



# ***Alachua County, FL Special Meeting***

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## **Meeting Agenda - Final**

**Tuesday, September 20, 2022**

**5:00 PM**

### **BoCC Special Meeting - Lee Special Area Study Discussion**

The public can comment at the scheduled meeting either in person or by calling in. The call-in number is 1-929-205-6099. When prompted, enter meeting ID 873 5974 1977. If you wish to comment, Raise Your Hand by dialing \*9. Once you are called on by the last four digits of your phone number, Unmute Your Phone by dialing \*6. Members of the public who wish to speak are asked to limit their comments to three minutes.

Masks for vulnerable citizens are strongly recommended

The public may view the meeting on Cox Channel 12 and the County's Video on Demand website: [http://alachua.granicus.com/ViewPublisher.php?view\\_id=8](http://alachua.granicus.com/ViewPublisher.php?view_id=8)

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Citizens attending Alachua County public meetings downtown can enjoy free parking in the S.W. Parking Garage (105 SW 3rd St, Gainesville). To obtain parking validation, download the "Passport" app on your smartphone and pay for your session. Then visit the Alachua County Manager's Office, located on the 2nd floor of the County Administration Building, on noticed public meeting days to receive a validation code.

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All persons are advised that, if they decide to contest any decision made at any of these meetings, they will need a record of the proceedings and, for such purpose they may need to ensure that verbatim record of the proceedings is made which record includes the testimony and evidence upon which the appeal is to be based. (Section 286.0105 Florida Statutes)

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If you have a disability and need an accommodation to participate in this meeting, please contact the Alachua County Equal Opportunity Office at (352) 374-5275 at least 2 business days prior to the meeting. TTY users please call 711 (Florida Relay Service).

## **Approval of Agenda**

### **Items for Discussion**

1. 22-0794 Special Area Study Workshop for Hickory Sink Strategic Ecosystem/Lee Property

Staff Report\_SAS Lee-Hickory Sink 9-20-2022 BoCC.pdf  
Special Area Study Original Report April 11 2022  
Special Area Study Supplement July 5 2022  
Presentation\_SAS Stakeholder Workshop\_9-20-2022.pdf  
Comprehensive Plan Policies on Special Area Planning Process.pdf  
ULDC Section\_Special Area Plan Process.pdf  
Scope of Work\_SAS\_Aproved 6-9-2020.pdf

### **Closing Comments**

Public Comment

Commission Comment

### **Adjourn**



## Agenda Item Summary

Agenda Date: 9/20/2022

Agenda Item No.: 1.

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**Agenda Item Name:**

Special Area Study Workshop for Hickory Sink Strategic Ecosystem/Lee Property

**Presenter:**

Environmental Protection and Growth Management Department Staff

**Description:**

This is a stakeholder workshop for a Special Area Study for the Lee Property/Hickory Sink Strategic Ecosystem in southwestern Alachua County. The County is required to conduct a minimum of one stakeholder workshop as part of the Special Area Study process in accordance with Section 402.101 (a) of the Unified Land Development Code (ULDC). The purpose of this meeting is for staff and the applicant to present the Special Area Study to the Board of County Commissioners and for the Board take public input on the Special Area Study. No action is required by the Board at this meeting. A follow-up meeting is scheduled for October 11<sup>th</sup> at 5:00 p.m., where the Board may consider whether to accept the Special Area Study and authorize preparation of a Special Area Plan for the subject property as part of the next step in the special area planning process.

**Recommended Action:**

Receive staff and applicant presentations and public input on the Special Area Study.

**Prior Board Motions:**

June 9, 2020: The BoCC approved the Scope of Work for the Special Area Study.

**Fiscal Consideration:**

There is no fiscal impact associated with conducting this workshop on the Special Area Study.

**Strategic Guide:**

All Other Mandatory and Discretionary Services

**Background:**

In May of 2020, FCL Timber, Land & Cattle, LLLP ("FCL"), through its agent, requested that the County initiate a special area planning process for approximately 4,068 acres of land in southwestern Alachua County, and submitted a Scope of Work for a Special Area Study that would be conducted by the applicant in accordance with the Section 402, Article 16 of the Unified Land Development Code (ULDC). The Board of County Commissioners, on June 9, 2020, approved the Scope of Work for the Special Area Study (attached). In April 2022, the applicant submitted the draft Special Area Study report for the County's review. After receiving initial comments from County staff on the initial Study, the applicant then submitted a supplement to the Special Area Study in July of 2022. The

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attached staff report provides a review of the applicant's Special Area Study (including the original Study and the Supplement) in relation to the County's Comprehensive Plan and ULDC requirements.

The general purpose of Special Area Planning is to provide a process wherein the specific circumstances for a sub-area of the County are analyzed, and planning considerations are addressed, at a detailed level as part of a collaborative effort between the County, the landowner, and the public.

The Alachua County Comprehensive Plan provides that a Special Area Planning process is necessary prior to the approval of a land use change, zoning change, or development plan within areas designated as Strategic Ecosystems. A Special Area Planning process is also required for subdivisions of greater than 100 lots in the "Rural/Agriculture" areas of the County. The subject property contains the majority of the "Hickory Sink" Strategic Ecosystem as designated and mapped generally in the County's Comprehensive Plan. Given the Strategic Ecosystem designation, the size of the property (~4,068 acres), and information in the Special Area Study report about anticipated land use scenarios for the property, a special area planning process is required for this property as a prerequisite to any proposed land use or zoning change, or development plan approval.

Chapter 402 Article 16 of the Alachua County Unified Land Development Code (ULDC) spells out the process for special area planning (see attached ULDC Section). The process includes three steps, and the Special Area Study is step two of that process:

1. Scope of Work
2. Special Area Study (current step)
3. Special Area Plan

Each step in the process must be completed before proceeding to the next step. Each step of the Special Area Planning process is summarized below.

**Step 1. The Scope of Work** is required to identify the geographic areas included in the Special Area Study/Plan and the issues and process to be used for the Study. The Scope of Work must be presented to the Board of County Commissioners, and the Board may approve, deny, or approve with modifications.

As noted above, on May 1, 2020, FCL Timber, Land & Cattle, LLLP ("FCL") submitted a letter to the County and a proposed Scope of Work for a special area planning process for its ~4,000 acre property in southwestern Alachua County. The Scope of Work was presented to the Board of County Commissioners and approved on June 9, 2020.

**Step 2. The Special Area Study (current step)** is required to provide an analysis of existing conditions, infrastructure, and natural resources relevant to the issues or circumstances identified in the Scope of Work, and provide recommendations for potential strategies or actions to be pursued as part of the Special Area Plan in the next step of the process. The detailed requirements for the Special Area Study are provided in Section 402.101(a) through (f) of the ULDC (see ULDC special



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area planning section, attached). For Strategic Ecosystem Special Area Studies such as this, the primary purpose of the Study is to ground-truth the natural resources on the site for purposes of delineating those areas that are required to be permanently protected in accordance with Comprehensive Plan policies and land development regulations. The Strategic Ecosystem resources must be delineated through the Special Area Study regardless of what land use scenario is ultimately proposed for the property.

Pursuant to Section 402.101(f) of the ULDC, a draft special area study shall be presented to the Board of County Commissioners. The Board shall consider whether to accept the study and whether to authorize any specific follow-up recommendations or strategies that have been identified as part of the study.

**Step 3. Special Area Plan.** If the Special Area Study is accepted by the Board of County Commissioners, then the next step in the process is the Special Area Plan. The Special Area Plan is the stage where the recommendations identified as part of Special Area Study are implemented through proposed Comprehensive Plan policies, zoning, and land development regulations for the property.

The Special Area Plan may include proposed Comprehensive Plan amendments to establish new or revised goals, objectives, and policies in the Plan and/or revisions to the Future Land Use Map for the property. The Special Area Plan may also include proposed zoning changes for the property to implement any amendments to the Comprehensive Plan. Both the Comprehensive Plan amendment process and the rezoning process require Neighborhood Workshops, public hearings of the Local Planning Agency/Planning Commission, and BoCC public hearings.



# Alachua County Staff Report

**Project Name:** Hickory Sink Strategic Ecosystem Special Area Study (SAS-01-22)

**Applicant/Agent:** Patrice Boyes, Esq.

**Landowner:** FCL Timber, Land & Cattle, LLLP

**Staff Contacts:** Jeff Hays, Growth Management Department  
Steve Hofstetter, Environmental Protection Department

**Parcel Numbers:** 4411, 4419, 4432, 4434, 4435, 4479, 4481, 4488, 4491, 4492, 4492-1, 4492-1-1, 4492-2, 4493, 4493-1, 4493-2, 4493-1-1, 4495, 4495-1, 4496-1, 7074, 7074-1, 7074-2, 7074-3, 4501, and 4498

**Future Land Use Designation:** Rural/Agriculture

**Zoning District:** Agriculture ('A')

**Acreage:** Approximately 4068 acres

**Application Description and Requested Action:**

In accordance with the Alachua County Comprehensive Plan and Chapter 402, Article 16 "Special Area Plans" of the Alachua County Unified Land Development Code (ULDC), the applicant/agent on behalf of the landowner has submitted a Special Area Study report for approximately 4,068 acres of land in southwestern Alachua County.

The 4,068-acre subject property comprises much of the Hickory Sink Strategic Ecosystem as designated and mapped generally in the Alachua County Comprehensive Plan (COSE Map 4). Pursuant to Policies 4.10.2 and 4.10.3 of the Comprehensive Plan, Conservation and Open Space Element, a Special Area Plan must be completed prior to approval of any land use change, zoning change, or development approval on land within Strategic Ecosystems.

The special area planning process involves 3 steps: (1) Scope of Work, (2) Special Area Study (current step), and (3) Special Area Plan. The primary purpose of the Special Area Study for a Strategic Ecosystem is to ground-truth the geographic extent and characteristics of protected natural resources within these areas to ensure that the ecological integrity of the Strategic Ecosystem is protected and managed in accordance with the requirements of the Comprehensive Plan and ULDC. The Study must also provide an analysis of land use, public infrastructure and services, and recommendations and strategies for follow-up actions.

**Pursuant to Section 402.101(f) of the ULDC, the draft Special Area Study shall be presented to the Board of County Commissioners, and the Board shall consider whether to accept the Study and whether to authorize any specific follow-up recommendations or strategies that have been identified as part of the study.** If the Special Area Study is accepted by the Board of County Commissioners, then the next step in the process would be a Special Area Plan where the applicant may apply for proposed Comprehensive Plan amendments and zoning changes to implement the recommendations of the Special Area Study.

## **Special Area Planning: General Purpose and Process Steps**

The general purpose of special area planning within the Alachua County Comprehensive Plan is to address specific planning needs and circumstances at a more detailed level than may be possible through the application of generally applicable policies and regulations as part of the development plan review process. Special area planning may be used to evaluate and protect unique natural resource features, preserve the character of neighborhoods, or plan for public infrastructure and facility needs within a sub-area of the County. Special area planning is intended to be a collaborative planning process based on broad participation by the community.

The Alachua County Comprehensive Plan provides that a Special Area Plan must be completed for development within areas designated as Strategic Ecosystems and for subdivisions of greater than 100 lots in the “Rural/Agriculture” areas of the County. The majority of the “Hickory Sink” Strategic Ecosystem as designated and mapped generally in the County’s Comprehensive Plan is comprised of lands owned by FCL Timber, Land & Cattle LLLP. Given the property’s location relative to the mapped Strategic Ecosystem, the size of the property (~4,068 acres), and information in the Special Area Study report about anticipated land uses for the property, a special area planning process is required prior to any development of the site.

ULDC Chapter 402 Article 16 spells out the process for special area planning. The process includes three steps:

1. Scope of Work
2. Special Area Study (current step)
3. Special Area Plan

Each step in the process must be completed before proceeding to the next step.

1. The Scope of Work is required to identify the geographic areas included in the Special Area Study/Plan and the issues and process to be used for the Study. The Scope of Work must be presented to the Board of County Commissioners, and the Board may approve, deny, or approve with modifications.

On May 1, 2020, the applicant submitted a letter to the County and a proposed Scope of Work for a special area planning process for its ~4,068 acre property. The Scope of Work was presented to the Board of County Commissioners and approved on June 9, 2020.

2. The Special Area Study is required to include an analysis of existing conditions, infrastructure, and natural resources relevant to the issues or circumstances identified in the scope of work, and to provide recommendations for potential strategies or actions to be pursued as part of the Special Area Plan in the next step of the process. The detailed requirements for the Special Area Study are provided in Section 402.101 of the ULDC. Each of these requirements are addressed later in this report.

Pursuant to Section 402.101(f) of the ULDC, the draft Special Area Study shall be presented to the Board of County Commissioners. The Board shall consider whether to accept the study and whether to authorize any specific follow-up recommendations or strategies that have been identified as part of the study.

3. If the Special Area Study is accepted by the Board of County Commissioners, then the next step in the process is the Special Area Plan. The Special Area Plan may include specific actions to implement the recommendations that are identified as part of Special Area Study.

At the Special Area Plan stage, the applicant may apply for Comprehensive Plan amendments to establish new or revised goals, objectives, and policies in the Plan and/or revisions to the Future Land Use Map for the property. Such amendments will be based on the information and recommendations contained within the Special Area Study and must also be based on appropriate supporting data and analysis for the specific amendments that are proposed. The applicant may also apply for zoning changes for the property to implement any amendments to the Comprehensive Plan. Both the Comprehensive Plan amendment process and the rezoning process require Neighborhood Workshops, public hearings of the Local Planning Agency/Planning Commission, and BoCC public hearings.

### **Special Area Study Documents Submitted by Applicant**

The Special Area Study that has been submitted by the applicant for the County's consideration includes the following two separate documents:

1. Special Area Study Original Report dated April 11, 2022, which contains the following information and exhibits:

- a. Overview, Special Area Study Report dated April 11, 2022
- b. Composite Exhibit A (First and Second Stakeholder Workshop mail-outs, newspaper ads,
- c. CHW proof of publication, Stakeholder Workshop minutes and presentations)
- d. Exhibit B – ECT Report of Significant Geologic Features
- e. Exhibit C – Cardno Special Area Study Report
- f. Exhibit D – CHW Planning Report (including Map Set and Appendix)
- g. Exhibit E – Excerpt of KBN/Golder Report (Hickory Sink Strategic Ecosystem)

2. Supplement to Special Area Study Report dated July 5, 2022

The Supplement document was prepared and submitted in response to County's staff's initial review comments on the applicant's original Special Area Study dated April 11, 2022. The Supplement is considered a part of the Special Area Study.

Both of the above documents, including the exhibits that they contain, together comprise the Special Area Study that has been submitted for the County's consideration.

## **Overview of Comprehensive Plan Land Use Policy Framework**

The County's land use policy framework for the unincorporated area of Alachua County, as articulated in the Alachua County Comprehensive Plan, involves focusing urban development within a defined area known as the Urban Cluster and providing the necessary levels of services and infrastructure to support urban development within that area. The unincorporated areas outside of the Urban Cluster are designated to remain rural, with land uses that primarily include agriculture and related uses, lower density residential, and preservation areas.

As a land use planning tool, the Urban Cluster is intended to help contain urban sprawl and ensure that urban expansion is phased and planned based on reasonable projections of population growth and the efficient provision of public infrastructure and services. The Urban Cluster also helps to protect the County's valuable agricultural lands and large-scale natural resource conservation areas from encroachment by urban development.

The Urban Cluster line is designated on the Future Land Use Map, and it includes the unincorporated areas immediately surrounding the City of Gainesville. Policies in the Comprehensive Plan require urban types of development, such as residential uses at densities >1 unit per acre, commercial, industrial, and mixed-use development to be located within the Urban Cluster where it can be most efficiently served by an urban level of public services and infrastructure including roads, transit, centralized water and wastewater systems, emergency services, solid waste curbside collection, activity-based parks, and public schools.

The land that is the subject of the Special Area Study is located outside of the designated Urban Cluster boundary and is therefore subject to the policies for Rural and Agricultural areas under the County's adopted Comprehensive Plan. The Comprehensive Plan calls for the protection of rural and agricultural areas in a manner consistent with the retention of agriculture, open space, and rural character, the preservation of environmentally sensitive areas, and efficient use of public services and facilities.

The subject property currently has a Future Land Use designation of "Rural/Agriculture". Within Rural/Agriculture areas, the Comprehensive Plan generally limits allowable land uses to agriculture, silviculture, residential at maximum densities of 1 unit per 5 acres, preservation, heritage and ecotourism, and limited commercial uses related to agriculture activities. The Comprehensive Plan does not currently plan for urban levels of public services and infrastructure outside of the Urban Cluster and within Rural/Agriculture areas because it is generally not economically efficient to do so.

As part of the Special Area Study, the applicant is recommending a land use scenario for the subject property ("Master Planning Scenario" or "Collaborative Planning Scenario", discussed later in this report) which would allow for urban types of development that would be served by urban levels of public services on certain portions of the subject property. This would involve a significant shift in the County's overall policy framework for land use planning as articulated in the Comprehensive Plan and would require that significant amendments be made to the Comprehensive Plan.

## **Strategic Ecosystem Background and Evaluation**

The location and extent of specific natural resources, as well as the higher and lower valued portions of the strategic ecosystem are delineated in the applicant's Special Area Study and further clarified and identified in the additional information provided below.

### **Proposed Conservation Management Set-Aside Areas**

County staff worked with the applicant to identify and select the portions of the strategic ecosystem and other identified regulated natural resources that are included in the priority recommended set-aside areas based on the information provided in the Study as well as information gathered from several onsite visits and additional reference materials (see Appendix B, reference list).

The critical strategic ecosystem and water resources that are recommended for protection as conservation management area open space are identified in Figure 1 of this Staff Report. Additional strategic ecosystem areas that are lower priority set-aside but still recognized as within the mapped strategic ecosystem are also identified as areas that shall contain specific standards for development that are consistent with comprehensive plan and ULDC. These specific standards and practices will be further spelled out in the special area plan. The areas found not to contain strategic ecosystem resources or regulated resources will be eligible for consideration for development as part of the special area plan. Additional open space areas will be integrated into the development strategies consistent with the County's ULDC open space requirements and the protection of the ecological integrity of the strategic ecosystem as a whole.

The areas recommended for set aside include a large tract west of the Flint Rock subdivision (west of Parker Road) that contains strong remnants of a sandhill/high pine community with a somewhat intact diverse ground cover that supports a large gopher tortoise population. With proper management and the planting of longleaf pine, this area can continue to support a diverse population of plants and animals that are rare in this area of north Florida. There is a wetland area to the southwest of this habitat that is also recommended to be protected that also provides connectivity to the southwest where large tracts of natural areas and farmland still exist.

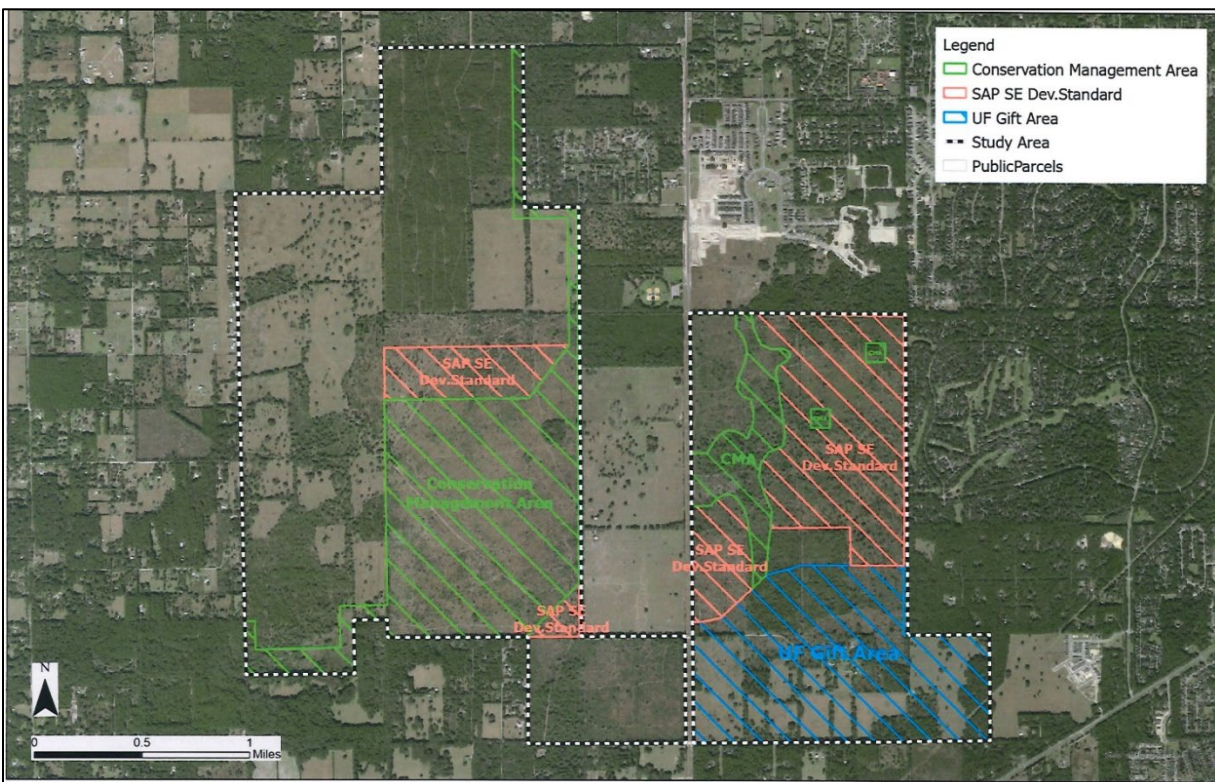
There is a cluster of sinkholes, caves, and other depressional features located in the northeast portion of the project area (east of Parker Road) that is recommended as a conservation management area as well as two other isolated features that are significant and are to be protected with at least a 5-acre set-aside area surrounding each of them. Based on the sensitivity of these features, there are development standards and recommendations that will be included in the Special Area Plan (SAP) to ensure the protection of these features and their associated hydrology.

Based on the best available data and onsite evaluations, staff has determined that there are 1,490 acres of strategic ecosystem as depicted in the map below (Figure 1 of Staff Report), which include the green hatch area identified as the minimum Priority Conservation Management Areas (CMAs), as well as additional strategic ecosystem resources identified in the pink hatching.

Staff agrees with the applicant that the areas identified as CMAs in the Master Planning Scenario (map shown in Attachment A Page 3 of Special Area Study Supplement dated July 5, 2022) along with Figure 17 of the Cardno report (which includes the isolated geologic features), represent the highest quality and priority areas for protection, and the *minimum* conservation management areas to be protected regardless of other land uses identified or proposed in the SAP. The Conservation Management Areas (CMA) in Figure 1 of this Staff Report are the same as shown in *Figure 17. Proposed Set Aside Map* in the applicant's Special Area Study Report. The CMA area is approximately 850 acres and consists of approximately 681 acres of Sandhill/High Pine habitat, and 166 acres of Upland Mixed Forest, and 3 acres of Marsh habitat. The significant geologic features are located within the Upland Mixed Forest areas.

Staff has identified additional lower priority habitat areas in Figure 1 of this Staff Report in the salmon/pink hatching as 'SAP SE Development Standard' areas. These areas add up to approximately 640 acres and consist of somewhat lower quality habitat that is adjacent to or surrounds higher quality or more sensitive habitat and geologic features. Under the current land use and zoning designation for SEs, development within these areas shall be consistent with Section 406.03(b)(1)(2), which limit density and intensity in SE resources outside the set-aside area. If more intense land use options are considered, additional open space and set-aside areas may be necessary to properly protect the integrity of the strategic ecosystem and associated water and natural resources on the property.

**Figure 1. Staff Recommended Conservation Management Areas Map. This map depicts proposed Conservation Management Areas (Green hatching) to be set aside and additional areas (salmon/pink hatching), that if developed, are recommended by staff to follow specific development standards consistent with the County's Strategic Ecosystem policies.**





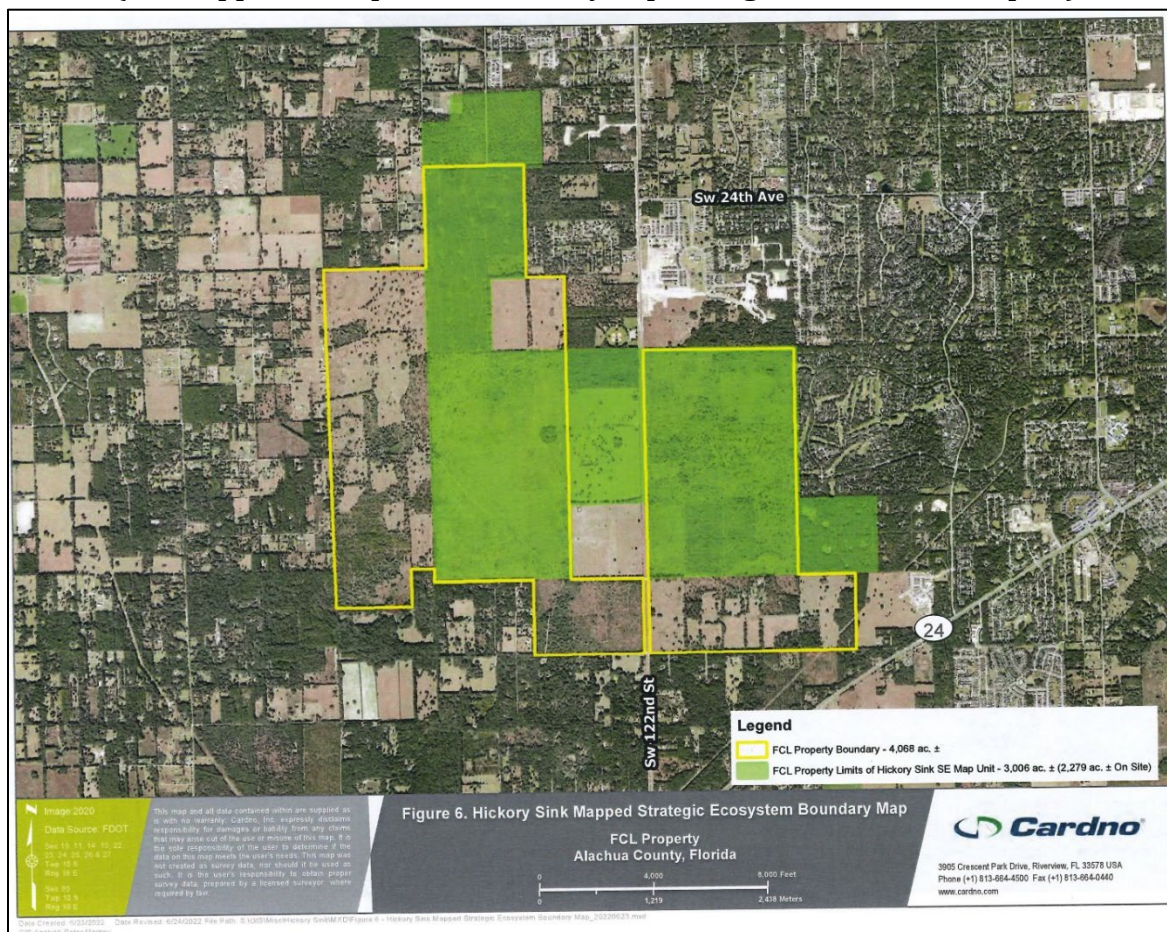
## Strategic Ecosystems Background

Strategic Ecosystems are defined in the Comprehensive Plan and ULDC as sites that are identified in the KBN/Golder Associates report, "Alachua County Ecological Inventory Project" (1996). The purpose of the Report prepared by KBN Engineering and Applied Sciences, Inc. was to identify, inventory, map, describe, and evaluate the most significant natural biological communities, both upland and wetland, that remain in private ownership in Alachua County and made recommendations for protecting these natural resources. The Report identified 47 sites based on six ecological, hydrological, and management parameters. The study did not focus on the public water bodies and publicly owned lands in the county.

The KBN/Golder Associates report is further referred to in this document as the KBN or KBN report. The KBN report identified the strategic ecosystem (SE) on the parcel as the Hickory Sink Strategic Ecosystem.

Figure 2 below is a Hickory Sink Mapped Strategic Ecosystem Boundary Map from the applicant's Special Area Study Report (Figure 6 of Cardno Report) that shows the strategic ecosystem area as identified in the KBN report prior to ground-truthing.

**Figure 2. Hickory Sink Mapped Strategic Ecosystem Boundary Map  
(from Applicant's Special Area Study Report, Figure 6 of Cardno Report)**





As depicted in Figure 2 above (Cardno report Figure 6), the subject property contains approximately 2,279 acres that are within the mapped 3,006-acre strategic ecosystem. The KBN report describes this strategic ecosystem as having the following values:

- Species diversity was identified as very low based on the vegetation recorded or estimated at the site. *The KBN staff had limited access to the site to complete their report. However, based on staff's site visits there are higher species diversity in portions of the property than described by the KBN report. Habitat conditions are further discussed in the next section.*
- In relation to exotic (nonnative) species, some exotics are present and the property is conducive for introduction of exotic plants and animals based on the surrounding properties and prior management practices. *Staff observed some nonnative species on the property, but generally low in percent cover for most areas.*
- The KBN described the wildlife habitat value as having moderate cover, medium edge to cover ratio, and commonly used by game and non-game animals. *Based on the management and prior use of the site, staff found that the majority of the site fits this description.*
- The KBN identified this property as an area of great importance for aquifer recharge, with some karst features with high vulnerability of the Floridan Aquifer. Based on the limited number of wetlands on the property, the report identified the property as having little value for water storage or protection of surface water quality. *Staff agrees with the assessment of this property having a high importance for aquifer recharge and high vulnerability for the aquifer. Protecting the groundwater from pollutants and retaining open space for recharge should be a major consideration for any future uses on the property.*
- At the landscape ecology level, the KBN reports one to three communities in good quality but with most community types in poor condition, isolated with no functional connections. However, the report also recognizes the existence of rare habitats on site. *Staff notes that during the evaluation for the 1996 KBN report, there was a higher percentage of pine plantations present on the property that were subsequently clear-cut with only minor re-establishment of the plantations. Natural recruitment and generation of native species post-logging resulted in habitat improvements to the referenced "Upland Pine Forest" and "Upland Mixed Forest" categories that were previously rated as "poor" condition (table below).*
- Based on the location and surrounding uses this is a difficult location for management, however, some habitats could be maintained in or restored to good condition, but would require vigilant management. *The Lee family noted to staff that for various reasons, prescribed fire applications were conducted by burning larger contiguous acreages (referred to as "burn units"). Resource land agencies such as Alachua Conservation Forever (ACF) and Alachua Conservation Trust (ACT) routinely apply prescribed fire to smaller burn unit areas where appropriate and necessary. In many situations with*

*smaller units, there are increases in fire effectiveness resulting in enhanced habitat benefits; and the same prescribed fire method could be applied within the subject property.*

Based on the site assessment of the property by the Environmental Protection Department, staff concludes that the values described in the KBN report are still relatively accurate and the site as a whole has not changed dramatically since the report was completed in 1996.

The KBN report identified the Hickory Sink Strategic Ecosystem with the following bio-community types and acreages:

<b><u>BIO-COMMUNITY TYPES</u></b>	<b><u>ACRES</u></b>	<b><u>CONDITION OF BIO-COMMUNITY</u></b>
Upland Mixed Forest	81	poor (pioneer hammock)
Upland Pine Forest	2560	poor
Sinkhole	56	good to fair
Sinkhole Pond	1	good
Cave (dry)		good
Old Field Pine Plantation	205	[not an ecological community]
Improved Pasture	103	[not an ecological community]

### **Strategic Ecosystems and Ground Truthing**

The KBN report states that site boundaries generally conform to property boundaries, roads, section lines, or other surveyed lines. Therefore, under the requirements of the Comprehensive Plan and ULDC, and specifically Section 406.33 ULDC, *the specific location and extent of strategic ecosystem resources shall be determined through ground-truthing using the KBN/Golder Associates report as a guide to determine the location and extent of the ecological community or communities described, generally, in the KBN/Golder report or of other natural resources generally consistent with the pertinent site summary in the KBN/Golder report.* So, following this approach, the non-ecological communities, like the old field pine plantation, improved pasture, and other areas that at the time of ground truthing do not consist of one of the bio-communities described above (i.e., upland mixed forest, upland pine forest, sinkhole, sinkhole pond, and cave) may be excluded from the SE and be eligible for development outside of any SE requirements.

The remaining areas that still consist of the ecological communities listed above would then be recognized as within the SE and would then need to be evaluated to determine what areas should be protected to maintain the integrity of the system and what areas could be considered appropriate for potential development. As stated in Section 406.33 ULDC, *variability of community quality shall not be a basis for delineation but may be a basis for determining the most appropriate locations for development and conservation, respectively.* Then the code goes on to state, *those areas found not to contain strategic ecosystem resources* (again those areas that do not contain natural communities listed above for this specific strategic ecosystem) *shall be eligible for consideration for development as part of a development plan or special area plan provided the ecological integrity of the strategic ecosystem as a whole will be sufficiently protected.*

As previously stated, the ULDC and Comprehensive Plan define strategic ecosystems as sites that are identified in the KBN/Golder Associates report. Per Section 406.33 ULDC, the specific location and extent of

strategic ecosystem (SE) resources shall be determined through ground-truthing using the KBN/Golder Associates report as a guide and can be implemented through the special area planning process. Variability of habitat community quality shall not be a basis for the delineation (*underlined for emphasis*) but may be a basis for determining the most appropriate locations for development and conservation.

The project area owned by the applicant is approximately, 4,068 acres (includes both sides of Parker Rd) and the mapped (prior to ground-truthing) SE portion of the project area is approximately 2,278.9 acres (see Figure 2 of Staff Report).

Based on the data provided in the report and the information provided in the KBN/Golder Associates report, the property meets the designation of the strategic ecosystem based on average to high values for endangered species habitat, wildlife habitat, community rarity, vulnerability and protection of the Floridan aquifer, and the presence of sink features and caves. Based on a lack of management in areas of the site, some of the site has reduced species diversity and quality, but as mentioned above, that would not disqualify these areas from retaining their SE designation (*underlined for emphasis*).

