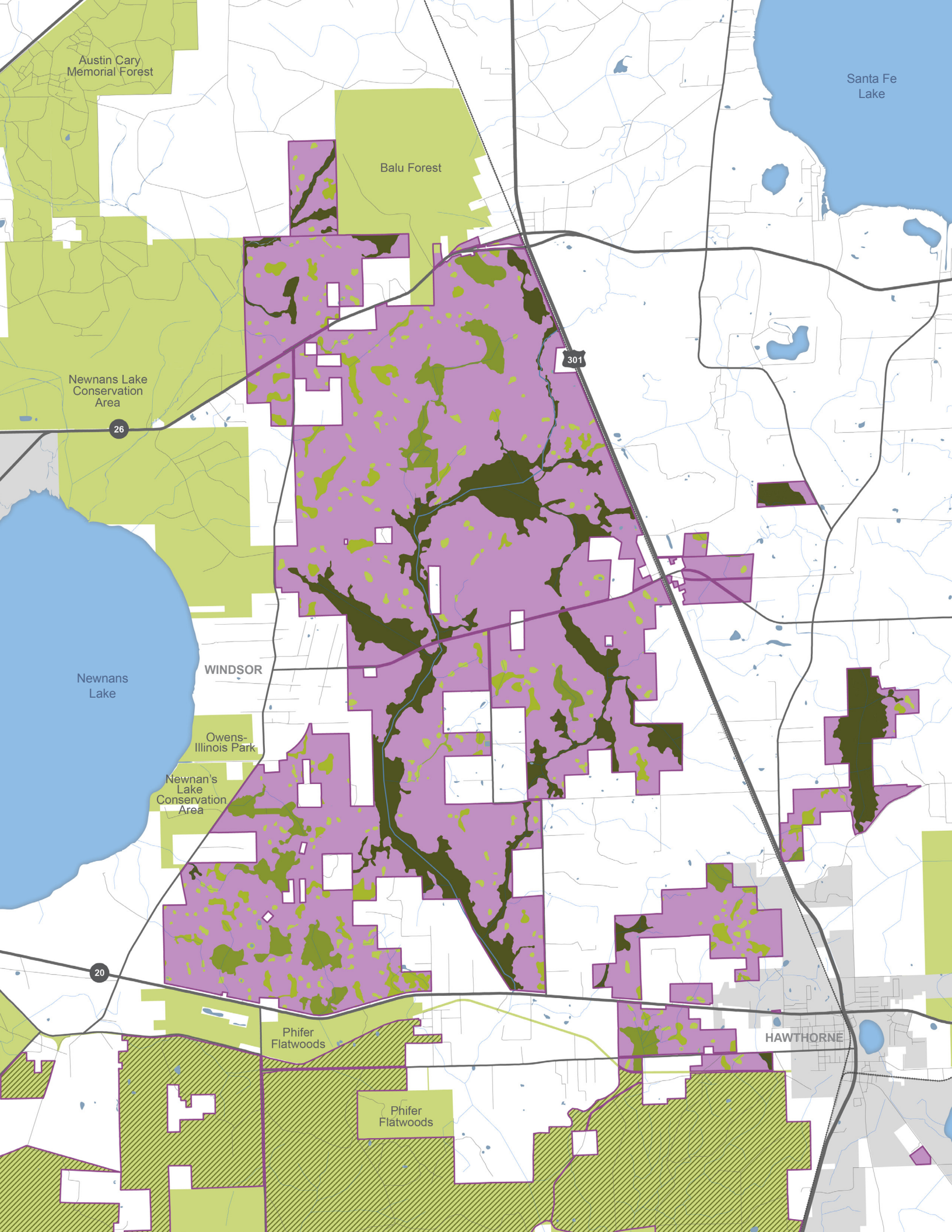


CONNECTED WETLANDS
40+ ACRE WETLANDS
5-40 ACRE WETLANDS
<5 ACRE WETLANDS

PLUM CREEK EASP PROPERTY (EAST COUNTY)
EXISTING PLUM CREEK CONSERVATION EASEMENT
CONSERVATION LAND

0 2,000 4,000 8,000 12,000 feet
0 0.5 1 2 miles

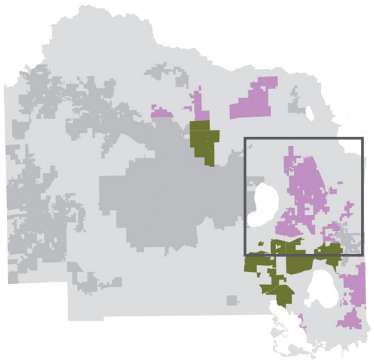
Data Source: Land Cover Land Use 2009 Data from St. Johns River Water Management District modified in 2011 by BDA

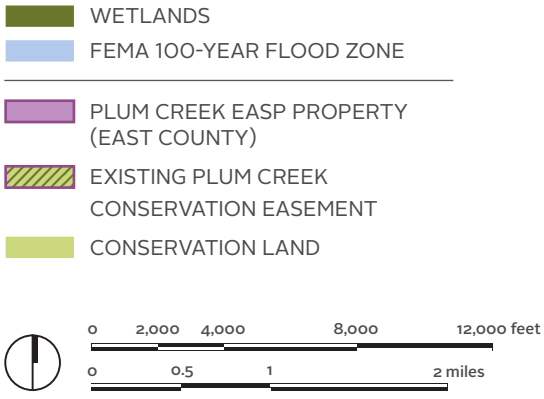

Austin Cary Memorial Forest
Balu Forest
Santa Fe Lake
301
Newnans Lake Conservation Area
26
Newnans Lake
WINDSOR
Owens-Illinois Park
Newnan's Lake Conservation Area
20
Phifer Flatwoods
Phifer Flatwoods
HAWTHORNE

100-year flood zone

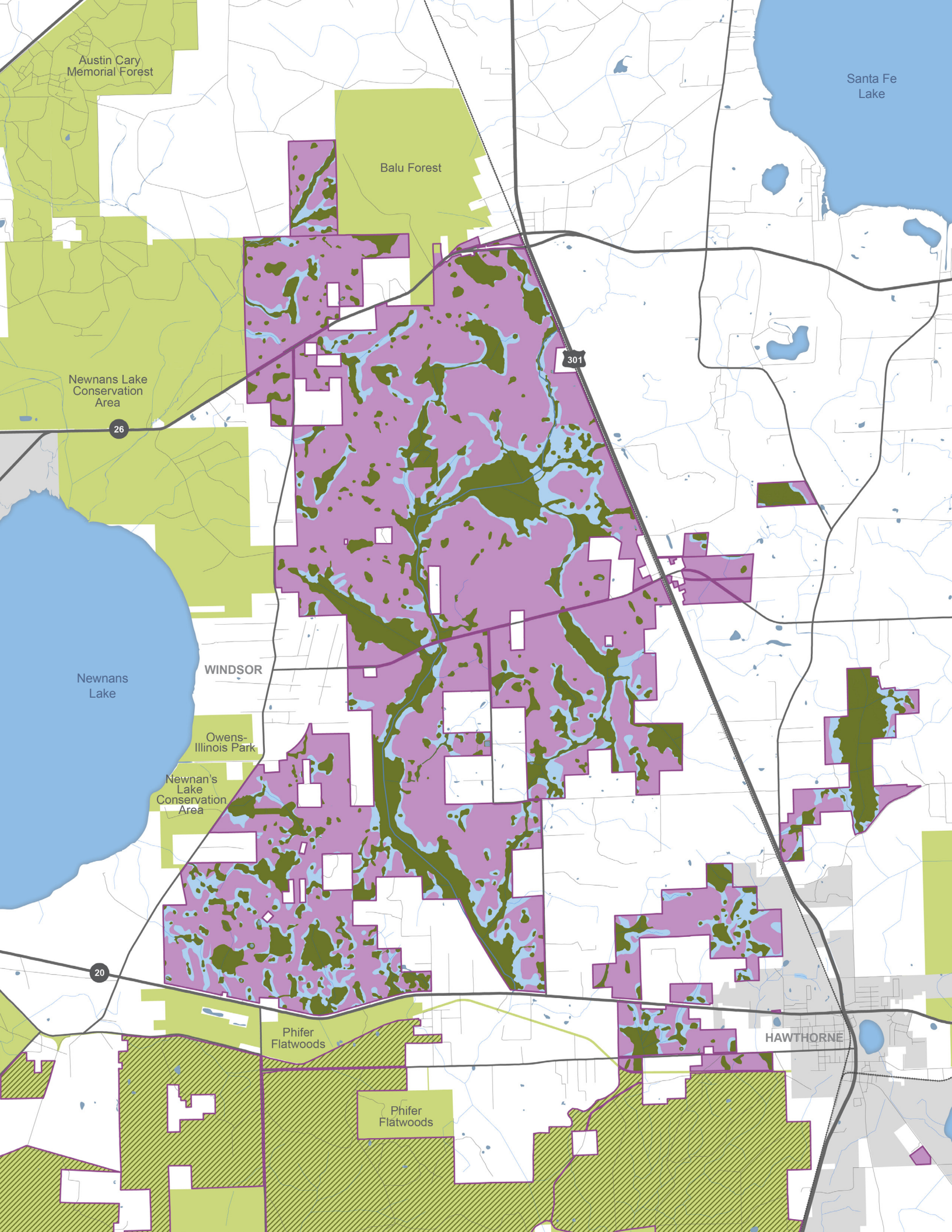
Figure 22 is based on available Federal Emergency Management Agency (FEMA) flood zone data. Areas within the 100-year floodplain generally include surface waters, streams, wetlands, and adjacent upland. It was noted in the planning process that silvicultural activity can additionally influence flooding throughout the study area based on the complex relationship between vegetation, soil, and groundwater.

FIGURE 22
FEMA 100-YEAR FLOOD ZONE





Data Source: Federal Emergency Management Agency, Alachua County


Austin Cary Memorial Forest
Balu Forest
Santa Fe Lake
301
Newnans Lake Conservation Area
26
Newnans Lake
WINDSOR
Owens-Illinois Park
Newnan's Lake Conservation Area
20
Phifer Flatwoods
Phifer Flatwoods
HAWTHORNE

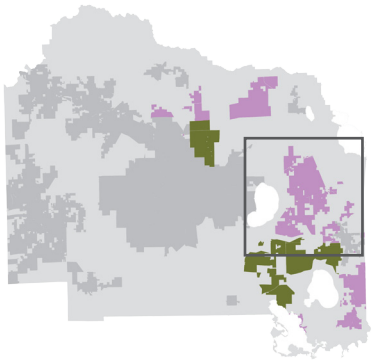
Industrial timber lands/Industrial forest

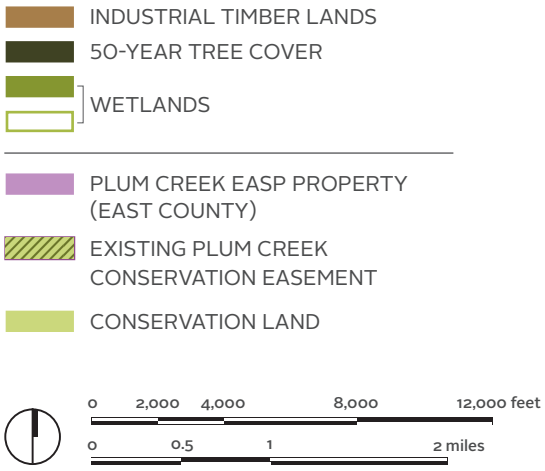
Figure 23 highlights the extent of Plum Creek's East County lands which have been actively managed for timber production within the past 50 years. Covering over 75% of the property in this area (~12,500 acres), the majority of these managed forests are comprised of slash pine plantations, with inclusions of timbered cypress which occur within the wetland areas.

50+ year tree cover

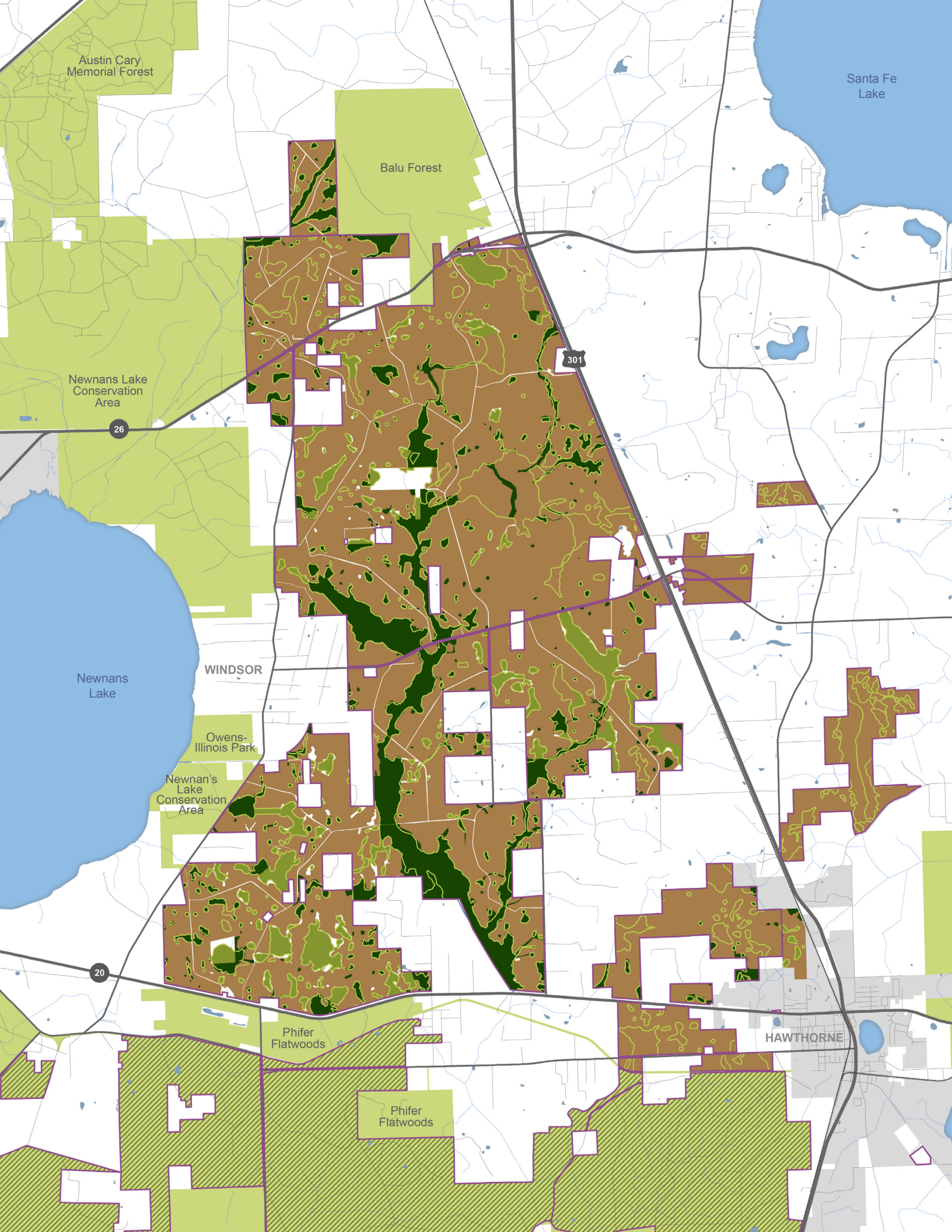
Mature woodlands within the East County property are strongly correlated to connected and significant wetland patches. These areas represent the most intact ecosystems on the property and have not been impacted by silvicultural practices.

FIGURE 23
INDUSTRIAL TIMBER LANDS





Data Source: Plum Creek


Austin Cary Memorial Forest
Balu Forest
Santa Fe Lake
301
Newnans Lake Conservation Area
26
Newnans Lake
WINDSOR
Owens-Illinois Park
Newnan's Lake Conservation Area
20
Phifer Flatwoods
HAWTHORNE
Phifer Flatwoods

Protected wildlife species

Figure 24 identifies the protected animal species with moderate to high likelihood of occurrence on the East County lands as noted by BDA (BDA, Table 3). Of the species represented, each has its own unique range and habitat requirements which are represented by the corresponding colored bands below. While many are exclusive to either wetland or upland habitats, some species such as the Gopher frog, require a variety of habitats throughout their life cycle. This information was utilized to guide the development of the conservation framework.

FIGURE 24
PROTECTED WILDLIFE SPECIES WITH MODERATE TO HIGH LIKELIHOOD OF OCCURRENCE

Data Source: Environmental Data and Analysis Report, Table 3, BDA, November 2013

BIRDS

LITTLE BLUE HERON

SNOWY EGRET

TRICOLORED HERON

WHITE IBIS

BALD EAGLE NEST NOTED ON-SITE IN VICINITY OF Newnans LAKE

REPTILES & AMPHIBIANS

AMERICAN ALLIGATOR

GOPHER FROG

EASTERN INDIGO SNAKE,

FLORIDA PINE SNAKE

GOPHER TORTOISE

MAMMALS

SHERMAN'S FOX SQUIRREL

FORESTED WETLANDS, STREAMS, LAKES

FRESHWATER MARSH

XERIC OAK SCRUB, SAND PINE SCRUB (UPLAND HABITAT)

PINE FLATWOODS, SANDHILLS (UPLAND HABITAT)

Community Context Analysis

Plum Creek's lands in East Alachua County are well positioned for easy and direct access to the City of Gainesville, the University of Florida, Santa Fe College, an extensive healthcare network including Shands Hospital, and the Gainesville Regional Airport.

Location and Access

As previously noted, the area is accessible by a network of regional and state highways including US 301 spanning the state and beyond from south to north, and two major state roads, SR 26 and SR 20, connecting the study area east to the St. Johns River and west to I-75 in Gainesville and ultimately US 27 (**Figure 25**). Proximity to the CSX rail line creates the potential for commuter rail at some point in the future or industrial/distribution development opportunities.

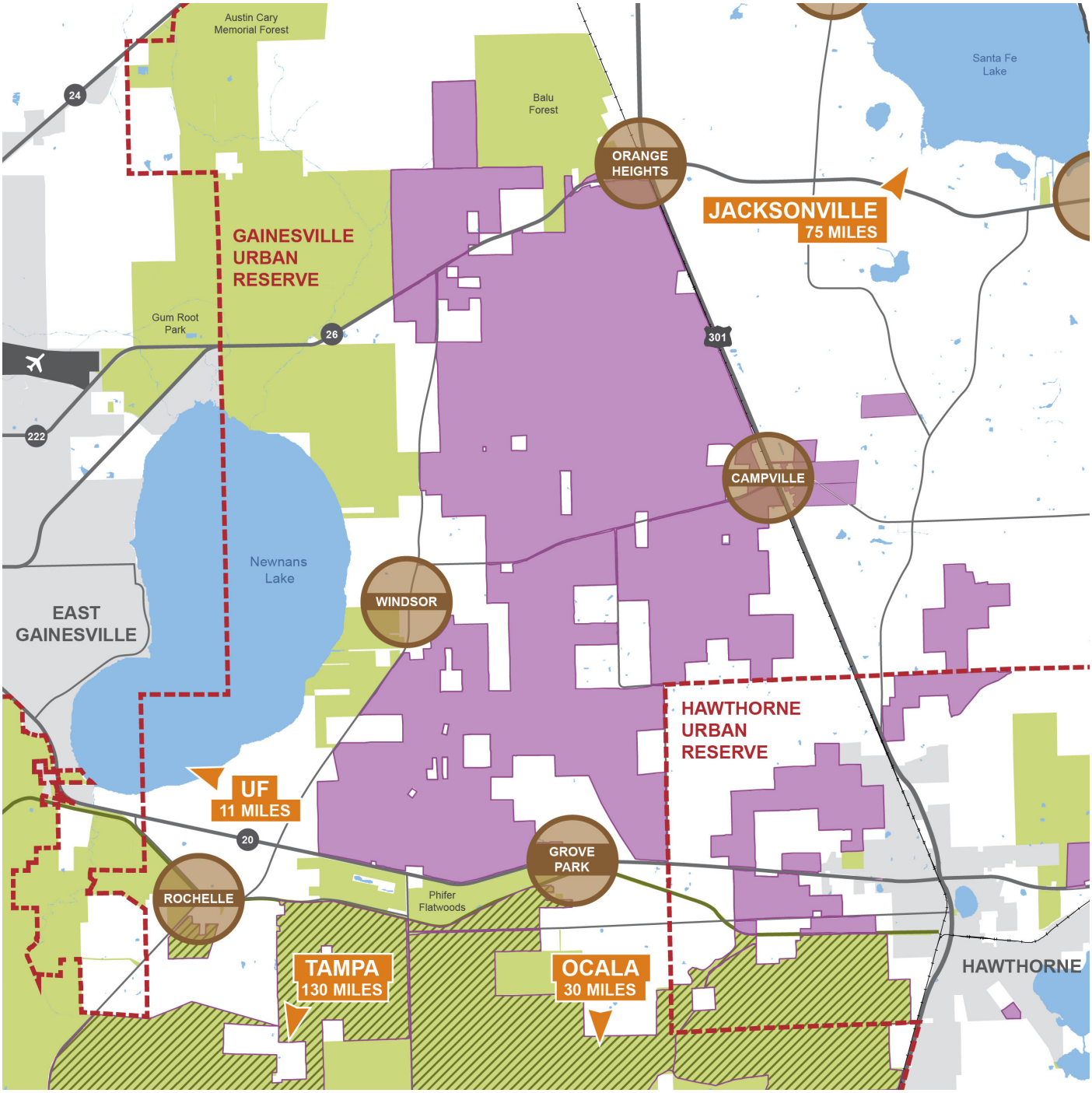
In addition to the major roads there is a supportive network of minor roads that connect to existing settlements surrounding the study area, such as the City of Hawthorne and Windsor. The 16-mile Gainesville-Hawthorne Trail State Park provides an alternative connection (e.g. walking, cycling, and horseback riding) from East Alachua County to Gainesville and the University of Florida, and also serves as a significant recreational asset in the area.

East Gainesville and the City of Hawthorne

Bounded to the north by the Gainesville Regional Airport, East Gainesville reaches east to Newnans Lake, south to Paynes Prairie and west to downtown Gainesville. Roughly 16% (34,000 people) of Alachua County's population lives in East Gainesville, an area generally characterized by close-knit neighborhoods, churches, public institutions, uncongested commercial corridors, and vital natural resources. However, years of declining private investment and lack of economic opportunities have left a legacy of underutilized parcels, vacant buildings, and limited commercial uses (Source: Plan East Gainesville 2002, http://www.planeastgainesville.org/downloads/Final/Profile.pdf, accessed September 2013).

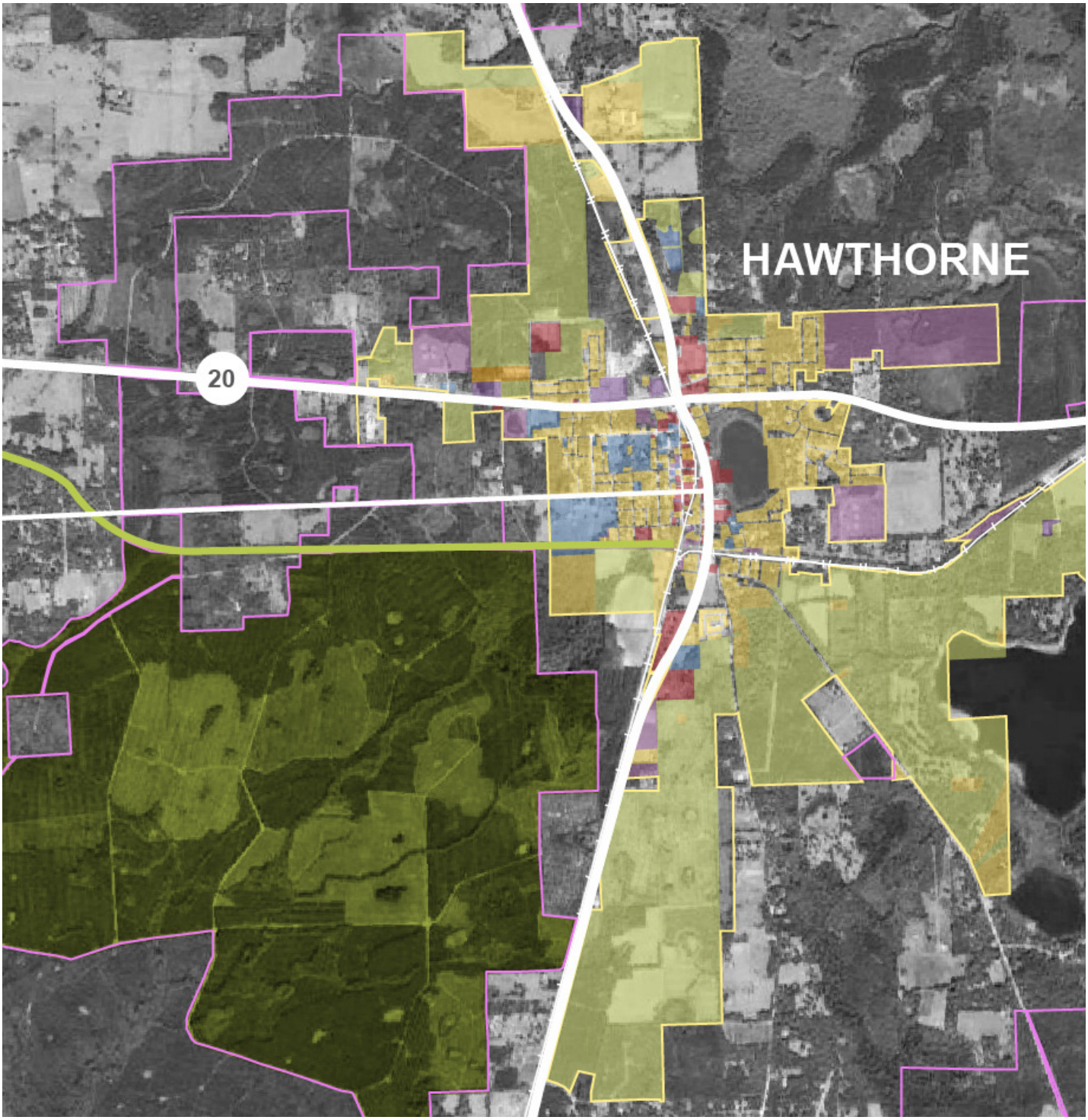
Located at the junction of US 301 and SR 20, the City of Hawthorne has about 1,500 residents and supports a business population base of over 20,000 (City of Hawthorne 2013, http://www.cityofhawthorne.net/pages/index, accessed September 2013). Its highway supported retail, relatively low density residential neighborhoods, and the Hawthorne Recreation Park generally characterize the community (**Figure 26**). With direct access to the Gainesville-Hawthorne Trail, Hawthorne is a local recreation hub providing access to multiple opportunities for hunting, fishing, and biking. The City's Draft Future Land Use Map suggests continued low-to-mid density residential growth south of SR 20 and expansion of commercial and industrial areas along the major transportation corridors of US 301 and SR 20 (**Figure 27**).

Plum Creek's Sector Plan lands between East Gainesville and the City of Hawthorne were identified by the Envision Alachua Task Force as a primary location for potential employment oriented development to support and enhance the two communities and provide proximate new employment opportunities.



Data Source: Alachua County GIS

FIGURE 25
EAST COUNTY COMMUNITY CONTEXT



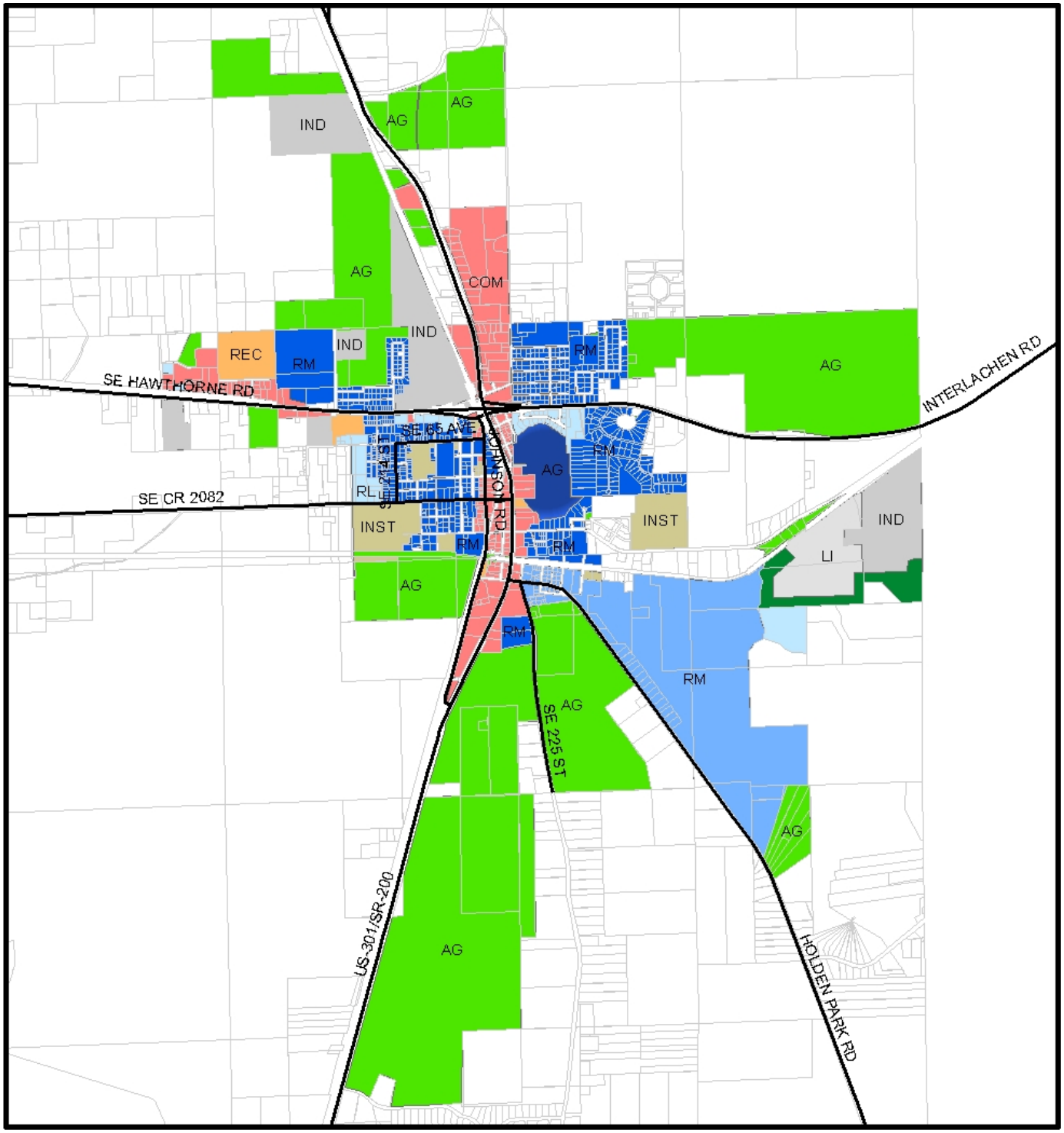
Data Source: City of Hawthorne GIS

FIGURE 26
CITY OF HAWTHORNE EXISTING LAND USES

PLUM CREEK EASP PROPERTY
CITY OF HAWTHORNE

RESIDENTIAL
GOVERNMENT
COMMERCIAL
CIVIC
AGRICULTURE
CONSERVATION

0 0.5 1 Mile



Data Source: City of Hawthorne Comprehensive Plan, 2012

FIGURE 27

CITY OF HAWTHORNE DRAFT FUTURE LAND USE MAP 2012

AGRICULTURAL
COMMERCIAL
CONSERVATION
INSTITUTIONAL
LIGHT INDUSTRIAL
INDUSTRIAL
RECREATION/OS
LOW DENSITY RES
MODERATE DENSITY RES
MEDIUM DENSITY RES

0 0.5 1 Mile

Rural Clusters

Some of Plum Creek's property in East Alachua County is adjacent to or partially contained within areas designated as Rural Clusters in the County's Comprehensive Plan, including Campville, Grove Park, Orange Heights, and Windsor (**Figure 25**). Plum Creek's property adjacent to or contained within these rural cluster areas will be carefully addressed through strategies to protect existing community edges by maintaining the permitted uses and standards as provided by the Rural/Agriculture land use category, as well as through vegetative buffers and conservation lands.

The following map series (Figures **28A-28D**) illustrates the character of each of these Rural Clusters in greater detail, depicting the rural cluster sub-areas and buffers. A snapshot of the Framework Map is included to show the relationship between the proposed Framework Map land uses and each Rural Cluster's 1/2-mile buffer.

Outparcels

Plum Creek's property within East County is adjacent to and/or surrounds several privately-owned parcels. Adjacencies to these "outparcels" will be carefully addressed on a case by case basis through strategies to maintain the existing pattern of land use or through vegetative buffers.

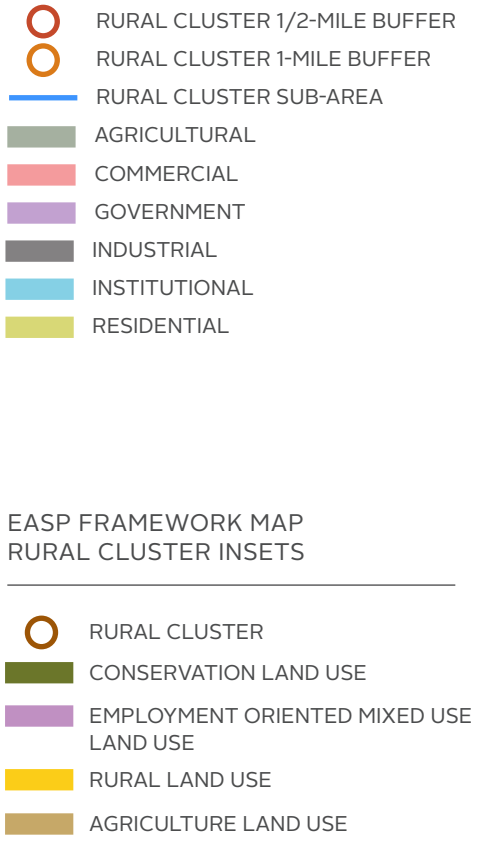
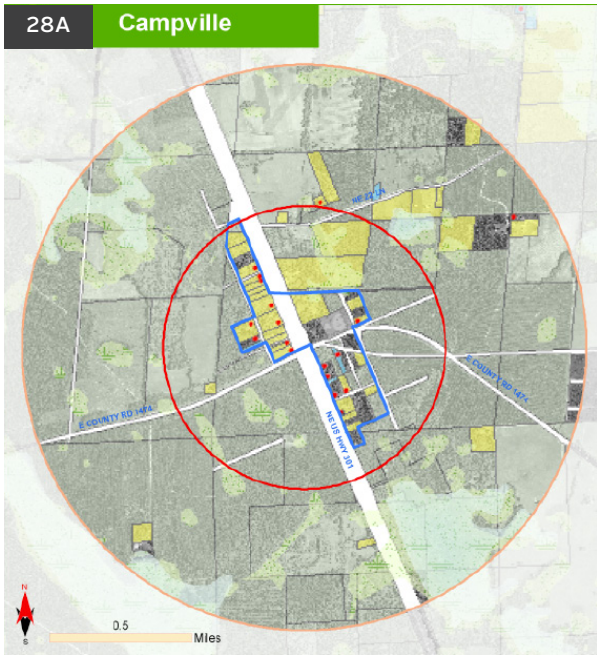
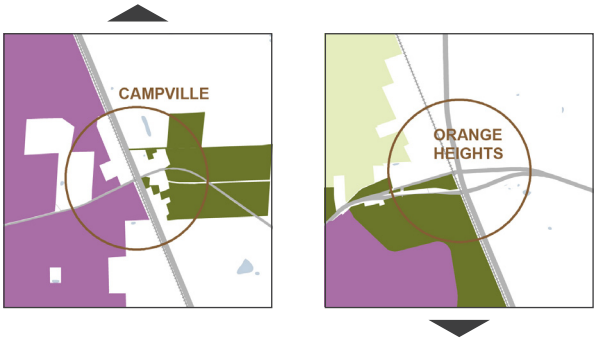


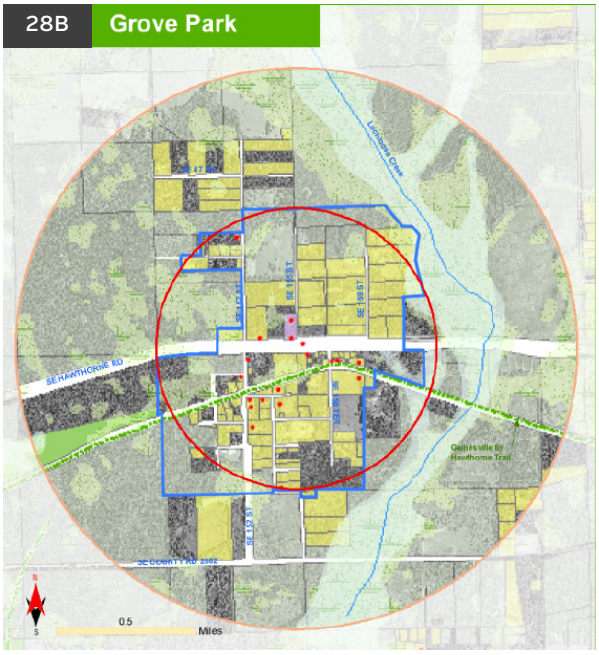
Figure Source: Future Land Use 2020: Rural Cluster Analysis, Alachua County Department of Growth Management