The location and extent of specific natural resources, as well as higher and lower valued portions of the SE, were delineated within the study area, and with respect to surrounding resources. Any development within the designated SE that is outside of the protected set-aside shall have development densities governed by subsections 406.03(b)(1)(2) ULDC. Those areas found not to contain SE resources are eligible for consideration for development as part of a special area plan (SAP) provided the ecological integrity of the SE as a whole is sufficiently protected (see Sec. 402.101(b) ULDC).

## **Additional Natural Resources of the Strategic Ecosystem**

### **Significant Plant and Wildlife Habitat (Chapter 406, Article III, ULDC)**

Based on the best available data and onsite evaluations, staff has determined that portions of the property qualify as significant plant and wildlife habitat, as described below.

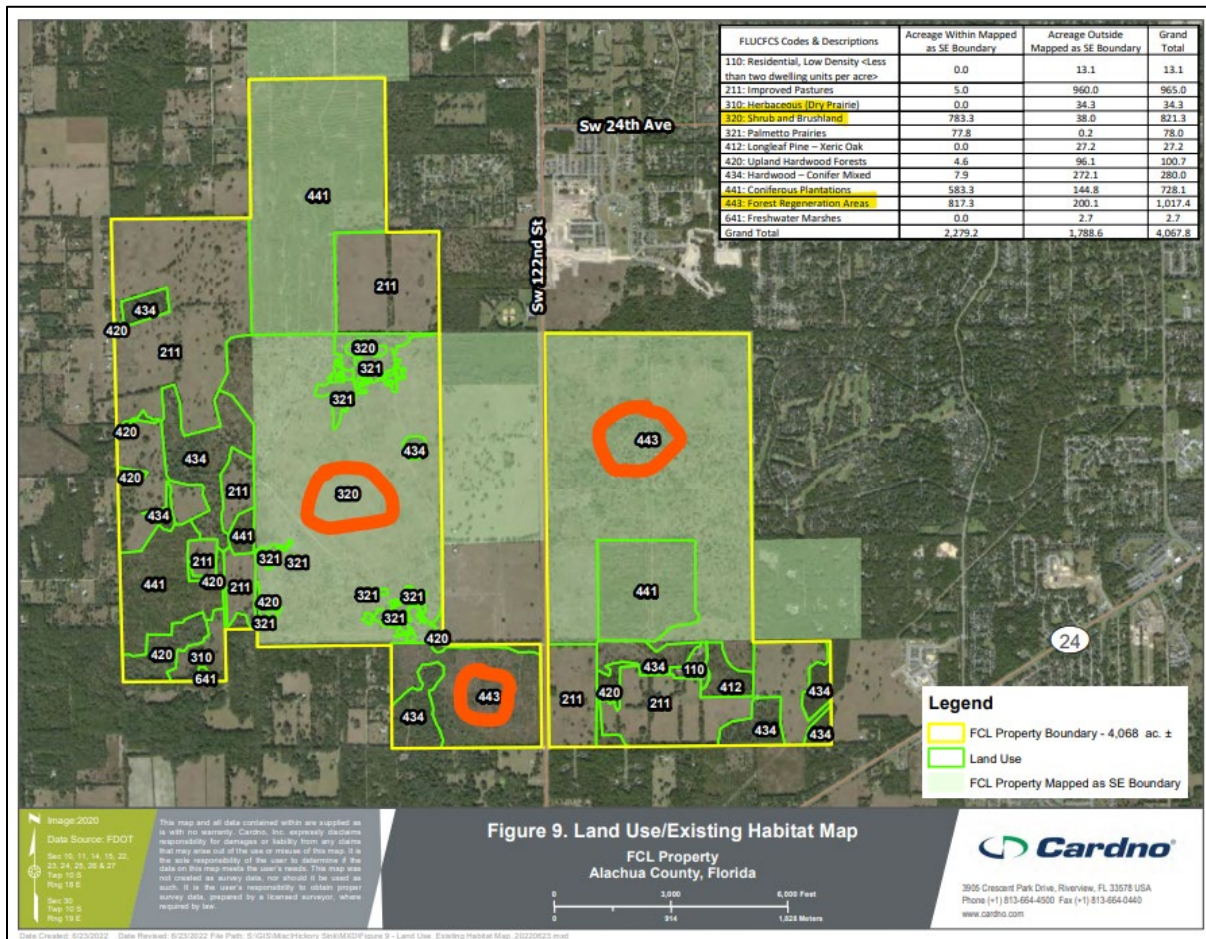
As circled and highlighted in Figure 3 of this Staff Report (Figure 9 of Applicant's Special Area Study), the highest quantities of natural habitats are associated with two referenced land use/cover designations; #320-Shrub & Brushland (821 acres) and #443 – Forest Regenerative Areas (1,017 acres).

In addition to designating appropriate classification, evaluations of the various habitats on the property are critical in determining where areas would qualify as Significant Plant & Wildlife Habitat (SH). Based on the referenced Florida Land Use, Cover and Forms Classification System (FDOT- FLUCFCS, 1999), the definition of 320-Shrub & Brushland is categorized as having “saw palmetto, gallberry, wax myrtle, coastal scrub and other shrubs and brush. Generally, saw palmetto is the most prevalent plant cover intermixed with a wide variety of other woody scrub species as well as wide variety of short herbs and grasses.” Unfortunately, there are not sufficient quantities or types of FLUCFCS categories to provide more appropriate and accurate description of some habitat conditions in Florida. This limitation has been recognized by the State resource agencies so the Florida Fish & Wildlife Conservation Commission (FWC) prepared an additional FLUCFCS in 2018 that incorporates a “Sandhill” category (#1240). Due to the unique and rare habitat conditions

associated with the western area designated as #320, the “Sandhill” classification is a more appropriate and accurate description compared to “Shrub & Brushland.” For the definition of 443-Forest Regenerative Areas, the FLUCFCS states “these are areas in which it is clearly evident that harvested stands will be reforested through one of the various silvicultural practices prescribed in Florida’s forests rather than being allocated for another land use or abandonment.” Over the last decade, harvesting of pine plantations within the Lee property have not been followed with re-establishment of planted pine. It is referenced in the Cardno evaluation that these areas were historically sandhill communities. However, it is also accurately reported that less frequent application of prescribed fire has resulted in dominance and dense generation of hardwood species in these areas that have yet to achieve maturity. As a result, vegetation and habitat conditions are not similar to the sandhill habitat within the referenced west area. Granted, the diversity of habitat conditions within these #443 areas results in a few various alternative FLUCFCS categories that could provide a more appropriate classification (e.g. #412-Longleaf Pine-Xeric Oak, #421-Xeric Oak). Probably the most appropriate would be #423-Oak-Pine-Hickory, that has the following definition: “This is a mixed forest community in which no single species is consistently dominant. However, this is a predominantly hardwood forest type in which various southern pine are major associate species. Major component species of this community may include southern red oak, post oak, chestnut oak, black oak, live oak, loblolly pine, shortleaf pine, slash pine, mockernut hickory and pignut hickory in addition to numerous minor associated species.”

With the unique and rare vegetative and habitat components, the referenced Sandhill and Oak-Pine-Hickory areas would qualify for SH. However, there are other habitats within and beyond the mapped Strategic Ecosystem that have components that could also qualify as SH. Examples could include portions of areas delineated in Figure 3 (Cardno Report Figure 9) as #321-Palmetto Prairies, #412-Longleaf Pine-Xeric Oak, #420-Upland Hardwood Forests and #434-Hardwood-Conifer Mixed. Additional evaluation may be necessary as part of any future development review or special area plan process to determine which areas would appropriately qualify for additional protection or set aside.

**Figure 3. Land Use/Existing Habitat Map**  
(from Applicant's Special Area Study Report, Figure 9 of Cardno Report)



### **Listed Plant and Animal Species Habitat (Chapter 406, Article IV, ULDC)**

Based on the best available data and onsite evaluations, staff has determined that portions of the property qualify as listed plant and animal species habitat, as described below.

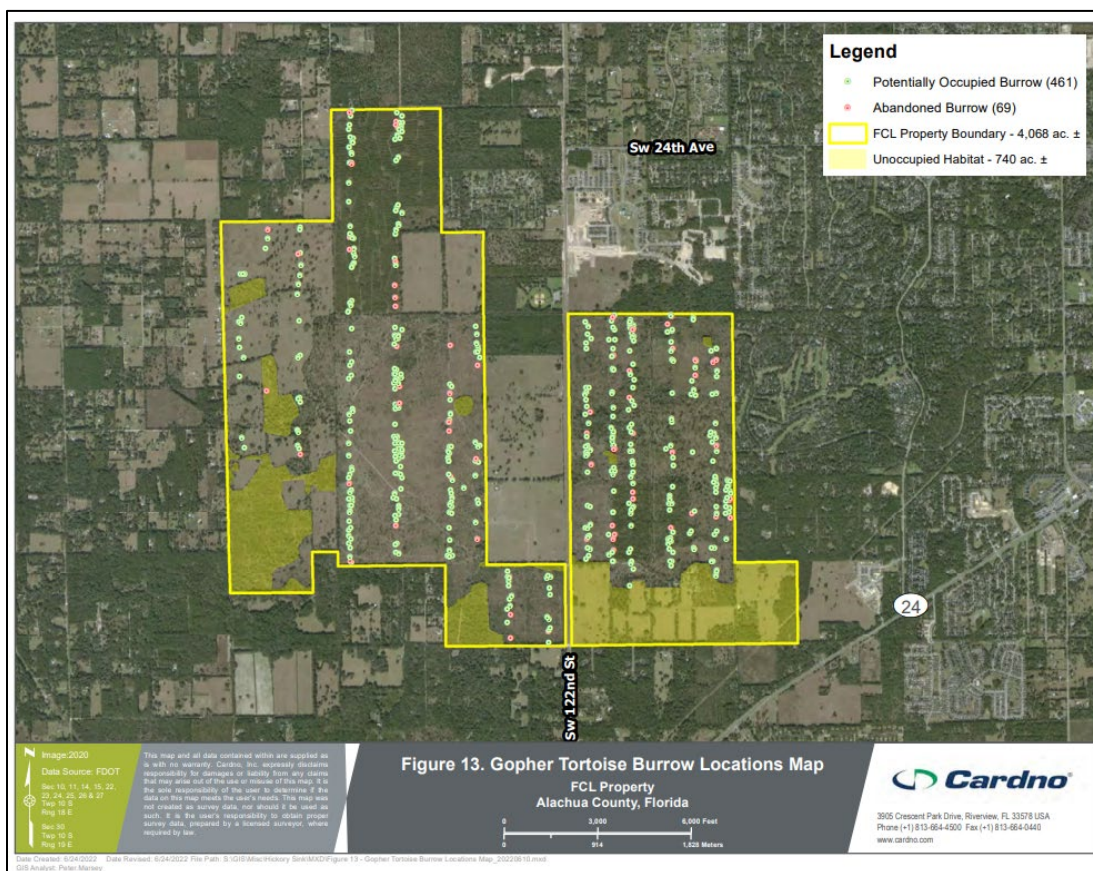
History of listed species habitat on site – Based on the KBN 1986 report, this property contained one of the largest intact pieces of restorable longleaf pine/southern red oak community left in peninsular Florida in the 1980s. Since then, and as mentioned in the KBN 1997 report, the site has had the majority of its mature pines harvested, but remnants of this prior community still exist on site. There are also karst features on site that likely support (and have historically documented) rare aquatic invertebrates and bats. This site supports habitat for other rare terrestrial wildlife as well. As mentioned in the SAS report, there is a large population of gopher tortoises, and the Southeastern American kestrel, Bachman's sparrow, Southeastern fox squirrel, Northern bobwhite, Eastern diamondback rattlesnake, and other wildlife have been observed recently on site, while the brown-headed nuthatch, Florida pine snake, Eastern indigo snake and Florida sandhill crane have all been observed on the property in the past (see KBN Report 1986; FDACS, Florida Forest Service,



Kanapaha Ranch 2017 Project Evaluation Report (for the Rural & Family Lands Protection Program). Listed plant species that have been documented on site include woodland poppy-mallow (*Callirhoe papaver*), angularfruit milkvine (*Gonolobus suberosus*), and giant orchid (*Orthochilus ecristatus*).

For evaluating the presence of gopher tortoise (GT), Cardno surveyed approximately 608 acres of the 4,015 acres of what they determined is suitable habitat, representing 15% of the total acreage (reference Figure 4 below, Gopher Tortoise Burrow Locations Map; from Special Area Study Figure 13 of Cardno report). Their survey resulted in a total of 461 potentially occupied burrows and 69 abandoned burrows. Based on the FWC population density calculation of 50% occupancy of the located burrows, Cardno reports the property is estimated to have approximately 3,063 burrows and 1,532 tortoises.

**Figure 4. Gopher Tortoise Burrow Locations Map**  
(from Applicant's Special Area Study Report, Figure 13 of Cardno Report)

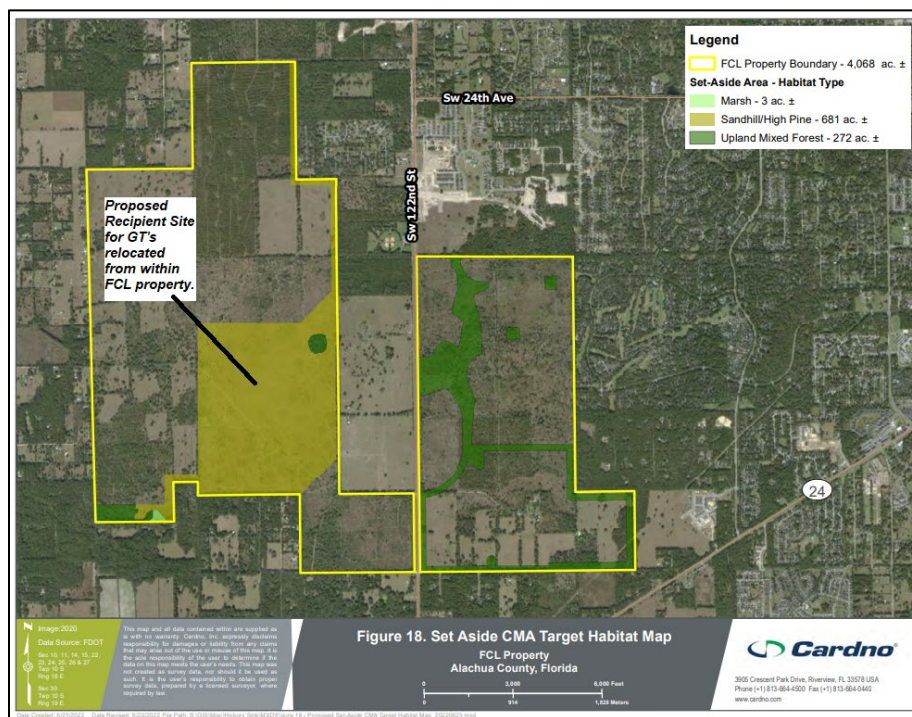


As indicated by the aerial map in Figure 5 below (from Special Area Study, Cardno Report Figure 18), the applicant proposes conservation of approximately 70% of the sandhill habitat (681 acres) located within the western portion of the property, and a small percentage of the mixed forested habitat (272 acres, which includes set-aside within the proposed golf course area) where the sinkhole features are more concentrated east of Parker Road. The proposal is to designate the sandhill as the recipient site to relocate the majority of GTs from the proposed non-conservation areas of the property. The following concerns for this proposal have been expressed by Environmental Protection Department staff:

- The transects were spaced further apart within the western sandhill area compared to the eastern mixed forested area. As a result, considering the habitat and vegetative conditions, there are concerns that there is an under-estimation of the GT population within the sandhill habitat.
- Based on the preliminary survey, approximately 30-40% of the GT population can be expected to occur within the two proposed conservation areas; with the remaining GTs located in areas proposed for other land uses. Assuming there are approximately 1,500 GTs on the property, if the proposed relocation site was deemed acceptable by FWC & Alachua County, that would mean that potentially 700-1000 GTs could be eventually relocated to the 681-acre sandhill area. If the sandhill area is already at or near carrying capacity with the existing GT population, this presents concerns of not only sufficient habitat/foraging conditions to support this increased concentrated population, but also could result in conditions that would increase GT stress and the risk of tortoises transmitting Upper Respiratory Tract Disease (URTD). URTD is a contagious disease affecting GTs, as well as other tortoise and turtle species. There is no cure for URTD and typically results in mortality of the tortoise.

Environmental Protection Department staff recognize that reduced availability of authorized recipient sites presents major problems for relocation of GTs, and there could be some benefits compared to the potential of relocating GTs substantial distances from the Lee property. However, this proposal could also result in substantial unintended consequences not only affecting the GTs but also wildlife species who depend on GT burrows for protection and denning (referred to as “commensal species”). Therefore, in consultation with FWC staff and through the SAP process, additional upland habitat may need to be set aside to meet State requirements for the protection of GTs and other wildlife species, and could also help reduce the necessity to relocate what could be a substantial population of GTs.

**Figure 5. Set Aside Conservation Management Area Target Habitat Map  
(from Applicant's Special Area Study Report, Figure 18 of Cardno Report)**

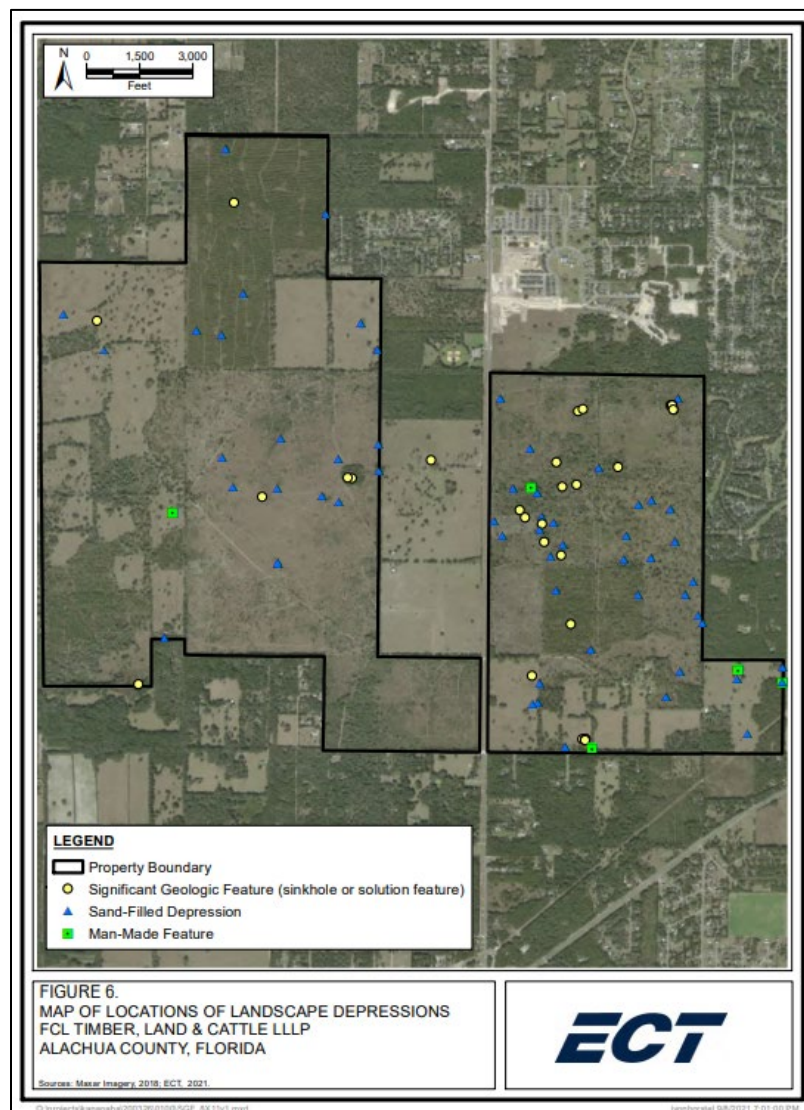




## **Significant Geologic Features (Chapter 406, Article XVI)**

The geotechnical consultant (ECT) referenced that “Significant geologic features were identified as landscape depressions with steep walls and exposed limestone and/or clay in the walls. The distribution of significant geologic features is shown in Figure 6 below. These features represent areas of enhanced connectivity to the Floridan aquifer. These features require setback protection, not only to prevent discharge of potentially poor-quality water to the Floridan aquifer, but also due to their uncertain stability, their uniqueness, and possible unique ecologic value. Those features identified as sand-filled depressions may represent relict karst features; however, to evaluate their connectivity to the Floridan aquifer and subsurface structure, ground penetrating radar surveys across these features, coupled with site-specific stratigraphic data will be necessary. In the absence of additional data, these features are not considered significant geologic features.”

**Figure 6. Map of Locations of Landscape Depressions  
(from Applicant’s Special Area Study Report, Figure 6 of ECT Report)**





*Staff have expressed concerns about the higher risk for potential water quality impacts to the Floridan aquifer depending on the structures and activities proposed within a substantial concentration of geologic features located in the northeast portion of the property. These concerns also extend to include increased risk of structural integrity issues associated with infrastructure and other facilities if constructed in that area. As recommended by ECT, County staff concur that site specific evaluations such as ground penetrating radar and geotechnical borings should be conducted at appropriate locations before considering if and where construction-related activities and facilities are proposed in the northeast area.*

The sensitive karst features in the northeast quadrant of the project will require further evaluation to ensure they are not adversely impacted by any proposed residential or mixed-use development. Lower impact design strategies like LID, water conservation policies, irrigation limitations, density limitations, clustered conservation subdivision design with retention of wildlife corridors will need to be considered in any future development for this area.

### **Springs and High Aquifer Recharge Areas (Chapter 406, Article VIII)**

The entire property is located in the High Aquifer Recharge Area, and the vast majority of the property is also located in the Sensitive Karst Area (SKA) of Alachua County. The Master Planning Scenario (Collaborative Planning Scenario, Attachment A, page 3 of Applicant's Special Area Study Supplement) recommended by the applicant proposes a series of pods designated as "Mixed Use Villages" similar in density and intensity to adjacent existing developments including Oakmont, Haile Plantation and Town of Tioga in addition to contemplating one or more TODs with higher density mixed use nodes. This has the potential to increase residential density on the property from 1 unit per 5 acres under the "By Right" scenario (approximately 800 residential lots).

In weighing the merits of this proposal, staff must consider the potential nutrient pollution and water use. Below are some calculations to help illustrate the differences.

Residential water use is largely driven by outdoor water use and irrigable area. The current trend in new development is to install permanent irrigation on all new lots. According to a recent UF publication (Florida H2OSAV insights: Home Water Use in the Gainesville Regional Utilities Service Territory), a home with an in-ground irrigation system, on a typical ¼-acre lot, uses over 2,000 gallons of water each time the lawn is watered. Current irrigation restrictions allow for 86 irrigation cycles per year for a total of 172,000 gallons used per year per lot.

As the applicant moves towards the Special Area Planning phase of the process it is important to consider potential water use issues related to any proposed increases in residential density on the property. As an example, below is a comparison of potential water use of 4,000 urban lots versus the 800-lot rural residential development generally described in the By-Right Scenario. This example would result in 688 million gallons of landscape irrigation per year for 4,000 lots, assuming full compliance with irrigation restrictions and no leaks. Current codes limit irrigable area to 0.5 acres, so we could conservatively assume that the 800 lots in the By-right Scenario are maximizing their irrigable area and using 4,000 gallons of water for each watering cycle. This assumption is over-estimating water use, as it is rare for lots to fully irrigate the full half acre. This would result in 344,000 gallons of landscape irrigation per house per year and 275 million gallons per year for all lots using the same assumptions as described above. Increasing density to 4,000 single family lots

would result in more than double the water use compared to 800 lots. These calculations do not include water use from commercial uses which the Collaborative Scenario would also include, nor do they include indoor water use which would increase with density.

Using the FDEP Springs BMAP Residential OTDS calculation method, 800 traditional septic systems would result in an estimated 8,240 pounds of Total Nitrogen per year. As with the Flint Rock development, the County would require new septic systems in this region to be nutrient reducing systems. The FDEP tool assumes a 65% treatment level for these systems, which would bring the Total Nitrogen loading down to 2,880 lbs/year. Connecting 4,000 residential lots to centralized sewer would result in a Total Nitrogen load of 2,000 lbs/year, which would be the best scenario from a loading perspective. However, wastewater is not the only source of nitrogen to be considered, as landscape fertilizer is another significant source of nutrient pollution. The proposed increase in density would lead to an increase in irrigated area (discussed above). Irrigation contributes to fertilizer leaching and runoff. It is likely that the increase in irrigable area would also lead to an increase in fertilizer use, as the smaller lots will likely be 100% landscaped rather than leaving some natural vegetation or bahia (which has lower fertilizer requirements) as is common on larger lots.

While current code provisions require water conservation strategies for developments in the High Aquifer Recharge Area, as well as additional stormwater water quality treatment for properties within an SKA, staff recommends that additional policies and strategies be considered during the SAP process, including:

1. Set specific limits on permanent landscape irrigation (including reclaimed water), irrigable area, and adhere to a water budget
2. Prohibit the use of landscape fertilizer when reclaimed water is used for irrigation and encourage fertilizer free landscapes
3. Minimize clearing of existing vegetation, soil compaction, and earthwork during construction, modeling the Madera neighborhood
4. Retain existing vegetation and design landscapes to mitigate impacts of climate change. Consider no-mow landscaping
5. Employ advanced stormwater treatment and low impact design throughout the project, modeling the Madera neighborhood.

### **Proposed Golf Course and Water Quality Considerations**

The Special Area Study provides little information about the proposed golf course. Without additional information staff has significant concerns with a proposed new golf course in western Alachua County and the potential impact on the Floridan Aquifer and water quality. Golf courses can be a significant source of nutrient pollution and can contribute to the over pumping of groundwater, necessitating careful consideration of design standards and management plans, with an emphasis on landscaping and greens. If a golf course is proposed in this area, there will need to be water quality and quantity management and monitoring plans and landscape design standards that address strategies to minimize impacts to water resources. Possible strategies would include soil amendments, preservation of existing vegetation, use of native vegetation in landscaping, non-irrigated landscapes, limited chemical (fertilizer, herbicide, and

pesticide) inputs, LID techniques, and site-specific best management practices to limit water quality problems and address biological health concerns as outlined in Sec 404.66.5 ULDC. This area is in the high aquifer recharge area and any proposed golf course shall be designed and operated to be protective of springs and minimize the potential for nutrients to degrade the Floridan aquifer, our drinking water, and springs (Sec. 406.59.1(e) ULDC).

The project also falls within the Santa Fe River BMAP, which addresses future nonagricultural growth through the development and implementation of County codes and ordinances. Based on [House Bill 967](#) (which was passed during this past legislative session), staff that manage a golf course and have obtained an UF IFAS golf course best management practices certification are exempt from local ordinances relating to water and fertilizer use. The Bill does not exempt the management entity from having to comply with the rules and requirements for basin management action plans (BMAP) set forth in Section 403.067(7) F.S., allowing the county to implement its codes and ordinances on golf courses. However, it is unclear at this time whether the County will have jurisdiction to implement protection requirements within a UF owned property. Nevertheless, staff recommends that protection strategies and standards be identified as part of the SAP.

## Evaluation of Special Area Study Based on Requirements in ULDC

Section 402.101(a) through (f) of the ULDC provides the specific requirements for the process and content of a Special Area Study. Each of these requirements are listed below in italics followed by staff's evaluation of how the Special Area Study addresses each requirement.

### **402.101 (a) Stakeholders workshop.**

*All property owners within the area defined by the scope of the special area study, as well as other registered stakeholders, shall be notified in writing of the intent to conduct a study for the area, and shall be encouraged to participate in the process. As part of the development of the special area study the county shall conduct a minimum of one stakeholders workshop in accordance with Article 4, Neighborhood Workshops, of this chapter.*

In March 2022, the applicant held two stakeholder public workshops on the Special Area Study. The first workshop was held on March 23, 2022 in-person. All property owners whose property was located within 1,320 ft. (one-quarter mile) of the subject property boundary were notified of this workshop by mail. There were approximately 714 separate tax parcels included in the mailout. A follow-up virtual workshop was held by the applicant on March 30, 2022.

In addition to the required stakeholder workshops, the applicant has reached out directly to numerous interested residents and organizations and had individual meetings to discuss the Special Area Study and plans for the property.

The Alachua County Board of County Commissioners has scheduled a stakeholder workshop to discuss the Special Area Study on September 20, 2022 at 5:00 pm, and a follow-up BoCC meeting to consider whether to accept the Special Area Study on October 11, 2022 at 5:00 pm. The County notified all property owners whose property was located within 1,320 feet of the subject property boundaries by mail of both meetings. The County also notified citizens and organizations by email and County press release about these meetings.

### **402.101(b) Ground-truthing of site.**

*Where relevant to the specific issues or circumstances identified as part of the scope of work, site-specific ground-truthing of natural resources shall be conducted to evaluate critical system functions and values in accordance with the requirements of the natural and historic resources assessment (see Chapter 406, § 406.04). For special area studies within strategic ecosystems, site-specific ground-truthing shall be conducted using the KBN/Golder report, background mapping and historical data, and other specific factors identified in Article 4 of Chapter 406, as a guide to develop a current scientific assessment of the systems involved. The location and extent of specific natural resources, as well as higher and lower valued portions of the strategic ecosystem(s), shall be delineated within the study area, and with respect to surrounding ecosystems. Those areas found not to contain strategic ecosystem resources shall be eligible for consideration for development as part of a development plan or special area plan provided the ecological integrity of the strategic ecosystem as a whole will be sufficiently protected.*

The Special Area Study (Original Report and Supplement) provides the results and analysis of the applicant's ground-truthing of the site and recommendations for Strategic Ecosystem conservation set aside areas. The previous sections of this staff report provide an evaluation of the applicant's Strategic Ecosystem analysis and recommendations, highlighting specific areas of disagreement (refer to previous sections of Staff Report).

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#### **402.101(c) Public infrastructure and services.**

*The study shall identify potential access to public infrastructure and services, and issues and needs related to public infrastructure and services.*

The applicant's Special Area Study confirms that relevant providers have the capacity to serve potential urban development on portions of the property with centralized potable water and sanitary sewer, electricity, natural gas, fiber optic/cable and reclaimed water, and indicates that it is beneficial for the stubbed utilities at the property lines to be connected into the subject property for greater efficiency of services. All of these public services and utilities are necessary to develop at urban densities, as recommended by the applicant's Study.

With the exception of potable water and sanitary sewer, there are no specific limitations in the County's Comprehensive Plan on the extension of utilities or public services within or beyond the Urban Cluster Line. The Special Area Plan must provide a rationale and address policies regarding extension of potable water and sanitary sewer beyond the Urban Cluster line (which is limited by FLUE Policy 6.2.2 and PWSSE policies 3.1.5 and 3.1.6), which must be supported by relevant data and analysis. The Study indicates that the applicant does not propose to amend the Urban Cluster line, and instead recommends that the follow-up Special Area Plan allow for the creation of a new future land use designation, "Mixed Use Village" (MUV), and associated policies in the County's Comprehensive Plan that would permit the extension of utilities (including potable water and sanitary sewer) outside of the Urban Cluster, and which will include a sub-category designation of Primary Urban Service District (USD-P) which would permit connection to available public utilities. (Reference: FCL SAS Executive Summary, April, 2022, p. 11-13).

The Study's recommendations regarding the extension of utilities outside of the Urban Cluster and into the Rural/Agriculture areas is a departure from the currently adopted Comprehensive Plan policies. Any proposed Comprehensive Plan amendments to accomplish this must be supported by appropriate data and analysis as part of the Special Area Plan.

#### **Public Facilities and Services – Infrastructure and Capital Improvements**

The applicant's Special Area Study proposes to designate and set aside land for Institutional or Public Services uses, which include Fire/Rescue services, Law Enforcement, and Public Schools. The Study proposes to locate these uses within or in proximity to a Town Center that would be in the northern portion of the property, east of Parker Road and likely adjacent to the Oakmont development. The amount of land and public facilities needed would likely be based on the total population and development expected. Level of service (LOS) standards or guidelines are established for storm water management, solid waste, recreation facilities, arterial and collector roads, bicycle facilities, pedestrian facilities, transit facilities, potable water, sanitary sewer, public schools, correctional facilities, emergency medical services, fire services, sheriff,

preservation lands, and other governmental facilities. These facilities typically involve significant capital costs and should be evaluated with supporting data and analysis as part of the Special Area Plan in order to further define potential amendments to the Capital Improvements Element goals, objectives policies and project schedules that would be needed to support any potential long-term urban development on the property. This will necessarily include collaboration with the agencies responsible for providing these facilities and services.

Recreation is discussed within the Special Area Study under the sub-heading of Recreation within a section on proposed land uses and their locations. On the east side of Parker Road, these consist primarily of a golf course facility associated with the University of Florida and a wildlife corridor system within the Conservation Open Space connecting the golf course area with open space in Oakmont and Haile Plantation (Reference: FCL SAS Executive Summary, April, 2022, p. 9). In addition to the environmental resources context discussed above, the Special Area Plan should address whether residents or the general public would be allowed to use any of the golf course facilities and how any open space associated with the golf course would integrate with the overall open space within any development areas. On the west side of Parker Road, recreation areas consist of wildlife corridor system starting in a gopher tortoise preserve area and connecting north along open space areas in Flint Rock, future GRU Groundwater Recharge Park and Diamond Sports Park and ending at the south end of the Town of Tioga.

#### **Public Facilities and Services – Public Schools**

The Special Area Study raises the possibility of dedicating land for a future middle school site in proximity to a proposed Town Center in the northeastern portion of the site east of Parker Road. The Study further notes that the new Terwillegar Elementary school is adjacent to the northern boundary of the site (southwest corner of Oakmont) and that the School Board of Alachua County has indicated that a future public school is likely to be built at Diamond Sports Park, which it currently owns. The level of service standard adopted in Public Schools Facilities element Policy 3.6.1 establishes a minimum size guideline of 35 acres for middle school sites.