28A Campville

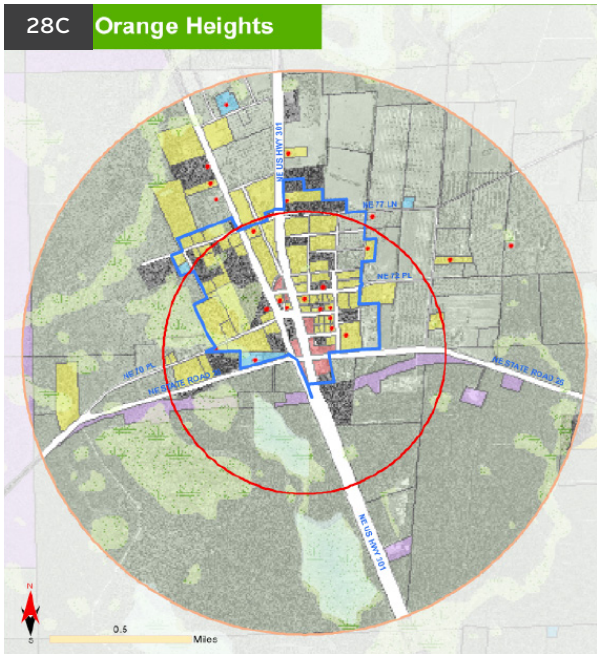




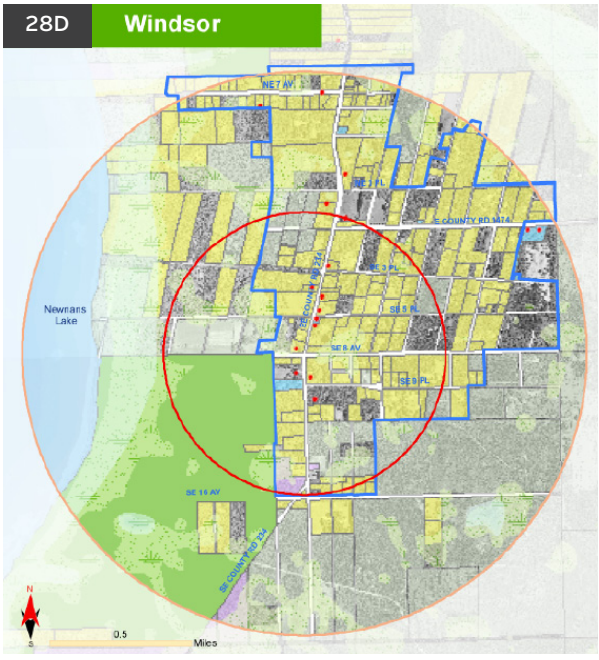
28B Grove Park



28C Orange Heights



28D Windsor



3. FRAMEWORK MAP

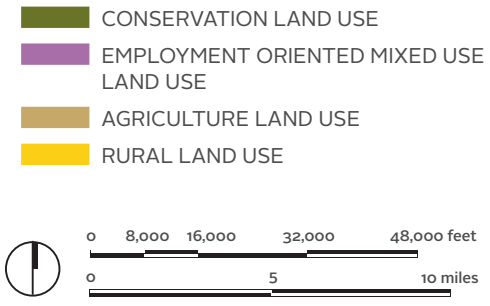
CHAPTER CONTENTS

During Phase I of the Envision Alachua planning process, Community Task Force members identified Plum Creek lands framed by SR 20, SR 26, and US 301 in East County as a potential area of focus for future economic development. Following the Task Force recommendation, additional analysis has been carried out to evaluate and confirm the suitability of these lands for development as mixed use jobs centers. Based upon this analysis and community engagement the Envision Alachua Sector Plan Framework Map, prototypical development patterns, and preliminary design concepts were developed.

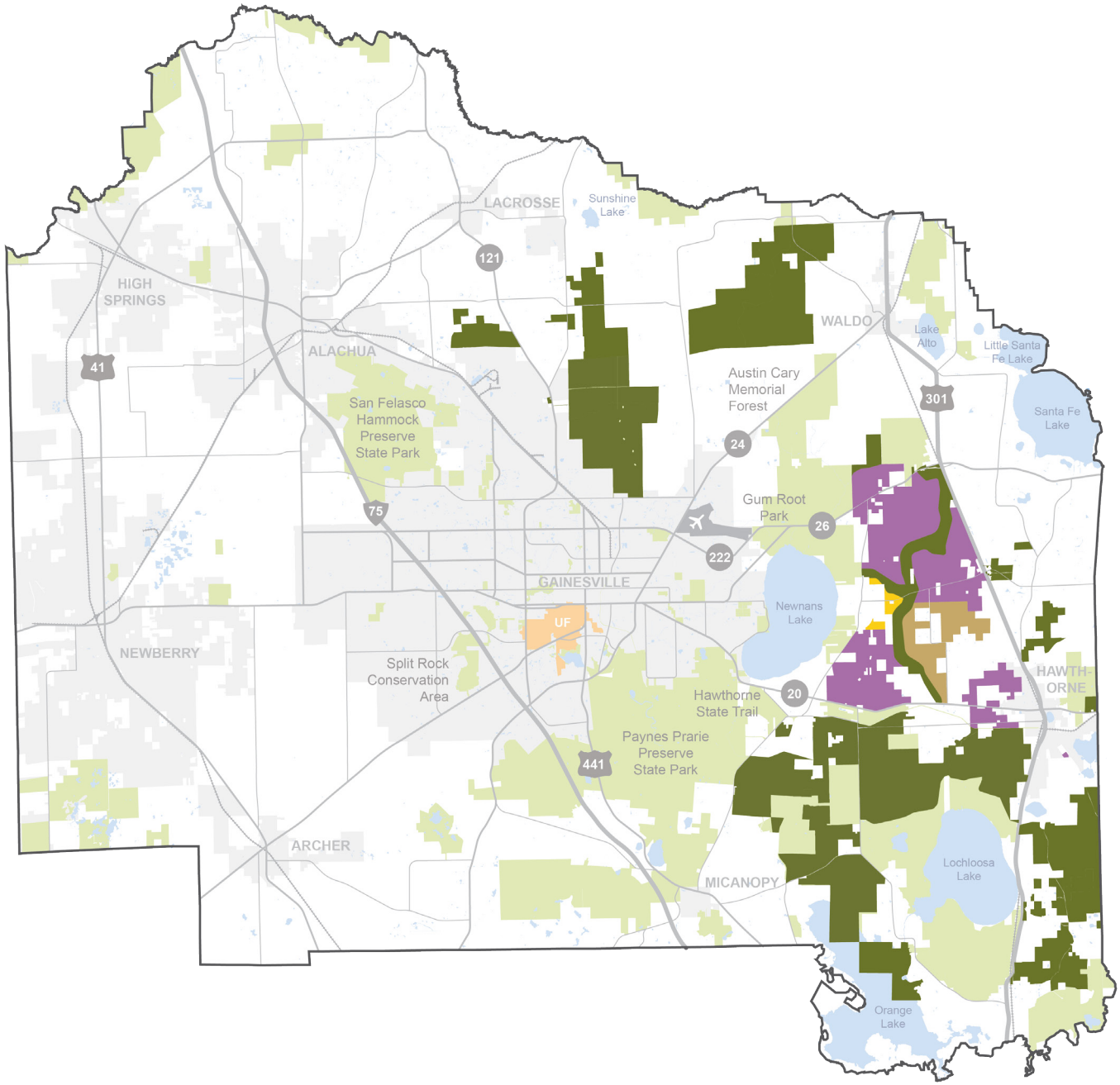
Framework Map

The Framework Map depicts four land uses derived from the work of the Task Force and subsequent analyses: Conservation, Employment Oriented Mixed Use (EOMU), Rural, and Agriculture (**Figure 29**). This section describes the land use strategy behind the Framework Map, the associated land use categories, and the development program assumptions, land use densities, and intensities.

FIGURE 29
ENVISION ALACHUA
FRAMEWORK MAP



Data Source: Alachua County GIS, Plum Creek


LACROSSE
Sunshine Lake
121
HIGH SPRINGS
41
ALACHUA
San Felasco Hammock Preserve State Park
75
WALDO
Lake Alto
Little Santa Fe Lake
Austin Cary Memorial Forest
301
Santa Fe Lake
24
Gum Root Park
26
222
GAINESVILLE
UF
Newnans Lake
NEWBERRY
Split Rock Conservation Area
Hawthorne State Trail
20
HAWTHORNE
Paynes Prarie Preserve State Park
441
ARCHER
MICANOPY
Lochloosa Lake
Orange Lake

3.1 LAND USE STRATEGY

Land Use Strategy

Plum Creek's 60,136 acre Sector Plan land use strategy is characterized and organized by three infrastructure systems: natural infrastructure, built infrastructure, and social/knowledge infrastructure. Natural infrastructure is defined by the area's abundant natural systems of forests, creeks, wetlands, lakes/ponds, and flora/fauna which contribute to the "Emerald Necklace" of natural resources in Alachua County. The built/constructed infrastructure consists of a network of arterials (including SR 20, SR 24, SR 26, US 301), the CSX railroad, and the Gainesville-Hawthorne State Trail connecting the University of Florida (UF) and downtown Gainesville to Hawthorne and the Gainesville Regional Airport. The social/knowledge infrastructure includes UF, Santa Fe College, Shands Hospital, Innovation Gainesville, and emerging private sector businesses, as well as the communities of Gainesville, East Gainesville, Windsor, and Hawthorne.

The confluence of these three existing infrastructure systems—natural, built, and social/knowledge—supports the physical planning rationale for locating future economic and community development in East County. The 60,136 acre land use analysis supports the Task Force recommendation to focus economic development planning in the East County area framed by SR 20, SR 26, and US 301 while identifying conservation lands of regional significance.

The resulting 60,136 acre Sector Plan Framework Map was guided by these three infrastructure systems and a series of associated planning principles, described below and illustrated in **Figure 30**.

Natural Infrastructure

Protect High Value Ecological Resources

Significant areas for conservation are recommended based upon their contribution to regional landscape linkages, contiguity with existing conservation lands, and the opportunity to contribute to the conservation and enhancement of natural resources, community watersheds, and natural preserves. Lands north of SR 26 and south of SR 20 provide opportunities to enhance regional landscape linkages. Within the focus area in East County, Lochloosa Creek is the primary landscape linkage and, with the provision of a generous upland buffer, can connect conservation lands to the north and east of US 301 and potentially beyond to the O2O Corridor and State conservation lands along Lochloosa Creek to the south of SR 20.

Reinforce Existing Agricultural Character

East County includes a diverse heritage of agricultural land uses. Recommended lands for agricultural land use reflect the Task Force's desire to maintain functioning, productive agricultural operations, accommodate agricultural support activities, and protect prime farmland for use by existing and future generations while maintaining and enhancing existing agricultural adjacencies, heritage, and the rural character of the area.

Built Infrastructure

Utilize Existing Infrastructure

The lands in East County are served by significant existing infrastructure, while other Plum Creek lands are largely land locked and provide opportunities for regional landscape linkages. Existing infrastructure in East County includes:

- US 301, a regionally significant, north-south 4-lane principal arterial connecting Alachua County to Tampa and Jacksonville.
- SR 20, a 4-lane road linking downtown Gainesville and the University of Florida to East County and US 301.
- SR 26, linking Gainesville, the Airport, and US 301.
- CSX Railroad, which runs 8 miles along the Plum Creek property line in East County, parallel to the alignment of US 301, providing an economic development draw to potential advanced manufacturing/distribution users.
- An initial review of the available capacity on the key roadways (SR 20, SR 26 and US 301) indicates that some capacity is available to address a percentage of the trips that would be added by economic development in East County.
- Alternative modes of transportation for consideration include extensive trail networks and the Gainesville Regional Transit System.

Capitalize on Access to the Airport & Nearby Population Centers

The existing infrastructure which frames Plum Creek lands in East County provides a significant opportunity to capitalize on access to local and regional assets in support of future economic development. The Gainesville Regional Airport, East Gainesville, City of Hawthorne, and the University of Florida are linked to the property via SR 20 and SR 26. The East County lands are similarly well connected to Jacksonville to the north and Ocala/Tampa to the south via US 301.

Social/Knowledge Infrastructure

Identify Sites for Diverse Employment & Institutional Partners

The capacity and quality of existing transportation infrastructure, coupled with the economic engine of the University of Florida and its commercial collaborators, suggest a potentially significant advancement of economic opportunities in East County. As such, an "Economic Progress Corridor" is envisioned along SR 20, linking, from east to west, the University of Florida, Gainesville, East Gainesville, Plum Creek lands, and the City of Hawthorne.

Reinforce & Enhance Existing Communities

Plum Creek's lands in East County are strategically positioned to support the protection and enhancement of existing communities, including Windsor, Hawthorne, and East Gainesville. Priorities for Windsor include maintaining the rural character and the historic fabric of the community. The City of Hawthorne is well positioned at the nexus of SR 20, US 301, and the rail line for future economic development opportunities. Similarly, East Gainesville, with its location between downtown Gainesville and East County, is well positioned for future expansion of economic opportunities. A jobs center located on Plum Creek lands would connect to and enhance both East Gainesville and the City of Hawthorne, catalyzing economic development opportunities and infill redevelopment.

Concentrate Economic Development

The physical configuration of Plum Creek lands in East County—with its framing east-west connections of SR 20 and SR 26 and its north-south connections of US 301 and the rail line—suggests a corners strategy for future development. Under the corners strategy, development would be concentrated in areas along major existing infrastructure routes, and development patterns would support higher urban densities while protecting other lands for uses including agriculture and conservation. The corners strategy is further reinforced by the ecological framework of the land, in particular Lochloosa Creek. Plum Creek's land holdings elsewhere in the county to the north and south contribute to potential regional conservation linkages and have limited access, further reinforcing the proposed concentration of development in East County.

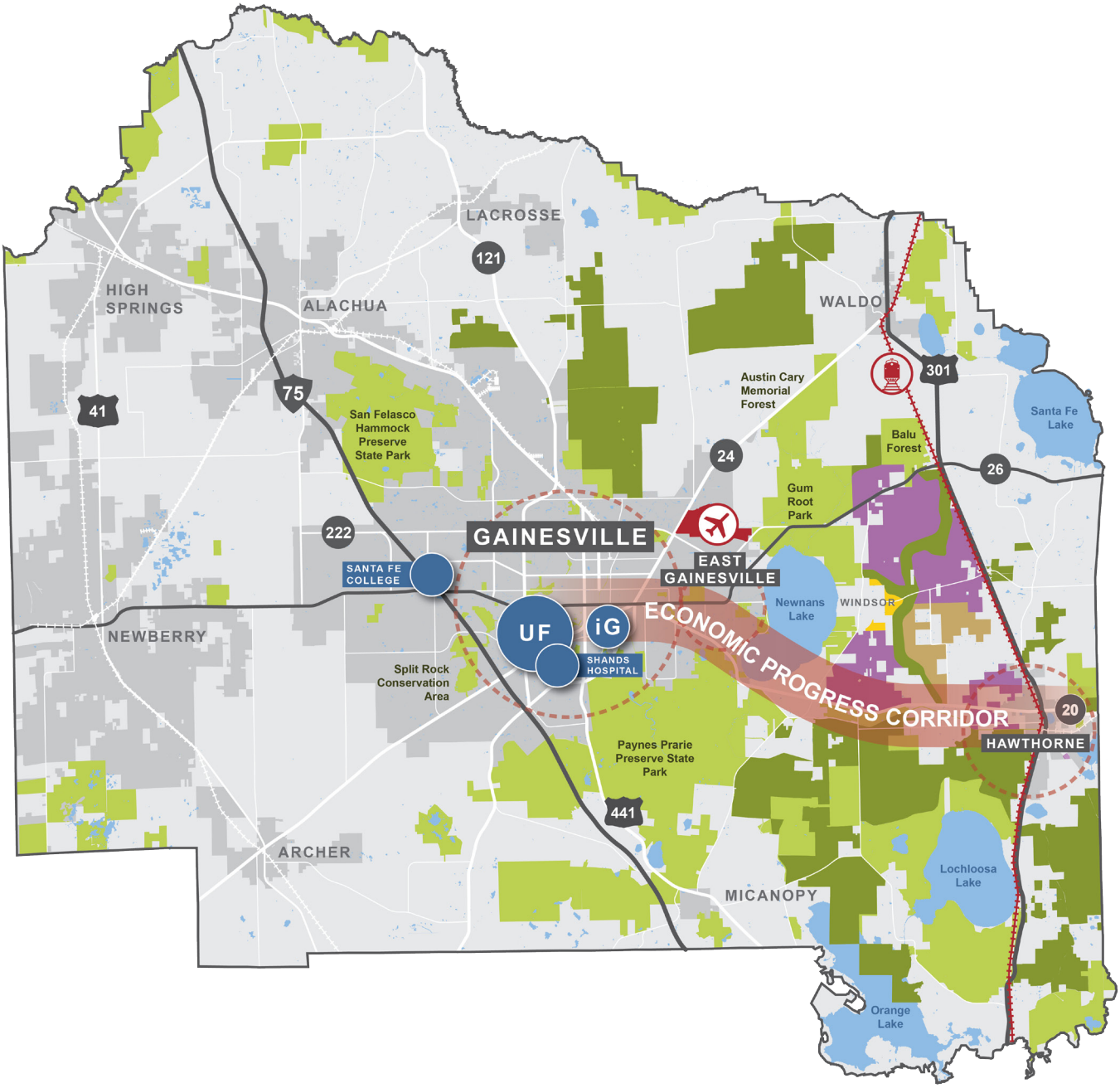


FIGURE 30

ENVISION ALACHUA NATURAL, BUILT, AND SOCIAL/KNOWLEDGE INFRASTRUCTURE

- CONSERVATION LAND USE
- EMPLOYMENT ORIENTED MIXED USE LAND USE
- AGRICULTURE LAND USE
- RURAL LAND USE

0 8,000 16,000 32,000 48,000 feet

0 5 10 miles

Data Source: Alachua County GIS, Plum Creek

3.2 LAND USES

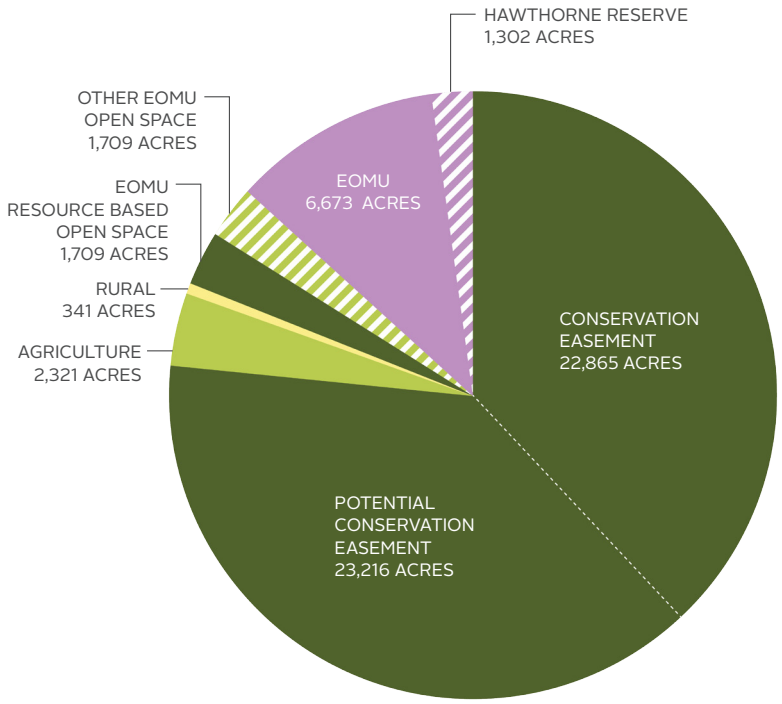
The Framework Map depicts four land uses derived from the work of the Task Force and subsequent analyses: Conservation, Employment Oriented Mixed Use (EOMU), Rural, and Agriculture. Areas for each of these land uses are delineated on the Framework Map based upon such factors as community context, the attributes of the land, the availability of or proximity to existing infrastructure, and the goals and principles formulated by the Task Force in support of the vision for East County. This section describes the four land uses and the densities and intensities associated with each.

The existing land uses and proposed distribution of future land uses in the Long Term Master Plan Framework Map are depicted in **Figure 31 and Table 1 below**. 22,865 acres of land are currently subject to conservation easements. The Long Term Master Plan Framework proposes an additional 23,216 acres of conservation, for a total existing/proposed conservation of more than 46,000 acres, or 76% of Plum Creek's EASP Property. Following the identification of the Conservation Land Use, areas for other land uses were defined. EOMU Land Use of 11,393 acres (including Hawthorne Reserve Areas) is proposed for economic and community development, EOMU Resource Based Open Space, and other open space and agriculture uses. Within the EOMU Land Use, Task Force members identified a target of 30-35% open space. Rural Land Use accounts for 341 acres and Agriculture Land Use includes 2,321 acres in the framework.

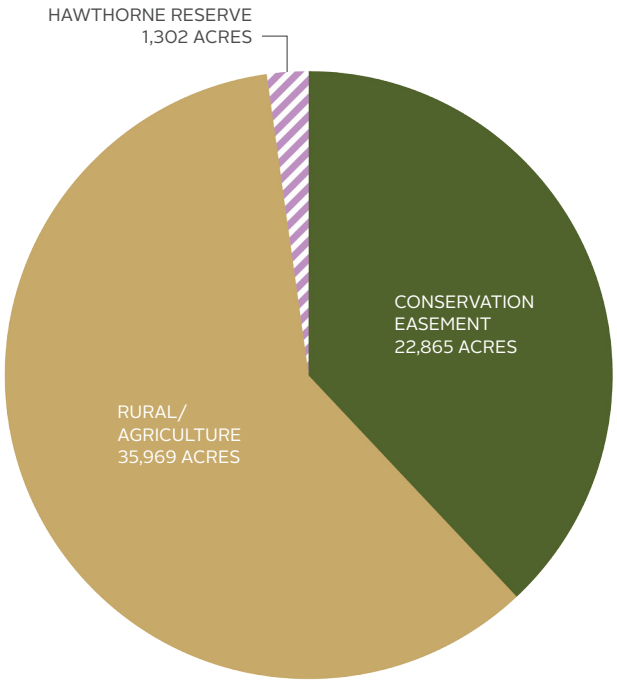
TABLE 1
ENVISON ALACHUA SECTOR PLAN LAND USE DISTRIBUTION

Land Use	Acres	% of Land Use	% of EASP
Conservation Land Use	46,081	--	76%
Existing Conservation Easement	22,865	50%	
New Conservation Easement	23,216	50%	
EOMU Land Use (includes Hawthorne Reserve)	11,393	--	19%
Resource Based Open Space	1,709	15%	
Other Open Space	1,709	15%	
Hawthorne Reserve	1,302	11%	
Other EOMU	6,673	59%	
Rural Land Use	341	--	1%
Agriculture Land Use	2,321	--	4%
Total	**60,136**	**--**	**100%**

FIGURE 31
LONG TERM MASTER PLAN FRAMEWORK LAND USES



FUTURE
Envision Alachua Sector Plan:
(60,136 acres)



EXISTING
Plum Creek Property:
(60,136 acres)

Conservation Land Use

The goal of the Conservation Land Use is to protect valuable natural resources, particularly those that support the long-term economic and environmental objectives of Alachua County. Conservation Land Use is assigned to 46,081 acres, or approximately 76% of the 60,136 acre Sector Plan Area.

Areas in the Framework Map were identified for Conservation Land Use (**Figure 32**) based upon the environmental analysis and the following criteria:

- Contribution to regional landscape linkages within Northern Florida
- Protection of large wetland strands and major tributary systems and large, forested wetland strands that provide core habitat that supports numerous native game and non-game species
- Contiguity with existing conservation lands and Plum Creek conservation easements in Alachua County.
- Opportunity to build upon Alachua County's "Emerald Necklace"
- Contribution to the conservation and enhancement of natural resources, community watersheds and natural preserves (i.e. Paynes Prarie, Lochloosa Lake, Newnans Lake Conservation Area, Orange Lake, Phifer Flatwoods, Balu Forest)
- Enhancement of Lochloosa Creek's connected wetland system to promote linkages for habitat and to build upon East County's conservation framework
- Value of integrated green infrastructure, including its role in flood protection and wildlife movement as well as its role as a community amenity and regional recreation destination
- Identification of lands appropriate to accommodate future needs of Alachua County for new employment centers
- Identification of lands targeted for agricultural uses

Within the Conservation Land Use, development will be minimized to avoid impacts to or encroachment upon valuable natural resources. Additionally, conservation lands are envisioned to provide a valuable resource for research and educational activities related to environmental conservation and related fields.

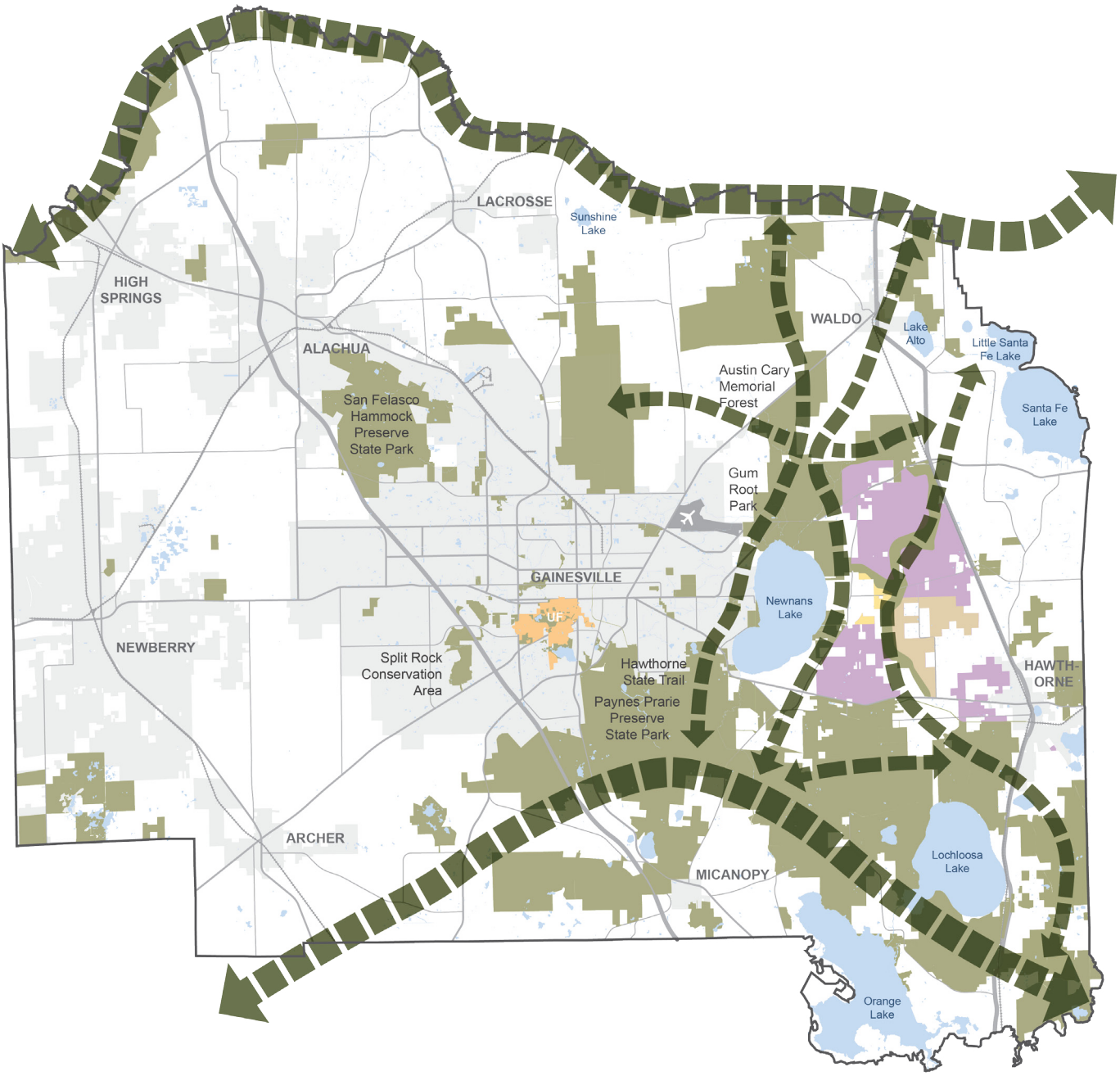


FIGURE 32

ENVISION ALACHUA CONSERVATION LAND USE AND LANDSCAPE LINKAGES

CONSERVATION
LANDSCAPE LINKAGES

0 8,000 16,000 32,000 48,000 feet
0 5 10 miles

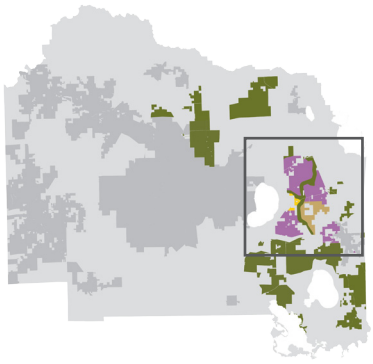
Data Source: Alachua County GIS, Plum Creek

Framework Map Conservation Land Use (East County Inset)

The Framework Map Conservation Land Use in East County features three key conservation linkages. First, an approximately 2,000' wide conservation linkage is proposed along Lochloosa Creek to protect the core conservation areas and expand the upland habitat component of the framework. Second, an approximately 1000' to 2000' conservation linkage is proposed along Lochloosa Creek's western branch connecting to Newnans Lake Conservation Area. This linkage establishes a natural physical connection between conservation lands to the north and east of US 301 and potentially beyond to the O2O corridor, and State conservation lands along Lochloosa Creek to the south of SR 20. A third conservation area in the northern portion of the study area is proposed to secure landscape connectivity between Balu Forest and Newnans Lake Conservation Area, strengthening the connection between the adjacent conservation areas which connect to Austin Cary Memorial Forest, Plum Creek's northwest tracts, on to the Santa Fe River Corridor (**Figure 33**).

The environmental analysis at both the regional and East County scales forms the basis for the Framework Map Conservation Land Use.

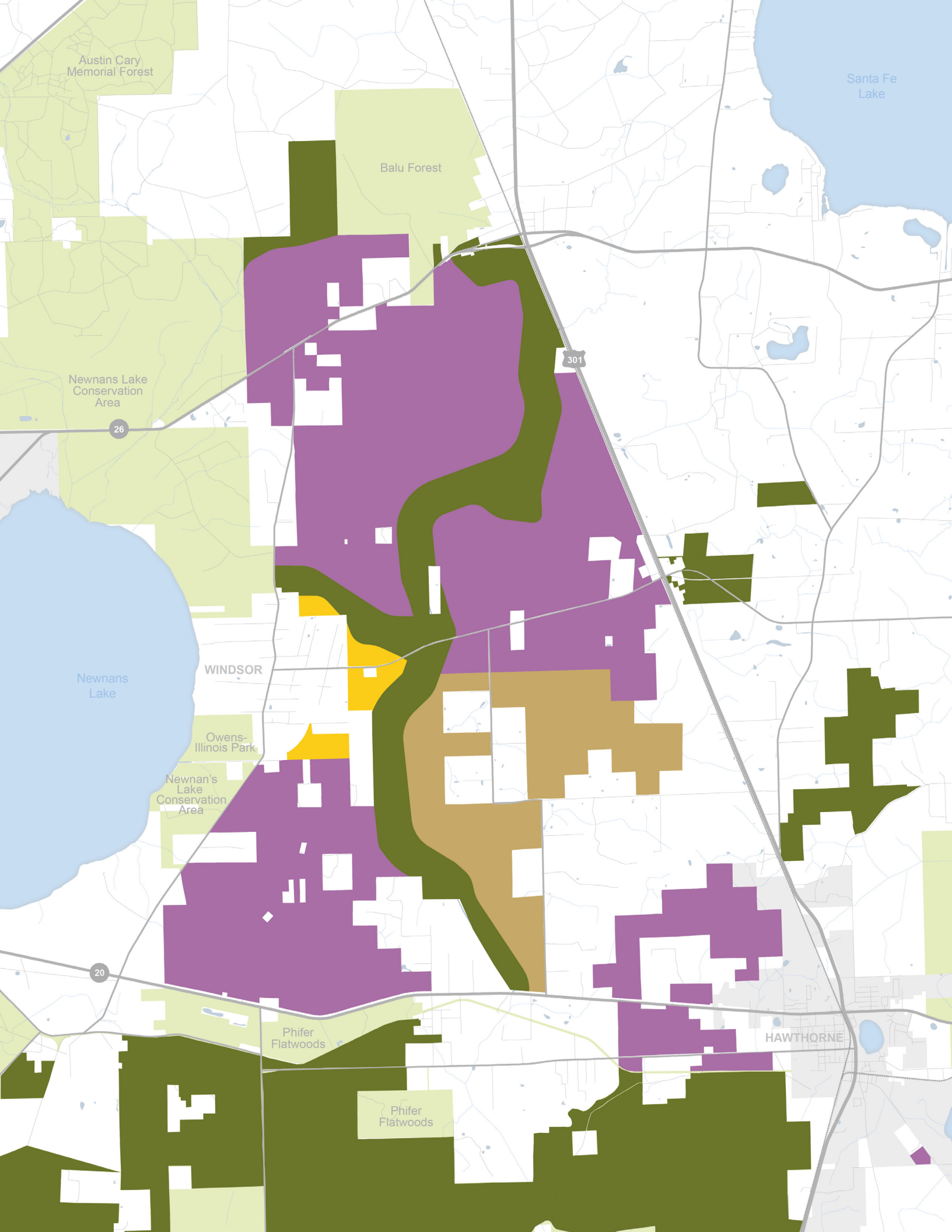
FIGURE 33
FRAMEWORK MAP CONSERVATION LAND USE (EAST COUNTY)



EOMU LAND USE
AGRICULTURE LAND USE
RURAL LAND USE
CONSERVATION LAND USE
CONSERVATION LAND

0 2,000 4,000 8,000 12,000 feet
0 0.5 1 2 miles

Data Source: Alachua County GIS, Plum Creek


Austin Cary Memorial Forest
Balu Forest
Santa Fe Lake
301
Newnans Lake Conservation Area
26
Newnans Lake
WINDSOR
Owens-Illinois Park
Newnan's Lake Conservation Area
20
Phifer Flatwoods
Phifer Flatwoods
HAWTHORNE

Employment Oriented Mixed Use (EOMU) Land Use

The goal of the EOMU Land Use is to focus future growth in key developable areas to maximize economic development potential while minimizing development pressure on surrounding rural, agricultural and conservation areas. EOMU Land Use is assigned to 11,393 acres, or approximately 19% of the Sector Plan area. The location of EOMU Land Use in the Framework Map largely responds to the conservation land use strategy.

Areas in the Framework Map were identified for EOMU Land Use based upon the following criteria:

- Corners strategy, building upon existing infrastructure, nearby population centers and institutional and commercial anchors
- Access to significant existing infrastructure, including major roadways and rail
- Proximity to existing population centers, including Gainesville and Hawthorne
- Land suitability for concentrated, mixed use economic development
- Opportunity to protect/preserve adjacent communities, including Windsor
- Long term certainty and flexibility for a twenty to fifty year plan
- Open space framework/network to support outdoor recreation economy

A diverse mix of uses (office, research and development, advanced manufacturing, industrial, institutional, commercial, and high-to-low density residential development) will be concentrated within the EOMU Land Use, accommodating much of the future employment and residential uses in the eastern portion of Alachua County over the next twenty to fifty years. These uses also include Resource Based Open Space (RBOS), active and passive parks and recreation spaces, agriculture, and infrastructure, among others.

A minimum of 1,700 acres within EOMU will be designated RBOS. These land areas will be designed to eliminate and/or minimize fragmentation and promote habitat connectivity and the formation of linked networks to adjacent properties managed for conservation purposes. RBOS provides for the protection of wetlands and associated buffers and will be managed to protect wildlife habitat through conservation, enhancement, and restoration. RBOS may include floodplains, wetlands, mitigation areas, vegetative buffers, specialized habitat for flora or fauna, passive recreation areas, and water resource development areas, and will be designated during the development review process. RBOS lands also may include areas set aside for ecological preservation, enhancement and restoration, nature trails, and conservation, and will be managed for natural resource protection and preservation of interconnected regional wildlife corridors and conserved in perpetuity. RBOS lands will be subject to a conservation management plan and protected in perpetuity by conservation easements. Further, RBOS will have a public access plan for trails, boardwalks, and environmental education areas for passive recreational use where appropriate and will be consistent with the conservation management plan.

Rural Land Use

The goals of the Rural Land Use are to maintain and enhance the rural development form and landscape that define the edges of the urbanizing areas and to preserve the natural and cultural assets, particularly of Windsor, which embody the area's heritage and traditions.

Areas in the Framework Map were identified for Rural Land Use based upon the following criteria:

- Proximity to and opportunity to protect and enhance the existing rural community of Windsor
- Potential to contain and define the edge of the proposed EOMU Land Use areas
- Opportunity to maintain the character and form of existing development pattern as a natural extension of Windsor (i.e no change/impact to current use)

Agriculture Land Use

The goals of the Agriculture Land Use are to maintain functioning and productive agricultural operations and lands, accommodate agricultural support activities, and protect prime farmland for use by existing and future generations.