#### ***Sec. 402.101 (d) Land use analysis.***

*The study shall analyze the existing and future land uses within the study area. For strategic ecosystem special area studies, the study participants shall identify one or more scenarios for the future uses of land within the area of study and identify the most appropriate locations for various types of land use, including as applicable, agriculture or silviculture activities, conservation areas, and development areas. Parcel ownership and management considerations shall be evaluated in order to develop a scenario that balances protection of the natural and historic resources with ownership interests and protection of private property rights.*

The applicant's Special Area Study includes an analysis of the existing and future land uses within the Study Area and the surrounding areas. The Study identifies and provides an evaluation of three potential land use scenarios for the subject property, including: (1) "No-Build Scenario", (2) "By Right Scenario", and (3) "Master Planning Scenario" (aka "Collaborative Planning Scenario"). Each of the three land use scenarios is described and evaluated in detail within the Special Area Study Report dated April 11, 2022 with further analysis in the Supplement to the Special Area Study dated July 5, 2022. The Special Area Study recommends



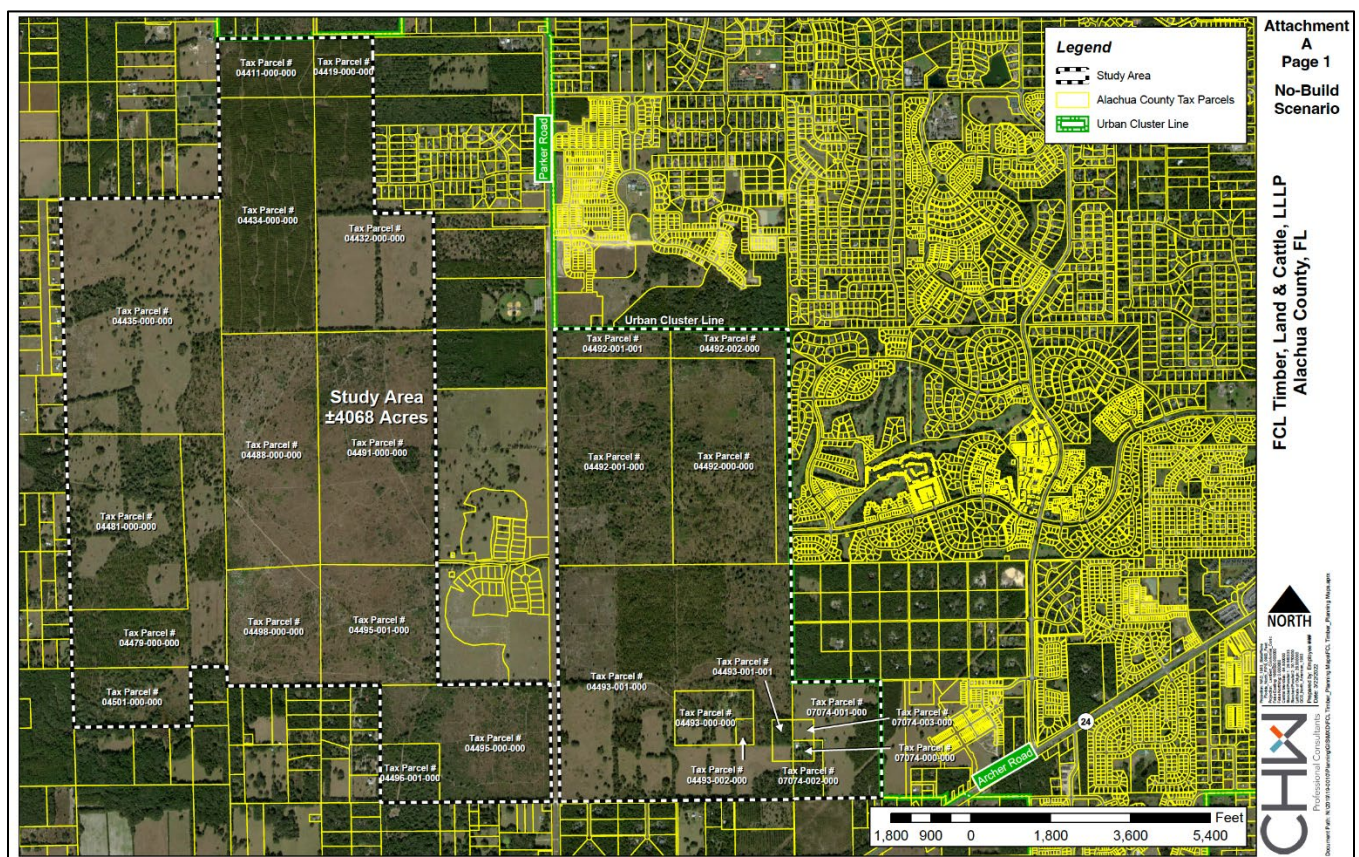
the Master Planning scenario as the preferred land use scenario for the subject property based on the analysis provided in the applicant's report. Each of the scenarios is summarized below with additional staff analysis where appropriate.

## 1. "No Build"

According to the Study report, the No Build scenario, shown in Figure 7 below and on the map in Attachment A Page 1 of Special Area Study Supplement dated July 5, 2022, would retain the subject property in its existing condition as agricultural land with active farming, including industrial-scale silviculture and cattle-calf grazing over the entirety of the property. According to the Study, this scenario has become impracticable as development with urban densities and intensities with urban scale supportive infrastructure have been built to the property's boundaries on the north and east sides.

The No Build scenario may occur under the currently adopted Comprehensive Plan future land use designation for the property of "Rural/Agriculture", and the current zoning of "Agricultural" ("A"). It would not require any amendment to the Comprehensive Plan or zoning for the property.

**Figure 7. "No Build" Scenario Map**  
(from Applicant's Special Area Study Report Supplement, Attachment A, Page 1)

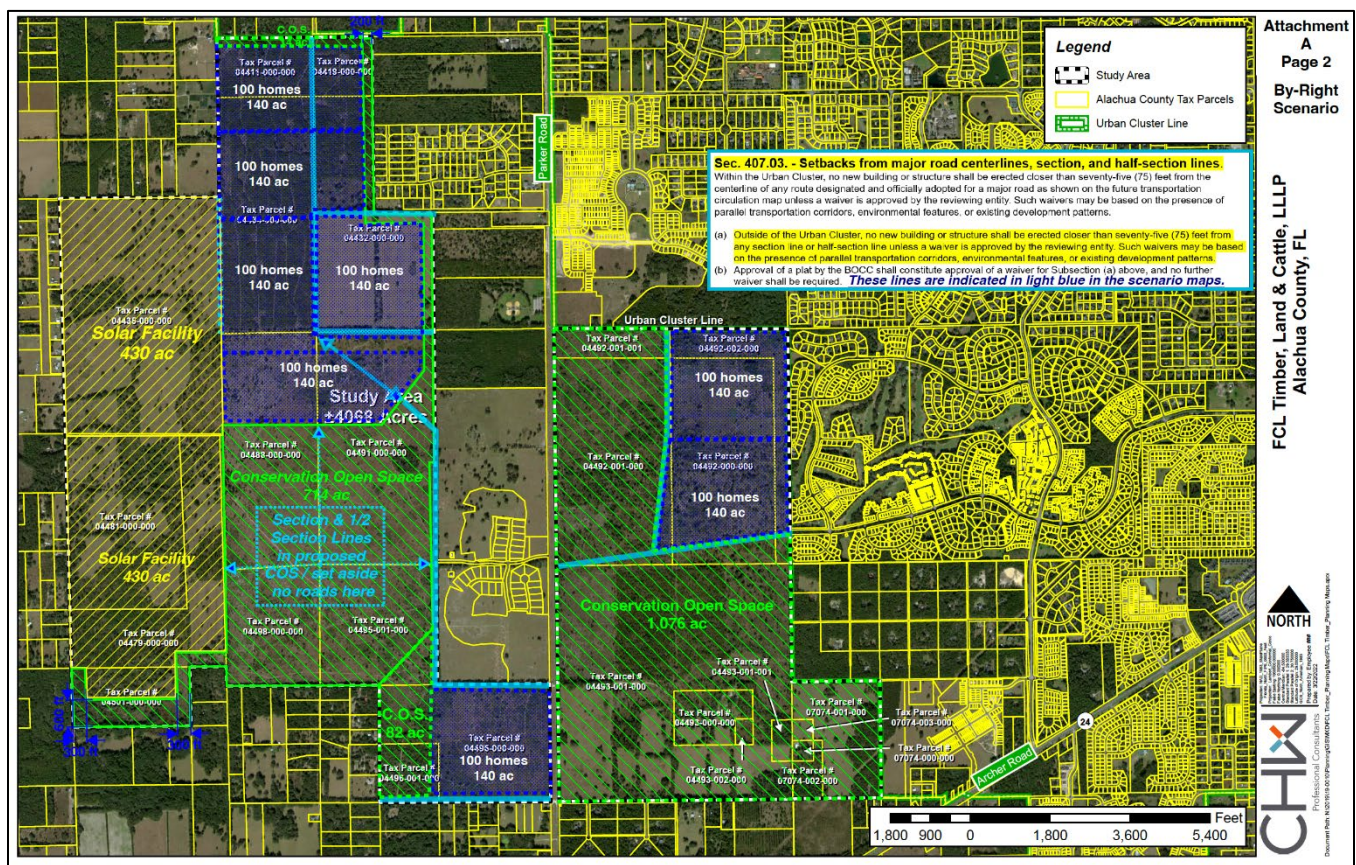




## 2. “By Right”

The By Right scenario is described in the Special Area Study Supplement dated July 5, 2022 on page 5, and is shown on the map in Figure 8 below (Attachment A Page 2 of the Special Area Study Supplement). The By Right Scenario would involve the development of the property for primarily residential use at rural densities in accordance with the currently adopted Comprehensive Plan future land use designation of “Rural/Agriculture” and the current zoning of “Agricultural” (“A”). The By Right scenario identifies eight pods throughout the property that are designated for new homes. The total acreage designated for homes in this scenario is 1,120 acres. The By Right Scenario also identifies a total of 1,886 acres of the property as “Conservation Open Space” and 860 acres on the westernmost portion of the property as a “solar facility”.

**Figure 8. “By Right” Scenario Map**  
(from Applicant’s Special Area Study Report Supplement, Attachment A, Page 2)



It is noted that the By Right scenario would still require the completion of the Special Area Study and Plan in order to evaluate and protect the Hickory Sink Strategic Ecosystem resources pursuant to Objective 4.10 and its subsequent policies of the Comprehensive Plan’s Conservation and Open Space Element, and also because the resulting development would involve more than 100 residential units within the Rural/Agriculture area pursuant to Policy 6.2.8 of the Comprehensive Plan’s Future Land Use Element.



Under the By Right Scenario, the property would be required to be developed in accordance with the clustered rural residential subdivision provisions under Policies 6.2.9 through 6.2.14 of the Comprehensive Plan's Future Land Use Element. Clustered design is required for any residential subdivision of 10 or more lots in the Rural/Agriculture area. The policies for clustered design require that a minimum of 50% of the development site must be preserved as open space, with the residential lots being clustered on the remaining portion of the property. The policies also provide for bonus density as an incentive for utilizing clustered design. A total of 2 units in addition to the number units based on the base density of 1 unit per 5 acres are permitted, plus 1 additional unit per every 10 acres of conservation area set aside as open space; plus 1 additional unit per every 20 acres non-conservation area set aside as open space.

The Comprehensive Plan provides for residential development at a maximum density of 1 dwelling unit per 5 acres in the Rural/Agriculture area. It is estimated that, if the entire 4,068 acre subject property were to be developed for residential use, there could be approximately 813 dwelling units developed on the site based on the maximum base density of 1 dwelling unit per 5 acres for the Rural/Agriculture area applied across the entire property (subject to consistency with other requirements of the Comprehensive Plan). Additional bonus units could be achieved depending on the number of acres of conservation area and non-conservation area set aside as open space, thereby potentially increasing the total number of allowable dwelling units above 813.

It is noted that, pursuant to Policy 6.2.12(c) of the Future Land Use Element, the allowable uses within clustered rural residential subdivisions do not include utility-scale solar development or golf courses, therefore residential density cannot not be derived from the acreages dedicated to those uses as part of a clustered rural residential subdivision (golf courses and utility scale solar are allowable as separate land uses in the Rural/Agriculture area subject to specific standards). If those uses were to be developed on the subject property under the By Right Scenario, the acreages dedicated to those uses would need to be excluded from the calculation of residential density.

Benefits of the By Right scenario include that it would not involve expansion of urban development outside of the County's adopted Urban Cluster line and would therefore continue to promote infill development and redevelopment within the adopted Urban Cluster, where that development can be provided with a full array of urban services in an efficient manner. This scenario would ensure a continued separation of urban and rural areas within the unincorporated portion of the County. The By Right scenario would also provide for more open space set aside area than the "Master Planning" scenario that has been identified.

There are also potential drawbacks to the By Right scenario that should be considered. One such drawback is that residential development would be served by individual wells and septic systems because the County's Comprehensive Plan does not generally allow for extension of centralized potable water and sanitary sewer lines outside of the Urban Cluster boundary and into the Rural/Agriculture area without County Commission approval based on certain criteria. Also, it may not be economically feasible to extend water and sewer infrastructure to serve residential development at a density of 1 dwelling unit per 5 acres even if bonus units are used. Concentration of wells and septic systems could potentially have long term adverse impacts on the County's water resources. It is noted, however, that the Board of County Commissioners could potentially approve an extension of water and sewer infrastructure to serve areas of clustered rural residential development under the Rural/Agriculture future land use designation in accordance with the criteria in the Comprehensive Plan (Policy 6.2.2 FLUE and Policies 3.1.5 and 3.1.6, PWSSE).

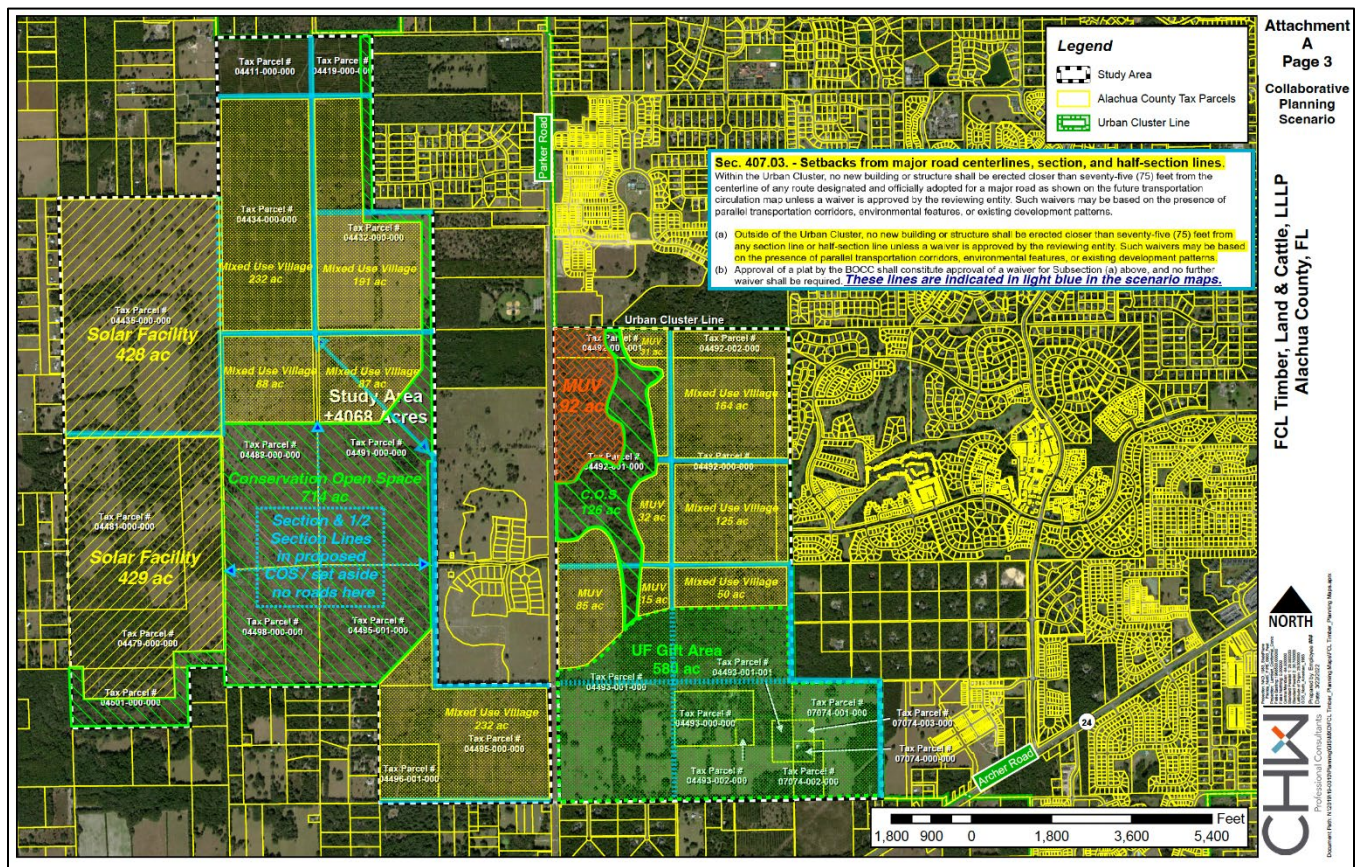
Another potential drawback of the By Right scenario is that the development of the subject property at Rural/Agriculture densities in the short-term future could make the property a less suitable candidate for potential expansion of the Urban Cluster in the longer-term future.

An additional drawback of the By Right scenario is that it could result in the County losing a potential opportunity that is specifically identified in the Study under the “Master Planning” scenario to include land for affordable housing within the subject property.

### 3. Master Planning Scenario

According to the Special Area Study report, the Master Planning scenario (also described in applicant’s Study as Collaborative Planning Scenario; this report refers to it as the Master Planning Scenario) is recommended by the applicant as the preferred land use scenario for the subject property. This scenario is shown in Figure 9 below and is described in detail on pages 5 through 14 and in Attachment A Page 3 of the applicant’s Special Area Study Supplement dated July 5, 2022.

**Figure 9. “Master Planning” Scenario Map**  
(from Applicant’s Special Area Study Report Supplement, Attachment A, Page 3)



This scenario contemplates that the non-conservation portions of the property would be developed for urban land uses including residential, non-residential, and mixed-use development that is served by a full array of infrastructure and facilities at urban levels of service. The Master Planning Scenario map identifies a series

of pods that would be designated as “Mixed Use Village”. The Mixed Use Village areas are clustered in the eastern portions of the property (adjacent to Haile Plantation and Oakmont), in the southern portion of the property (south of Flint Rock Agrihood), and in the northern portions of the property (south of Town of Tioga and west of Parker Place and Diamond Sports Park). Within these areas, the Study recommends density and intensity for development that is comparable to proximate existing development including Oakmont, Haile Plantation, and Town of Tioga. The Study contemplates one or more Transit Oriented Developments (TOD) for the property with higher density mixed use nodes surrounded by lower density residential areas. The Study indicates that residential densities within the TODs would be up to 16 units per acre in the Village Center Nodes; up to 7 units per acre in the transit supportive areas; and below 4 units per acre in the non-transit supportive areas.

The Study indicates that transportation connectivity via multiple modes is anticipated for the property. Specifically, the Study provides that the higher density development nodes and surrounding lower density residential areas will be interconnected internally and externally to mixed-use and non-residential areas through a series of interconnected sidewalks contiguous to a gridded street network and a trail system that complements the transportation network.

The Master Planning Scenario map identifies approximately 850 acres for Conservation Open Space. These areas are discussed in detail in the previous sections of this staff report.

The Master Planning Scenario map identifies 580 acres as “UF Gift Area” in the southeastern portion of the property. The original Special Area Study report dated April 11, 2022 (pg. 9 of Overview) indicates that this area is proposed by the University of Florida for a championship-level golf course and related support amenities.

The Master Planning Scenario map identifies 857 total acres that is designated as “Solar Facility” in the westernmost areas of the property. The Study Supplement dated July 5, 2022 indicates that “the photovoltaic facilities under consideration are utility-scale and/or directed energy, micro-grid in scale” (pg. 10 of Supplement, July 5, 2022). As correctly noted in the Study, such facilities are permitted uses in the Rural/Agriculture future land use designation and Agricultural zoning district. No specific data or additional information has been provided with regard to any proposed solar facility in the western part of the property. At this stage in the process, staff would recommend that the areas identified as ‘Solar Facility’ retain the Rural/Agriculture future land use designation and zoning, consistent with their current designation.

The Master Planning Scenario map does not identify specific areas for institutional or public facilities land uses. The Study does indicate that “the landowner proposes to designate land on the Future Land Use Map for siting of a school, if needed, plus police, fire, and EMS stations” (pg. 10 of Supplement, July 5, 2022). As noted in previous sections of this report, needs for public facilities and infrastructure to support the proposed development scenario will need to be evaluated and addressed at the Special Area Plan stage as part of a proposed Comprehensive Plan amendment for the property.

The Study indicates that the Master Planning Scenario would provide an opportunity to include a variety of housing types and price points to serve different segments of the housing market (Supplement, pgs. 6 and 13). The Study also indicates that the landowner has committed to earmarking 50 acres within the property

for the provision of workforce housing (50-80% AMI); the details of location, governance and development style would be determined in the Special Area Plan and development review process in collaboration with the County (Original SAS Report, Overview pg. 17). Staff recommends that an analysis of specific affordable housing needs, options, and locations be included as part of the data and analysis for the Special Area Plan.

As discussed previously in this staff report, the subject property is located outside of the Urban Cluster as designated in the County's adopted Comprehensive Plan. The land uses, densities and intensities of the proposed residential, non-residential and mixed-use development, and the associated extension of potable water and sanitary sewer lines contemplated under the Master Planning scenario would not be allowable outside of the Urban Cluster in accordance with the County's adopted Comprehensive Plan. The Special Area Study does not propose an expansion of the Urban Cluster boundary as part of the Special Area Plan for the property, but rather it proposes the creation of a new future land use category as part of a Special Area Plan that would potentially allow for the land uses, densities, and intensities of development contemplated under the Master Planning Scenario. The Study anticipates that this new future land use category could be narrowly defined to apply only to the subject property or similarly situated properties. The Study report indicates that this new future land use category would be applied to the subject property through a follow-up Comprehensive Plan amendment process.

The County's Comprehensive Plan provides for a specific methodology and process that must be followed for evaluating the Urban Cluster's capacity to accommodate projected population growth for a ten- and twenty-year planning period (Policy 7.1.3, FLUE), and then for potentially considering expansions of the Urban Cluster. According to the policies, if the evaluation shows that additional land area is needed within the Urban Cluster to accommodate future urban development, then there are specific measures that must be considered before expanding the Urban Cluster. These measures include increases to residential density ranges within the Urban Cluster or working with municipalities to allocate more growth within municipal boundaries.

If the evaluation shows that expansion of the Urban Cluster is warranted, then there are specific factors that must be taken into account in identifying appropriate locations for expansion, including impact on agricultural uses and rural character, economic development considerations including affordable housing, relationship to existing and planned urban services and infrastructure, conservation and preservation land uses, and planned recreation/open space and greenway systems.

The County's most recent evaluation of the Urban Cluster was conducted in 2018 as part of the periodic Evaluation and Appraisal of the Comprehensive Plan required by Chapter 163, Florida Statutes. That evaluation indicated that there was sufficient land within the adopted Urban Cluster boundary to accommodate future urban development based on the County's projected population growth through the year 2040. The 2018 evaluation indicated that a significant portion of the Urban Cluster's future development capacity is contained within developments that have received some level of development plan approval from the County.

The County's Urban Cluster policy framework is complemented by related policies regarding the extension of potable water and sanitary sewer lines. The Comprehensive Plan provides that potable water and sanitary sewer lines may be extended to serve new urban development within the Urban Cluster; such lines, however, may not be extended outside the Urban Cluster line and into the Rural/Agriculture area without receiving



approval from the Board of County Commissioners based on certain criteria (Policy 6.2.2, FLUE, Policies 3.1.5 and 3.1.6, PWSSE). Those criteria include factors such as: the extension is needed to correct a public health threat, the extension is needed to enhance safe, effective, and efficient delivery of services within the Urban Cluster, the extension would serve a purpose consistent with the Comprehensive Plan such as serving existing or new business and industry in accordance with the Economic Element, or that the extension is needed as part of a comprehensive expansion of public services to encourage urban development in a new area as part of a comprehensive plan amendment. In the case of this last criterion, the extension must be based on factors such as population growth rate, maintenance of level of service standards, and adequacy of existing and planning supporting infrastructure; such extensions also require identification and funding for capital improvements and the adoption of necessary amendments to the Future Land Use Map extending the Urban Cluster boundary line (Policy 3.1.6, FLUE).

The applicant's Special Area Study does not include an evaluation of the future development capacity of the adopted Urban Cluster boundary or an evaluation of potential areas for Urban Cluster expansion in accordance with Policy 7.1.3 of the Future Land Use Element. While staff understands that the Study is not expressly proposing an expansion of the Urban Cluster line to include this property as part of the Special Area Plan, the land use recommendations in the Study would effectively amount to an expansion of the Urban Cluster. This would, in County staff's opinion, result in an internal inconsistency in the Alachua County Comprehensive Plan unless Policy 7.1.3 is adequately addressed.

In County staff's opinion, based on the policy framework in the adopted Comprehensive Plan, any proposed amendment to the Comprehensive Plan that would potentially allow for more development than would be allowable on the property under the County's adopted Comprehensive Plan and the Rural/Agriculture future land use designation would need to directly address the Urban Cluster policy framework and the potable water and sanitary sewer extension policies in the adopted Comprehensive Plan, including Policies 6.2.2 and 7.1.3, FLUE and Policies 3.1.5 and 3.1.6, PSWWE. Staff recommends that one of the conditions for potential acceptance of the Special Area Study is that the Special Area Plan specifically address these key policies within the County's adopted Comprehensive Plan.

***402.101(e) Recommendations and strategies.*** *The study shall include recommendations and strategies for follow-up action to address the specific issues or circumstances that have been analyzed as part of the study. Such recommendations and strategies may include, but are not limited to, proposed comprehensive plan amendments, proposed unified land development code amendments, proposed capital improvement needs identification, or other initiatives by the county or through public/private partnerships.*

The applicant's Special Area Study includes eight (8) specific recommendations based on the findings of the Special Area Study (see Supplement pgs. 15-21). These recommendations are listed below.

County staff is not recommending the specific recommendations contained in the Special Area Study as proposed by the applicant, but instead, is recommending alternative conditions for the potential acceptance of the Special Area Study and parameters for the subsequent Special Area Plan. County staff's alternative recommendations and conditions are provided in the "Staff Recommendations" section of this report.

### **Applicant's Special Area Study Recommendations**

1. Undertake a Special Area Plan (SAP) for the Property to promote master planning and coordination of the public infrastructure, the management and ecological rebound of the Conservation Open Space areas, and the provision of community facilities and planned recreational uses, all in concert with mixed-use development of the Property;
2. Create a new future land use category, potentially named Mixed-Use Village (MUV) and a complementary implementing zoning classification, such as Mixed-Use Village – Planned Development (MUV-PD) with specific qualifying criteria limited to large tracts proximate to the Gainesville's growing urban core;
3. Prepare a Comprehensive Plan Amendment (MUV) application for the FCL Property, including a variety of land uses including workforce housing, Conservation areas and sustainable renewable passive energy options, and creation of a new Transportation Mobility District within the Transportation Mobility Element;
4. Prepare a MUV-PD zoning application for the FCL Property, denoting lands to remain Agricultural for siting of sustainable, renewable passive energy options and for the purpose of urban and rural separation, and denoting one or more Transit-Oriented Development nodes on the Property;
5. Prepare specific development standards to be included in the FCL Comprehensive Plan Amendment(s) and Zoning application(s);
6. Prepare any necessary text amendment(s) to the ULDC to implement the land use and zoning, if adopted for the FCL Property
7. Identify potential amendments to the Capital improvements Element policies during the SAP process to incorporate programmed improvements to and expected funding for those improvements to the mass transit system, and any other facilities for which LOS is adopted; and
8. Commence preparation of conservation management plans for the proposed Conservation set-asides, employing expertise available through public-private partnerships, where possible.

***402.101(f) Presentation to Board of County Commissioners.*** *The draft special area study shall be presented to the board of county commissioners. The board shall consider whether to accept the study and whether to authorize any specific follow-up recommendations or strategies that have been identified as part of the study.*

The Special Area Study will be presented to the Board of County Commissioners at meetings scheduled for September 20, 2022 and on October 11, 2022. At the October 11, 2022 meeting, the Board may consider whether to accept the Study and whether to authorize any specific follow-up recommendations or strategies identified as part of the Study. County staff has included additional and modified recommendations for the Board's consideration as part of this staff report.

## **County Staff Recommendations**

Accept the Special Area Study and authorize initiation of the process for a Special Area Plan based on the following conditions and parameters recommended by County staff. Staff recommends the following conditions for acceptance of the Special Area Study and parameters for the subsequent Special Area Plan as an alternative to the recommendations proposed within the applicant's Special Area Study documents.

1. At a minimum, the areas that are identified on the map in Figure 1 of this Staff Report as conservation management areas shall be protected with an approved permanent protective instrument and management plan prior to any site improvement or as part of the first approved final development plan (whichever comes first).
2. Figure 1 of this Staff Report identifies only the minimum conservation management areas to be set aside based on recommendations in the Special Area Study. Additional open space or conservation areas may be required as part of the Special Area Plan and development review process to meet all County policies, regulations and standards depending on the type, density, and intensity of the proposed development and use.
3. If development is proposed as part of a Special Area Plan within the areas that are identified on the map in Figure 1 of this Staff Report as 'SAP SE Dev. Standard', such development shall be consistent with the ULDC and governed by subsections 406.03(b)(1) and (2). Alternatively, any proposed development within each of these areas shall be required to be developed in accordance with the Clustered Rural Residential Subdivision standards in Policies 6.2.9 through 6.2.13 of the Alachua County Comprehensive Plan Future Land Use Element.
4. As part of additional assessments of the property as part of the Special Area Plan, a historical/archaeological resources assessment shall be completed for the property. This will help address any historical resources that should be protected prior to or as part of the development of the property.
5. As part of the Special Area Plan for the subject property, the default development scenario, including allowable land uses, density, intensity, and applicable development standards, shall be based on the current development rights for the subject property under the adopted Comprehensive Plan and land development regulations. Any proposed amendment to the Comprehensive Plan which proposes development of the property at a greater density and intensity than would be allowable under the currently adopted Comprehensive Plan future land use designation of "Rural/Agriculture" shall be based on the following parameters and address the following considerations:
  - a. Development areas shall be arranged and clustered in a manner that, (1) prioritizes the protection of conservation set aside areas, and (2) clusters development areas in as close proximity as possible to areas within the existing Urban Cluster boundary so as to minimize the geographic extent of necessary expansions of urban infrastructure, facilities, and services; minimize areas of urban/rural land use interaction; and ensure that land uses, densities and intensities are consistent and compatible with the surrounding existing and future land uses within the western Urban Cluster.

- b. The Special Area Plan shall address, with appropriate data and analysis, the requirements of Policy 7.1.3 of the Future Land Use Element regarding evaluation and potential expansion of the Urban Cluster.
  - c. Proposed development areas shall be served by urban infrastructure, facilities, and services, including roads, transit, centralized potable water and sanitary sewer, fire and EMS, recreation, solid waste collection, stormwater management, public schools and law enforcement at the same levels of service that are provided within the Urban Cluster in accordance with the Comprehensive Plan's Capital Improvements Element. Data and analysis shall be provided on needs and costs for all necessary capital improvements to serve any proposed development areas. Necessary capital improvements and their funding sources shall be proposed for inclusion in the Comprehensive Plan.
  - d. The transportation system for any development areas shall be designed consistent with the Urban Transportation Mobility District policies in the Transportation Mobility Element, including connectivity with the surrounding road network and existing development within the Urban Cluster.
  - e. Development Areas shall provide for design concepts that are supportive of non-automotive modes of transportation in addition to automotive modes.
  - f. Development areas shall be served by centralized potable water and sanitary sewer services in order to minimize proliferation of individual wells and septic systems. Any proposed extension of centralized potable water and sanitary sewer infrastructure that is proposed to serve new development on the property shall require that the application address Policies 3.1.5 and 3.1.6 of the Potable Water and Sanitary Sewer Element of the Comprehensive Plan.
  - g. The Special Area Plan shall provide for the contribution of a minimum of 50 acres of land to Alachua County or its designee, specifically designated for the provision of affordable housing targeting 50% to 80% AMI, within the development areas of the property.
6. The Special Area Plan shall identify water conservation and low-water use landscaping practices such as, but not limited to:
- I. Set specific limits on permanent landscape irrigation (including reclaimed water), irrigable area, and adherence to a water budget
  - II. Prohibit permanently irrigated private residential lots
  - III. Retain existing vegetation and design landscapes to mitigate impacts of climate change
  - IV. Use of native vegetation in landscaping and promote no-mow landscaping
7. The Special Area Plan shall identify nutrient management practices such as, but not limited to:
- I. Prohibit the use of landscape fertilizer when reclaimed water is used for irrigation and encourage fertilizer free landscapes
  - II. Minimize clearing of existing vegetation, soil compaction, and earthwork during construction, modeling the Madera neighborhood



8. The Special Area Plan shall identify stormwater treatment and management practices such as, but not limited to:
  - a. Employ LID, as required by Chapter 77, Article 3 (Stormwater Treatment Code), distributed throughout the project, modeling the Madera neighborhood. LID that stores and infiltrates runoff to meet the requirements of the Stormwater Treatment Code should, at minimum, preserve the underlying in-situ soil or be backfilled with on-site soils with sufficient fines to retain moisture and encourage denitrification. Where high nitrogen loads are expected in runoff, the use of engineered media/soil designed for denitrification is encouraged.
  - b. LID approaches that reduce runoff, such as disconnecting impervious surfaces, rain gardens or rainwater harvesting on lots, pervious pavements, vegetated natural buffers, and filter strips should be used to the greatest extent possible.