Areas in the Framework Map were identified for Agriculture Land Use based upon the following criteria:

- Proximity to potential commercial and/or institutional uses within EOMU Land Use
- Suitability as transition zone to conservation areas
- Opportunity to maintain and enhance existing agricultural adjacencies, heritage, and character of the area
- Potential to serve as a greenbelt limiting sprawl and promoting compact development
- Land suitability for agriculture uses

Allowable Uses

A general listing of allowable uses appropriate for each Framework Map land use (Conservation, EOMU, Rural, Agriculture) based upon Task Force input is shown in the table below (Table 2):

TABLE 2
ALLOWABLE LAND USES

Conservation	EOMU	Rural	Agriculture
Preservation	Currently allowed uses in the Urban Cluster	Existing Zoning - Future Land Use	1 DU/40 acres
Silviculture	Agriculture	1 DU/5 acres	Silviculture
Limited Agriculture consistent w/ resource value	Conservation	Silviculture	Conservation
Environmental Services	Recreation	Conservation	Uses currently allowed in Rural/ Agriculture
Mitigation	Silviculture	Recreation	Environmental Services/Utilities
Recreation	Environmental Services/Utilities	Environmental Services/Utilities	Related Research Facilities
Roadway Connections		Roadway Connections	Recreation
			Roadway Connections

3.3 PROGRAM: APPROACH, ASSUMPTIONS, DENSITIES & INTENSITIES

Approach

Employment Driven

The goal for Envision Alachua is to create an employment-driven land use program within the 11,393 acre EOMU area. This approach is based on the understanding that development within the EOMU area should create significant economic progress and opportunities for Alachua County. For this reason, the planning team placed an emphasis on creating a land use program that is led by commercial and research uses as catalysts for the planned development and the region as a whole.

One of the overarching assumptions of the programming effort is that the EOMU area will target a jobs-to-household ratio of 3:1. The American Planning Association generally considers a best practice ratio to be in the range of 1.0 to 1.5 jobs for every household in order to limit commute times and encourage balanced development. Similiarly, the Alachua County Comprehensive plan reflects a desired jobs-to-household balance between 1.2 and 1.7. The approach for Envision Alachua is to increase the on-site ratio to 3:1 in order to spur a critical mass of economic development. If it is assumed that the jobs-to-household ratio in the EOMU area is 3:1, and that the ratio elsewhere in the county remains at its current level of 1.2:1, then there should theoretically be additional demand for housing units in close proximity to the new jobs; the goal is to stimulate infill and redevelopment in East Gainesville and the City of Hawthorne. To put it simply, the Alachua County Economic Progress Corridor will be employment-driven.

Market Assumptions

The EOMU Land Use program reflected in this report is informed primarily by an understanding of market forces and analysis of case studies rather than in-depth market research. It is based upon an underlying assumption that several catalytic users will be needed to spur development activity and to achieve the vision for the EOMU area over the long term. As such, current rates of absorption for commercial and residential uses in Alachua County are not indicative of what may occur within the EOMU area over a period of fifty years. Instead, the focus was on modeling the land use program after innovative approaches across the country and identifying an anchor/employment-driven program that would build upon the research and human capital resources of Gainesville and institutional anchors to compete with other nationally recognized research clusters.

Presently, when a major company considers locating near Gainesville's commercial and institutional anchors, it cannot entertain locating in Alachua County since there is no sufficient supply of land positioned or approved for large scale economic development. The development program as envisioned would change this equation, providing a world-class destination for growing and established firms, thereby allowing Alachua County to retain more of its locally developed talent and to attract additional entities looking to leverage the University of Florida's research capabilities and Santa Fe College's resources.

General Program Assumptions

The development program for the EOMU area has been developed by the Envision Alachua Task Force in conjunction with the planning team's case study research and knowledge of best practices for planned communities. The intent is to create an employment-driven community with a balanced mix of uses that represent a diverse, healthy, vibrant, and self-sustaining community within Alachua County. Some of the case studies evaluated for this programming effort include award-winning large scale planned communities such as The Woodlands in Houston, Texas; Stapleton in Denver, Colorado; Southwood in Tallahasee, Florida; Lake Nona in Orlando, Florida; and research-driven office parks such as Piedmont Triad Research Park in Winston Salem, North Carolina; Research Triangle Park in Durham, North Carolina; and University Park in Cambridge, Massachusetts. It is anticipated that projects within key activity nodes where development will be most densely clustered will largely consist of a mix of uses both horizontally and vertically. The planning team estimates that as much as 25% of the housing units may be in a mixed use multifamily format. The actual number will be influenced by the level of demand for ground floor retail at the time of construction.

TABLE 3
50-YEAR EOMU LAND USE PROGRAM

EOMU Land Use	Program	Assumptions
Economic Development		
R&D/Office/Institutional	6,000,000 sf	Estimated 18,000 - 24,000 jobs
Advanced Manufacturing	8,000,000 sf	Estimated 6,000 - 12,000 jobs
Community		
Residential	10,500 units	Net density of 3.0 du/ac; 3 jobs per household
Retail/Service	1,500,000 sf	125-150 sf per household
Schools & Civic Uses		Diverse community supporting uses
Major Roads / Infrastructure		15-18% of non-open space EOMU lands
Environment		
Recreation & Open Space		Minimum of 30% open space

Research & Development/Office/Institutional

The R&D/Office/Institutional program consists of 6,000,000 square feet and assumes 250 square feet per office-using job located within the EOMU area. The generally accepted industry standard is between 200 and 275 square feet per job. Nationally, certain types of office users are beginning to use space more efficiently, so it is likely that the square feet per job metric is trending in a downward direction. Based on this assumption, the program of 6,000,000 square feet of R&D/Office/Institutional space would translate into approximately 24,000 on-site employees at build-out.

The program assumes that the average R&D/Office/Institutional project would have a minimum average floor-to-area ratio (FAR) of 0.30. The average represents a blend of conventional development format with three levels of building served by adjacent surface parking and mid-rise buildings with structured parking. This assumes that the surfaced-parked development will occur in the early phases of the project with the density ramping up over time to eventually support more dense commercial development—for example, five story buildings with structured parking. To account for the possibility of more tightly clustered development occurring around key institutional anchors, a maximum FAR of 2.5 is recommended. This would allow for levels of density that have been achieved at other institutionally driven research centers such as Piedmont Triad Research Park in Winston Salem, North Carolina and Research Triangle Park in Durham, North Carolina. While it is anticipated that early projects in the EOMU area will be surface-parked developments, these case studies indicate that higher levels of density can be achieved as additional users are drawn to the project and synergies between users begin to emerge. The advantages of more compact research facilities include better sharing of knowledge across users, more efficient use of infrastructure, and increased potential for open space conservation. Agricultural research related to such issues as food production and security could be a key catalyst for partnerships between institutional and private sector partners that would co-locate on site and in close proximity to agricultural resources.

Advanced Manufacturing

The advanced manufacturing program consists of 8,000,000 square feet and an assumption of 1,000 square feet per advanced manufacturing job located in the EOMU area. While there is no generally accepted standard for advanced manufacturing jobs, the planning team's research reveals that most advanced manufacturing operations are space intensive and employ fewer workers per square foot compared to R&D/ Office uses. Based on this assumption, the program of 8,000,000 square feet of advanced manufacturing space would translate into approximately 8,000 on-site employees at build-out.

The program assumes that a typical advanced manufacturing development project would have an average minimum FAR of 0.15. This represents a conventional industrial development format with one or two levels of building served by adjacent surface parking. Additionally, the plan must allow for agricultural uses to occur within advanced manufacturing sites given the agricultural focus of much of the research and production that is expected to flourish within the community. This approach does not preclude more dense commercial development from occurring. In fact, the program recommends allowing for FARs as high as 1.0 to allow for "higher-value" advanced manufacturing firms that may co-locate with higher education or professional office users. Advanced manufacturing uses should be allowed in mixed use centers as they play a complementary role to research functions that will occur within the core.

Retail

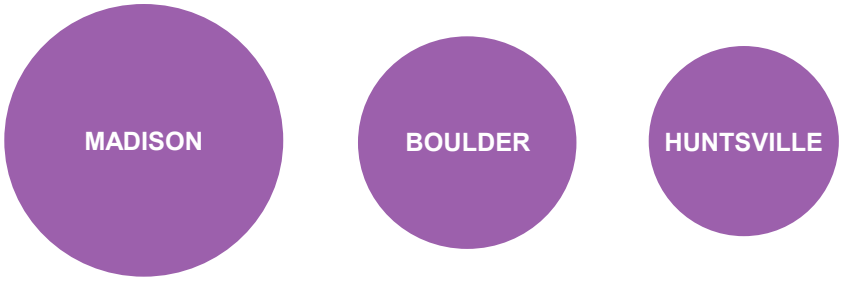
The retail program consists of 1,500,000 square feet, which assumes 125-150 square feet of retail and service uses per household. This figure is in line with the existing quantity of occupied retail per household within Alachua County. The allocation is estimated to be 75 square feet of retail per household with an additional 50-75 square feet of service uses such as banks, lawyers, and certified public accountants. While there is no generally accepted standard for the amount of retail per household, the planning team's research reveals that in Southeast markets 50-75 square feet (or 100-150 square feet including service uses) per household is a reasonable target. Based upon these figures, and an assumption of 400 square feet per retail job, the program of 1,500,000 square feet of retail space would translate into 4,000 on-site employees at build-out.

The program assumes that the average minimum density for retail would be an FAR of 0.25. The planning team recommends allowing for FARs as high as 1.0 to account for more clustering of users as the knowledge center gains momentum. The community Task Force envisions that as much as half of the retail square footage could occur in a mixed use format.

Case Studies

In order to contextualize the planned 15.5 million square feet of commercial uses, comparable "brain hub" markets were evaluated to understand the scale of supportable industrial and manufacturing uses (**Figure 34**). The research reveals that comparable markets including Huntsville, Alabama, Boulder, Colorado, and Madison, Wisconsin each support between 21 and 38 million square feet of industrial space. The research also reveals that each market specializes in particular industries (Huntsville in defense, Boulder in advanced materials and biopharma, and Madison in water technology and agriculture), and has been able to attract some of the largest employers and organizations in these industries. The proximity of the EOMU area to major educational institutions and existing infrastructure suggests an opportunity to attract global partners in research, development, and manufacturing to catalyze an employment core that could grow to 15.5 million square feet over the next fifty years. The vision for the EOMU area is to position it as an internationally recognized location for research and agribusiness that would create a significant economic engine for the county and the region.

FIGURE 34
BRAIN HUB CASE STUDY PROGRAM COMPARISON



Market:	Madison, WI (Pop: 236,900)	Boulder, CO (Pop: 98,900)	Huntsville, AL (Pop: 183,000)
Industrial SF:	**38M**	**25M**	**21M**
Annual Absorption:	N/A	~0.5 to 1M	~1M
Major Tenants:	Advanced Manufacturing Biosciences Agriculture Water Tech	BioPharma, Advanced Materials Building Technology	Northrup Grumman Raytheon PPG

Residential

The number of residential units in the EOMU area is derived from the on-site employment assumptions. Specifically, the program assumes that there is one on-site housing unit for every three on-site jobs. The assumption is that any additional housing demand driven by on-site employment would be served by the City of Hawthorne, East Gainesville, and other residential districts in the county.

The residential program reflects other best-in-class planned communities across the country including The Woodlands in Houston, Stapleton in Denver, and Southwood in Tallahassee. The residential program is designed to appeal to a broad cross section of market audiences ranging from singles and young couples to families, empty nesters and retirees. The wide range of product types gives potential buyers a variety of housing formats and price points to choose from and allows them to remain in the community as they age and their housing needs change. Specifically, the program calls for 25% multifamily units (likely multi-story condominiums and apartments), 10% townhomes, 15% small lot cottages (on 5,000 square foot lots or smaller), 22.5% small lot single family (on 5,000 – 10,000 square foot lots), and 27.5% large lot single-family (on lots larger than 10,000 square feet).

Using US Census data to estimate average household size ranging from 1.67 to 2.5 (depending on the type of unit) yields an estimated on-site population of approximately 24,000 at build-out.

Open Space & Recreation

The open space program assumes that a minimum of 30% of the EOMU Land Use (approximately 3,400 acres) will be dedicated to open space, with approximately half categorized as Resource Based Open Space (RBOS), and half as Other Open Space (passive and active uses including trail systems, parks, and community facilities such as playgrounds, playfields and a variety of other recreational amenities as well as protected natural resources). This figure would exceed the 20% minimum open space requirement as outlined in the Alachua County Unified Development Code.

The planning team has estimated the recreational needs within the EOMU area at build-out, including parks/open space as well as specific recreational facilities. The analysis is based upon standards established by the National Recreation and Parks Association (NRPA). The standards for parks and open space are expressed in acres per 1,000 residents. Based on the NRPA standards, which exceed the standards for Alachua County, the EOMU area will need approximately 300 acres of parks and open space (including playgrounds, neighborhood parks, community parks, regional parks, and trails).

The NRPA standards have been compiled through a survey of 27 parks and recreation communities in cities with populations of 100,000 to 200,000 residents. The metrics are expressed as the number of residents per facility. In total, the planning team estimates that the EOMU area will need approximately 31 facilities (playfields, recreation centers, tennis courts, basketball courts, etc.) to support its population at build-out. The planning team used an estimate of "functional population" for this analysis. Functional population includes both full-time residents and daytime employees in order to estimate the population over a standard 24 hour period. For this analysis, the planning team assumes that residents spend two-thirds of their time within the study area and employees spend one-third of their time within the study area. The functional population at build-out is approximately 28,000.

Community Needs

The planning team has estimated the community needs of the EOMU area at build-out. Community facilities include schools, police and fire stations, library, community center, and government facilities. For estimates of school needs, the planning team has used student generation rates from Alachua County Public Schools. Using an overall generation rate of 0.42 students per household, the planning team estimates that the EOMU area will have 4,463 school children (including elementary, middle, and high school students) at build-out. Next, using the available capacity of adjacent CSA's of 3,384 student stations,(from the 2012-2013 Alachua School Board Five-Year District Facilities Work Program) the project team estimates a total deficit of 1,079 student stations based on the full-builout of 10,500 housing units. Finally, using estimated school sizes (number of students per school) and average land area of each school type ranging from 25 acres for an elementary school to 65 acres for a high school (from the Alachua County Comprehensive Plan), the planning team estimates that the EOMU area should reserve approximately 246 acres to accommodate seven daycares, four elementary schools, two middle schools and one high school.

The planning team estimates that the EOMU area should include approximately 25 acres to accommodate additional community facilities including fire, police, library, community centers, government offices, and churches. The planning team derived this figure using square foot per functional population metrics adapted from Arthur Nelson's *Projecting Land-Use and Facility Needs*. The square foot need is translated into acres using a 0.2 FAR which translates to 1-2 story buildings with surface parking.

Densities

Definition of Density Approach and Calculations

It is important to acknowledge that planned development of this scale has never been contemplated in Alachua County. As such, there are two key considerations relating to density that need to be explored. First, while the goal is to create a compact and walkable mixed use community, it is important to recognize that this density will not materialize immediately. Instead, the project is likely to start at conventional levels of density and "ramp up" over time as a sense of place emerges and users recognize the benefits of clustering in close proximity. This means that initial catalytic users are likely to develop in a lower density, surfaced-parked arrangement, much like what has occurred at the emerging Lake Nona Medical City. For this reason, average minimum densities, outlined in Table 4, will be expected to be achieved upon full build-out and will be calculated across the full development acreage. This approach acknowledges that the intent is to create more clustered development and incorporate structured parking over time, and provides flexibility during the initial phases of development. Individual buildings will need to fall within the range of the general minimum and maximum densities, but the average minimum and target build-out densities will only apply to projects in aggregate.

The second consideration is the definition of how density is calculated. The density figures shown in Table 4 are calculated based on all residential units or commercial square footage within a delineated development pod. This means that the density calculations include driveways, parking lots, yards, small neighborhood parks, and local streets but exclude large parks and recreation areas, major water systems, conservation lands, major roads, and treatment plants, et cetera. The planning team's experience is that this calculation approach is the best way to measure density for large-scale sites such as the EOMU area. As such, for the EOMU area, the calculation of density will exclude all major community-wide infrastructure that is separate from individual development pods.

Non-residential

The following recommended minimum and maximum densities are informed primarily by an understanding of market forces and analysis of case studies of national and international best practices. The range of densities is meant to enable the Task Force vision for 21st Century economic progress, synergistic and integrated land uses, and innovative development patterns (**Table 4**).

TABLE 4
NON-RESIDENTIAL PROGRAM DENSITIES

Classification	Min Density	Max Density	Average Min. Density (Aggregate at Buildout)	Metric
R&D/Office/Institutional	~0.25	~2.5	0.30	FAR
Advanced Manufacturing	~0.05	~1.0	0.15	FAR
Retail	~0.15	~1.0	0.25	FAR

Residential

The dwelling units per acre (DU/Acre) range for each of the housing typologies envisioned in the land use program and largely align with Alachua County's residential zoning classifications. The planning team has identified similar product types for each residential classification in successful planned communities across the United States. Allowing for a range of different residential densities and typologies creates a diversity of housing choices and ultimately facilitates a community of households of different ages, sizes, and makeup. The demonstrated success of these residential products across the country lends credence to their potential financial viability at the EOMU area.

The one housing typology/density that is part of the proposed program for the EOMU area but not allowable by current Alachua County zoning is multifamily residential of 40-50 units per acre (net density). While this net density exceeds the current cap of 24 units per acre, the planning team suggests that multifamily residential in this format (4-6 stories with structured parking) will be a key to creating a critical mass of activity within the EOMU core. This critical mass is important for creating an "18-hour, 6-days a week presence" and for driving the demand for retail and services. The planning team expects that multifamily units of this density would occur at the very heart of the EOMU core alongside institutional and commercial uses. The 40-50 du/acre net density is modeled after the densest multifamily product at The Woodlands Town Center in Houston, a successful and nationally recognized example of a commercial core within a large-scale planned community (**Tables 5-6**). Based on the recommended densities and product mix shown below the overall weighted residential density would be 3.0-4.0 units per acre. While the product mix may shift slightly to respond to market conditions it is expected that the minimum average residential density across the entirety of the project would be 3.0 units per acre.

TABLE 5
RESIDENTIAL PROGRAM DENSITIES

Type	DU/Acre	Mix
Rural Lots	1	0.0%
Large Lot SFD	1-3	27.5%
Small Lot SFD	4-5	22.5%
Cottages	5-6	15.0%
Townhome	10-14	10.0%
Multifamily	20-25	12.5%
High Density Multifamily	40-50	12.5%
Average Min. Density	**3.0**	**100%**

TABLE 6
ALACHUA COUNTY ZONING:
RESIDENTIAL DENSITIES

Classification	DU/Acre	
A	1/5	*Rural Land Use*
RE, RE-1	0.5-1	
R-1aa, R-1a, R-1c	1-4	
R-1b	4-5	*EOMU Land Use*
R-1b	4-8	
R-2a	8-14	
R3	24	

3.4 PRELIMINARY DESIGN VISION & EOMU DEVELOPMENT PATTERNS

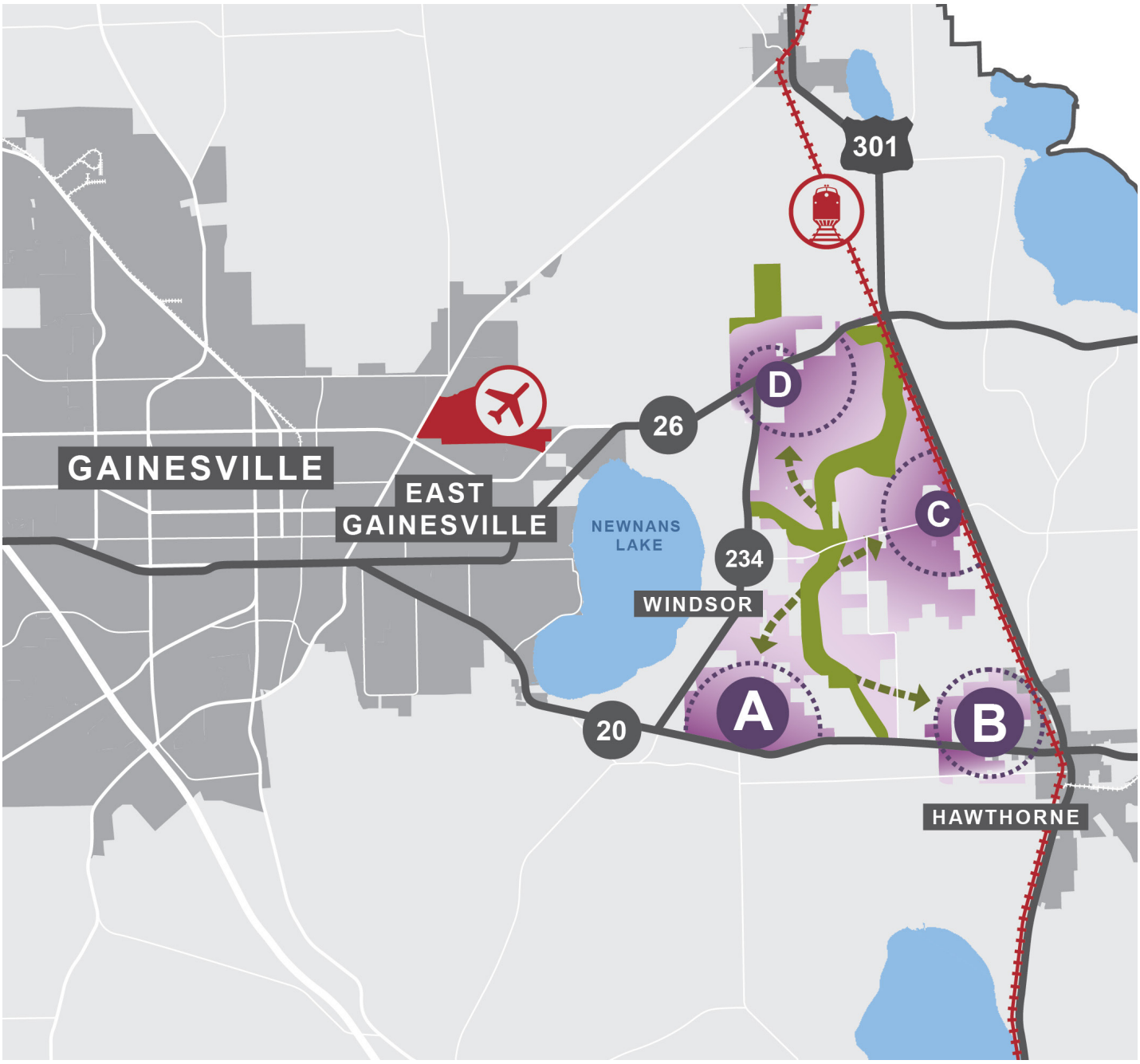
Envision Alachua Planning & Urban Design Framework

The 60,136 acre Sector Plan Framework Map depicts four land uses derived from the work of the Envision Alachua Task Force and subsequent analyses: Conservation, Employment Oriented Mixed Use (EOMU), Rural, and Agriculture. Areas for each of these land uses are delineated on the Framework Map based upon such factors as community context, the attributes of the land, the availability of or proximity to existing infrastructure, and the goals and principles formulated by the Task Force in support of the vision for East County.

The preliminary design vision for Plum Creek's Sector Plan lands is organized on three scales: (1) the overall Plum Creek Sector Plan of 60,136 acres; (2) the East County area defined by SR 20, SR 26, US 301, Windsor, the City of Hawthorne, and Newnans Lake; and (3) four employment oriented mixed use development hubs that are located within East County (Areas A, B, C, and D) (**Figure 35**).

During Phase I of the Envision Alachua planning process, Task Force members identified Plum Creek lands framed by SR 20, SR 26, and US 301 in East County as a potential area of focus for future economic development. Following the Task Force recommendation, additional analysis was carried out to evaluate and confirm the suitability of these lands for development as mixed use jobs centers (See Section 2.3, East County Context).

As described in Section 3.1, Plum Creek lands are characterized and organized by three infrastructure systems: natural, built/constructed, and social/knowledge. Reinforcing the Task Force's recommendation of East County lands for further study, the confluence of these three existing infrastructure systems provides the physical planning rationale for locating future economic and community development in East County. Within East County, the integration of these three systems through inspired community design will provide an enduring structure to guide future development.



Data Source: Alachua County GIS, Plum Creek

FIGURE 35
PLANNING & URBAN DESIGN FRAMEWORK: EMPLOYMENT ORIENTED MIXED USE DEVELOPMENT HUBS

East County Economic Progress Focus Area

East County is envisioned to be the area where future economic and community development will occur within four compact and walkable development hubs, within a context of conservation and silviculture land uses. While most of Plum Creek's EASP property (76%) will be Conservation Land Use, the four development hubs will be strategically located based upon a corners planning strategy that locates employment-focused mixed use development near SR 20, SR 26, US 301, the CSX railroad, and the airport. Each of the hubs will be characterized by smart growth planning principles of compact, integrated, efficient, walkable, multi-modal and employment oriented mixed use development. The hubs will promote economically, socially, and environmentally sustainable communities set within a resilient natural ecological framework, connected by green infrastructure.

Nature will be integrally woven into the fabric of the four development hubs. The Lochloosa Creek landscape linkage will serve to preserve unique landscapes and contribute to the connected system of conservation lands, forming a vital link in the "emerald necklace" around Gainesville and Alachua County. It also will support a broad spectrum of regional recreation needs by providing access to open space, parks, and recreational areas to promote healthy living and working environments for all Alachua County residents. The potential multi-use trail along Lochloosa Creek will connect to and significantly expand the network of existing regional trails (i.e., Gainesville-Hawthorne State Trail and Waldo Trail) and define the public edge of the future community hubs along Lochloosa Creek (**Figure 36**).

Data Source: Alachua County GIS, Plum Creek

FIGURE 36
PLANNING & URBAN DESIGN FRAMEWORK: LANDSCAPE STRATEGY

EOMU "Centers" Development Pattern for Compact Community Design

This section defines the physical patterns and elements which will inform development character within the EOMU Land Use. As related to the Sector Plan Statute, this section addresses general guidelines relative to the future urban form and the interrelationships of future land uses as well as a general framework of development patterns based on a hierarchy of places and functional place-making components. The "Centers" development pattern provides the design basis for Sector Plan policies related to job creation, efficient land use, limiting sprawl, protecting natural areas, and advancing a healthy environment (**Figure 37**).

Land use and development form are important considerations in developing an employment oriented mixed use community. In addition to offering regional employment opportunities in research and development, education, and advanced manufacturing—among other employment opportunities—a complete community will also offer local services and amenities, such as schools, neighborhood retail, restaurants, grocery shopping, and diverse open spaces for employees and residents. The development patterns are intended to encourage density, facilitate multiple forms of transportation, offer attractive opportunities for mixed commercial, institutional, residential, and civic development, and provide public edges along much of the natural systems and other open spaces.

With an overarching goal of achieving walkable community design, the development patterns suggest a network of interconnected mixed use, pedestrian and bicycle friendly, and transit supportive places. Walkable design is a foundational principle for the EOMU Land Use and "Centers" form the basic building block for development. The compact community design concept anticipates a network of "complete streets" to promote walking, prioritize pedestrians and cyclists, and provide recreational space. Incorporating such active design principles along with proximity and access to nature and potentially local food production will provide a solid foundation for healthy, complete communities of the 21st century.

The Centers development pattern establishes a compact physical form within the context of a natural ecological framework. This pattern reflects walking distances of a quarter mile and half mile, with more dense/intense use located within the quarter mile walking distance and emanating outward along a suitable gradient. This pattern is intended to accommodate a full spectrum of densities/intensities of use.

The compact community design concept promotes the integration of land uses and the provision of convenient options for getting from one place to another on foot or bicycle within and between Centers. The resultant vision is a community of unique places which are highly connected via "green infrastructure," less dependent upon the automobile for daily mobility, and which support diverse opportunities to live, work, learn, and play in close proximity. From a physical design perspective, Centers are defined by several characteristics including their circulation and connectivity, civic access to open spaces and community amenities, and mix of land uses.

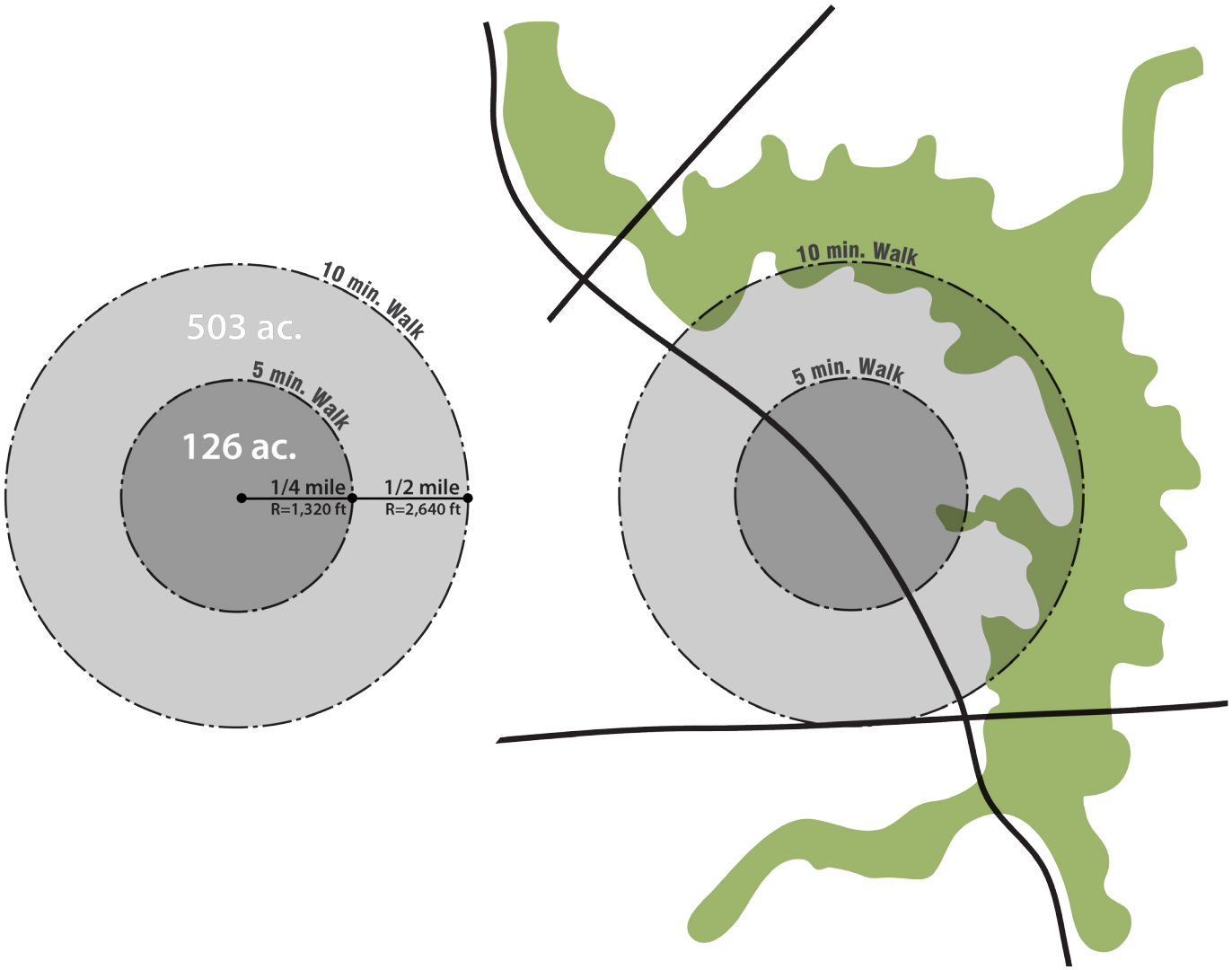


FIGURE 37
CENTERS DEVELOPMENT PATTERN

Circulation & Connectivity

Centers are located proximate to existing infrastructure and at the intersections of major roads within EOMU Land Use areas. Utilizing existing infrastructure and focusing land uses within a highly connected street network facilitates the efficient use of land and resources and minimizes the potential for urban sprawl. The defining circulation characteristics of Centers include the following:

- A connected network of streets and pedestrian features will emanate outward from the core of the Center and allow for multiple route choices, reduce the distance between uses to encourage walking and biking, accommodate transit, and connect with adjacent centers within the EOMU and to surrounding communities.
- A pedestrian and bicycle friendly environment will encourage walking and bicycling as a primary means of mobility within the community.
- Compact, interconnected mixed use development will support the internal capture of pedestrian, bicycle and vehicular trips.

Civic Access: Open Space & Community Amenities

Centers are distinguished by diverse community amenities. These include a range of open space types at various scales, both passive and active, such as civic plazas, neighborhood parks, pocket parks and connections to the regional open space system providing opportunities for healthy living and working. The defining open space and community amenities characteristics of Centers include the following:

- A comprehensive landscape strategy will ensure that natural areas are integrated within Centers utilizing best practices in landscape design, and are protected as part of larger natural systems surrounding economic development centers.
- Within Centers, the public realm will provide areas for socialization and collaboration among various employment, institutional, and other uses.
- Community facilities, which may include schools, public safety, and places of worship, among others, will be centrally located and integral to the programming of the community core.
- The location of land uses within the EOMU will ensure that residential and employment uses are within a quarter mile walking distance of recreation and open space areas.

Mix of Land Uses

The EOMU Land Use is envisioned to be the economic development engine of East County, with a diverse mix of employment, education, civic, and residential uses. The Centers development patterns suggests the relationship between the mix of uses, including residential uses and employment, supporting commercial uses, recreation and open spaces. Some employment driven Centers will include a highly integrated and balanced mix of employment and residential uses concentrated to promote walkability and facilitate synergies among uses. Other Centers will be less intense while maintaining the principles of walkability. The defining land use characteristics of a Center include the following:

- The highest density, intensity and mixture of uses are generally located within the core and emanate from the core along a gradient suitable to the site and surrounding land uses.
- Surrounding the core, an array of complementary commercial, institutional, industrial, and residential uses will offer development flexibility and maximum connectivity to the higher density core and among each other, mostly within a half mile walking radius. Private and institutional facilities are envisioned as drivers for community development with neighborhood-compatible working landscapes and the potential for agriculture components.
- The highly integrated land use framework of the Centers will serve as a platform for economic development and job creation in East County.
- The land use pattern of Centers will establish clearly defined edges of transitional intensity uses to separate the EOMU land uses from adjacent privately owned land that may be rural, agricultural or conservation lands.

Land Use Pattern Types

This section includes preliminary sketches conveying the intent of the development patterns for various uses, including mixed use, R&D/office, institutional, manufacturing, and residential neighborhoods.

Mixed Use Pattern Characteristics (**Figure 38**)

- Mixed use districts will typically be concentrated within the core of a Center as suggested by the ¼ mile walking radius.
- Highly integrated and interconnected mix of land uses will include employment, residential, cultural and institutional uses as well as smaller scale or experimental agriculture.
- Gridded block structure will create a flexible development framework to accommodate the evolution of land uses over time.
- Compact and regular block sizes, greater lot coverage, integrated community open spaces, and generally higher development densities and intensities will render a development pattern characteristic of urban places, especially within the core.
- Central "hub" will promote innovative synergies, collaboration, and technology transfer at key intersections and provide spaces for spin-offs and research-oriented incubators related to activity at the surrounding larger R&D, institutional or manufacturing facilities.
- Horizontally and vertically integrated mix of uses will provide a blend of R&D, office, residential, retail, and hotel uses in an urban setting that will become the focal point for activity within the larger community.
- Location of mixed use core in proximity to existing infrastructure will make it highly visible and accessible to the surrounding communities.
- Street hierarchy will define a walkable and transit-ready framework, allowing for multiple route choices and connecting to adjacent development.
- Quality best practice design principles will define urban massing, scale, and orientation.
- Innovative concepts for residential development will allow for appropriate mixes of housing options for all age groups (i.e. allowing residents to "age in place") and income levels, including a range of types, sizes and price points.
- Public open spaces will provide areas for recreation, social interaction and collaboration among various employment, institutional, and other uses, and a walkable core will provide connections to nature to promote a healthy environment for working, living, and playing.
- "Complete streets" will define the pedestrian oriented character and "active design" elements will promote healthy living and reduced vehicular trips.
- Within the mixed use core, encouraging shared parking strategies and locating parking away from main streets will maintain a pedestrian-friendly urban character and promote alternative modes of transportation.


Image Source: Sasaki Associates, Inc.

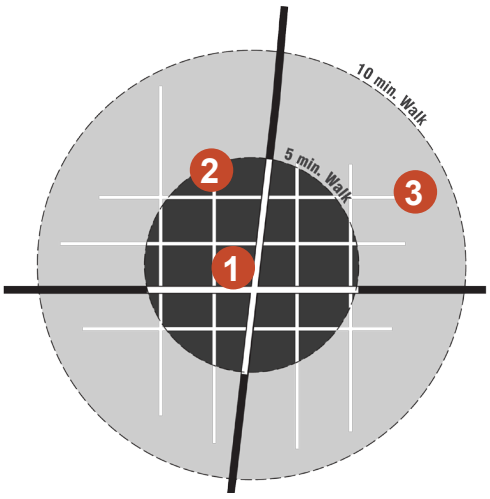

Image Source: Chiswick Park


Image Source: Sasaki Associates, Inc.

FIGURE 38
MIXED USE PATTERN

R&D / Office / Institutional Pattern Characteristics (**Figure 39**)

- Interconnected, flexible land use framework will accommodate a range of development parcel sizes and types to appeal to a broad spectrum of users, including institutional/research/office anchors.
- Research, education, and employment uses adjacent to supporting residential and commercial uses will support a growing synergistic innovation economy.
- "Common ground" public realm will provide areas for research, office, and institutional users to collaborate and facilitate technology transfer.
- Clusters of parcels will contribute to an overall "campus" sense of connectivity, community, and excitement to encourage a collaborative work environment.
- An archipelago pattern of employment "campuses" will be physically and aesthetically connected through common urban design controls and consistent palette of building and landscape elements.
- Cohesive and interconnected framework of roads and open spaces will accommodate a gradient of development densities which respond to different users and development options.
- Proximity to residential neighborhoods and access to transit and commuter trail system will encourage alternative transportation modes.
- R&D, office, and institutional uses will integrate/interconnect with adjacent neighborhoods through the inclusion of transitional intensity uses, buffering, landscaping, and natural open space.
- Development character will respond to unique site conditions such as proximity to conservation areas, natural features, agricultural fields/laboratories, and gateway locations.
- Economic development areas will connect to nature through a cohesive landscape character, open space system of recreational spaces, and multi-use trails to promote a healthy lifestyle.
- Building/facilities massing will promote a human scale, recognition of functions and shared amenities.