## **APPENDIX A**

### **COMPREHENSIVE PLAN POLICY AND UNIFIED LAND DEVELOPMENT CODE REFERENCES**

The following is a compilation of selected goals, objectives, policies, and other provisions of the Alachua County Comprehensive plan 2019-2040 and the Alachua County Unified Land Development Code that relate most directly to the issues being considered as part of the Special Area Study. The portions of the Comprehensive Plan and ULDC listed here are provided for ease of reference and are not intended as a representation of all relevant or applicable portions of the Comprehensive Plan or Unified Land Development Code. The Special Area Study and Plan should take into account the Comprehensive Plan and ULDC in their entirety.

#### **FUTURE LAND USE ELEMENT**

##### **GOAL**

ENCOURAGE THE ORDERLY, HARMONIOUS, AND JUDICIOUS USE OF LAND, CONSISTENT WITH THE FOLLOWING GUIDING PRINCIPLES.

##### **PRINCIPLE 1**

PROMOTE SUSTAINABLE LAND DEVELOPMENT THAT PROVIDES FOR A BALANCE OF ECONOMIC OPPORTUNITY, SOCIAL EQUITY INCLUDING ENVIRONMENTAL JUSTICE, AND PROTECTION OF THE NATURAL ENVIRONMENT.

##### **PRINCIPLE 2**

BASE NEW DEVELOPMENT UPON THE PROVISION OF NECESSARY SERVICES AND INFRASTRUCTURE. FOCUS URBAN DEVELOPMENT IN A CLEARLY DEFINED AREA AND STRENGTHEN THE SEPARATION OF RURAL AND URBAN USES.

##### **PRINCIPLE 3**

RECOGNIZE RESIDENTIAL NEIGHBORHOODS AS A COLLECTIVE ASSET FOR ALL RESIDENTS OF THE COUNTY.

##### **PRINCIPLE 4**

CREATE AND PROMOTE COHESIVE COMMUNITIES THAT PROVIDE FOR A FULL RANGE AND MIX OF LAND USES.

*General Strategies to implement these Principles include:*

#### GENERAL STRATEGY 1

Minimize the conversion of land from rural to urban uses by maximizing the efficient use of available urban infrastructure, while preserving environmentally sensitive areas, according to the following:

- Designate and maintain on the Future Land Use Map an urban cluster that sets a boundary for urban growth.
- Provide incentives for higher average densities for residential development and mixed uses in the urban cluster, including density bonuses and transfer of development rights.
- Provide a range of urban residential densities with the highest densities located in or near urban activity centers, and lower densities located in outlying rural areas or areas of the County which have physical limitations to development.
- Utilize mechanisms such as land acquisition, conservation easements, variable lot sizes, and conservation subdivisions.
- Preserve ecosystems of a given area and incorporate hazard-resilient land planning.
- Time development approval in conjunction with the economic and efficient provision of supporting community facilities, urban services, and infrastructure, such as streets, utilities, police and fire protection service, emergency medical service, mass transit, public schools, recreation and open space, in coordination with policies in the Capital Improvements Element.

#### GENERAL STRATEGY 2

Promote land development that maximizes the use of public investments in facilities and services, ensures a proper level of public services for all new development, and preserves existing amenities. Land use decisions shall be made consistent with public facility improvements which shall be provided in accordance with the following priorities:

- in areas where the lack of public facilities threatens the health and safety of the community;
- in urban areas that are lacking adequate public facilities to meet the needs of existing development and to encourage infill development, and mixed-use redevelopment;
- in new areas which are part of a planned expansion of public services to encourage growth; and
- to extend individual services to meet the demands created by a specific development.

#### GENERAL STRATEGY 3

Promote the spatial organization of neighborhoods, districts, and corridors through urban design codes, incorporating graphics that serve as predictable guides for community development. Implementation shall

be through a combination of standard requirements and incentives, creating a planning framework that includes provisions to:

- Create neighborhoods that are compact, connected to adjacent development, have limited mixed uses at centers, and have interconnected, mixed modal streets with pedestrian, bicycle, and transit friendly areas.
- Integrate civic, institutional, and commercial activity in neighborhoods and districts, not isolated in remote, single-use complexes.
- Avoid large areas of single-use, similar densities, and similar types of units. A diverse mix of land uses, housing types and costs and densities shall be promoted. Identify locations or districts where special or single use activities shall be allowed or restricted (e.g., large scale retail or industrial areas).
- Link corridors that are regional connectors of neighborhoods and districts, ranging from parkways and transit lines to watersheds and greenways.
- Provide for infill where appropriate.

#### OBJECTIVE 1.3 – DENSITY

Gross residential densities shall be established to serve as a guideline for evaluating development in Alachua County.

Policy 1.3.2 The following classification of gross residential densities shall serve as a standard for evaluating development in Alachua County, unless specific provisions are otherwise provided in the Plan (DU/Acre = Dwelling Units per Acre), such as for Transit Oriented Developments and Traditional Neighborhood Developments. Policy 1.3.2.1 Urban Residential Densities - Areas designated on the Future Land Use Map for gross residential densities of one unit per acre or greater shall be considered as urban in character. There shall be four gross residential density ranges as follows:

(a) Low Density: One to Four dwelling units per acre

(b) Medium Density: Greater than Four to less than or equal to Eight dwelling units per acre

(c) Medium-High Density: Greater than Eight to less than or equal to 14 dwelling units per acre

(d) High Density: Greater than 14 to less than or equal to 24 dwelling units per acre

Policy 5.3.10 University of Florida properties which are designated in the Campus Master Plan shall be identified on the Alachua County Future Land Use Map. Development of these properties shall be in accordance with the Campus Master Plan and Campus Development Agreement as provided in Policy 1.1.7 of the Intergovernmental Coordination Element.

## 6.0 RURAL AND AGRICULTURAL POLICIES

### OBJECTIVE 6.1 - GENERAL

Rural and agricultural areas shall be protected in a manner consistent with the retention of agriculture, open space, and rural character, and the preservation of environmentally sensitive areas, and efficient use of public services and facilities.

### OBJECTIVE 6.2 - RURAL/AGRICULTURE

Areas identified for Rural/Agriculture on the Future Land Use Map are for agricultural activities including forestry and other agricultural uses, such as cattle grazing, cultivation of field crops, vegetable crops, dairies and those commercial or other uses on a limited scale serving or ancillary to agricultural activities, such as farm equipment and supplies, sales or service, farmers' markets, agritourism activities, composting, limited agricultural processing and wood product processing and wood manufacturing as provided in Policy 6.1.8 above, and agricultural products distribution. Rural residential uses, home-based businesses, rural event centers, heritage tourism and ecotourism activities, resource-based recreation and outdoor activity-based recreation are also allowed. Other uses involving animals not normally associated with agricultural activities, which would be suitable in the Rural/Agricultural areas, such as animal sanctuaries, kennels, and commercial animal raising, may be approved by the County Commission. New residential uses at a maximum density of one dwelling unit per five acres shall be permitted subject to the restrictions in Policy 6.2.7, except that the total allowable dwelling units may be increased pursuant to the Planned Development-Transfer of Development Rights program in accordance with 6.2.5.1 or the incentive bonuses for clustering of rural residential subdivisions in accordance with Policies 6.2.9 - 6.2.14.

**Policy 6.2.1** Road construction to support new development in the Rural/Agricultural area shall be the responsibility of the private land developer. Public funds may be allocated to roads designated as part of the State primary and County road system or those roads determined to be needed for the benefit of the general public and designated for construction by the State or Board of County Commissioners. The County shall only assume operation and maintenance responsibilities for a road that is dedicated to the County and that meets the standards of the Subdivision Regulations and the Transportation Mobility Element.

**Policy 6.2.1.1** Safety improvements shall be appropriate in any area of the County.

**Policy 6.2.2** Central water and sanitary sewer lines shall not be extended into the Rural/Agricultural area, unless these services are needed to correct a public or environmental health threat, or as necessary for the efficient delivery of services to the Urban Cluster, as provided in the adopted Potable Water and Sanitary Sewer element.

**Policy 6.2.3** Stormwater facilities consistent with the level of service standards for drainage shall be required as a condition of new development.

**Policy 6.2.4** The land development regulations shall insure adequate internal traffic circulation on dedicated local roads and shall minimize driveway access to rural collector and arterial roads.



**Policy 6.2.5** Parcels containing natural resource areas as identified in the Conservation and Open Space Element shall be conserved in accordance with those policies, such that the natural functions of the resource area are not significantly altered. This shall be accomplished either through clustering of new developments in accordance with Policy 6.2.9 through 6.2.14 below, or for developments of less than 10 lots that might not be clustered in accordance with these policies, through a development plan that assures the permanent protection of natural resources consistent with the requirements of the Conservation and Open Space Element; the land development regulations shall detail the requirements for management and permanent protection of the ecological value of natural resources in those developments that are not clustered through legally enforceable mechanisms that provide protection of those resources equivalent to the protection under Policies 6.2.12(c) through 6.2.12(e).

**Policy 6.2.5.1** In order to implement COSE Policy 4.10.6, Planned Developments with Transfers of Development (PD-TDR) may be proposed for two or more separate parcels under the same ownership to facilitate transfers of development rights from regulated conservation areas, as defined in Conservation and Open Space Element Policy 3.1.1, to less sensitive areas designated as Rural/Agriculture on the Future Land Use Map. The PD-TDR will allow units of density to be transferred from one or more contiguous parcels (sending parcels) to one or more geographically separate parcels (receiving parcels). All parcels involved shall be rezoned as PD-TDR-S or PD-TDR-R. As a result of the transfer, receiving parcels may be developed at a gross density that exceeds that provided on the receiving parcel by the Rural/Agriculture land use category. The process and standards for PD/TDR developments shall be consistent with rural clustering policies with the following additional requirements:

- (a) The parcel (s) from which density will be transferred shall be designated PD-TDR-S on the zoning map. The parcel receiving the density shall be designated PD-TDR-R. The sending parcel shall be so designated in perpetuity unless both the sending and receiving parcels are considered for rezoning simultaneously and the overall density in the rural area is not increased.
- (b) The maximum number of units that can be transferred shall be the lesser of:
  - (1) The number of units that could be developed on the sending parcel(s) under the Rural/Agriculture maximum gross density of 1 units per 5 acres, plus bonus units consistent with Policy 6.2.10(d); or
  - (2) The number of upland acres, excluding wetlands and wetland buffers, on the sending parcel(s).
- (c) The sending parcel(s) must be at least 50% field-verified conservation areas, as defined in Conservation and Open Space Element Policy 3.1.1. The sending parcels shall include all individual parcels that have been created after the adoption of this amendment to the Alachua County Comprehensive Plan or from a date 5 years prior to the application for a PD-TDR, whichever is later.

- (d) Units not transferred to an initial receiving parcel(s) as part of the original PD-TDR approval shall remain with the sending parcel(s). At a subsequent time, the remaining units may only be directed to additional receiving parcels by way of a major amendment to the approved PD-TDR Master Plan. All sending and receiving parcels shall be identified on the PD-TDR Master Plan.
- (e) Sending parcels shall be designated as conservation management areas on the PD-TDR Master Plan. Residential densities of one dwelling unit per 40 acres to one dwelling unit per 200 acres may be retained on the sending areas where consistent with a Conservation Management Plan. Retained density must be clustered on the least sensitive portion of the property. The amount of density to be retained shall be based on what is necessary to protect the integrity of the ecological system and conservation resources.
- (f) Development of receiving parcels shall be consistent with COSE policies 3.1.1 - 3.1.3 and the objectives and policies in COSE 3.6.
- (g) An area equal to at least 50% of the combined acreage of the sending and receiving areas for a PD-TDR shall be permanently set aside as open space on the sending parcel(s). Additionally, a minimum of 20% of the receiving parcel(s) shall be designated as open space consistent with COSE Policy 5.2.2.
- (h) The maximum density allowed on the receiving parcel will be the number of units based on the Rural/Agriculture land use designation for the receiving area, plus the additional units transferred from the sending area, subject to the minimum lot size requirements for developed areas of rural clustered subdivisions specified in Policy 6.2.13. Allowance of this maximum density shall be subject to an evaluation of factors, including: proximity to developed areas; availability and capacity of public infrastructure and services; environmental suitability; and compatibility with surrounding land uses. A finding shall be made whether or not the receiving parcel location and proposed density are appropriate based on these factors.
- (i) The land development regulations shall include provisions to assure implementation of the planned development as a unified development plan.

## **RURAL RESIDENTIAL SUBDIVISIONS**

**Policy 6.2.7** The Development Review Committee shall not authorize more than 150 lots smaller than eight acres in the Rural/Agricultural area in any calendar year except for lots that are clustered according to the provisions of 6.2.9 – 6.2.14.

**Policy 6.2.8** New rural residential subdivisions of parcels legally created prior to October 2, 1991, which contain more than 100 lots, including cumulative phases or continued subdivision of land in common ownership or partnership as of October 2, 1991, shall be allowed only after adoption of a comprehensive plan amendment based on a completed special area study. This study, developed through the Community Planning Program, shall address factors such as transportation impacts, community services, fire protection, impacts on surrounding land uses, and environmental issues.

This requirement for a comprehensive plan amendment is not applicable to a rural residential subdivision that exceeds 100 lots as a result of incentive density bonuses for clustering.

**Policy 6.2.9** Clustering

The preferred design for new rural residential subdivisions is that they be clustered in order to protect the characteristics and features of rural areas through the following goals:

- (a) Protect natural and historic resources.
- (b) Support continued agricultural activities by preserving viable soils and effective land masses.
- (c) Provide opportunities for agriculture areas such as community gardens.
- (d) Minimize land use conflicts.
- (e) Provide recreational and habitat corridors through linked open space networks.
- (f) Achieve flexibility, efficiency, and cost reduction in the provision of services and infrastructure.
- (g) Reduce natural hazard risks to life and property.

**Policy 6.2.10** Density and Intensity

The overall development density shall not exceed the maximum gross density of one dwelling unit per five acres for the Rural/Agriculture land use category, except as a result of the provisions for accessory dwelling units found in Policy 6.2.10.1, family homestead exceptions found in Policy 6.2.14(c), temporary permits issued by the Growth Management Department or as a result of incentive bonuses for clustering as provided under subsection (d) below, subject to the resource protection standards in the Conservation and Open Space Element. These standards include the following requirements:

- (a) Impacts to wetlands and surface waters shall be avoided, minimized, and mitigated in accordance with Conservation and Open Space Element Policies 4.7.4. and 4.6.6.
- (b) Density and open space requirements for new rural residential subdivisions shall be consistent with requirements for adequate protection of conservation areas in Conservation and Open Space Element Objective 3.6.
- (c) Development of property that is determined to be a strategic ecosystem shall require a special area plan pursuant to Conservation and Open Space Element Objective 4.10 unless it is determined that sufficient protection can be achieved through clustering.
- (d) As an incentive to cluster new residential subdivisions, if a new residential subdivision in the Rural/Agriculture area is clustered with a minimum of 50%

of the development in open space, a total of 2 units in addition to the number of units based on the gross density of 1 unit per 5 acres are allowed, plus 1 additional unit per every 10 acres of conservation area or agriculture area such as community gardens set aside as open space; plus 1 additional unit per every 20 acres of other non-conservation area set aside as open space.

**Policy 6.2.11 Design Sequence**

The design of rural residential clustered subdivisions shall be sequenced according to the following four-step process:

- (a) Identify open space area, including natural resources consistent with Conservation and Open Space Element Section 3, agricultural areas, and potential open space network connections consistent with Conservation and Open Space Element Section 6.3.
- (b) Identify developed area and locate home sites.
- (c) Align streets and trails.
- (d) Delineate lot lines.

**Policy 6.2.12 Open Space Area in Clustered Subdivisions**

A portion of a clustered rural residential subdivision shall be designated and maintained as undeveloped open space area.

- (a) Percentage of site. Clustered Rural residential subdivisions shall designate a minimum of 50% of the site as open space area.
- (b) Design Principles. Open space shall be selected and designed according to the following principles, consistent with Conservation and Open Space Element policies for the identification and protection of natural resources:
  - (1) Protect natural, historic, and paleontological resources and agricultural areas of the site identified through a site specific inventory.
    - a. Conservation areas shall receive top priority for inclusion as part of the designated open space area, and may only be impacted in accordance with Conservation and Open Space Element policies specific to the resource.
    - b. Agricultural areas with viable soils and effective land masses shall be evaluated for inclusion as part of the designated open space area after resource protection criteria are met. Agricultural uses consistent with 6.2.12(c) Permitted and Prohibited Uses and in accordance with requirements for management plans in 6.2.12(e)(3) are encouraged to be included as part of the designated open space area.
    - c. Historic and paleontological resources shall be included as part of the designated open space area when appropriate in accordance with the Historic Preservation Element.

- (2) Design the open space area as a single contiguous area with logical, straightforward boundaries to eliminate or minimize fragmentation.
  - (3) Form linked open space networks with existing or potential open space areas on adjacent properties, other developments, or greenways, consistent with Conservation and Open Space Element Section 6.3.
- (c) Permitted and Prohibited Uses.
- (1) Permitted uses in the open space area are natural resource conservation areas, non-intensive agriculture for food production including community gardens, non-intensive silviculture consistent with (3) below, common open space, resource-based recreation uses which maintain the undeveloped area in a natural state, permeable stormwater facilities consistent with Stormwater Element Policy 5.1.9, community energy systems, and common water supply systems and common septic system drainfields.
  - (2) More intensive agriculture uses such as concentrated animal density generally associated with milking barns, feed lots, chicken houses, or holding pens shall not be allowed in any clustered rural residential subdivision.
  - (3) Intensive silviculture uses of planted monoculture “plantation” forests, with intensive management regimes that include practices that are adverse to the natural resource values and functions of a natural forest system, shall not be allowed in any clustered rural residential subdivision. Only natural forest management in accordance with provisions of the applicable open space management plan consistent with 6.2.12(e)(3) may be considered.
- (d) Permanent protection. All future development in designated open space areas is prohibited.
- (1) All open space shall be maintained and remain undeveloped in perpetuity using a legal instrument that runs with the land to set forth conditions and restrictions on use.
  - (2) All open space area and lots shall be restricted from further subdivision through an instrument in a form acceptable to the county and duly recorded in the public record which assures the preservation and continued maintenance of the open space.
  - (3) The boundaries of designated open space areas shall be clearly delineated on plans, including record plats, and marked in the field to distinguish these areas from developed areas.
- (e) Ownership, maintenance, and management plan.
- (1) Ownership methods. Ownership and maintenance of open space shall be by one or a combination of the following:
    - a. Original landowner with provision for transition of ultimate ownership and control to one of the entities below



- b. Homeowners association
  - c. Established land trust
  - d. Non-profit conservation or agricultural organization
  - e. Alachua County, with county approval
  - f. Other public agency (e.g. Water Management District)
- (2) Maintenance. Unless otherwise agreed by the County, the cost and responsibility of maintaining common facilities, including but not limited to open space, private roads, shared water systems, and stormwater systems, shall be borne by the owner(s) of the open space. If the open space is not properly maintained, the County may assume responsibility of maintenance and charge the property owner or homeowners association a fee which covers maintenance and administrative costs.
- (3) Management plan. An open space management plan shall be required to accompany the development plan, subject to county review and approval. The management plan shall establish management objectives consistent with Conservation and Open Space Element objectives and policies for preservation, enhancement, and restoration of natural resource values, protection of public health and safety, and outline procedures and define the roles and responsibilities for managing the open space. The management plan shall identify how any agriculture and silviculture operations shall avoid impacts to conservation resources according to standards in the land development regulations. Management shall include wildfire mitigation and any existing silviculture operations are required to be managed to a point where they can be made an acceptable fire risk and must transition to natural forest management.

The land development regulations for open space ownership, maintenance, and management in clustered rural subdivisions shall be updated consistent with applicable Goals, Objectives, and Policies in the Comprehensive Plan. Criteria for the timing of transfer of ownership and maintenance from original landowner to the homeowners association, such as some percentage of the lots sold or built upon, consistent with Florida Statutes 720.307 shall be specified in the land development regulations. As part of the update of these regulations, recommended practices for any agricultural activities within the open space, from sources such as University of Florida Institute of Food and Agricultural Sciences (UF IFAS) (e.g., for things such as animal stocking and crop planting rates), and principles of regenerative agriculture, shall be considered to the extent they are consistent with policies in the Comprehensive Plan including natural resource protection.

### **Policy 6.2.13 Developed Area**

The developed area of the clustered rural residential subdivision shall be located outside the open space area. The land development regulations shall prescribe in detail design standards for the configuration of lots and homes, the provision of water and wastewater, roads, stormwater, and buildings and structures. At a minimum, all developed areas must be designed to comply with the following principles, to the extent feasible considering the location and protection of natural resources:

- (a) Flexible home siting and lot sizes. Diversity and originality in home siting, lot size and design are encouraged to achieve the best possible relationship between the development and the features on the land through the following strategies:
  - (1) Ownership lines should follow existing features, such as tree lines or contours.
  - (2) Lots smaller than one acre may be allowed provided that well and septic System configuration, location, and operation and maintenance comply with public health and environmental quality standards, subject to the following:
    - a. The number of lots less than one acre shall be determined and located consistent with Conservation and Open Space Element Policies 3.6.11 and 4.5.5(f).
    - b. Common septic systems may be utilized to serve lots less than one acre, consistent with Conservation and Open Space Element Policy 4.5.5(f), subject to performance criteria in the land development regulations specifying criteria such as system configuration, location, and management.
- (b) Development impacts within developed area. Development impacts and disturbance caused by buildings or construction to topography and existing site features within the developed area shall be minimized through the following strategies:
  - (1) Locating residences and structures adjacent to tree lines and wooded field edges and avoiding placement in open fields, consistent with Firewise principles.
  - (2) Preserving the maximum amount of natural vegetation by careful siting of development.
  - (3) Limiting the size of building envelopes and locating them in areas most suitable for development.
  - (4) Locating roads to minimize cut and fill (follow existing features, e.g. tree lines, access roads, contours).
  - (5) Providing buffers and setbacks from wetlands and surface waters.

- (6) Use of common driveways.
- (7) Encouraging community wells and septic systems within the most suitable soils.
- (8) Designing stormwater to maximize overland flow through natural drainage systems and grassed overland (roadside and lot line) swales. The use of plants and natural land forms shall be required to slow, hold, and treat runoff from development.
- (c) Development impacts to open space and adjacent offsite areas. The total amount of impacts and disturbance to the site, including the open space area, and to adjacent areas offsite shall be minimized through strategies such as:
  - (1) Providing buffers and setbacks to protect resources and natural vegetation from development impacts consistent with Conservation and Open Space Element Section 3.6.
  - (2) Providing buffers and setbacks to protect the ability to engage in agricultural activities in neighboring areas. The width and type of buffer shall be based on the scale of the agricultural activity and other site specific factors such as topography, and shall include a minimum buffer width of two hundred feet when the developed area is adjacent to intensive agricultural uses.
  - (3) Locating developed areas and providing buffers and setbacks to eliminate or minimize the presence of development from adjacent properties.
- (d) Development impacts to adjacent public roads shall be minimized through the following strategies:
  - (1) Providing internal paved local roads, or private easements that serve no more than nine lots consistent with Future Land Use Element Policy 6.2.6, which meet County standards and minimize access to adjacent public roads.
  - (2) Minimizing the number of driveways accessing adjacent public roads and the number of lots with direct frontage on adjacent public roads.
  - (3) Locating developed areas and providing buffers and setbacks to minimize the presence of development from adjacent public roads.

**Policy 6.2.14 Applicability**

- (a) New rural residential developments of 10 or more lots shall be developed as clustered rural residential subdivisions in accordance with the policies and requirements under this section and implementing land development regulations.
- (b) New rural residential subdivisions meeting all requirements for cluster development may be allowed through the development review process, provided they are consistent with Comprehensive Plan policies and land development regulations.
- (c) Exceptions to the density and intensity standards in the Rural/Agriculture area may be granted for use of a parcel as a homestead by family members that meet the family relationship criteria under Future Land Use Element Policy 7.1.20 as provided in the Land Development Regulations.

- (d) Alternatives to the requirements for Rural/Agricultural areas may be established by special area plans adopted jointly by Alachua County and a municipality pursuant to Interlocal agreements under Section 1.5 of the Alachua County Charter and Policy 1.1.1 of the Intergovernmental Coordination Element of the County Comprehensive Plan. Such special area plans shall establish policies for land use and other relevant issues such as provision of infrastructure and services within areas delineated in such joint special area plans. In order for these alternative policies to apply, the joint special area plan with a municipality must be adopted as part of the Comprehensive Plans of the both the County and the applicable municipality.

**Policy 7.1.3** As part of the periodic update of the Comprehensive Plan and any proposed amendments to the Urban Cluster, determine a sufficient and non-excessive amount of land within the Urban Cluster to accommodate urban uses for a ten year and twenty year time frame.

- (a) The determination (methodology is shown in Appendix A) shall be based on a comparison of:
  - (1) a forecast need for land for urban residential and non-residential development based on projected population, average household size, a residential vacancy rate, and a market factor. The market factor for the ten year time frame shall be 2.0. The market factor for the 20 year time frame shall be 1.5.
  - (2) land available in the Urban Cluster for urban residential and non-residential uses. Mapping of environmentally sensitive areas shall be utilized as a factor for determining land availability.
- (b) If the comparison shows that the land available is less than the forecast need for land, the following measures shall be considered:
  - (1) revisions to density standards and land development regulations, or other measures, to accommodate greater population within the existing Urban Cluster
  - (2) coordination with municipalities regarding possible reallocation of forecast need to the incorporated areas
  - (3) phased expansion of the Urban Cluster
- (c) If the forecast need for one type of land use exceeds the supply of land for that particular use, a revision to the allocation of land uses within the Urban Cluster shall be considered before the Urban Cluster is expanded.
- (d) If this methodology determines expansion of the Urban Cluster is warranted, the evaluation of appropriate location shall be subject to analysis including the following economic, infrastructure, transportation, and conservation and recreation criteria:
  - (1) rural character and viable agriculture land and the potential impact of expansion of the Urban Cluster on existing agricultural uses.
  - (2) economic development considerations including affordable housing
  - (3) relationship to existing and planned future urban services and infrastructure

- (4) access to the regional transportation network and multi-modal transportation systems
  - (5) Conservation and Preservation land uses
  - (6) planned recreation/open space or greenway systems
- (e) In addition to meeting the requirements identified above, any proposed amendment to expand the Urban Cluster must include a commitment to purchase development rights at a rate equivalent to or greater than the proposed increase in density or intensity through the Transfer of Development Rights program in accordance with Section 9.0 of this Element

**Policy 7.1.6** Areas designated for urban residential densities are identified on the Future Land Use Map within the urban cluster shown on the map, and certain additional areas representing existing development at urban residential densities. The policies and densities applicable to the Low Density Residential category shall also apply to that portion of any lot of record existing as of October 2, 1991, which was partially within and partially outside of the urban cluster provided that the area of the lot outside of the urban cluster does not exceed five (5) acres. The development must be contiguous to the area identified for low density residential land use on the Future Land Use Map and provide the equivalent infrastructure and services. For purposes of this policy, roadway, conservation, or utility easements shall not preclude contiguity. Development must be consistent with all Comprehensive Plan policies.

**Policy 7.1.11** All new development shall meet level of service requirements for roadways, potable water and sanitary sewer, stormwater, solid waste, mass transit, public schools, and improved recreation in accordance with LOS standards adopted in the elements addressing these facilities.

**Policy 7.1.23** All amendments shall be considered based on the applicable policies and objectives of this Element, shall be considered in light of the Basic Principles upon which the Plan is based, and shall be consistent with all Elements of the Plan.

## **FUTURE LAND USE ELEMENT DEFINITIONS**

**Urban Cluster:** An area designated on the Future Land Use Map for urban development, which includes residential densities ranging from one unit per acre to 24 units per acre or greater, non-residential development, and is generally served by urban services.



## **CONSERVATION AND OPEN SPACE ELEMENT**

**Policy 3.1.1** Conservation areas shall consist of natural resources that, because of their ecological value, uniqueness and particular sensitivity to development activities, require stringent protective measures to sustain their ecological integrity. These areas shall include:

- (a) Wetlands;
- (b) Surface waters;
- (c) 100-year floodplains;
- (d) Listed species habitat;
- (e) Significant geologic features; and
- (f) Strategic ecosystems.

**Policy 3.1.3** Conservation areas shall be developed only in a manner consistent with protection of the ecological integrity of natural resources, and in accordance with standards which are outlined subsequently in this Element.

**Policy 3.6.3** Parcels that include or are adjacent to conservation or preservation areas shall not receive planning and zoning designations that are higher in density or intensity than the currently adopted designations unless adequate natural resources protection is ensured.

### **OBJECTIVE 4.10 - STRATEGIC ECOSYSTEMS**

Protect, conserve, enhance, and manage the ecological integrity of strategic ecosystems in Alachua County.

**Policy 4.10.1** Conserve strategic ecosystems that are determined through ground-truthing using the KBN/Golder report as a guide to maintain or enhance biodiversity based on an overall assessment of the following characteristics:

- (a) Natural ecological communities that exhibit:
  - (1) Native biodiversity within or across natural ecological communities.
  - (2) Ecological integrity.
  - (3) Rarity.
  - (4) Functional connectedness.
- (b) Plant and animal species habitat that is:
  - (1) Documented for listed species.
  - (2) Documented for species with large home ranges.
  - (3) Documented as a special wildlife migration or aggregation site for activities such as breeding, roosting, colonial nesting, or over-wintering.
  - (4) High in vegetation quality and species diversity.
  - (5) Low in non-native invasive species.

(c) Size, shape, and landscape features that allow the ecosystem to be restored to or maintained in good condition with regular management activities, such as prescribed burning, removal of exotic vegetation, or hydrological restoration.

The Alachua County 2001 digital orthophotographic series (for purposes of this policy, the date of this photography is March 1, 2001) shall presumptively establish the baseline condition of the strategic ecosystem property as of the effective date of this policy. The County shall adopt land development regulations that set forth additional guidance for the determination of whether and the extent to which strategic ecosystems exist on a property.

**Policy 4.10.2** Strategies shall be implemented through the land use planning and development review processes to ensure that each strategic ecosystem is evaluated and protected based on the integrity of the ecological unit.

(a) The County shall create special area plans in cooperation with landowners to establish specific guidelines for strategic ecosystems prior to approval of land use change, zoning change, or development approval.

(b) The County shall devise a schedule for creating special area plans, based on current development pressures and anticipated priorities.

(c) The County shall create special area plans for each strategic ecosystem, in accordance with the schedule and with the standards under Objective 3.6.

**Policy 4.10.3** If an applicant seeks development prior to the County's creation of a special area plan for a particular strategic ecosystem, the applicant has two avenues for pursuing development. A special area study may be conducted at the applicant's expense. Alternatively, if the applicant demonstrates that the ecological integrity of the strategic ecosystem will be sufficiently protected, the applicant may proceed according to the clustering provisions in policies under Objective 6.2 of the Future Land Use Element.

**Policy 4.10.4** Management strategies for strategic ecosystems shall be developed with landowners in conjunction with special area plans or cluster developments and may include, but are not limited to:

(a) Prescribed burning.

(b) Control of invasive species.

(c) Silvicultural activities according to BMPs, with particular emphasis on maintenance and improvement of water quality, biological health, and the function of natural systems.

(d) Reduction in the intensity of site preparation activities, including bedding and herbicide application.

(e) Provision for listed species habitat needs, including restricting, at appropriate times, intrusions into sensitive feeding and breeding areas.

(f) Cooperative efforts and agreements to help promote or conduct certain management activities, such as cleanups, maintenance, public education, observation, monitoring, and reporting.

(g) Land acquisition.

**Policy 4.10.5** Each strategic ecosystem shall be preserved as undeveloped area, not to exceed 50% of the upland portion of the property without landowner consent and in accordance with the following:

(a) Upland areas required to be protected pursuant to policies for significant geological features and wetland and surface water buffers shall be counted in calculation of the 50% limitation, however, the extent of protection of significant geological features and wetland and surface water buffers shall not be reduced by this limitation.

(b) This limitation shall not apply to 100-year floodplains and wellfield protection areas, which are addressed independently through policies under Objectives 4.8 and 4.5, respectively.

(c) This limitation shall not restrict in any way state and federal agency protections.

**Policy 4.10.6** The County shall provide regulatory flexibility to facilitate planning across multiple parcels that protects the integrity of the strategic ecosystem as an ecological unit. Existing cluster and PUD ordinances shall be revised to enhance long-term protection of strategic ecosystems.

**Policy 4.10.7** The County shall work with owners of agricultural and silvicultural lands to retain the ecological integrity and ecological value of strategic ecosystems through management plans and incentives. A management plan shall be required before any activity occurs in a strategic ecosystem that has not been used for agriculture or silviculture within the last 20 years, in accordance with the following:

(a) The management plan shall provide for retention of the ecological integrity and ecological value of the strategic ecosystem.

(b) The management plan shall be submitted to Alachua County for review and approval by appropriately qualified technical staff.

(c) The management plan may be satisfied by Forest Stewardship Council certification, land acquisition, or participation in a conservation program sponsored by the USDA Natural Resources Conservation Service.

(d) Passive recreational and ecotourism activities shall be encouraged where consistent with protection of the ecological integrity of the strategic ecosystem.

The County shall, through community outreach and collaboration, facilitate participation of landowners in forestry certification programs, land acquisition programs, and federal and state cost-share conservation programs, such as the Environmental Quality Incentive Program, the Conservation Reserve Program, the Wildlife Habitat Incentive Program, and the Farmland Protection Program.

**Policy 4.10.8** Alachua County shall implement an ordinance that specifically addresses the preservation of strategic ecosystems, significant plant and wildlife habitat, habitat corridors, and vegetative communities.

## **TRANSPORTATION MOBILITY ELEMENT**

### **GOAL**

Establish a multi-modal transportation system that provides mobility for pedestrians, bicyclists, transit users, motorized-vehicle users, users of rail and aviation facilities, and is sensitive to the cultural and environmental amenities of Alachua County.

### **PRINCIPLE 3**

Discourage sprawl and encourage the efficient use of the urban cluster by directing new development and infrastructure to areas where mobility can be provided via multiple modes of transportation.

### **OBJECTIVE 1.1 Urban Transportation Mobility Districts**

Urban Transportation Mobility Districts encourage future land use and transportation patterns that emphasize mixed-use, interconnected developments, promote walking and biking, reduce vehicle miles of travel and per capita greenhouse gas emissions, and provide the densities and intensities needed to support transit.

**Policy 1.1.1** The Urban Cluster Area as identified on the Future Land Use Map of the Comprehensive Plan shall serve as the boundary for the Urban Transportation Mobility Districts. Urban Transportation Mobility Districts shall be established for the Northwest, Southwest and Eastern portions of the Urban Cluster.

**Policy 1.1.2** Urban Transportation Mobility Districts are designed to support compact, mixed-use developments provided for in the Future Land Use Element by developing an interconnected multi-modal transportation system that reduces per capita greenhouse gas emissions by encouraging walking, bicycling and driving short distances between residential, retail, office, educational, civic and institutional uses and utilizing transit to commute to regional employment, educational and entertainment destinations.

**Policy 1.1.3** The intent of Urban Transportation Mobility Districts are:

- (a) To provide for mobility within urban areas through the development of an interconnected network of:
  - (1) Roadways that provide multiple route choices, alternatives to the state road system and protect the Strategic Intermodal System (SIS).
  - (2) Rapid Transit and Express Transit Corridors that connect Transit Oriented Developments, Traditional Neighborhood Developments and Activity Centers and facilitate efficient and cost effective transit service to regional employment, educational and entertainment destinations.
  - (3) Bicycle lanes, sidewalks, and multi-use paths that connect residential, commercial, office, educational and recreation uses and provide multi-modal access to transit.

- (b) To recognize that certain roadway corridors will be congested and that congestion will be addressed by means other than solely adding capacity for motor vehicles and maintaining roadway level of service on those corridors.
- (c) To utilize features of an alternative mobility funding system per F.S. 163.3180.
- (d) Reduce vehicle miles of travel and per capita greenhouse gas emissions through compact, mixed-use, interconnected developments served by multiple modes of transportation.
- (e) Reduce sprawl and encourage urban development by planning and constructing the necessary infrastructure to meet the demands for bicycle, pedestrian, transit and motor vehicle mobility.
- (f) Reduce congestion within the Urban Cluster by capturing trips from surrounding rural areas, municipalities and adjacent counties through provision of park and ride facilities located within transit supportive developments in the Urban Cluster served by transit service that connects to regional employment and educational destinations.
- (g) To provide for multi-modal cross-access and connectivity within and between uses to encourage walking and bicycling and reduce travel distances and impact to collector and arterial roadways.

**Policy 1.1.6.12** Requests to expand the Urban Cluster Boundary, whether by public or private entities, shall require the entity to demonstrate that the adopted LOS guidelines for the affected Urban Transportation Mobility District are achieved and that additional required infrastructure is fully funded. The entity shall also be required to construct or fully fund bicycle and pedestrian facilities necessary to achieve the adopted LOS from the proposed newly included properties to an existing facility or a logical terminus within the existing Urban Cluster Boundary. Applicants may only include projects that are fully funded and scheduled to commence construction within one (1) year of approval of the request to expand the Urban Cluster Boundary. This requirement is in addition to all other conditions of the Comprehensive Plan, including Policy 7.1.3 of the Future Land Use Element in order amend the Comprehensive Plan to the expand the Urban Cluster.

## **OBJECTIVE 1.2 - Rural Transportation Mobility Districts**

To protect and support agricultural activities, preserve the character of rural communities and encourage development in areas where infrastructure can be provided in a financially feasible manner, the unincorporated area outside the Urban Cluster as identified in the Comprehensive Plan shall be established as Rural Transportation Mobility Districts. Developments within Rural Transportation Mobility Districts are required to mitigate impacts to roadways within the Rural and Urban Transportation Mobility Districts as established in the adopted Mobility Fee.



**Policy 1.2.1** Alachua County shall adopt the following level of service guidelines based on daily traffic for functionally classified roadways in order to maximize the efficient use and safety of roadway facilities:

Mode of Travel	Level of Service (LOS)
Motor Vehicle	C

**Policy 1.2.2** Alachua County has established level of service guidelines for rural areas to coordinate capital improvement planning and land use to ensure that growth does not occur faster than the County's ability to provide for infrastructure in a financially feasible manner. The level of service guidelines shall not compel or require the County to widen or construct new roadways outside of the Urban Cluster in order to provide capacity to support new development or to address the unmitigated impact of development from adjacent municipalities and counties.

**Policy 1.2.3** Amendments to the Future Land Use Element and/or Map, including Sector Plans and Special Area Plans, will be coordinated with the Transportation Mobility Element and the Capital Improvement Element through the evaluation of the impact of additional traffic projected to result from proposed land use plan amendments. This evaluation shall include assessment of the impact on the level of service of individual affected roads based on the roadway functional classification and number of lanes.

**Policy 1.2.4** Where the evaluation of a proposed Future Land Use amendment indicates that the level of service on affected individual roads segments would be reduced below the adopted level of service guidelines, the amendment shall be accompanied by corresponding amendments to identify roadway modifications needed to maintain the existing individual segment by segment level of service guideline, as well as the scheduling of such modifications in Alachua County's Five Year Capital Improvement Program.

## **POTABLE WATER AND SANITARY SEWER ELEMENT**

### **OBJECTIVE 3.1**

To provide for the coordination of public potable water and sanitary sewerage facility extensions in the unincorporated area of Alachua County with the Alachua County Future Land Use Element and capital improvement planning and programming.

**Policy 3.1.1** Alachua County shall designate an urban service area for future land uses with densities and intensities which will provide for efficient operation of central potable water and sanitary sewer service facilities, as well as the enabling of efficient line sizing by any potable water supplier or sanitary sewer collector.

- Policy 3.1.2** Alachua County shall coordinate any expansions in municipal potable water systems, municipal sanitary sewer systems, the school system, the highway systems, the drainage system, and any other relevant publicly provided facility through intergovernmental coordination mechanisms consistent with the Intergovernmental Coordination Element policies.
- Policy 3.1.3** Alachua County will establish a timing, staging, and capacity program in conjunction with the municipalities in the County for the expansion of potable water and sanitary sewer facilities into unincorporated service areas. This shall be coordinated in accordance with the Intergovernmental Coordination Element, Policy 5.1.7. The Capital Improvement Programs/Elements of Alachua County and the municipalities shall specify such facility expansion programs.
- Policy 3.1.4** Extension of potable water or sanitary sewer lines within areas designated on the Future Land Use Map as the Urban Cluster shall be allowed by Alachua County provided there are no adverse impacts on environmentally-sensitive lands.
- Policy 3.1.5** Proposed extensions of potable water and sanitary sewer lines outside of the Urban Cluster designated by the Future Land Use Element shall be subject to approval by the Board of County Commissioners. Approval of such extensions shall be based on one or more of the following:
- (a) the Alachua County Board of County Commissioners finds that the absence of such facilities would result in a threat to the public health or safety; or
  - (b) the Alachua County Board of County Commissioners finds that the extension of such facilities is necessary to enhance the safe, effective, and efficient delivery of central potable water or sanitary sewer service within an existing urban service area; or
  - (c) the Alachua County Board of County Commissioners finds that the extension of such facilities would serve a purpose consistent with the Alachua County Comprehensive Plan, such as the retention and expansion of existing business and industry or the attraction of new business and industry in accordance with the Economic Element of this Plan, or the service of institutional or tourist/entertainment uses consistent with the Future Land Use Element; or
  - (d) the Alachua County Board of County Commissioners finds that the extensions of such facilities is needed as part of a comprehensive expansion of public services to encourage urban development in a new area as part of a comprehensive plan amendment. In this case, such a finding must be consistent with Policy 3.1.6 below.
- Policy 3.1.6** Central potable water and sanitary sewer systems may be extended into new areas as part of a planned extension of urban services to that area based upon the following factors:
- (a) population growth rate;

- (b) maintenance of level of service standards for the potable water or sanitary sewer system;
- (c) adequacy of existing and planned supporting infrastructure;  
Approval of such extensions would require the following:
- (d) Identification, scheduling, and designated funding for capital improvements to other public facilities needed to extend urban services. Such projects shall be incorporated into the five-year capital improvement program of the Alachua County Capital Improvement Element.
- (e) Adoption of necessary amendments to the Future Land Use map extending the urban cluster boundary.

## **ENERGY ELEMENT**

### **3.0 ENERGY EFFICIENT LAND USE**

#### **OBJECTIVE 3.1**

Promote energy-efficient land use patterns that reduce travel costs and encourage long-term carbon sequestration.

**Policy 3.1.1** Promote energy efficient land use patterns through the policies of the Future Land Use Element, Transportation Mobility Element and this Element, including measures such as:

- (a) Mix of uses;
- (b) Transit supportive density;
- (c) Compact growth patterns;
- (d) Road connectivity and multimodal efficiency;
- (e) Pedestrian and transit oriented design techniques; and
- (f) Clustering techniques in the rural area.

**Policy 3.1.4** Promote redevelopment and infill within the Urban Cluster, and within municipal boundaries consistent with Policy 1.1.7 of the Intergovernmental Coordination Element.

## **PUBLIC SCHOOL FACILITIES ELEMENT**

#### **OBJECTIVE 3.6 - SCHOOL DEVELOPMENT STANDARDS**

The County shall establish development standards for schools to achieve compatibility with surrounding neighborhoods and the community.

### **Policy 3.6.1 School Development Standards**

The County shall require the development of school sites to be consistent with the following standards provided these requisites are not in conflict with the State Requirements for Educational Facilities (SREF) or unless the Board of County Commissioners approves changes or modifications:

- (a) The location, arrangement, and lighting of play fields and playgrounds shall be located and buffered as may be necessary to minimize impacts to adjacent residential property;
- (b) The following minimum size guidelines have been recommended by the SBAC: Elementary School - 25 acres, Middle School - 35 acres, High School - 65 acres. These guidelines shall not preclude smaller sized sites if determined to be acceptable by the School Board.
- (...)

## **Unified Land Development Code (ULDC)**

### **Sec. 406.03. - Use of sound environmental practices.**

The provisions in this Chapter are intended to accommodate development while also protecting and preserving valuable natural and historic resources. In furtherance of this objective, applicants shall be required to use sound environmental practices, to plan for proposed activities and projects in the context of natural systems and historic features of the landscape. Applicants are encouraged to use conservation design techniques such as clustering and density transfer to produce marketable projects while protecting natural and historic resources.

(a) *Satisfaction of Open Space requirements.* When land development involves a parcel that contains regulated natural or historic resources, the County's Open Space requirements shall be fulfilled first with regulated natural or historic resources. These areas shall be protected as conservation management areas in accordance with Article XVII.

(b) *Minimized impact within upland conservation areas.* Avoidance or minimization shall be required for all conservation areas in accordance with [Section 406.113](#) of this Chapter. Where the applicant demonstrates that all reasonable steps have been taken in the attempt to avoid significant adverse impact to regulated natural and historic resources, and proposed impact is consistent with upland habitat limitations under Article III, Article IV, and Article V of this Chapter, development in regulated upland resource areas may be authorized as follows and shall not constitute a significant adverse impact:

- (1) Density will be calculated within the regulated upland resource area at the rate of one (1) unit per five (5) acres in the rural/agricultural land use.
- (2) In other land use designations, density will be calculated within the regulated resource area at the lowest density allowed by the established zoning district. ...

## **ARTICLE V. – STRATEGIC ECOSYSTEMS**

### **Sec. 406.32. - Purpose.**

The purpose of this Article is to implement the Alachua County Comprehensive Plan, to protect conserve, enhance, and manage the ecological integrity of natural systems in Alachua County that have aesthetic, ecological, economic, educational, historical, recreational, or scientific value due to the interrelationship of one or more landscape, natural community, or species scale characteristics. It is also the purpose of this Article to promote connectivity and minimize fragmentation of natural systems, and to protect wetlands, floodplains, and associated uplands in a broad systems context through resource-based planning, including inter-jurisdictional and inter-agency coordination, across multiple parcels rather than individual parcel planning.

### **Sec. 406.33. - Identification.**

Strategic ecosystems are identified in the KBN/Golder Associates report, "Alachua County Ecological Inventory Project" (1996), and mapped generally by the KBN/Golder Ecological Inventory Map, which is an overlay to the Future Land Use Map, adopted and made a part of this Chapter by reference. The specific location and extent of strategic ecosystem resources shall be determined through ground-truthing using the KBN/Golder Associates report as a guide to determine the location and extent of the ecological community or communities described, generically, in the KBN/Golder report or of other natural resources generally consistent with the pertinent site summary in the KBN/Golder report. The ground-truthing process shall be implemented either as part of the development review process, or the special area planning process detailed in Article XVI of [Chapter 402](#). Variability of community quality shall not be a basis for the delineation but may be a basis for determining the most appropriate locations for development and conservation, respectively. Those areas found not to contain strategic ecosystem resources shall be eligible for consideration for development as part of a development plan or special area plan provided the ecological integrity of the strategic ecosystem as a whole will be sufficiently protected.

### **Sec. 406.34. - Agricultural and silvicultural activities.**

The County shall work with owners of agricultural and silvicultural lands to retain the ecological integrity and ecological value of strategic ecosystems through management plans and incentives.

(a) For bona fide agricultural activities, including silvicultural activities, identification and verification of best management practices shall be required in accordance with [Section 406.05](#).

(b) A management plan shall be required before any activity occurs in a strategic ecosystem that has not been used for bona fide agriculture or silviculture within the last twenty (20) years, consistent with Subsection [406.05\(a\)](#) and in accordance with one of the following:

(1) The management plan shall provide for retention of the ecological integrity and ecological value of the strategic ecosystem.

(2) The management plan shall be submitted to Alachua County for review and approval by staff. Management plans not meeting the general template standards of Subsection [406.112\(e\)](#) will require review and approval through the development review process.

(3) The management plan may be satisfied by land acquisition, conservation easement, or participation in a conservation program sponsored by the United States Department of Agriculture Natural Resources Conservation Service.

(4) The management plan may be satisfied by any agricultural or silvicultural certification program's required management plan, provided it demonstrates that the ecological integrity and value of the system is protected.

#### **Sec. 406.35. - Onsite habitat protection and set-aside limitations.**

No more than fifty (50) percent of the upland portion of a parcel may be required to be preserved because it is or includes strategic ecosystem unless the landowner provides consent, or state or federal agencies require additional protection. This provision shall be applied as follows:

- (a) Upland areas required to be protected pursuant to Comprehensive Plan policies or regulations for significant geologic features and wetland and surface water buffers shall be counted in the calculation of the 50-percent limitation, however the extent of protection of significant geological features and wetland and surface water buffers shall not be reduced by this limitation.
- (b) If the strategic ecosystem in combination with any of the features identified in Subsection (a) above, equal less than fifty (50) percent of the upland portion of the parcel, the entire strategic ecosystem shall be protected.
- (c) The County shall work with the applicant to select that portion of the strategic ecosystem that will be included in the set-aside area, based on limitations and factors identified above and in accordance with criteria in [Section 406.97](#), Site selection and design for conservation management areas.
- (d) Where the strategic ecosystem alone or in combination with the features identified in Subsection (a) above, is greater than fifty (50) percent of the upland portion of the parcel, development densities on any portion of the strategic ecosystem outside of the set-aside area shall be governed by Subsections [406.03\(b\)\(1\)](#) and (2).
- (e) For developments that comply with all applicable provisions of this Article, the set-aside limitations in this Section shall constitute full compliance with conservation element policies addressing avoidance, minimization, and mitigation related to the protected resource.
- (f) The County shall encourage the applicant to protect the portions of the strategic ecosystem outside of the set-aside area through creative and flexible approaches to development of the property, using the provisions of Subsection [406.38\(c\)](#) for guidance.



#### **Sec. 406.36. - Development activities.**

The preferred planning mechanism for any new or expanded activity in, on or over a strategic ecosystem shall be a special area plan. If an applicant seeks development prior to the County's adoption of the scope of work for a special area plan within a particular strategic ecosystem, the applicant has three (3) options:

- (a) For all administrative activities, the applicant may proceed through the prescreening process for administrative permits in accordance with Article II, Common Development Application Elements, of [Chapter 402](#), subject to the development standards in Subsection [406.38\(c\)](#), where applicable.
- (b) A special area study or plan may be conducted at the applicant's expense, in accordance with Article XVI of [Chapter 402](#). All subsequent development shall be in compliance with the adopted special area plan.
- (c) If the applicant demonstrates that the ecological integrity of the strategic ecosystem will be sufficiently protected, the applicant may proceed as set forth in [Section 406.38](#).

#### **Sec. 406.37. - Additional development application submittal requirements.**

The following information shall be submitted with an application for development within a strategic ecosystem in order to evaluate whether the development may proceed before a special area plan has been adopted.

- (a) All information required by [Section 406.04](#) as part of a natural and historic resources assessment;
- (b) General analysis of adjacent properties sufficient to provide resource context;
- (c) Ownership and use information, including parcel numbers and acreage, for all land under common ownership or control within the strategic ecosystem or contiguous to the proposed development site; and
- (d) All proposed protection and management strategies for the natural and historic resources on the site and on any properties under common ownership and control as identified in Subsection (c) above.

#### **Sec. 406.38. - Alternative to special area planning in strategic ecosystems.**

As part of the development review process, County staff shall evaluate whether a proposal is sufficiently protective of the ecological integrity of the strategic ecosystem and a finding shall be made by the appropriate review body as to whether a special area study shall be required in accordance with Article XVI of [Chapter 402](#) or development may proceed in accordance with the provisions of this Section. The evaluation shall be made using the information required in [Section 406.37](#) that is based on consideration of natural resource and land use characteristics specific to the system as identified by the KBN/Golder Ecological Inventory Map and through ground-truthing in accordance with [Section 406.33](#).

(a) *Evaluation.* The evaluation shall include an assessment as to whether the proposal protects resources within the project area and within the ecosystem as a whole, according to the following:

- (1) Features that define the strategic ecosystem;
- (2) Areas critical for system connectivity; important plant or wildlife habitat areas and characteristics;
- (3) Feasibility of important management strategies, such as prescribed burning;
- (4) Protection and management of additional resources for all properties under common ownership and control within the strategic ecosystem; and
- (5) Density transfer opportunities in accordance with Subsection [406.03](#)(d).

(b) *Equal to or less than fifty (50) percent strategic ecosystem.* Where the evaluation shows that the strategic ecosystem comprises no more than fifty (50) percent of the upland portion of the subject property, development will be allowed to proceed prior to adoption of a special area plan.

(c) *More than fifty (50) percent strategic ecosystem.* Where the evaluation shows that the strategic ecosystem comprises more than fifty (50) percent of the subject property, development may be allowed to proceed prior to adoption of a special area plan provided that the following development standards are applied:

- (1) Mechanisms to coordinate management activities with adjacent resources in the strategic ecosystem shall be provided, and management plans shall be required in accordance with Article XVI of [Chapter 402](#).
- (2) Vegetation loss, grade change, and disturbance of the development site shall be minimized by careful site design fitted to the topography and soil; removal of vegetation shall be limited to only that necessary to develop the site.
- (3) Access, infrastructure, stormwater management and utilities shall be sited with consideration to minimizing impacts across multiple properties, providing for wildfire mitigation, and maximizing opportunities for shared facilities such as common driveways, utility access, and building impact areas.
- (4) Natural and historic resource protections required elsewhere in this ULDC or by federal, state, and regional permitting agencies shall be applied.
- (5) No development or other adverse impact to the set-aside portion of the property shall be allowed, except where no other access is available, in which case impact may be allowed in the least sensitive portion of the system in accordance with Paragraph (3), subject to the mitigation requirements in Article XXI of this Chapter.

(6) Where impact is proposed in the remaining conservation area outside the required set-aside, the following shall apply:

- a. The applicant shall locate development on buildable area outside of the strategic ecosystem to the greatest extent practicable.
- b. Parcels, lots, building areas, and driveways shall be configured to minimize overall impact to ecosystem integrity.
- c. Subdivisions and non-residential development shall meet requirements for rural clustered subdivisions set forth in [Section 407.77](#) and [Section 407.78](#).

**Sec. 406.90. - Protection strategies for karst features and topography.**

Strategies for protection shall be based on the unique characteristics of the resource and shall be tailored to address diverse geometries, connections to surface water and ground water, habitat functions and values, and the dynamics of natural systems processes. Avoidance, minimization, and mitigation of significant adverse impacts shall be required. Strategies may include but are not limited to the following.

*(a) Onsite protection.*

(1) Significant geologic features shall be designated and protected as conservation management areas in accordance with the requirements of Article XVII of this Chapter.

(2) Other features may be incorporated as Open Space or common area elements in project design.

(3) Natural topographic features may be retained through lot layout and infrastructure siting.

*(b) Buffers for significant geologic features.* Perimeter edge buffering shall be required around protected significant geologic features in order to maintain natural context, edge vegetation, and structural protection. Buffers for sinkholes shall be measured from the outermost distinct closed contour associated with the feature. Buffers for caves, lineaments, ridges, escarpments, limestone outcrops, springs, and swallets shall be determined based on evaluation of the unique characteristics of the particular geologic feature and the contributing watershed. For the following features, absent scientific information which demonstrates that another buffer width is appropriate, the following default buffer widths shall be applied:

(1) Sinkholes: an average of seventy-five (75) feet, but no less than fifty (50) feet.

(2) Springs, quarries, karst windows, or other karst features with a direct connection to the Floridan aquifer; significant geologic features located within Outstanding Florida Springs Priority Focus Areas (PFAs); and caves: an average of one hundred fifty (150) feet, but no less than one hundred (100) feet.

## **APPENDIX B**

### **ADDITIONAL REFERENCES AND MATERIALS USED OR REVIEWED TO COMPLETE THIS STAFF REPORT**

Alachua County, Supporting Data and Analysis for Evaluation & Appraisal Based Update of Alachua County Comprehensive Plan (November 2019).

Cardno, Inc., FCL Timber, Land & Cattle LLLP Property Special Area Study Report (June 2022)

CHW Professional Consultants, Request to Initiate Special Area Study and Proposed Scope of Work (May 1, 2020)

Digital aerial imagery from 1938 to present.

ECT Report of Significant Geologic Features, Hickory Sink Strategic Ecosystem for FCL Timber, Land & Cattle, LLLP, Gainesville, Alachua County, Florida dated October 2021

FDACS, Florida Forest Service, Kanapaha Ranch 2017 Project Evaluation Report (for the Rural & Family Lands Protection Program)

GIS data layers available to the county... includes contour layers, FLUCFCS layers, FWC layers...

Hickory Sink Kanapaha Timber Land and Cattle Site Evaluation dated June 22, 2017 (completed by Alachua County Forever staff)

Hickory Sink Rapid Ecological Project Assessment, June 23, 2005 by Alachua County Forever

KBN Engineering and Applied Sciences, Final Report Comprehensive Inventory of Natural Ecological Communities in Alachua County (November 30, 1987).

KBN/Golder Associates report, "Alachua County Ecological Inventory Project" (1996).

USDA, Natural Resources Conservation Service (NRCS) Soil of Survey of Alachua, Florida (1983)



# **Special Area Study**

## **FCL Timber, Land & Cattle, LLLP Property**

**(aka, Lee Property and Hickory Sink Strategic Ecosystem)**

**Board of County Commissioners Stakeholder Workshop**

**September 20, 2022**

# Purpose of Meeting

- Review of Special Area Study by staff and applicant
- Public input on Special Area Study
- Commissioner questions and discussion

No final decision on acceptance of the Special Area Study is expected at tonight's meeting. A follow-up meeting is scheduled for October 11<sup>th</sup> at 5:00 p.m. where the BoCC may make a decision on whether to accept the Special Area Study.

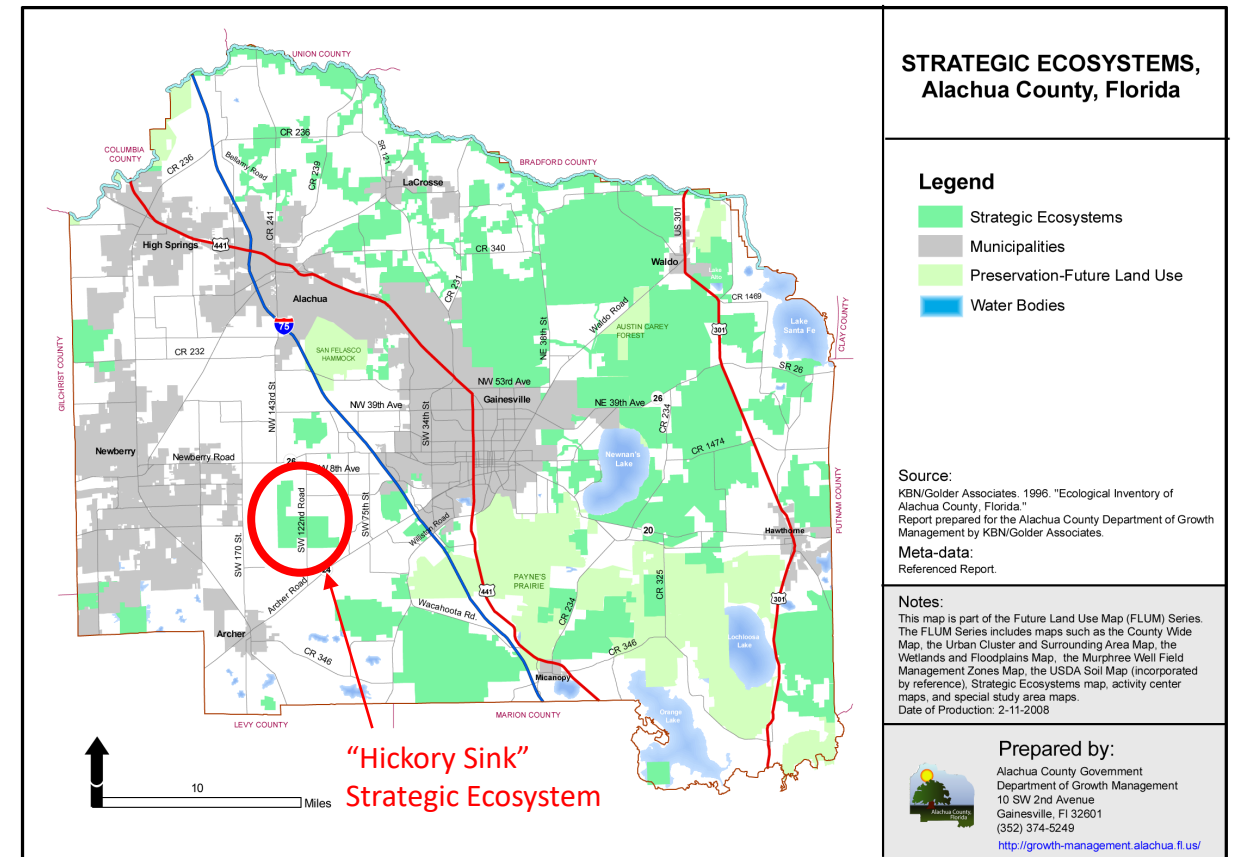
# General Meeting Format

1. Staff Presentation & Questions: ~1 hour
2. Applicant Presentation & Questions: ~1 hour
3. Public Comment: 7:00 p.m.
4. Commissioner questions and discussion may continue after public comment, as time permits



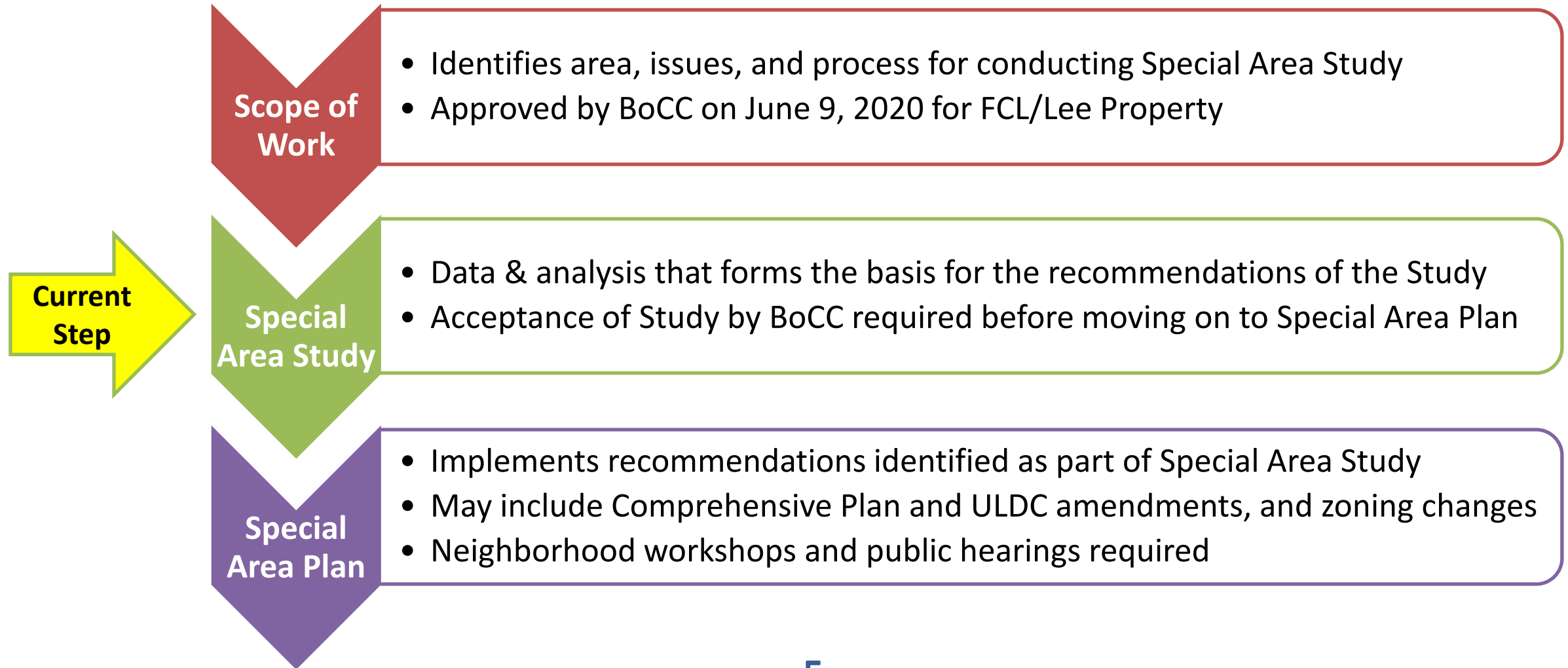
# Special Area Planning Process

- In-depth planning process used to address unique circumstances or issues
- Process is required prior to land use or zoning change, or development application for:
  - Strategic Ecosystems
  - New rural residential subdivisions more than 100 lots



# Special Area Planning Process

*Ch. 402, Article 16 Alachua County Unified Land Development Code*



# County Commission Decision on Special Area Study

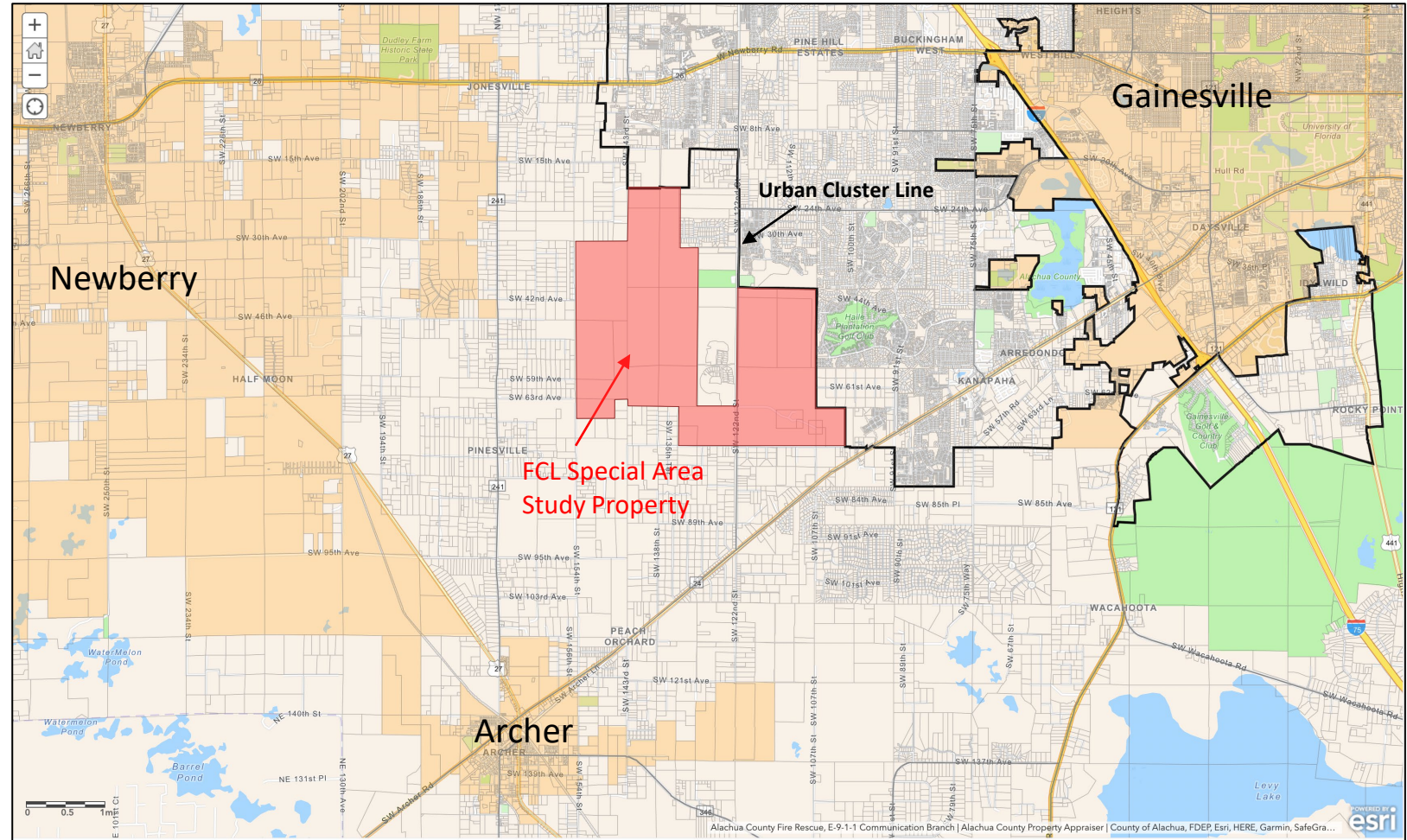
*To be considered at October 11<sup>th</sup> Meeting at 5:00 p.m.*