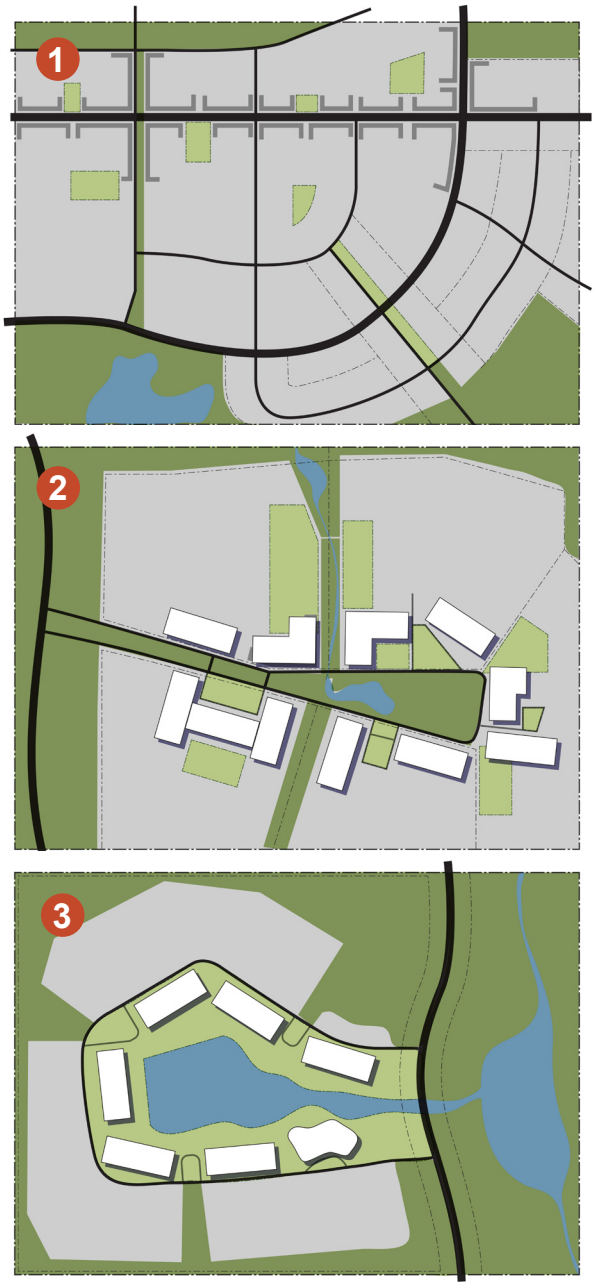



Image Source: North Carolina State University

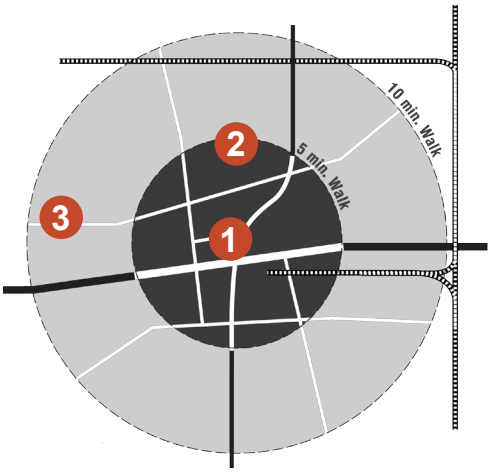

Image Source: Microsoft Corporation

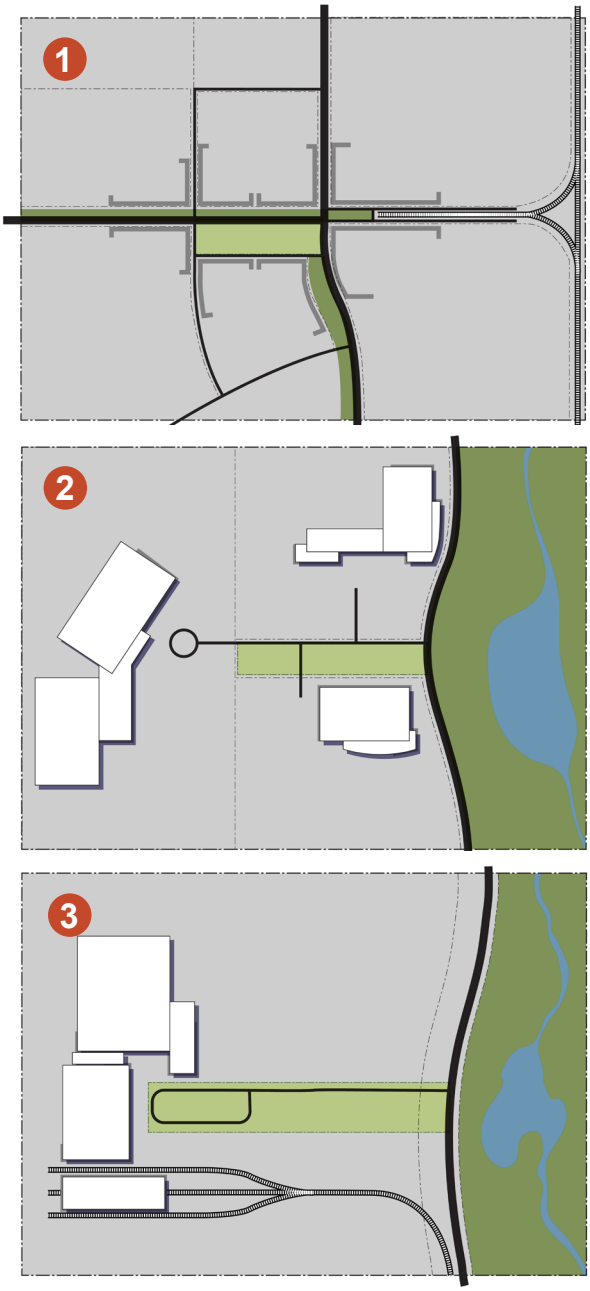

Image Source: Chiswick Park

FIGURE 39
R&D/OFFICE/INSTITUTIONAL PATTERNS

Manufacturing Pattern Characteristics (**Figure 40**)

- Advanced manufacturing will be the primary use while encouraging a supporting mix of uses in the core.
- Uses will be located to capitalize on regional highway and railroad access.
- Key facilities and smaller parcels will be clustered within the quarter mile core to foster progressive interaction and synergies within a campus-like environment with shared amenities.
- A variety of parcel sizes will accommodate a range of advanced manufacturing uses offering a full spectrum of employment opportunities "from GED to PhD."
- Adaptable land development "parcelization strategy" will allow flexibility in response to business evolution/expansion and market demands and promote scientific synergies and programmatic relationships through a cohesive landscape identity and strong connections to nature.
- Integrated land use "ladder" will accommodate the evolution from idea incubation through production and distribution.
- Employment centers will be located in proximity to supporting community services and diverse housing opportunities, connected via multiple modes of transportation, including transit and commuter trails for pedestrians and cyclists.
- Recreational amenities and green infrastructure elements will be incorporated within working landscapes and manufacturing uses to create a 21st century community oriented, pedestrian friendly, and healthy environment.
- Unique physical setting and environment integrated within larger open space network will stimulate intellectual curiosity and connect ideas with resources, creating an environment rich with opportunities to work, live, learn and play.





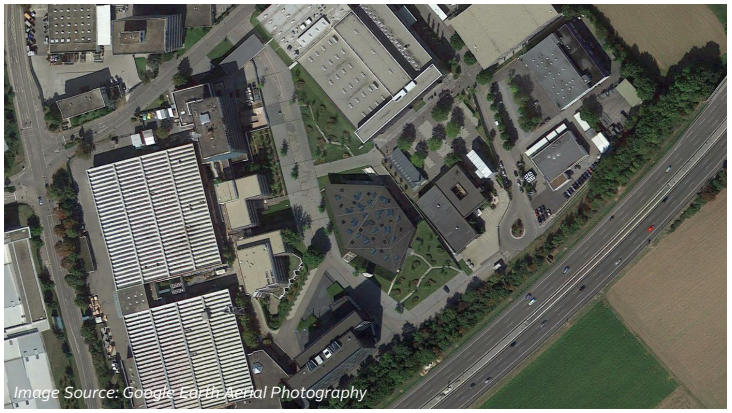
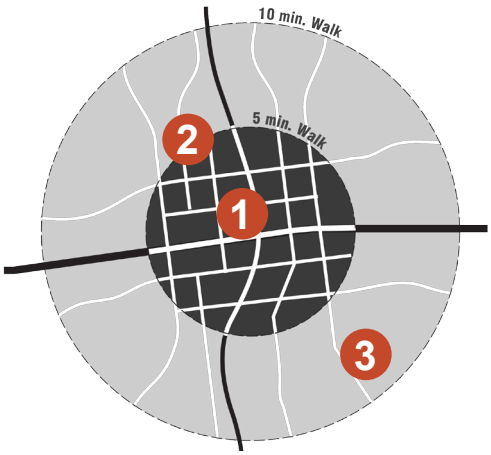
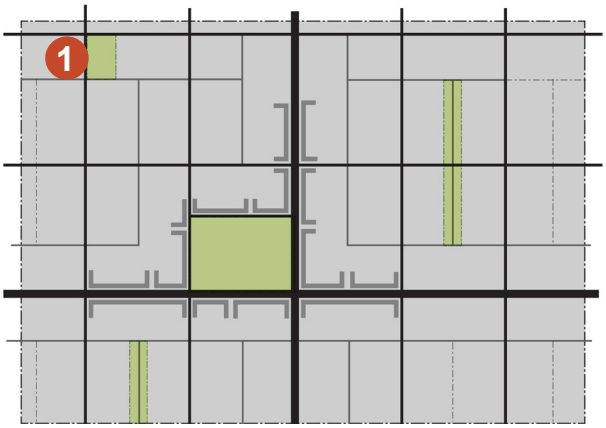


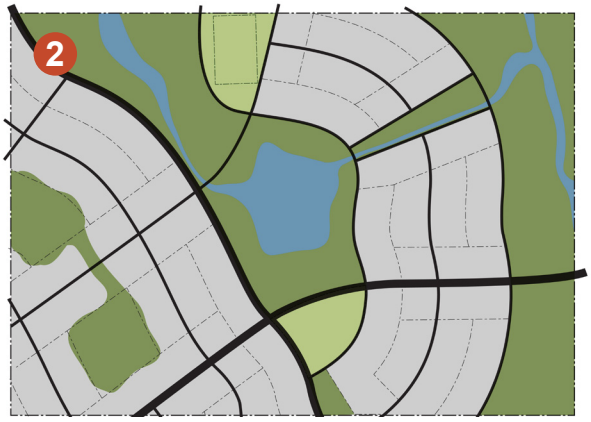
FIGURE 40
MANUFACTURING PATTERNS

Neighborhood Pattern Characteristics (**Figure 41**)

- Mixed-density neighborhoods will be located within walking distance of an open space amenity and connected via a system of trails/paths to the overall open space network.
- Neighborhood identity will be enhanced by the siting of major community amenities (schools, civic uses, neighborhood retail, community parks, trail head, etc) within the ¼ mile core.
- Mix of product types will be provided throughout the community, with a greater average density within the ¼ mile core and along open spaces, parks, and major roadways.
- Block/lot structure will allow for flexibility in accommodating a variety of housing types and densities to create housing options for all ages, enabling people to "age in place" while maintaining a consistent character throughout the public realm.
- Neighborhoods will be phased over time and may vary in style, product type, and density to create authentic character and "sense of place."
- Innovative housing designs intended to maximize energy efficiency are envisioned, and will inform siting, orientation and architectural expression to the greatest extent possible.
- Overall street pattern will be a loose grid to provide efficient blocks and clear connections to open spaces and major roads.
- Series of "Park Streets" will provide clear access to and between individual neighborhoods and also link the major open space amenities in the neighborhoods and beyond.







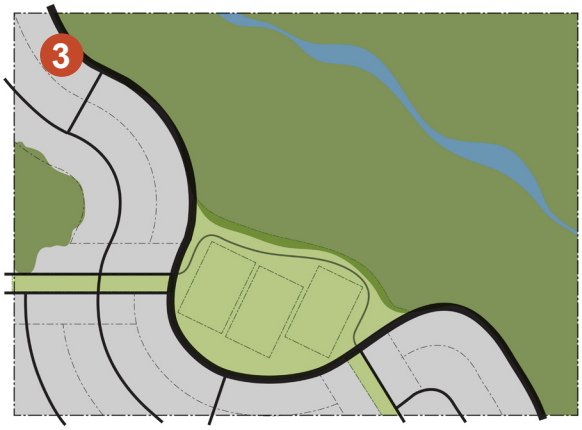


FIGURE 41
NEIGHBORHOOD PATTERNS

Corridors

Centers are linked to each other, to existing infrastructure, and to local, regional, and national economies by a network of corridors (**Figure 42**). Between Centers, select uses may serve to create transition zones along corridors. Such uses may include open space (natural resource areas, landscape linkages, community parks and facilities), conservation, agriculture, low-to-mid density residential, and nonresidential uses.

The corridor strategy for East County facilitates access to employment centers, encourages mixed use development that is concentrated within Centers, and promotes the establishment of compact, healthy and efficient community hubs which are emblematic of each Center's unique identity. The corridor itself is envisioned as a multi-modal route, accommodating vehicular traffic as well as pedestrians and bicycles, and perhaps transit depending on community design.

The integrated development pattern of Centers, connected and organized by a system of corridors, promotes an efficient and flexible framework for diverse land uses, the protection of natural resources and the efficient use of land through compact development form, and connected, pedestrian-friendly, healthy communities.

FIGURE 42
CORRIDOR OF MIXED USE CENTERS

Preliminary Design Concepts for Areas A and B

The design vision for the East County economic progress focus area anticipates that each of the four hubs (i.e. Areas A, B, C, and D) will be defined by essential elements such as a specific development program, land uses, and community planning guidelines that will be distinctive yet complementary with each other. The capacity and quality of existing transportation routes, coupled with the economic engine of local institutional and commercial anchors and the overarching ecological framework, suggests an "Economic Progress Corridor" along SR 20, linking UF, Gainesville, East Gainesville, Plum Creek Areas A and B, and the City of Hawthorne. Preliminary design concepts have been developed for Area A and Area B along this Economic Progress Corridor.

Area A Preliminary Design Concept

Area A is envisioned to be a national model for a new type of collaborative, translational mixed use R&D cluster that brings together the major drivers of the knowledge economy: higher education, private corporations, and complementary R&D institutes oriented towards agro-technology. Area A is a place where research is directly translated into useful commercial applications that will provide opportunities to retain the County's intellectual capital and create new types of technology transfer and employment opportunities. Area A is characterized by a diverse mix of compact, integrated land uses that include supporting residential, retail, commercial, and civic/community uses in which people can live-work-learn-play as part of a healthy and eco-friendly "innovation community" (**Figure 43**).

Area A will have a primary employment center comprised of a higher educational campus of classrooms, labs, libraries and research centers that are integrated with and share facilities and spaces with related private R&D institutes and laboratories who seek to co-locate and form partnerships to work on interdisciplinary projects that advance their mutual and aligned interests. The core of Area A will be organized along a mixed use "Main Street" and activity hub that brings together and provides identity to the community by providing retail/commercial services to the adjacent academic, R&D, and private companies that will generate a broad spectrum of employment opportunities (i.e. from GED to PhD). Connecting into the activity hub will be collaborative labs, workspaces, classrooms, libraries, and other single- and joint-use facilities that are essential to the technology research, development, and transfer mission of this community. Experimental fields for agricultural research and technology development will be in walking distance to most educational and R&D facilities (**Figure 44 and 45**).

In close proximity will be a diverse range of compact residential neighborhoods and civic amenities including schools, churches, parks, and community facilities. These neighborhoods and civic amenities will support a healthy and walkable lifestyle in which people can walk to work, school, restaurants, retail and commercial services.

Area A is set within an ecological framework of creeks, streams, wetlands, and connected green spaces that include trails, parks, conservation areas and active silviculture and agriculture. Large scale landscape linkages along Lochloosa Creek and to Newnans Lake provide opportunities for environmental conservation and education (i.e. living laboratory) while connecting Area A to regional and state-wide green corridors. Pedestrian and bicycle trails link Area A to the other East County hubs through the natural "green" infrastructure. Area A is seen as the "front door" to East County and an early phase of development with strong multi-modal connections to Gainesville and UF.