- The BoCC must consider whether to accept the Special Area Study and whether to authorize any specific follow-up recommendations or strategies that have been identified as part of the study (Sec. 402.101(f), ULDC)
- In accepting the Special Area Study, the Board would be accepting the delineation of Strategic Ecosystem set-aside areas for permanent protection. Areas not delineated for permanent protection may be eligible for development
- Specific development types, densities, and intensities would be proposed and determined through a Special Area Plan based on data and analysis in the next step of the process
- Special Area Plan would involve proposed Comprehensive Plan amendments and possible zoning changes and land development regulation amendments

# Review of Special Area Study and Staff Recommendations

# Special Area Study Property

- +/- 4,068 acres
- Future land use designation per Comprehensive Plan is “Rural/Agriculture”
- Property comprises much of “Hickory Sink” Strategic Ecosystem as designated in County Comprehensive Plan



# Special Area Study Documents Submitted by Applicant

1. Special Area Study Report dated April 11, 2022, containing the following information and exhibits:
  - Overview, Special Area Study Report dated April 11, 2022
  - Composite Exhibit A (First and Second Stakeholder Workshop mail-outs, newspaper ads, proof of publication, stakeholder workshop minutes and presentations)
  - Exhibit B – ECT Report of Significant Geologic Features
  - Exhibit C – Cardno Special Area Study Report
  - Exhibit D – CHW Planning Report (including Map Set and Appendix)
  - Exhibit E – Excerpt of KBN/Golder Report (Hickory Sink Strategic Ecosystem)
2. Supplement to Special Area Study Report dated July 5, 2022



# Special Area Study Requirements

*Section 402.101(a) through (f), ULDC*

- a) Stakeholder Workshop
- b) Ground-truthing of site for natural resources assessment and delineation of Strategic Ecosystem resource areas
- c) Analysis of existing land use and potential future land use scenarios (e.g., agriculture, silviculture, conservation, and development areas)
- d) Public infrastructure and services analysis
- e) Recommendations and strategies for follow-up action as part of a Special Area Plan in the next step of the process
- f) Presentation to Board of County Commissioners



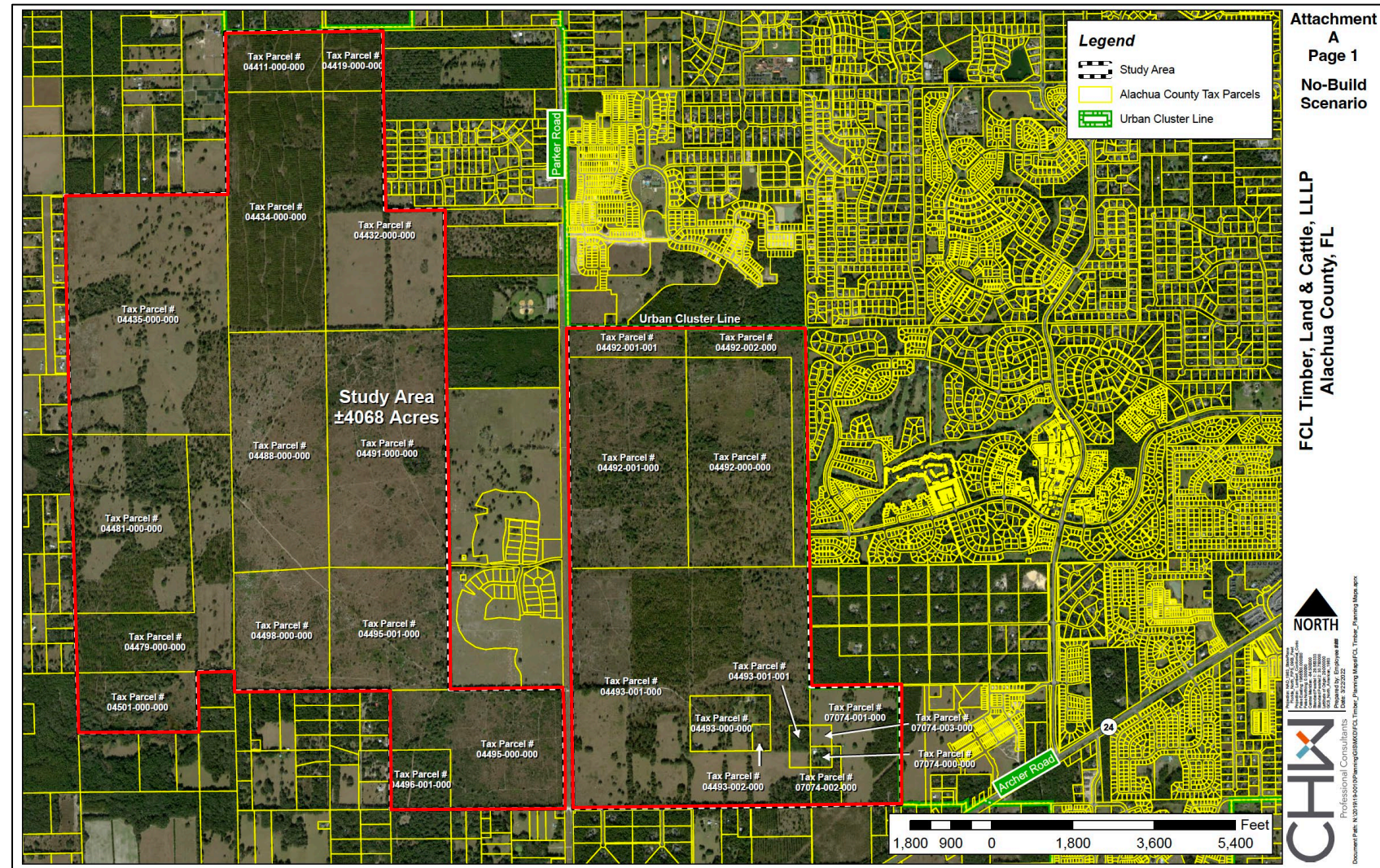
# Special Area Study – Land Use Considerations

- Study identifies 3 potential land use scenarios for property:
  1. “No Build” – Continued agricultural and silvicultural use of property
  2. “By Right” – Clustered rural residential development
  3. “Master Planning” – Several clusters of mixed-use urban development
- “No Build” and “By Right” scenarios are allowable under the County’s adopted Comprehensive Plan and zoning
- “Master Planning” scenario would require significant amendments to the County’s adopted Comprehensive Plan to allow for urban development outside of the Urban Cluster

# Land Use Scenarios Identified in Special Area Study

## “No Build”

- Retain entire property in existing condition with active farming, including industrial-scale silviculture and cattle-calf grazing
- This land use scenario is allowable under the adopted Comprehensive Plan “Rural/Agriculture” future land use designation and zoning

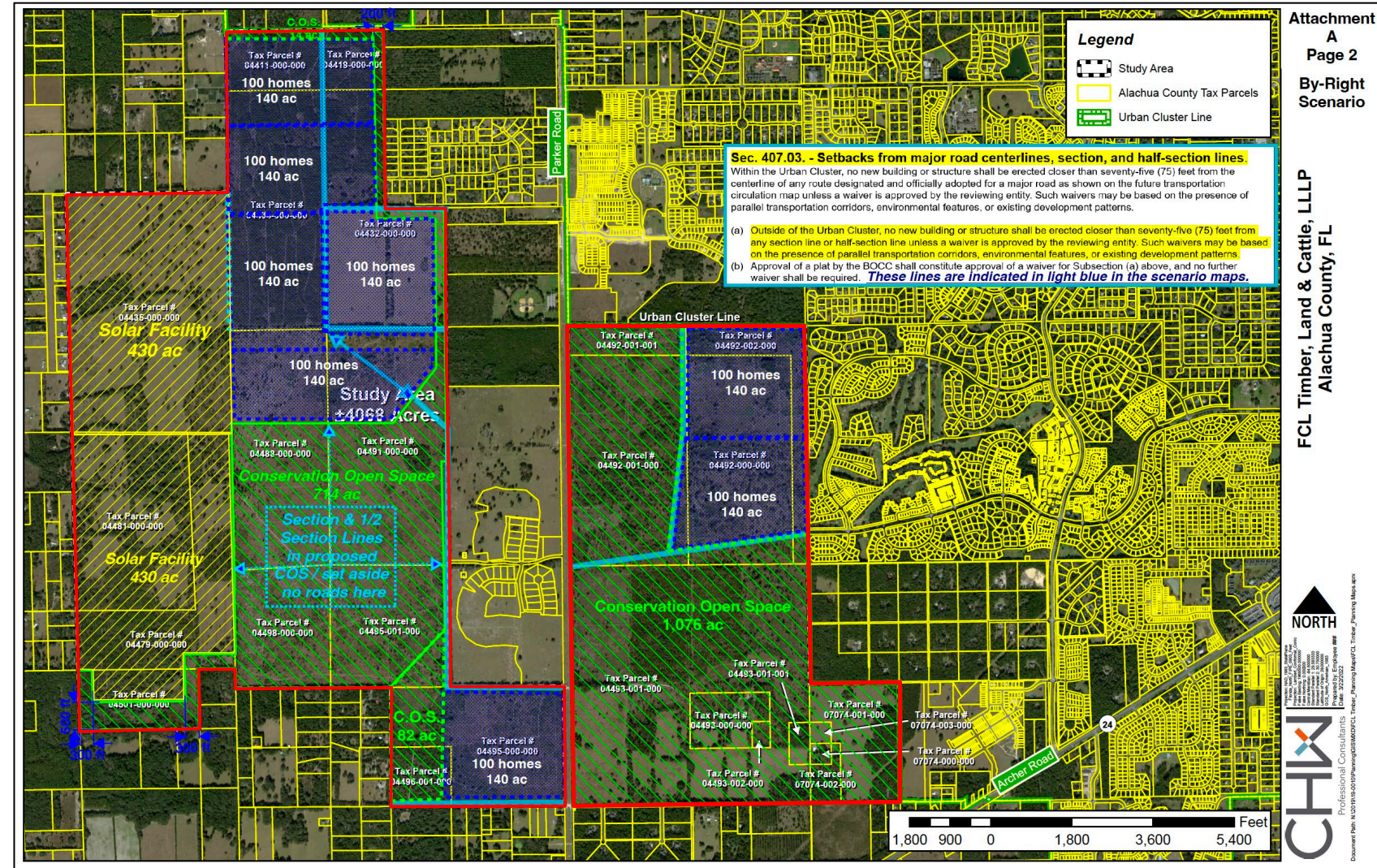




# Land Use Scenarios Identified in Special Area Study

## “By Right”

- Development of property for rural residential use at base density of 1 unit per 5 acres
- Comprehensive Plan requires clustered design, with minimum 50% of property set aside as open space, and residential units clustered on remainder
- This land use scenario is allowable under the adopted Comprehensive Plan “Rural/Agriculture” future land use designation and zoning





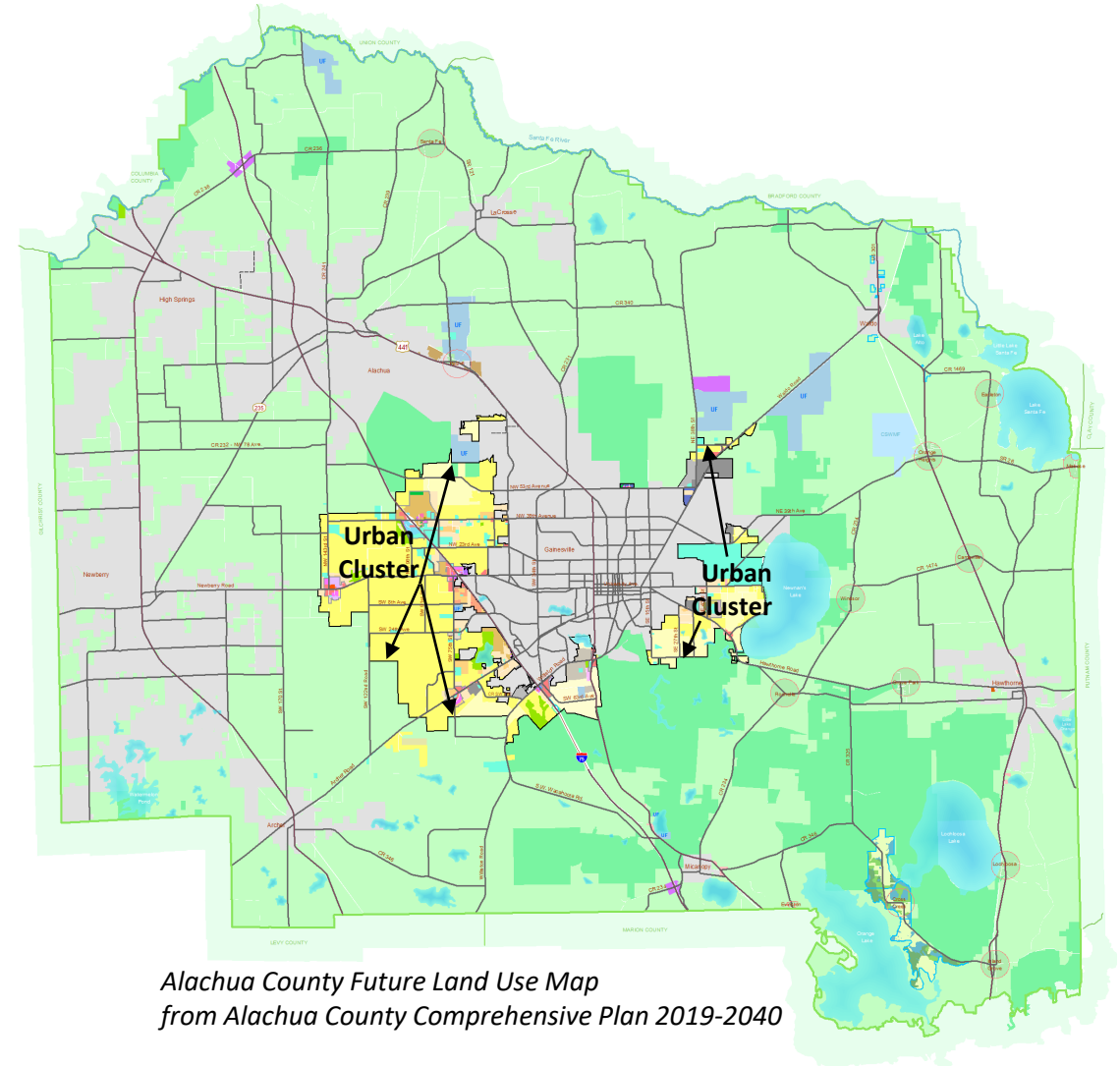
# “Master Planning”

- 
- Legend**
- Study Area
  - Alachua County Tax Parcels
  - Urban Cluster Line
- Sec. 407.03. - Setbacks from major road centerlines, section, and half-section lines.**  
Within the Urban Cluster, no new building or structure shall be erected closer than seventy-five (75) feet from the centerline of any route designated and officially adopted for a major road as shown on the future transportation circulation map unless a waiver is approved by the reviewing entity. Such waivers may be based on the presence of parallel transportation corridors, environmental features, or existing development patterns.
- Outside of the Urban Cluster, no new building or structure shall be erected closer than seventy-five (75) feet from any section line or half-section line unless a waiver is approved by the reviewing entity. Such waivers may be based on the presence of parallel transportation corridors, environmental features, or existing development patterns.
  - Approval of a plat by the BOCC shall constitute approval of a waiver for Subsection (a) above, and no further waiver shall be required. *These lines are indicated in light blue in the scenario maps.*
- Solar Facility 428 ac**  
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Tax Parcel



# Comprehensive Plan Land Use Policy Framework

- Urban Cluster line sets boundary for urban development in the unincorporated area
- Within Urban Cluster, allowable land uses may include urban residential (>1 unit per acre up to 24+ units per acre), commercial, industrial, institutional, and mixed-use development
- Within the Urban Cluster, various infrastructure and services are provided or planned to serve urban types of development
- Areas outside Urban Cluster are designated primarily for agricultural, rural residential (1 unit per 5 acres) and preservation land uses; urban services are not planned for these areas



# Benefits of Urban Cluster Land Use Policy

- Helps contain urban sprawl by ensuring that urban expansion is phased and planned based on reasonable projections of future population growth
- Helps to protect the County's agricultural lands and large-scale natural resource conservation areas from encroachment by urban development
- Allows for provision of public infrastructure and services in an efficient and fiscally responsible manner
- Complements County goals for interconnected multimodal transportation system

# Master Planning Scenario Land Use Policy Implications

## Policy 7.1.3, Future Land Use Element

- Provides methodology for evaluating the Urban Cluster's capacity to accommodate projected population growth for ten- and twenty-year planning periods
- If evaluation shows additional land is needed to accommodate future population growth within the Urban Cluster, then the County must consider the following measures:
  - Increase residential density within the Urban Cluster
  - Allocate additional growth within municipalities
  - Phased expansion of Urban Cluster



# Master Planning Scenario Land Use Policy Implications

## Policy 7.1.3, Future Land Use Element (continued)

- If methodology determines that expansion of the Urban Cluster is warranted, then there shall be an evaluation of appropriate locations based on the following factors:
  - Impact of expansion on agricultural lands and rural character
  - Economic development considerations including affordable housing
  - Relationship to existing and planned urban services and infrastructure
  - Access to regional transportation network and multi-modal transportation systems
  - Conservation and preservation land uses
  - Planned recreation/open space and greenway systems

# Master Planning Scenario Land Use Policy Implications

## **Policy 3.1.5 Potable Water and Sanitary Sewer Element**

Proposed extensions of potable water & sanitary sewer lines outside the Urban Cluster are subject to approval by the County Commission based on one or more of the following findings:

- The absence of such facilities would result in a threat to public health or safety;
- Extension is necessary to enhance the safe, effective, and efficient delivery of central potable water or sanitary sewer service within an existing urban service area;
- Extension would serve a purpose consistent with the Comprehensive Plan, such as the retention and expansion of existing business & industry or the attraction of new business & industry in accordance with the Economic Element, or the service of institutional or tourist/entertainment uses consistent with the Future Land Use Element; or
- Extension is needed as part of a comprehensive expansion of public services to encourage urban development in a new area as part of a comprehensive plan amendment. In this case, such a finding must be consistent with Policy 3.1.6.

# Master Planning Scenario Land Use Policy Implications

## **Policy 3.1.6 Potable Water and Sanitary Sewer Element**

Central potable water and sanitary sewer systems may be extended into new areas as part of a planned extension of urban services to that area based upon the following factors:

- population growth rate
- maintenance of level of service standards for the potable water or sanitary sewer system
- adequacy of existing and planned supporting infrastructure

Approval of such extensions would require the following:

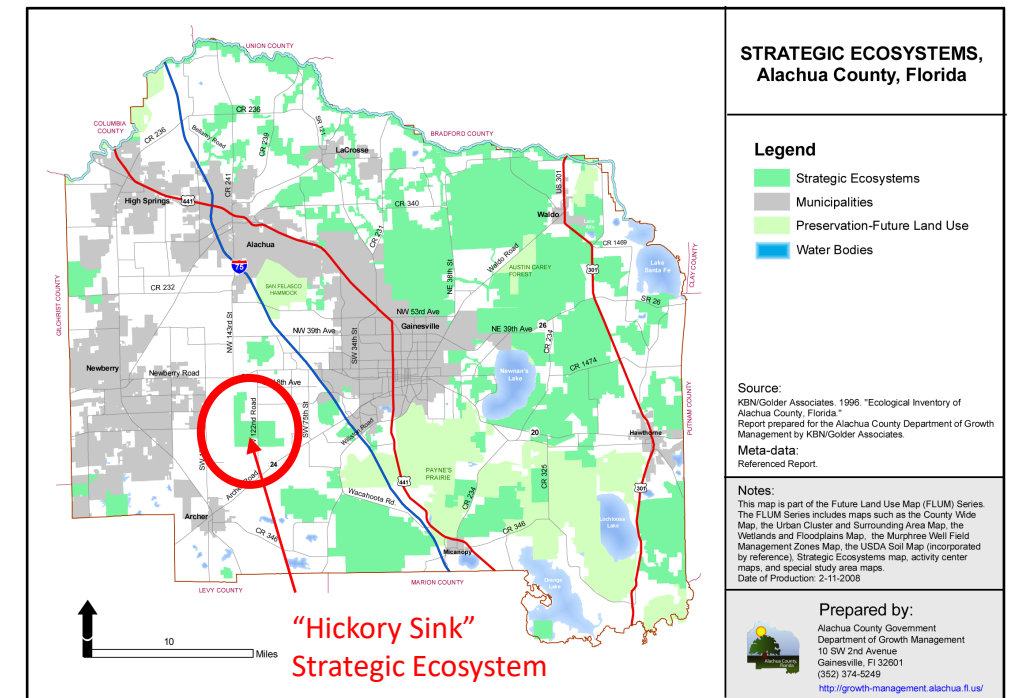
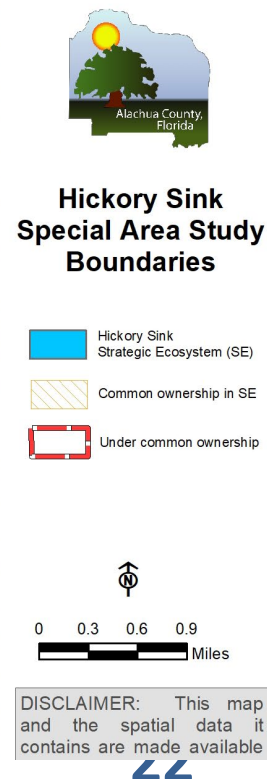
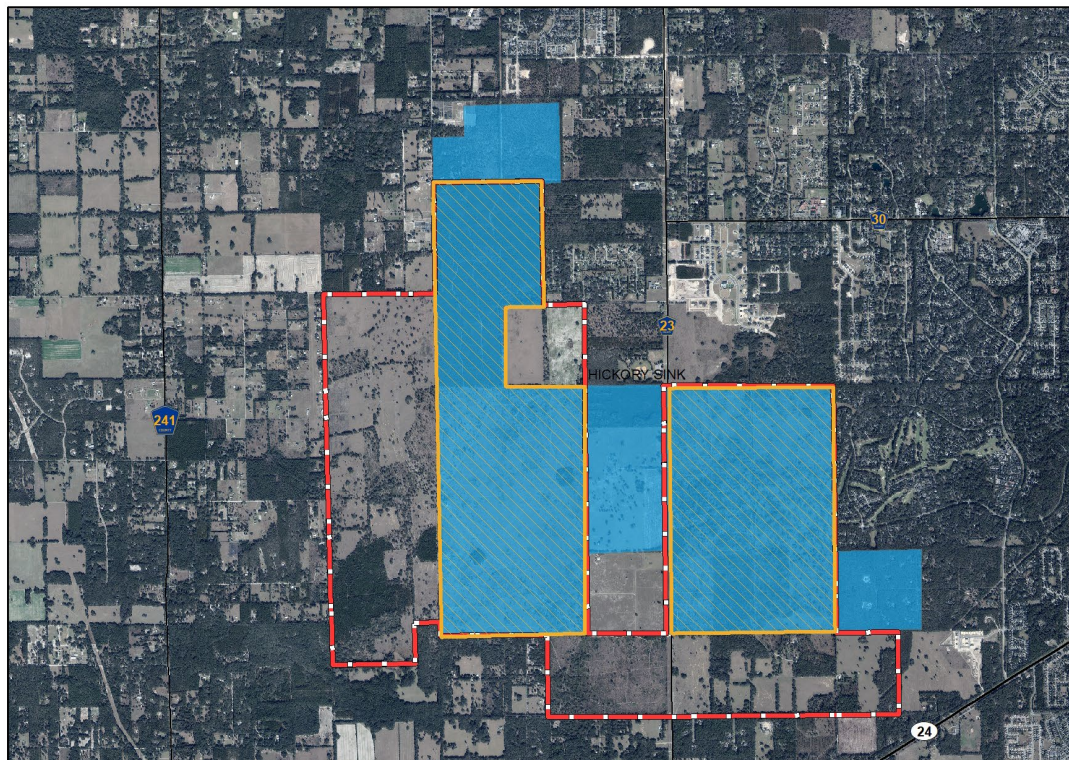
- Identification, scheduling, and designated funding for capital improvements to other public facilities needed to extend urban services. Such projects shall be incorporated into the five-year capital improvement program of the Alachua County Capital Improvements Element.
- Adoption of necessary amendments to Future Land Use Map extending urban cluster boundary.

# Master Planning Scenario Land Use Policy Implications

- To accomplish the Master Planning Scenario, the Study recommends establishment of a special Future Land Use Map designation and policies as part of the Special Area Plan for this property as an alternative to addressing the Urban Cluster policies
- Study does not suggest an expansion of the Urban Cluster in accordance with the adopted Comprehensive Plan policies
- This approach would be a significant departure from one of the key land use strategies in the County's Comprehensive Plan (Urban Cluster)
- Staff recommendation #5 proposes several parameters and data & analysis needs for any proposed land use scenario that would provide for greater density/intensity of development than would be allowed under the current Rural/Agriculture designation

# Strategic Ecosystem Background and Evaluation

- Defined as sites identified in the KBN/Golder Associates report, “Alachua County Ecological Inventory Project” (1996)





# Strategic Ecosystem Background and Evaluation

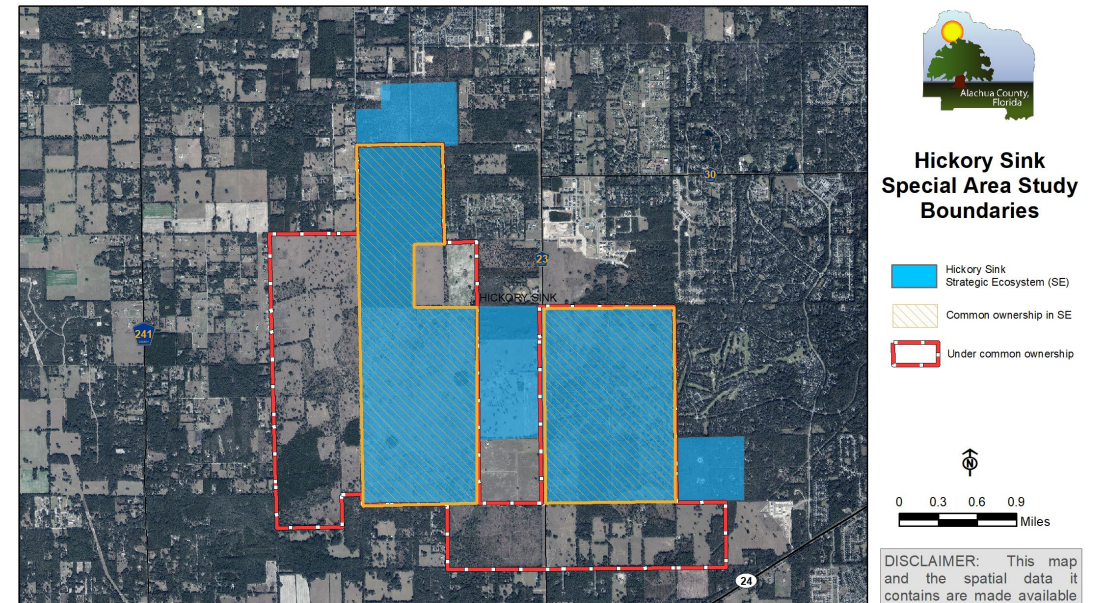
- **The KBN/Golder Associates report identified 47 areas in the county using 6 parameters:**
  - **Vegetation Value** (species diversity, presence of exotic (non-native) species)
  - **Endangered Species Habitat Value**
  - **Wildlife Habitat Value**
  - **Hydrology** (Floridan aquifer recharge, surface water and surficial aquifer protection, and vulnerability of Floridan aquifer)
  - **Landscape Ecology** (ecological community diversity, quality, rarity, and connectedness)
  - **Management Potential**

# Hickory Sink Strategic Ecosystem (SE) Evaluation

Parameters and Sub-parameter Categories	Value
Species Diversity	1
<b>Exotic (nonnative) Species Impacts</b>	<b>3</b>
<b>Endangered Species Habitat</b>	<b>3</b>
<b>Wildlife Habitat</b>	<b>3</b>
<b>Floridan Aquifer Recharge</b>	<b>4</b>
Surficial Aquifer Resource Protection	1
<b>Vulnerability of Aquifer</b>	<b>4</b>
Community Diversity	1
Ecological Quality	1
<b>Community Rarity</b>	<b>4</b>
Functional Connectedness	1
<b>Site Management Potential</b>	<b>3</b>

Total size of Hickory Sink SE: 3,006 ac

Mapped within this Project Area: 2,279 ac



Rating Scale: 1 = Very Low    2 = Low    **3 = Moderate**    **4 = High**    5 = Very High



# Strategic Ecosystem Background and Evaluation

- The project area contains remnant sandhill/upland pine community, upland mixed forest, caves, sinkholes and other geological features, a wetland (outside of SE area), improved pasture, unimproved pasture and pine plantation
- The next few slides show a summary of some of the results based on staff's assessment and data provided in the study



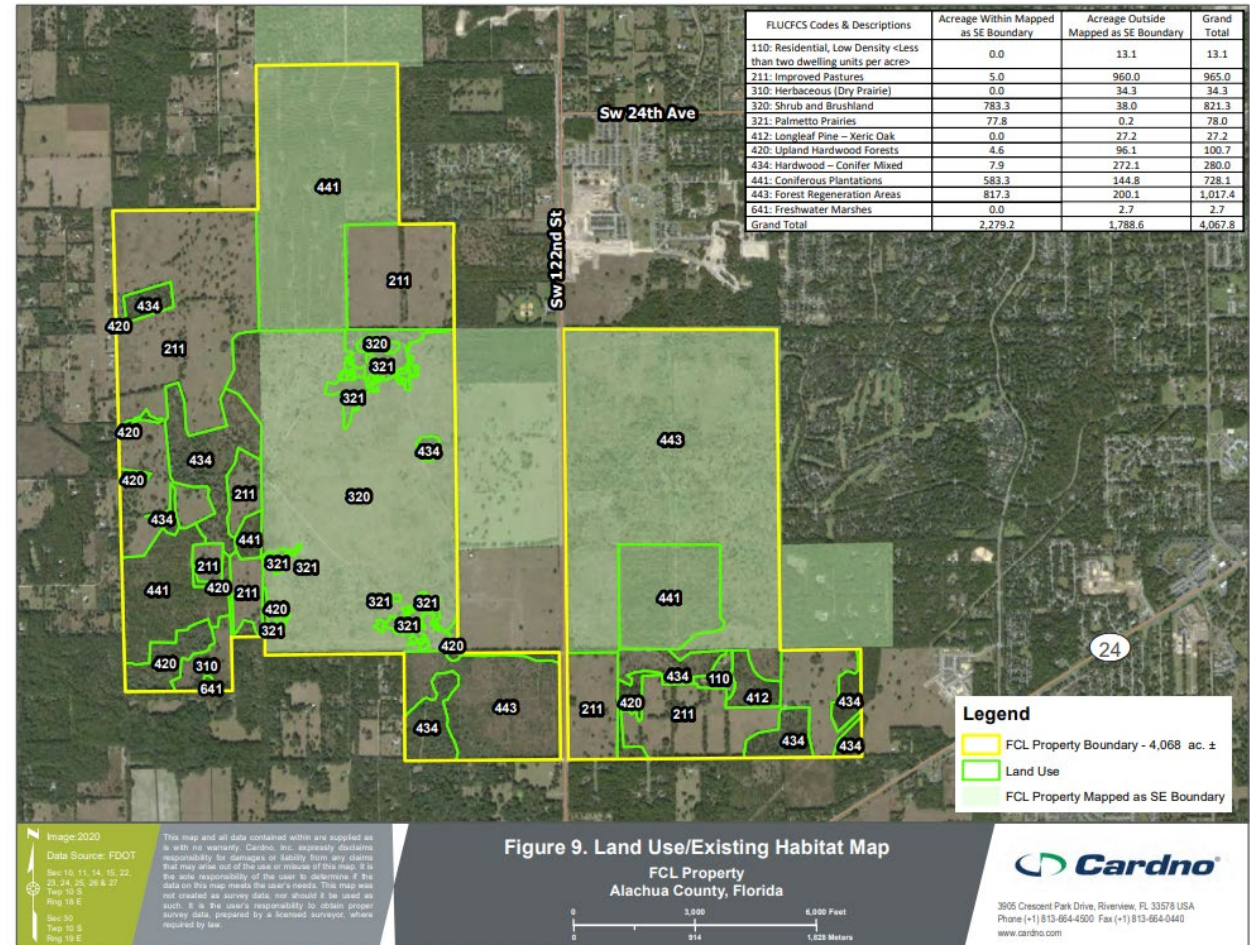
25



# Strategic Ecosystem Background and Evaluation

## Chapter 406, Article III, Significant Plant and Wildlife Habitat

### Applicant's Existing Habitat Map





# Strategic Ecosystem Background and Evaluation

## *Chapter 406, Article III, Significant Plant and Wildlife Habitat*

Staff's assessment:

The areas identified as #320-Shrub & Brushland and #321 Palmetto Prairie that may be better described as sandhill/upland pine (red oak-pine-hickory) and #443-forest regeneration are areas within the strategic ecosystem boundary that qualify as significant habitat. They may be a few other small pockets of the other habitats (#412 Longleaf Pine-Xeric Oak, #420 Upland Hardwood Forest, #434-Hardwood-Conifer Mixed) outside of the SE that also qualify and may need to be evaluated during the SAP and development review process.