FIGURE 43
AREA A PRELIMINARY DESIGN CONCEPT

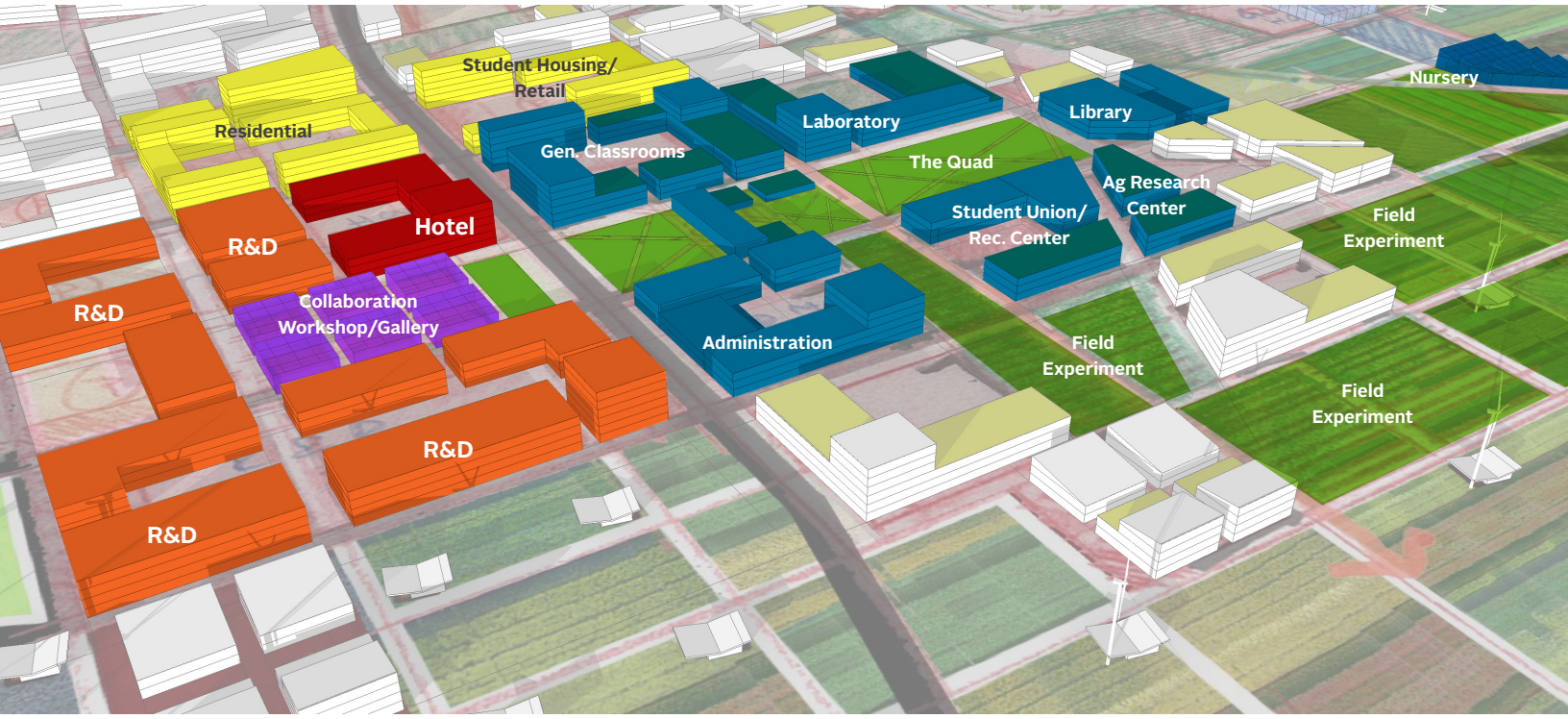


FIGURE 44
AREA A COLLABORATIVE R&D CAMPUS CONCEPT

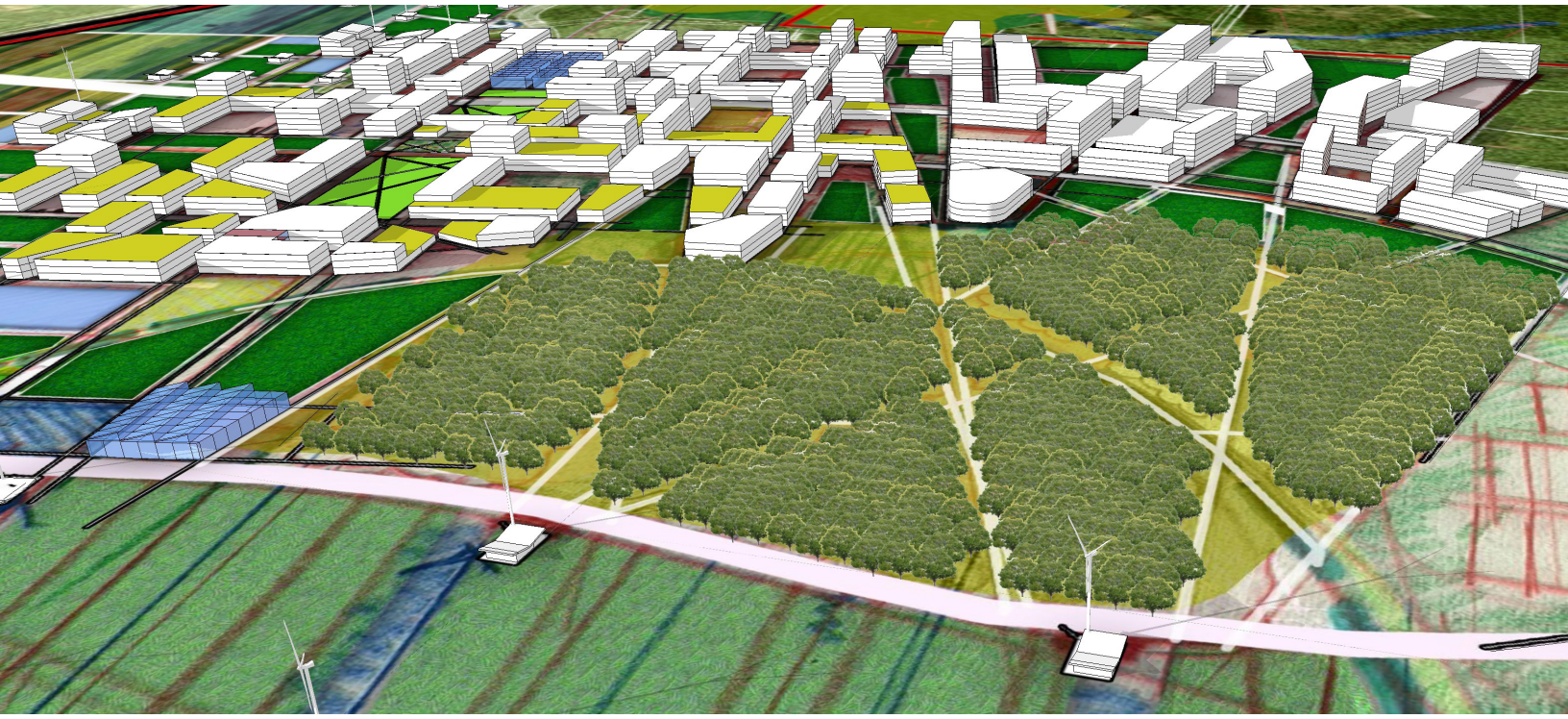


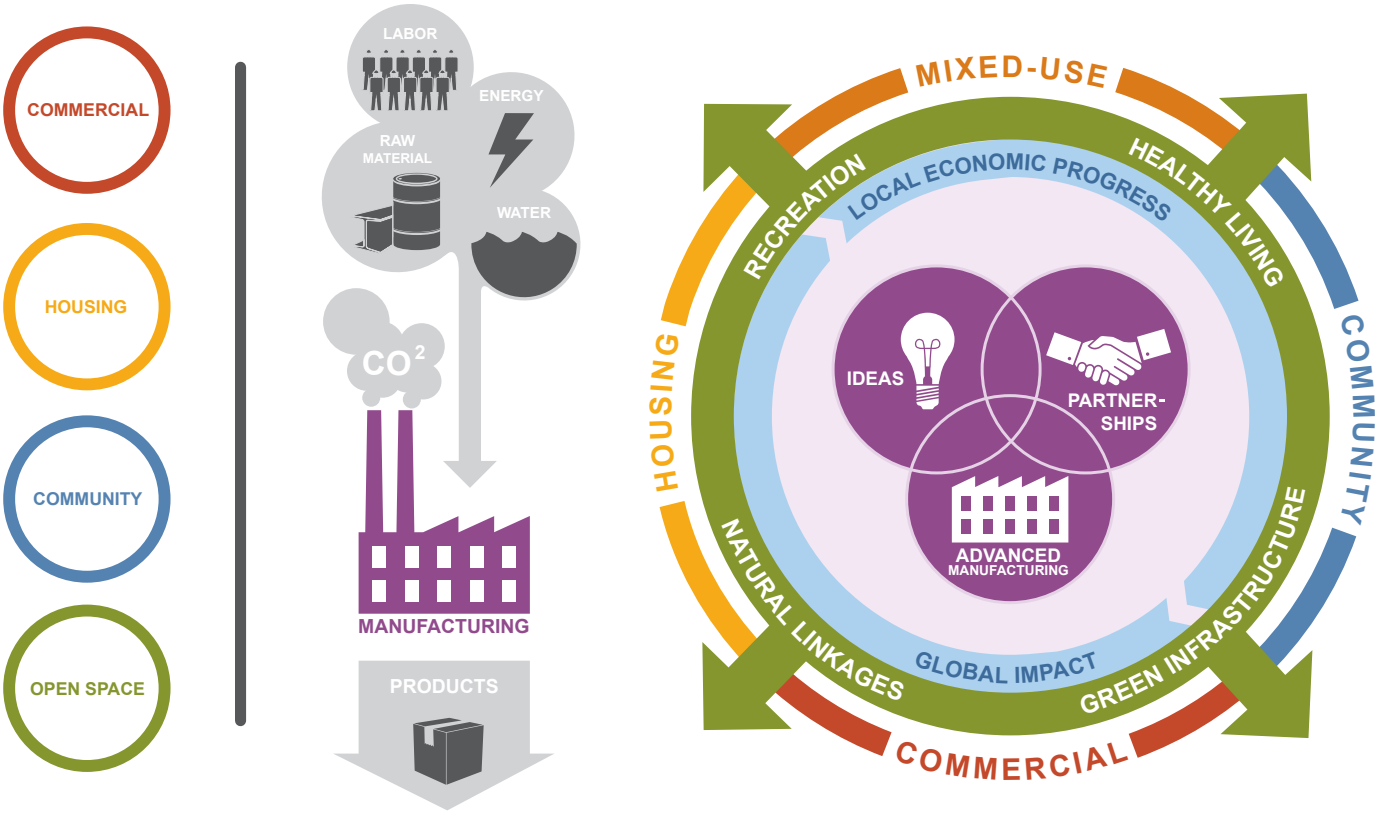
FIGURE 45
AREA A EXPERIMENTAL AND COLLABORATION SPACE CONCEPT

Area B Preliminary Design Concept

The preliminary design concept for Area B is based on the notion of creating a 21st Century advanced manufacturing hub that provides a physical setting for the fusion of new ideas, partnerships, and facilities for large and small scale advanced manufacturing with strong connections to SR 20, US 301, and the railroad (**Figure 46**). Area B will be an employment center for a broad range of emerging types of advance manufacturing jobs, many of which may be related to the ongoing R&D in Area A and take advantage of the proximate highway and railroad infrastructure. A broad range of employment related facilities from start-up incubators, advanced manufacturing and assembly, R&D, commercial start-ups, and live-work buildings will be organized in close proximity along a "main street" and around a shared public realm to foster a collaborative, entrepreneurial environment that promotes economic progress for Alachua County.

Area B will be a compact, connected, and complete employment oriented community. It is envisioned to include nearby residential development, an activity hub and related commercial and retail services to provide for a balanced and integrated community. It will be a place where residents can walk or bike to work and the many other services they need to enjoy a healthy and balanced life such as schools, churches, parks and civic amenities such as the Gainesville-Hawthorne Trail (**Figure 47**).

Area B will reinforce the continued development of the City of Hawthorne by bringing new employment opportunities and residents that will contribute to the further development and growth of the city. The vision for Area B provides for the natural expansion of Hawthorne's residential community by extending and connecting into the existing street network and further activating the Gainesville-Hawthorne Trail. Development in Area B will complement and strengthen underutilized resources in Hawthorne such as the schools, retail/commercial, and residential uses. Area B is seen as an early phase of development with strong roadway and rail connections and an opportunity to reinforce the Hawthorne community and economy (**Figure 48**).



19TH & 20TH CENTURY INDUSTRIAL MODEL

21ST CENTURY ADVANCED MANUFACTURING HUB

FIGURE 46
AREA B 21ST CENTURY ADVANCED MANUFACTURING HUB MODEL

FIGURE 47
AREA B ADVANCED MANUFACTURING HUB CONCEPT SKETCH

FIGURE 48
AREA B PRELIMINARY DESIGN CONCEPT

3.5 SECTOR PLAN PRINCIPLES

Envision Alachua Sector Plan Principles

Chapter 163.3245 of the Florida Statues outlines a series of planning principles and goals related to Urban Form and the creation of a Sector Plan. The preceding sections explore the development patterns for Centers which comprise the defining components of the EOMU Land Use areas envisioned for Plum Creek's land holdings in East County. This section summarizes the ways in which the proposed Framework Map and development patterns align with the Sector Plan principles.

Limit Urban Sprawl

The physical configuration of Plum Creek's lands in East County—with the framing east-west connections of SR 20 and SR 26 and north-south connections of US 301 and the rail line—informs a strategy of concentrated development. This strategy is further reinforced by the ecological framework of the land, the preservation and enhancement of adjacent communities (e.g. the proposed Rural Land Use adjacent to Windsor), and the strategic assignment of Agriculture Land Use to provide defined edges to urban/economic development and to maintain the agricultural heritage of the area. As such, employment oriented mixed use land uses will be planned with a permanent, defined edge to maintain a greenbelt of agricultural or conservation uses and to discourage sprawl.

Chapter 163.3177 of the 2013 Florida Statutes indicates that the future land use element or any amendment to the future land use element must aim to discourage urban sprawl. In particular, Section 9b states that "The future land use element or plan amendment shall be determined to discourage the proliferation of urban sprawl if it incorporates a development pattern or urban form that achieves four or more of the following:"

(I) Directs or locates economic growth and associated land development to geographic areas of the community in a manner that does not have an adverse impact on and protects natural resources and ecosystems.

Envision Alachua Sector Plan: The environmental analysis identifies that the conservation component of the Framework Map will add significant regional landscape linkages and ecological value to the existing conservation framework. A primary goal of the Framework Map is the creation of a significant job center in East County in the context of an "Economic Progress Corridor" along SR 20, linking, from east to west, UF/Gainesville, East Gainesville, Plum Creek lands in East County, and the City of Hawthorne.

(II) Promotes the efficient and cost-effective provision or extension of public infrastructure and services

Envision Alachua Sector Plan: The physical configuration of Plum Creek land in East County—with its framing east-west connections of SR 20 and SR 26 and its north-south connections of US 301 and the rail line—promotes a strategy of concentrated development which utilizes existing infrastructure.

(III) Promotes walkable and connected communities and provides for compact development and a mix of uses at densities and intensities that will support a range of housing choices and a multimodal transportation system, including pedestrian, bicycle, and transit, if available.

Envision Alachua Sector Plan: The development patterns for Plum Creek's lands in East County portray a community that will be compact, urban, mixed use, connected to other urban places, and walkable, with multiple modes of transportation and opportunities for recreation. The development pattern of walkable mixed use Centers facilitates access to employment opportunities, encourages compact, integrated development, and promotes the establishment of healthy and efficient community hubs. Corridors are envisioned as multi-modal routes, accommodating vehicular traffic as well as pedestrians, bicycles, and transit in line with future demand.

(IV) Promotes conservation of water and energy.

Envision Alachua Sector Plan: The large scale conservation component of more than 46,000 acres (76% of Plum Creek's EASP property) reflected in the Framework Map contributes to the regional landscape and protects the community watershed of Orange Lake. The Framework Map and its associated land use program and development patterns are rooted in the goal of achieving efficient use of land and resources. The Centers development pattern suggest a network of interconnected mixed use, pedestrian and bicycle friendly, and transit supportive places intended to promote walkability and reduce automobile use. The EASP will be guided by the community's vision which calls for a comprehensive and balanced water solution to serve the additional employees and residents anticipated to come to Alachua County. A balanced solution is one in which water is valued, viewed as part of a complete system, and incorporated as an integral and participatory feature of community design. Planning and design approaches to achieve this goal include eliminating the use of potable water for irrigation of business and residential property, incorporation of "Florida Friendly" landscaping of native and drought tolerate species, and ensuring that first priority for reuse water will be natural systems, agriculture, and industry.

(V) Preserves agricultural areas and activities, including silviculture, and dormant, unique, and prime farmlands and soils.

Envision Alachua Sector Plan: The proposed Agriculture Land Use in the Framework Map allows for the maintenance of functioning, productive agricultural operations and lands, accommodates agricultural support activities, and protects prime farmland for use by existing and future generations. Agriculture Land Use also is envisioned as a "transition zone" to EOMU Land Use, providing a buffer to existing agricultural communities. Conservation Land Use allows for forestry management to continue, while ensuring long term conservation of key landscape linkages.

(VI) Preserves open space and natural lands and provides for public open space and recreation needs.

Envision Alachua Sector Plan: The Sector Plan identifies a significant conservation strategy to protect natural resources and provide for public open space, including more than 46,000 acres of Conservation Land Use. Additionally, the EOMU Land Use includes a minimum of 1,700 acres of Resource Based Open Space to provide for the enhancement and protection of open space resources, as well as an additional minimum 1,700 acres of other open space for active and passive recreation, neighborhood parks, and working agriculture, among other open space and recreation needs.

(VII) Creates a balance of land uses based upon demands of the residential population for the nonresidential needs of an area.

Envision Alachua Sector Plan: In addition to offering regional employment opportunities research and development, education, and advanced manufacturing, among other employment opportunities, the land use program and development patterns anticipate a "complete community" offering local services and amenities, such as schools, neighborhood retail, grocery shopping, and diverse open spaces. Development patterns are intended to encourage a balanced mix of commercial, institutional, residential, and civic development.

(VIII) Provides uses, densities, and intensities of use and urban form that would remediate an existing or planned development pattern in the vicinity that constitutes sprawl or if it provides for an innovative development pattern such as transit-oriented developments or new towns as defined in s. 163.3164.

Envision Alachua Sector Plan: The development pattern of Centers is intended to promote an innovative, efficient, and flexible framework for diverse and synergistic land uses, the protection of natural resources and the efficient use of land through compact urban form, and connected, pedestrian-friendly, healthy communities. This new development form and vocabulary within Alachua County aims to support employment-focused, compact, pedestrian friendly mixed use development, support the demands of residents, and avoid the negative impacts of urban sprawl.

Enhance Opportunities for Job Creation

A primary goal of the Envision Alachua Sector Plan is the creation of a significant employment center in East County. The capacity and quality of existing transportation infrastructure, coupled with the economic engine of the University of Florida and its commercial collaborators, suggest the potential for an "Economic Progress Corridor" along SR 20, linking, from east to west, the University of Florida, Gainesville, East Gainesville, Plum Creek lands, and Hawthorne.

Provide a Range of Housing Types

The EOMU Land Use program envisions a diverse and balanced range of housing types, including multifamily, townhouse, small and large lot single family, and rural homes. Allowing for such a range of residential densities and typologies encourages the creation of communities with households of different ages, sizes, and makeup.

Protect Wildlife and Natural Areas

The Sector Plan proposes a significant conservation strategy to protect wildlife and natural resources. Conservation Land Use areas have been identified on the Framework Map for their contribution to regional landscape linkages, contiguity with existing conservation lands, and opportunity to contribute to the conservation and enhancement of natural resources, community watersheds, and natural preserves, among others. The proposed Conservation Land Use as illustrated on the Sector Plan Framework Map is more than 46,000 acres, or 76% of Plum Creek's EASP property.

Promote Efficient Use of Land and Other Resources

The Framework Map, and its associated land use program and development patterns, is rooted in the goal of achieving efficient use of land. EOMU Land Use is proposed on approximately 19% of Plum Creek's lands within Alachua County, strategically located near existing infrastructure and to permit large-scale protection of natural systems.

Advance a More Clean, Healthy Environment

Long-term master planning provides an opportunity to develop a healthy community environment. The development patterns of Centers described earlier in this section suggest a development form which achieves employment-focused, compact, pedestrian friendly mixed use development designed to avoid the negative impacts of urban sprawl such as traffic congestion and environmental degradation.

Create Quality Communities that Promote Multi-modal Transport

The development patterns envisioned for Plum Creek's lands in East County portray a community that will be compact, urban, mixed use, connected to other urban places, and walkable, with multiple modes of transportation and opportunities for recreation. The Centers strategy facilitates access to employment centers, encourages concentrated mixed use development, and promotes the establishment of compact, healthy and efficient community hubs. Centers will be internally and externally connected via multi-modal corridors accommodating vehicular traffic as well as pedestrians, bicycles, and transit.

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Fred Merrill, AICP, LEED AP, Principal in Charge
Alan Ward, FASLA, Design Principal
Alexandra Toteva, Project Manager & Senior Planner
Hernan Schlosman, Senior Urban Designer
Justin Fay, AICP, Senior Planner
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