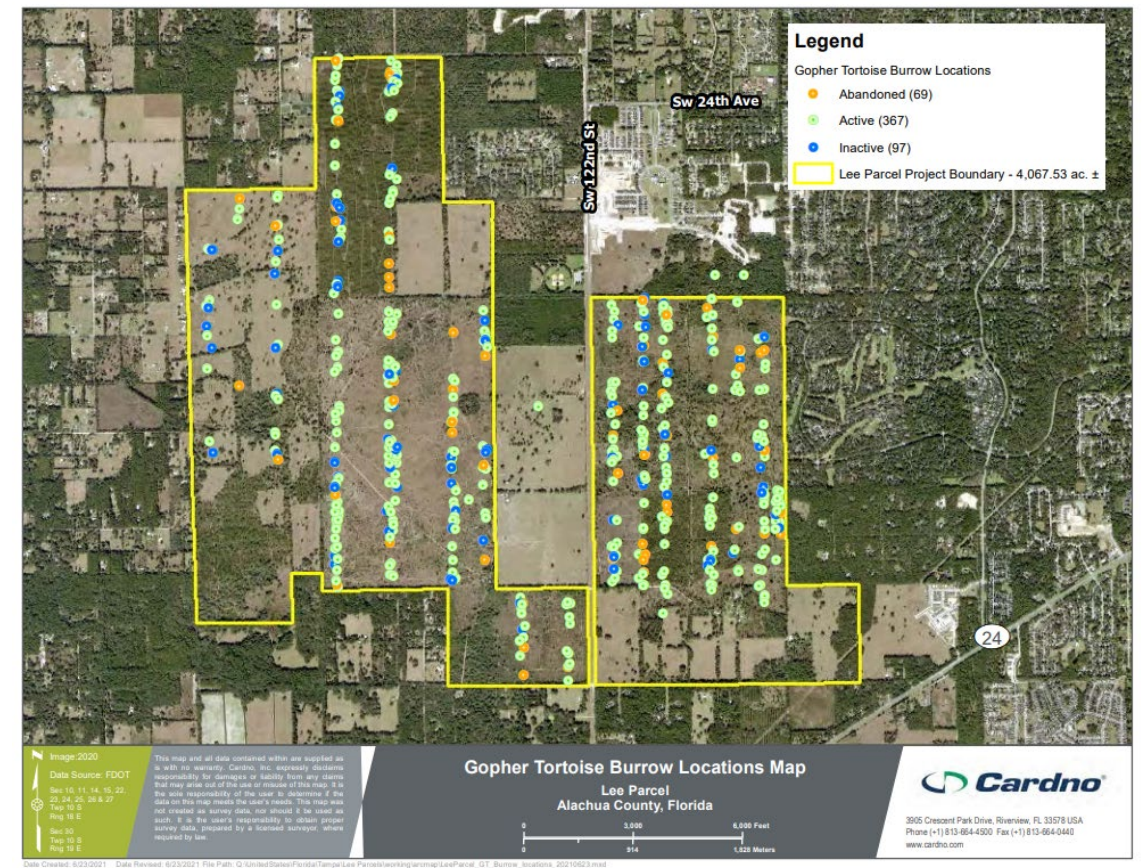
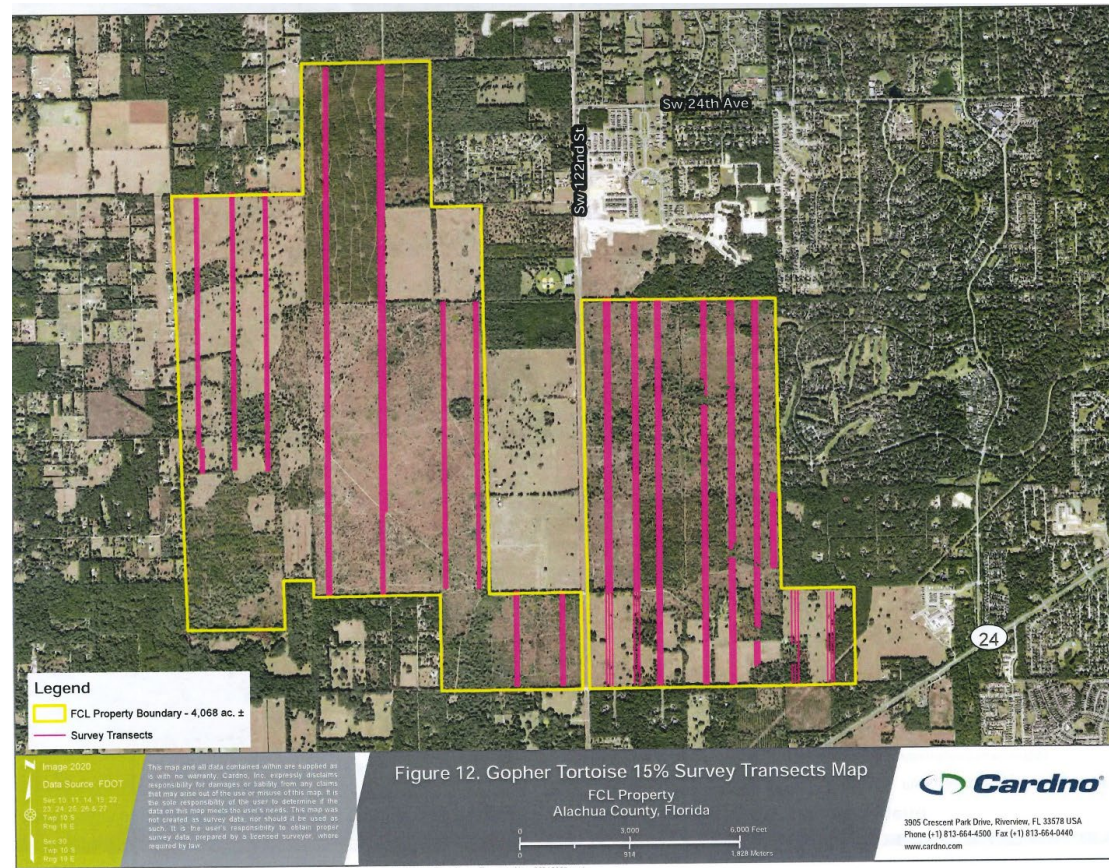
*Recommendations include the Conservation Management Area Map and conditions # 1, 2, & 3 included in the staff report to address protection of significant habitat*



# Strategic Ecosystem Background and Evaluation

## Chapter 406, Article IV, Listed Plant and Animal Species Habitat

### Applicant's Gopher Tortoise Survey Maps

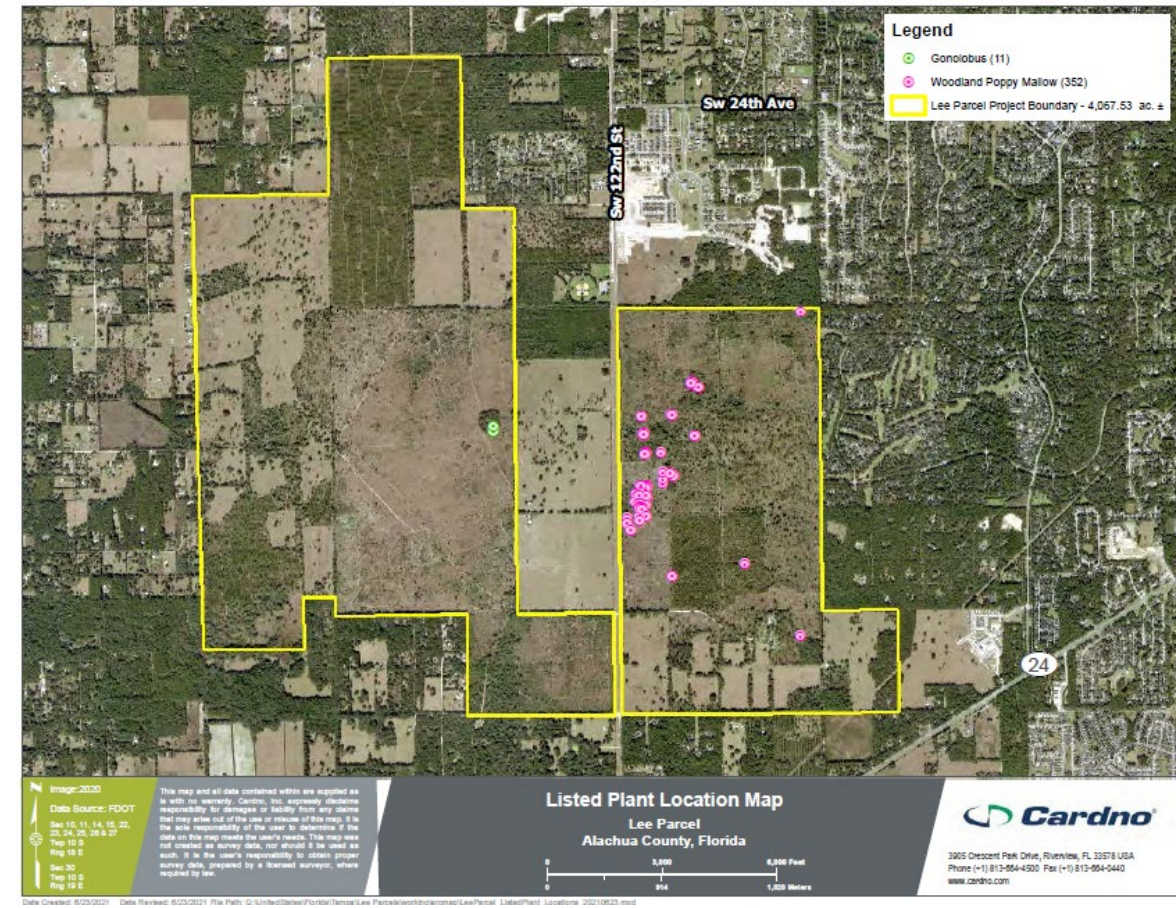
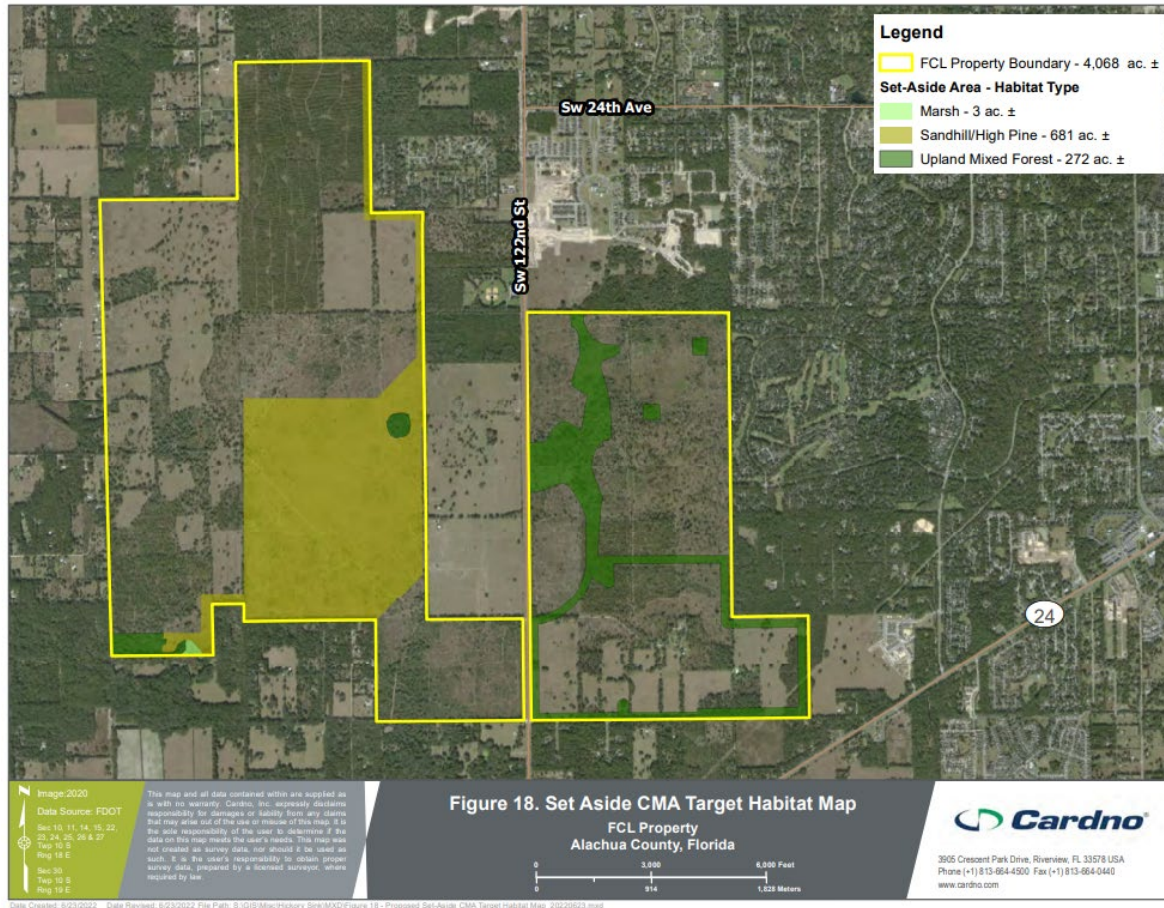




# Strategic Ecosystem Background and Evaluation

## Chapter 406, Article IV, Listed Plant and Animal Species Habitat

Applicant's Habitat Map and Poppy Mallow and other listed plant species maps



# Strategic Ecosystem Background and Evaluation

## *Chapter 406, Article IV, Listed Plant and Animal Species Habitat*

Staff's assessment: The applicant is proposing to set aside approximately 681 acres of Sandhill/upland pine habitat and 166 acres of the Upland mixed forest habitat that also supports gopher tortoises and listed plant species in and around many of the sinkhole features.

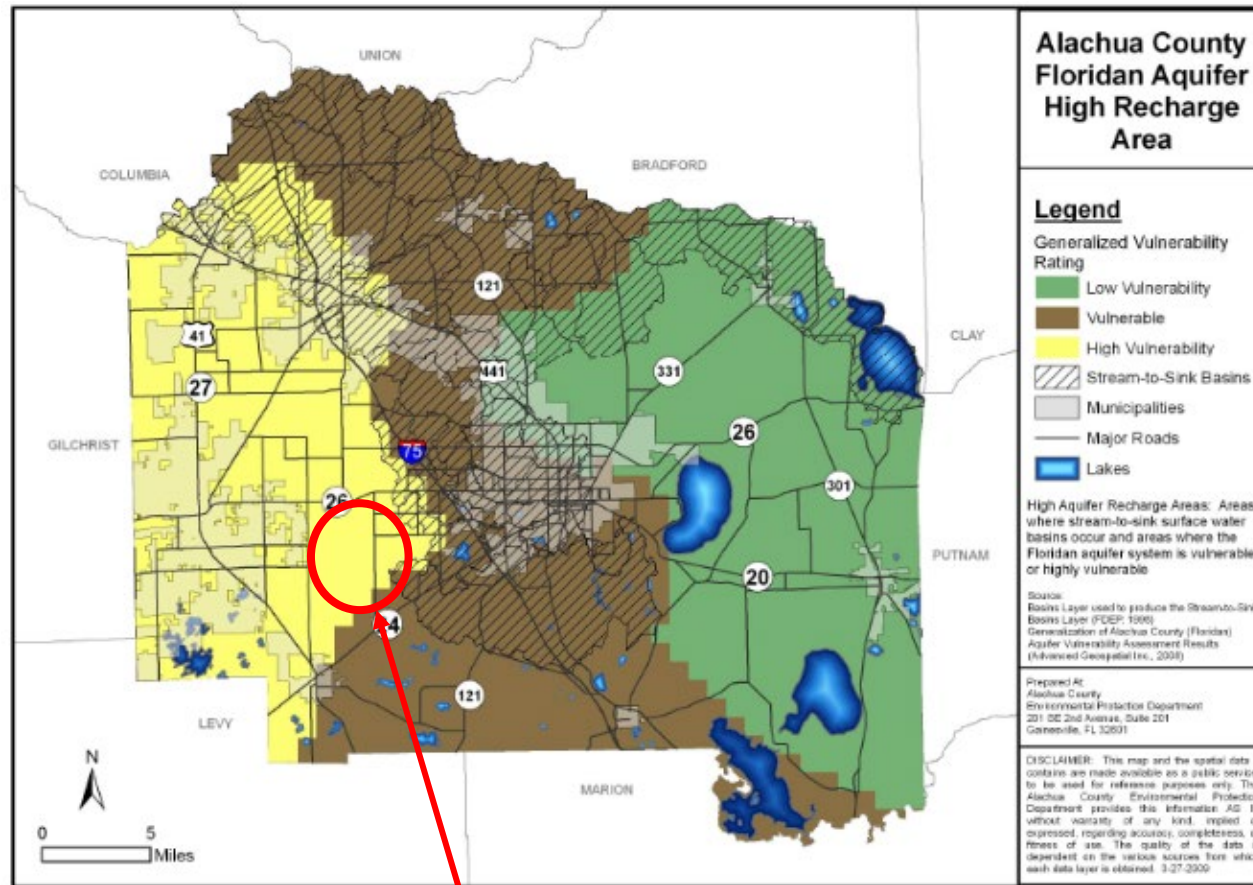
*Recommendations include the Conservation Management Area Map and conditions #1, 2, & 3 included in the staff report to address protection of listed species habitat habitat*



# Strategic Ecosystem Background and Evaluation

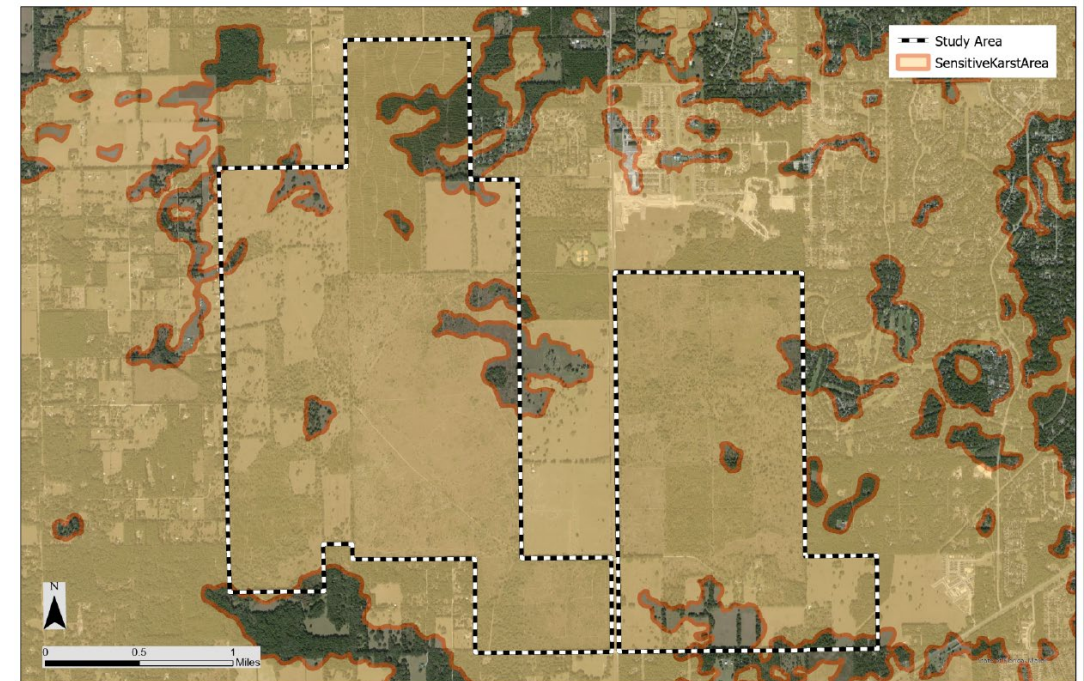
## *Chapter 406, Article VIII, Springs and High Aquifer Recharge Areas*

COSE Map 2. Alachua County Floridan Aquifer High Recharge Area.



Special Area Study Area

31





# Strategic Ecosystem Background and Evaluation

## *Chapter 406, Article VIII, Springs and High Aquifer Recharge Areas*

Staff's assessment:

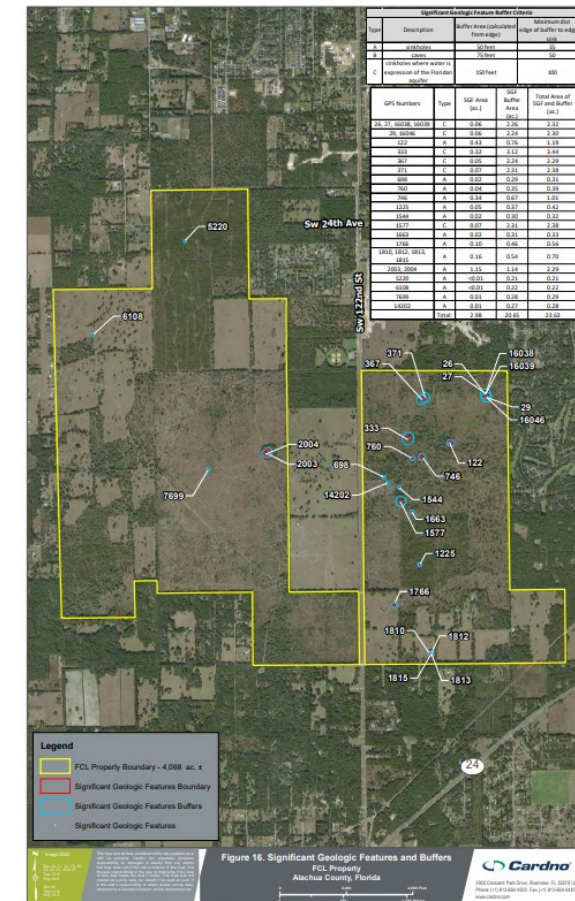
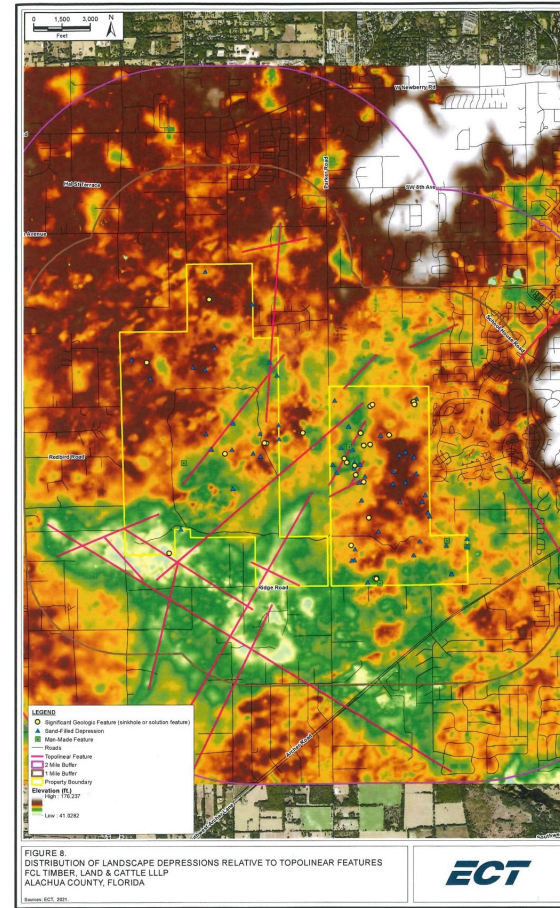
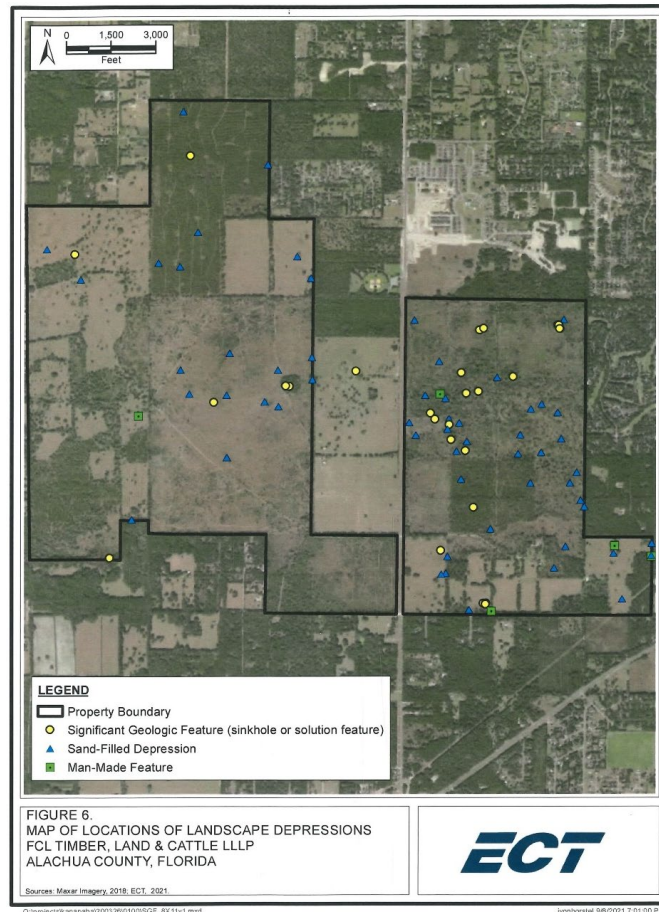
The vast majority of the property is within the Springs and High Aquifer Recharge Area and within the Sensitive Karst Area, with implications for water conservation, nutrient and stormwater management.

*Staff is recommending conditions # 6, 7, and 8 to address water quality concerns and to protect the aquifer.*

# Strategic Ecosystem Background and Evaluation

## Chapter 406, Article XVI, Significant Geologic Features

### Applicant's Geologic Features Maps



# Strategic Ecosystem Background and Evaluation

## *Chapter 406, Article XVI, Significant Geologic Features*

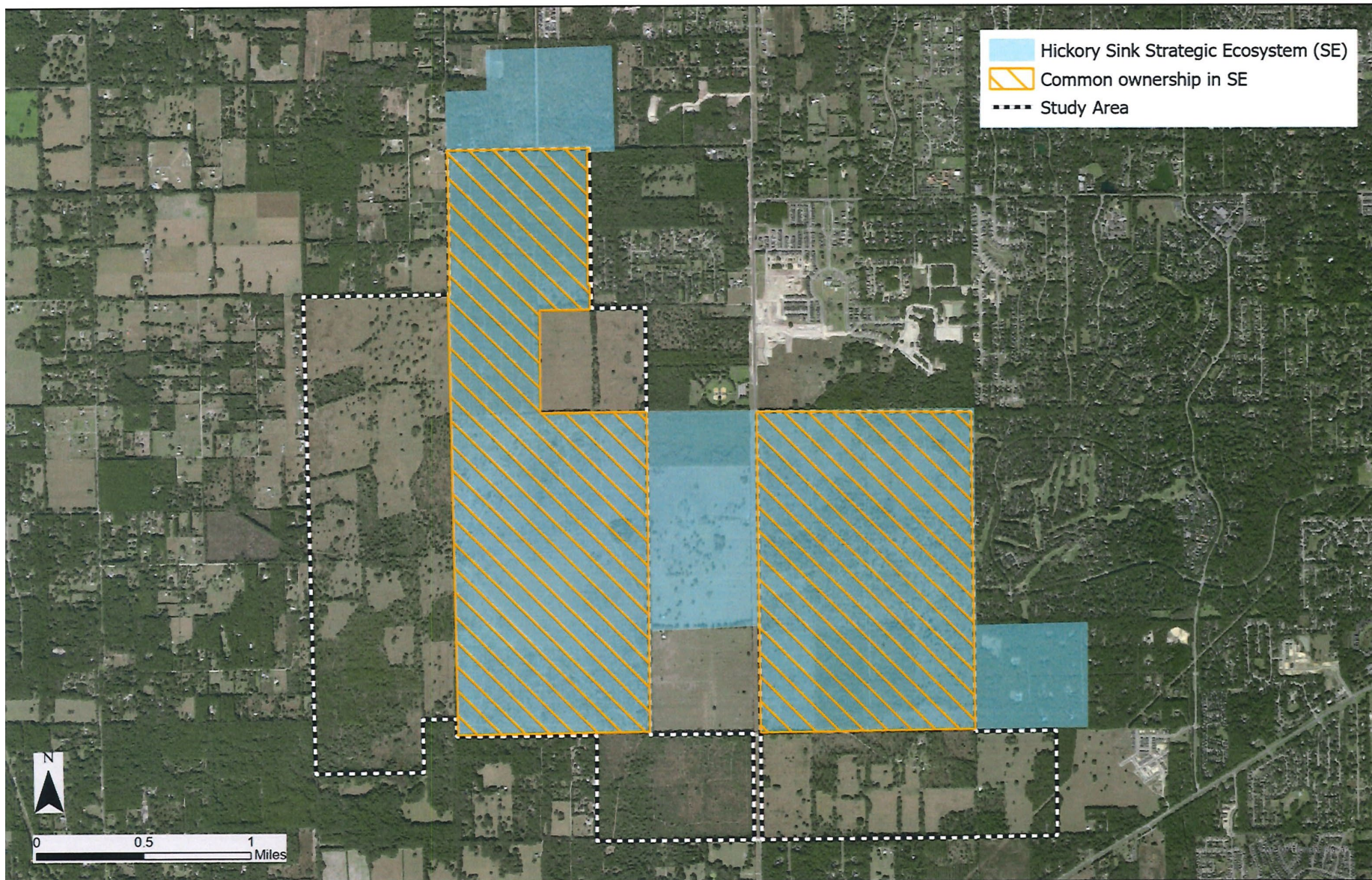
Staff's assessment:

Staff agrees with the applicant's assessment of the location of the significant geologic features and supports the large area of protection for the largest cluster of features as well as a minimum of 5 acres of conservation areas around all isolated significant geological features. Staff has also recommended site design criteria to help reduce any potential secondary impacts to these features.

*Staff is recommending conditions #1, 2, 3, 7 and 8 to address concerns with development in a karst area and in proximity to significant geologic features.*



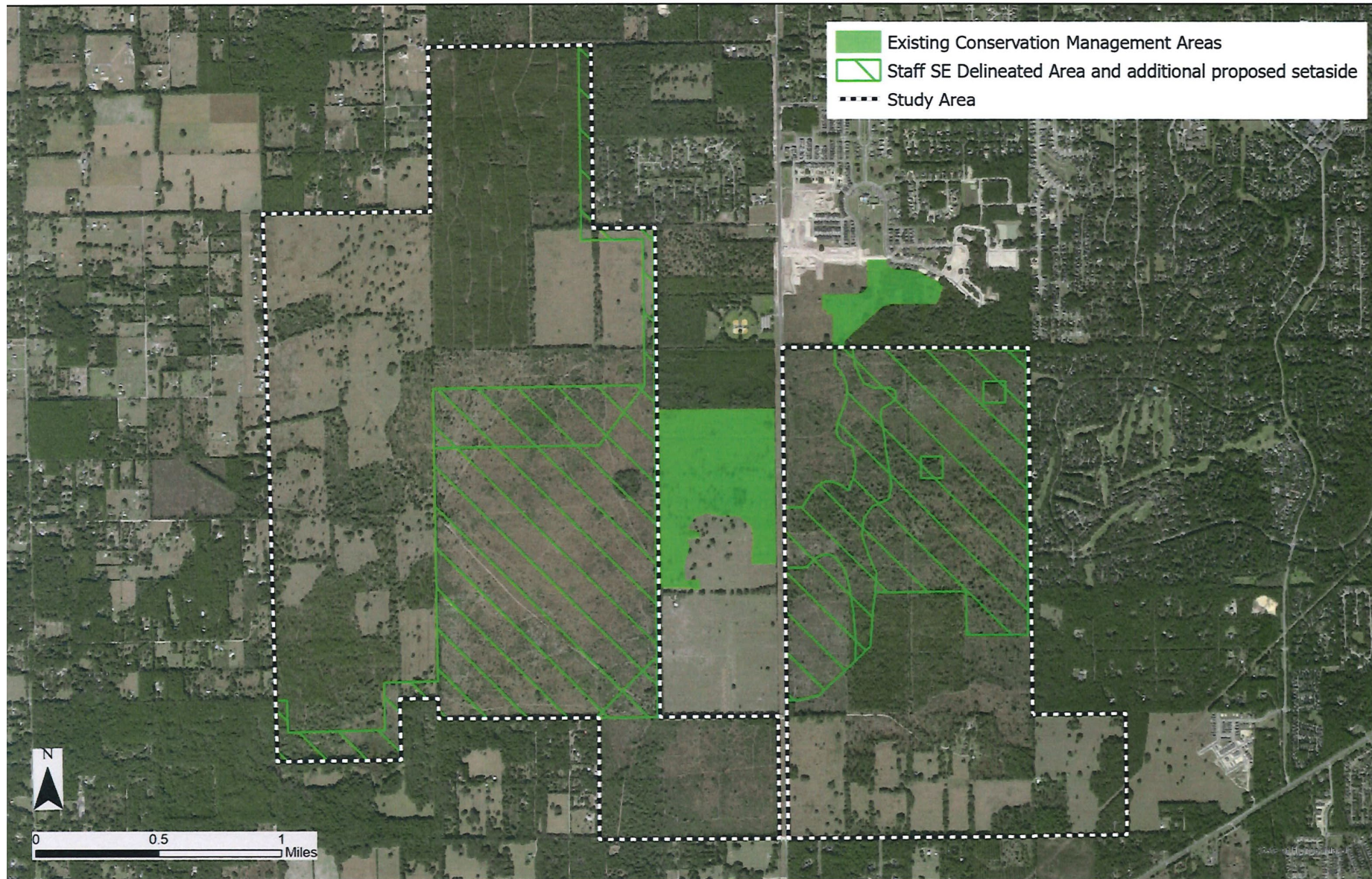
# Mapped Strategic Ecosystem



Mapped Strategic Ecosystem boundary prior to ground-truthing as part of the Special Area Study



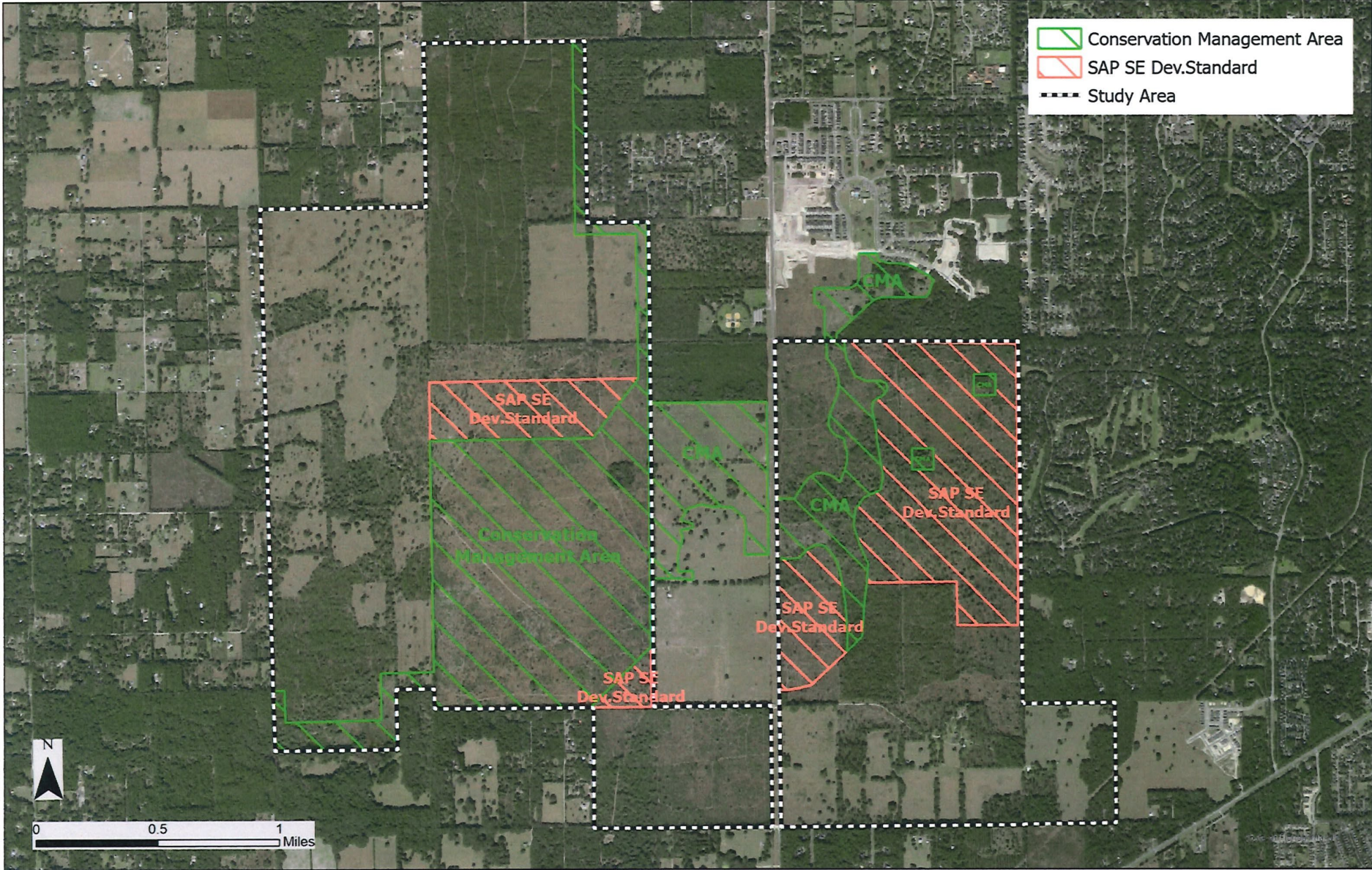
# Staff Delineated Strategic Ecosystem Area



Staff's recommended boundary of the Strategic Ecosystem within the project area based on the data provided in the special area study and staff site assessments



# Staff's delineated setaside and limited development areas



This map depicts proposed Conservation Management Areas (Green) to be set aside and additional areas (pink hatching), that if developed, are recommended by staff to follow specific development standards consistent with the County's Strategic Ecosystem policies



# Staff Recommended Conservation Management Areas Map

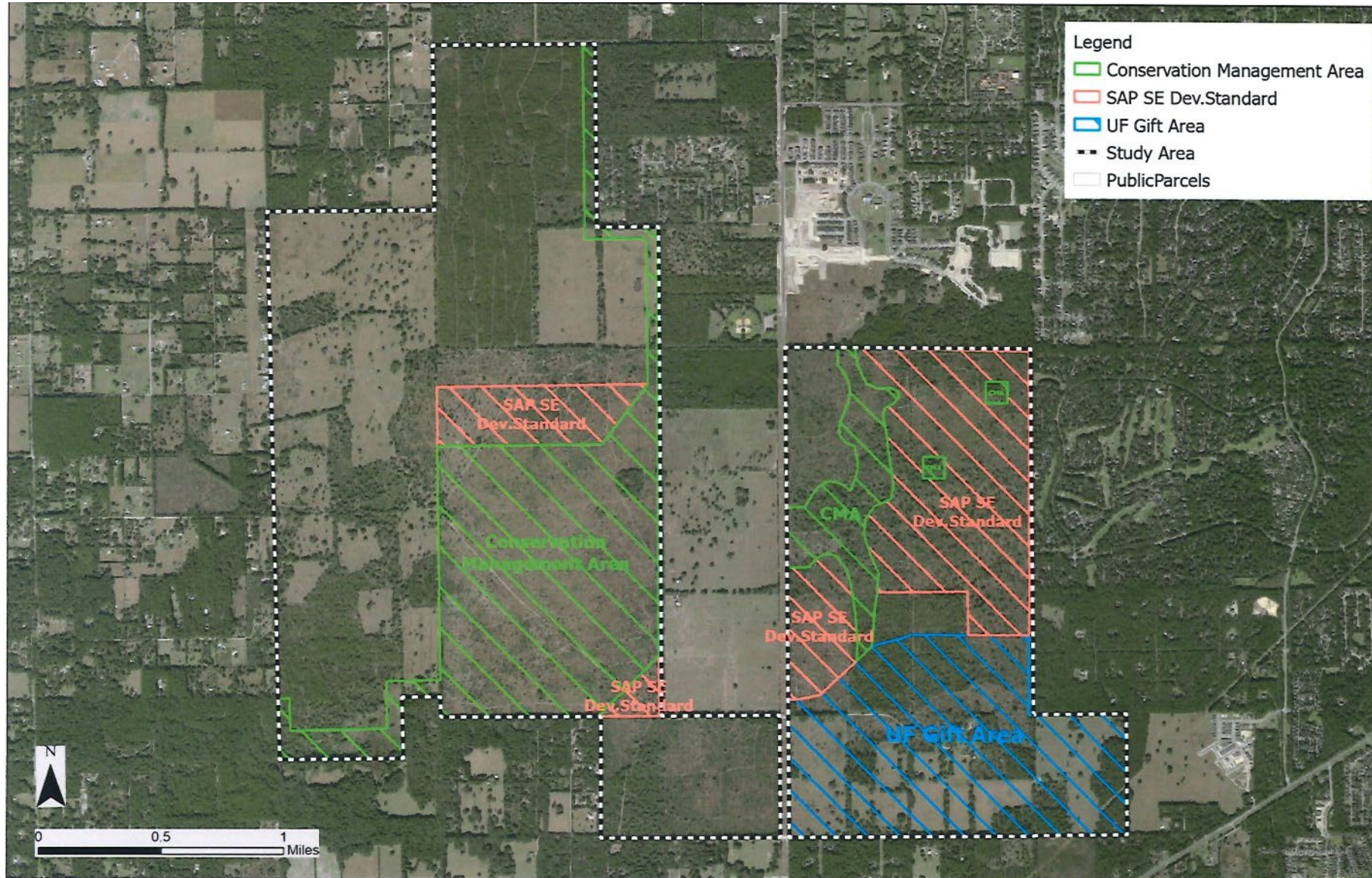


Figure 1 in the staff report - This map depicts proposed Conservation Management Areas (Green) to be set aside and additional areas (pink hatching), that if developed, are recommended by staff to follow specific development standards consistent with the County's Strategic Ecosystem Policies. The map also shows the proposed UF gift area that that is the proposed location for a golf course.



# Strategic Ecosystem Background and Evaluation

- Based on the data provided in the special area study (SAS) and staff's site assessment, the property meets the designation of the strategic ecosystem based on average to high values for endangered species, wildlife habitat, community rarity, vulnerability and protection of the Floridan aquifer, and the presence of sink features and caves.
- Based on a lack of management in areas of the site, some habitat on site has reduced species diversity and quality (pink areas), but that does not disqualify these areas from retaining their strategic ecosystem designation.
- The SAS concludes that the areas in green represent the areas that should be protected. And staff concludes that these are the minimum areas that need to be protected to maintain the integrity of the strategic ecosystem under the current land use and zoning.

## Staff Recommendations

- Accept the Special Area Study and authorize initiation of the process for a Special Area Plan based on the conditions and parameters recommended by County staff.
- County staff's recommended conditions for acceptance of the Special Area Study, and parameters for the subsequent Special Area Plan, are proposed as an alternative to the recommendations contained within the applicant's Special Area Study documents (see pages 30-32 of Staff Report).

# County Commission Action on Special Area Study

- No action by the Board is needed at today's meeting
- October 11<sup>th</sup> meeting at 5:00 pm has been scheduled for the Board to have additional discussion and to consider whether to accept the Special Area Study

# Board Discussion and Questions



# Public Comment

**Public comment should focus to the greatest extent possible on issues relating to the Board's consideration of the Special Area Study, such as:**

- Assessment of the natural resources of the Hickory Sink Strategic Ecosystem and delineation of conservation management set-aside areas on the property
- Considerations regarding potential land use scenarios that may be proposed for the property as part of the Special Area Plan in the next stage of the process
- Considerations regarding infrastructure and public services needs for potential land use scenarios identified in the Special Area Study

## **Policies on Special Area Planning Process From Alachua County Comprehensive Plan**

### **Future Land Use Element**

#### **Rural/Agriculture Section, 6.0**

**Policy 6.2.8** New rural residential subdivisions of parcels legally created prior to October 2, 1991, which contain more than 100 lots, including cumulative phases or continued subdivision of land in common ownership or partnership as of October 2, 1991, shall be allowed only after adoption of a comprehensive plan amendment based on a completed special area study. This study, developed through the Community Planning Program, shall address factors such as transportation impacts, community services, fire protection, impacts on surrounding land uses, and environmental issues. This requirement for a comprehensive plan amendment is not applicable to a rural residential subdivision that exceeds 100 lots as a result of incentive density bonuses for clustering.

#### **Implementation Section, 7.0**

**Policy 7.1.28** A planning framework that includes geographically focused special area plans shall be implemented to promote and provide cohesive communities. These plans shall include both rural and urban areas, and utilize neighborhoods (including village centers), districts (including activity centers), and corridors as basic planning components. This planning framework shall be implemented through a Community and Neighborhood Planning program, which empowers communities and neighborhoods to develop plans that address the specific needs and circumstances of their area. The County shall provide guidance to the program to assure that county-wide comprehensive planning goals are met. These plans shall incorporate the community and neighborhood vision and goals and shall include provisions to:

- (a) Enhance the community's livability
- (b) Protect the character of the neighborhood
- (c) Provide amenities for neighborhood residents
- (d) Plan for neighborhood traffic management
- (e) Protect natural resources

## **Policies on Special Area Planning Process From Alachua County Comprehensive Plan**

### **Conservation and Open Space Element**

#### **Strategic Ecosystem Section**

**Policy 4.10.2** Strategies shall be implemented through the land use planning and development review processes to ensure that each strategic ecosystem is evaluated and protected based on the integrity of the ecological unit.

- (a) The County shall create special area plans in cooperation with landowners to establish specific guidelines for strategic ecosystems prior to approval of land use change, zoning change, or development approval.
- (b) The County shall devise a schedule for creating special area plans, based on current development pressures and anticipated priorities.
- (c) The County shall create special area plans for each strategic ecosystem, in accordance with the schedule and with the standards under Objective 3.6.

**Policy 4.10.3** If an applicant seeks development prior to the County's creation of a special area plan for a particular strategic ecosystem, the applicant has two avenues for pursuing development. A special area study may be conducted at the applicant's expense. Alternatively, if the applicant demonstrates that the ecological integrity of the strategic ecosystem will be sufficiently protected, the applicant may proceed according to the clustering provisions in policies under Objective 6.2 of the Future Land Use Element.

## ARTICLE XVI. - SPECIAL AREA PLANS

### Sec. 402.96. - Purpose.

Special area plans are established as one mechanism to protect unique environmental, historic, or cultural resources within strategic ecosystems, significant habitat areas, and listed species habitat areas, or to address unique issues and circumstances that are not addressed through the generally applicable comprehensive plan policies and unified land development code. Special area plans may be utilized to enhance the livability of an area, protect the character of a neighborhood, plan for infrastructure and public facility needs, or facilitate joint planning with other jurisdictions. Special area planning is a collaborative planning process based on broad participation by members of the community.

(Ord. No. 05-10, § 2, 12-8-05; Ord. No. 2015-17, § 2, 12-8-15)

### Sec. 402.97. - Applicability.

A special area plan may be appropriate for the following areas and circumstances:

- (a) Strategic ecosystems, as identified within the KBN/Golder Associates report, "Alachua County Ecological Inventory Project" (1996), and mapped generally on the KBN/Golder Ecological Inventory Map adopted in the comprehensive plan; except as provided in Article 4, Strategic Ecosystems, of Chapter 406.
- (b) Areas specifically identified by the board of county commissioners as part of a community and neighborhood planning program effort to address specific needs and circumstances.
- (c) Addressing unique issues and circumstances identified by residents or property owners of a particular geographic area, where such issues and circumstances are not otherwise addressed in the general comprehensive plan policies or unified land development code.
- (d) Properties containing significant habitat areas or listed species habitat areas if required by Chapter 406, Article III and Article IV.

(Ord. No. 05-10, § 2, 12-8-05; Ord. No. 2015-17, § 2, 12-8-15; Ord. No. 2016-10, § 2(Exh. A), 6-28-16)

### Sec. 402.98. - Special area planning process.

The special area planning process shall be initiated by the board of county commissioners. Property owners, residents, or community organizations may request that the board of county commissioners initiate the special area planning process for a particular geographic area in accordance with Section 402.99.

The special area planning process consists of the following basic components:

- (a) A scope of work that identifies the geographic extent of the study; the unique issues or circumstances to be addressed as part of the study; the existing conditions, infrastructure, and natural resources relevant to an analysis of these issues or circumstances; the potential outcomes of the planning process in terms of the kinds of actions that would be implemented to address the issues or circumstances that have been identified; and the public participation process for the development of the study.
- (b) A special area study that includes an analysis of the existing conditions, infrastructure, and natural resources relevant to the issues or circumstances identified in the scope of work and recommendations for potential strategies or actions, such as comprehensive plan amendments, unified land development code amendments, capital improvement needs identification, or other



initiatives by the county or through public/private partnerships to address the unique issues or circumstances identified in the scope of work.

- (c) A special area plan that provides for implementation of the recommended strategies or actions identified as part of the special area study.

(Ord. No. 05-10, § 2, 12-8-05; Ord. No. 2015-17, § 2, 12-8-15)

Sec. 402.99. - Requests by residents, property owners, or community organizations for the county to initiate a special area plan.

Residents, property owners, or community organizations that wish to request that the county initiate a special area plan, shall submit a letter to the growth management department describing the reasons for requesting the special area plan and identifying the geographic area for which the special area plan is proposed. Upon receiving this request, growth management staff shall schedule a meeting with the requestors to discuss the purposes and procedures for special area plans, the specific issues to be addressed, and the desired outcomes of the special area planning process. The request shall then be forwarded to the board of county commissioners by staff for direction regarding preparation of a formal scope of work, in coordination with the interested persons, to be brought to the board for consideration in accordance with section 402.100(b).

(Ord. No. 05-10, § 2, 12-8-05; Ord. No. 2015-17, § 2, 12-8-15)

Sec. 402.100. - Scope of work components and procedures.

A scope of work is the first step in the special area planning process, and should be a collaborative effort between the county, property owners, and the public. The components and procedures for a scope of work shall be in accordance with the following:

- (a) *Specific elements of a scope of work.* The scope of work shall specify the following information, where relevant to the specific issues or circumstances proposed to be addressed as part of the special area study and plan:
  - (1) The geographic extent to be covered by the special area plan. A special area plan may be conducted for all or for portions of one or multiple adjacent strategic ecosystems, or for other areas of natural, cultural, community, or historic significance as specifically designated by the board of county commissioners. The defined area for study shall be sufficient to understand the nature of system values and function and relevant historic resources and infrastructure.
  - (2) Basic information concerning all properties within and immediately abutting the strategic ecosystem(s) or other planning area, including the acreage, current uses and owners for each parcel.
  - (3) Identification of the important ecological functions for the strategic ecosystem(s), or an inventory of the natural resources within other planning areas, based on available historical and digital map data, and other information sources.
  - (4) For strategic ecosystem special area plans, the type, extent, and schedule for ground-truthing to be conducted, identifying opportunities for verification of results by the county and affected owners within the strategic ecosystem(s) .
  - (5) Description of relevant infrastructure and public facilities that serve the planning area, including transportation facilities.
  - (6) Detailed description of the planning process that will be used to develop the special area plan. This shall include a description of the public participation requirements including community workshops and process for engaging stakeholders and the public in the

development of the special area study and plan, and the format of the outcome to be provided in the special area plan.

- (7) The specific planning issues that will be addressed through the special area planning process and their relationship to county-wide comprehensive planning goals and/or the vision of the community or neighborhood.
  - (8) For strategic ecosystem special area plans, the minimum qualifications of the environmental professionals that will be participating in the study.
  - (9) A work plan for development of the components to be completed as part of the special area study, as required under section 402.101.
- (b) *Consideration of scope of work by board of county commissioners.* The proposed scope of work for a special area study and plan shall be presented to the board of county commissioners. Upon receiving the proposed scope of work, the board of county commissioners shall take one of the following actions:
- (1) Approval;
  - (2) Approval with modifications; or
  - (3) Denial.

(Ord. No. 05-10, § 2, 12-8-05; Ord. No. 2015-17, § 2, 12-8-15)

Sec. 402.101. - Special area study.

After the scope of work is approved, the special area study shall be conducted in accordance with the approved scope of work. The study shall include data and analysis relating to land use, natural resources, and infrastructure that will be a basis for the recommendations and strategies to address the issues or circumstances that are the focus of the study, as detailed in sections 402.101(b) through (e). This process shall be a collaborative effort between the County, property owners, and the public, and shall involve the following steps.

- (a) *Stakeholders workshop.* All property owners within the area defined by the scope of the special area study, as well as other registered stakeholders, shall be notified in writing of the intent to conduct a study for the area, and shall be encouraged to participate in the process. As part of the development of the special area study the county shall conduct a minimum of one stakeholders workshop in accordance with Article 4, Neighborhood Workshops, of this chapter.
- (b) *Ground-truthing of site.* Where relevant to the specific issues or circumstances identified as part of the scope of work, site-specific ground-truthing of natural resources shall be conducted to evaluate critical system functions and values in accordance with the requirements of the natural and historic resources assessment (see Chapter 406, § 406.04). For special area studies within strategic ecosystems, site-specific ground-truthing shall be conducted using the KBN/Golder report, background mapping and historical data, and other specific factors identified in Article 4 of Chapter 406, as a guide to develop a current scientific assessment of the systems involved. The location and extent of specific natural resources, as well as higher and lower valued portions of the strategic ecosystem(s), shall be delineated within the study area, and with respect to surrounding ecosystems. Those areas found not to contain strategic ecosystem resources shall be eligible for consideration for development as part of a development plan or special area plan provided the ecological integrity of the strategic ecosystem as a whole will be sufficiently protected.
- (c) *Public infrastructure and services.* The study shall identify potential access to public infrastructure and services, and issues and needs related to public infrastructure and services.
- (d) *Land use analysis.* The study shall analyze the existing and future land uses within the study area. For strategic ecosystem special area studies, the study participants shall identify one or

more scenarios for the future uses of land within the area of study and identify the most appropriate locations for various types of land use, including as applicable, agriculture or silviculture activities, conservation areas, and development areas. Parcel ownership and management considerations shall be evaluated in order to develop a scenario that balances protection of the natural and historic resources with ownership interests and protection of private property rights.

- (e) *Recommendations and strategies.* The study shall include recommendations and strategies for follow-up action to address the specific issues or circumstances that have been analyzed as part of the study. Such recommendations and strategies may include, but are not limited to, proposed comprehensive plan amendments, proposed unified land development code amendments, proposed capital improvement needs identification, or other initiatives by the county or through public/private partnerships.
- (f) *Presentation to board of county commissioners.* The draft special area study shall be presented to the board of county commissioners. The board shall consider whether to accept the study and whether to authorize any specific follow-up recommendations or strategies that have been identified as part of the study.

(Ord. No. 05-10, § 2, 12-8-05; Ord. No. 2015-17, § 2, 12-8-15)

Sec. 402.102. - Special area plan.

Once completed, the special area study shall form the basis for a special area plan. The special area plan may include actions such as proposed comprehensive plan amendments, proposed unified land development code amendments, proposed capital improvement needs identification, or other initiatives by the county or through public/private partnerships that have been identified in the special area study. The special area plan may address topic areas such as land use, development standards, natural and historic resource protection, economic development and infrastructure planning. The special area plan shall be consistent with the overall goals, objectives and policies of the Alachua County Comprehensive Plan.

(Ord. No. 05-10, § 2, 12-8-05; Ord. No. 2015-17, § 2, 12-8-15)

Sec. 402.103. - Adoption of special area plans.

A special area plan shall be adopted through public hearings, as amendments to this ULDC, in accordance with article VIII, Unified Land Development Code Text Amendments, of this chapter. The comprehensive plan may require map or text amendments in connection with the adoption of a special area plan, in order to permit the land uses and development types. Such amendments shall be processed in accordance with article VII, Comprehensive Plan Amendment, of this chapter. Once adopted, the special area plan will govern all subsequent development requests within its boundaries.

(Ord. No. 05-10, § 2, 12-8-05)

Sec. 402.104. - Implementation of special area plans.

Development plan applications within established special area plans shall be submitted and processed in accordance with Article X of this chapter, Development Plan Review. If a special area plan has been adopted that applies to the parcels proposed for development, the applicant shall be required to demonstrate compliance with the adopted special area plan.

(Ord. No. 05-10, § 2, 12-8-05; Ord. No. 07-07, § 2(Exh. A), 4-27-07)

May 1, 2020

Ms. Missy Daniels, AICP, Growth Management Director  
Alachua County Department of Growth Management  
10 SW 2<sup>nd</sup> Avenue  
Gainesville, Florida 32601

Re: Owner's Request to Initiate Special Area Study

Dear Missy:

On behalf of our client, Kanapaha Timber, Land & Cattle Company, LLLP ("Kanapaha Ranch"), and pursuant to Article 16 (Special Area Plans) of the Alachua County Comprehensive Plan and Unified Land Development Code (ULDC), this letter requests approval of the enclosed proposed scope of work for a Special Area Study (SAS) and Plan (SAP) of the ~4,000 acres owned by our client in western Alachua County, Florida.

We completed a pre-application conference with staff (§402.99 ULDC) and have met with all but one of the County Commissioners, none of whom voiced opposition to conducting the SAS on this property. Accordingly, please find attached for the County's consideration under §402.100(b) Specific Elements, ULDC, the consultants' proposed scope of work for the SAS.

### **Consultants' Scope of Work – SAS – Kanapaha Ranch**

Mark Culbreth, P.G., Principal Hydrogeologist of Environmental Consulting & Technology (ECT), and an expert in karst geology, proposes the following scope of work for the assessment of significant geological resources that may be present on the property:

#### **ECT SCOPE OF WORK: (§402.100(b) Specific Elements 1, 3, 4, 8)**

##### **Fracture Trace/Lineament Analysis**

ECT will download aerial photographs from University of Florida and Florida Department of Transportation repositories and conduct fracture trace and lineament analyses to identify such features that may be present on the property and evaluate the potential association of these features with documented sinkholes caves, or other geologic features.

##### **Site Visit**

An ECT geologist will visit the site and document the geologic features known to exist on the property. Geographic coordinates will be acquired of each geologic feature using a Global Positioning System (GPS) receiver. These features will be plotted on the aerial photograph to evaluate their proximity to mapped fracture traces and lineaments.



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### **Geologic Feature Watershed Analysis**

ECT will collect available LiDAR data and develop a Digital Elevation Model (DEM) of the areas around mapped fracture traces, lineaments, and other geologic features. A topographic analysis of the land surface will be conducted to identify the watershed associated with the identified geologic features.

A copy of Mr. Culbreth's c.v. is attached to this letter.

### **ERC SCOPE OF WORK: (§402.100(b) Specific Elements 1, 3, 4, 8)**

Peter M. Wallace, MS, principal of Ecosystem Research Corporation (ERC), whose specialty is plant and animal habitat mapping and assessment of disturbance in natural systems, proposes to assess the following resources that may be present on the Kanapaha Ranch property:

- Potentially significant plant and general habitat, identifying native and successional plant communities, and general areas of large regulated trees;
- The occurrence and general location of threatened and endangered plant and animal habitat, using GPS coordinates to locate any gopher tortoise burrows encountered (and excluding aquatic cave fauna or subterranean reptiles or amphibians);
- The presence of surface waters and wetlands, generally delineating with GPS but not flagging the boundaries;
- Depressional areas for the presence of listed plant species, but not aquatic fauna that may occur in wet caves or open wet depressions; and
- The distribution of communities in relation to mapped soil types for identification of possible xeric habitat boundaries. Data will be further refined using the 2001 LiDAR topography, USGS closed depression database, and the TINs coverage provided with the LiDAR topography.

A copy of Mr. Wallace's c.v. is attached to this letter.

### **CHW SCOPE OF WORK: (§402.100(b) Specific Elements 1, 2, 5, 6, 7, 8)**

Gerry Dedenbach, AICP, CHW Vice President, and Kevin W. Hewett, PLS, CHW Vice President propose the following scope of work for the Kanapaha Ranch SAS:

### **Planning Services**

- Analysis of all properties within and immediately abutting the mapped Hickory Sink Strategic Ecosystem, including basic information about acreage, current uses, and owners for each parcel;
- Description of relevant infrastructure, including transportation facilities;
- Description of the planning process, pursuant to Article 3 of Chapter 402.100, ULDC, to be used to develop the Special Area Plan, including means of public participation and an outline of the SAP; and

- 
- Analysis of the planning issues to be addressed through the SAP planning process as they relate to the county comprehensive planning goals.

### **Surveying Services**

- Document the field work conducted by ECT and ERC to consolidate the field data for exact land quantifications of ecological areas; and
- Produce presentation-quality digital survey zonal maps for applications, public hearings and participation; and
- Produce final quantitative maps documenting the SAS and updated county overlay mapping.

Copies of Mr. Dedenbach's and Mr. Hewett's c.v. are attached to this letter.

We look forward to your prompt response and scheduling of this item for public hearing at the County Commission, possibly on the Consent Agenda. If you need further information, please contact me directly.

Regards,



Gerry Dedenbach, AICP  
Vice President,

Enclosures: (4) Consultants' curriculum vitae

cc: Patrice Boyes, Esq.

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**MARK A. CULBRETH, P.G.**  
**Vice President/Senior Principal Scientist**

**Education**

M.S., Geology—University of South Florida, 1988

B.S., Geology—University of South Florida, 1983

**Registrations**

Professional Geologist, Florida, No. 1217

Mr. Culbreth has more than 32 years' experience as a hydrogeologist and project manager. He has bachelor's and master's degrees in geology. Mr. Culbreth specializes in the application of sound scientific principles and regulatory requirements in solving unique challenges faced by his clients. He specializes in hydrogeology, the fate and transport of contaminants in the subsurface, analysis of risk-based corrective actions, and brownfields redevelopment.

**Contract Manager; Three Florida Department of Environmental Protection (FDEP) Petroleum Restoration Program Contracts**—Duties include making sure scope offers are distributed to the appropriate task assignment managers and that they respond to requests for information from FDEP in a timely manner. Work with staff to develop procedures for reviewing scope offers to screen whether the work scope offered is correct and evaluate whether the work can be done profitably before accepting the scope offer. Supported staff evaluating bid opportunities and a go/no go decision process for evaluating bid opportunities. Reviews contract amendments and distributes amendments as well as updates from FDEP to staff. Also serves as one of the technical reviewers for reports and other deliverables prior to submittal to FDEP.

**Project Manager; Site Assessment and Remediation, Photoengraving, Inc.**—Conducted site assessment related to a chlorinated solvent release at a printing plant in Tampa, Florida. Prepared site assessment report and FDEP approved it. Prepared a pilot test plan consisting of a bench-scale treatability test and field-scale pilot test. Submitted the pilot test report to FDEP with a recommendation to assess the attenuation potential of the aquifer and the stability of the chlorinated solvent plume. In addition to the assessment and remediation activities, this site was also designated a brownfield site, and tax credits are being received to off-set the cost of the assessment and remedial actions.

**Project Director; Resource Conservation and Recovery Act (RCRA) Permitting and Remedial Action, DRH7425 Land Trust**—DRH7425, formerly known as the General Components site in Largo, Florida, is a RCRA hazardous waste site. Following a long period of inactivity, ECT was retained to conduct groundwater monitoring to evaluate the stability of the chlorinated solvent and metals contaminant plumes. Prepared RCRA Part B permit application. The property changed ownership twice, and ECT prepared permit transfer packages for each change of ownership. ECT prepared a remedial action plan (RAP) to replace active remediation with natural attenuation monitoring. Currently conducting natural attenuation monitoring evaluation.

**AREAS OF SPECIALIZATION**

Geologic & Hydrogeologic Investigations,  
Contamination Assessments, Brownfields  
Program Management, Regulatory Compliance  
Assistance, Permitting, Development & Analysis  
of Risk-Based Corrective Actions, Phase I/II  
Environmental Site Assessments, Data Analysis  
& Interpretation

**Project Director; 2017 Brownfields Contract, City of St. Petersburg**—Project manager for City of St. Petersburg Brownfields assessment grant. Grant activities include conducting Phase I and Phase II environmental site assessments (ESAs), as well as providing programmatic support.

**Project Manager; RCRA 3013 Work Plan for Bartow Facility, U.S. Agri-Chemicals Corporation (USAC)**—USAC is conducting a site assessment under a RCRA 3013(a) order at their chemical complex in Bartow, Florida. Historically, the facility produced sulfuric acid, phosphoric acid, and di-ammonium phosphate. Chemical operations at the facility have subsequently ceased, and many of the features, such as the phosphogypsum stack system and process water ponds, have undergone closure under an FDEP permit. Prepared responses to U.S. Environmental Protection Agency (EPA) and FDEP comments on the draft site assessment report. Developed a work plan for a hydrogeological assessment designed to assess mechanisms for contaminant transport within the facility and evaluate the potential for offsite migration of phosphogypsum indicator parameters.

**Project Manager; NPDES Numeric Nutrient Criteria Analysis, USAC**—USAC, as a condition of their NPDES permit, is required to obtain all necessary data and information to confirm that the receiving water body (Bear Branch Creek), downstream from two outfalls meets the applicable numeric nutrient criteria for streams in accordance with Paragraph 62-302.531(2)(c), Florida Administrative Code (F.A.C.). Developed plan of study to conduct the necessary evaluation. Divided plan of study into phases to allow for changes in approach based on stream characteristics and whether the creek meets the criteria for a stream or whether it is a managed conveyance.

**Project Manager; Site Assessment, Florida Pest Control & Chemical Co.**—Conducted site assessment of pesticide blending operations and active pest control operations in Gainesville, Florida. Site assessment included onsite and offsite assessments, including obtaining site access agreement from CSX. All work was conducted in accordance with Chapter 62-780, F.A.C.

**Project Manager; Airport Site Assessment: Former Ag Flying Services, City of Avon Park**—Conducted site assessment along the side of a runway where airplanes were staged and filled with chemicals for spraying crops. Conducted site assessment in accordance with Chapter 62-780, F.A.C., and included a summary of source removal activities conducted by the city. FDEP approved the site assessment and the site achieved a site rehabilitation completion order.

**Project Director; Assessment of Short- and Long-Term Effect of Event-Driven Fecal Coliform Loading, Clam Bayou Central Stormwater Pond, City of St. Petersburg, Florida**—ECT's rapid response and sound reporting relieved public pressure on the city, demonstrating that discharge from a stormwater pond impacted by a raw sewage overflow in a heavy, extended storm event did not present a long-term hazard. ECT conducted a sediment and surface water assessment examining for fecal coliform, *E. coli*, and biomarker analysis to verify there would be no long-term effects and no apparent residual source material in the pond sediment. Collected field parameters, sediment depth, and sediment lithology at six locations within the stormwater pond.

**Project Manager; Former Pensacola Manufactured Gas Plant, Confidential Client**—Prepared no further action (NFA) modification proposal and engineering control maintenance plan. Worked with FDEP and the Florida Department of Transportation (FDOT) to develop exhibits for Memorandum of Understanding between FDEP and FDOT, Indemnification Agreement between the client and FDOT, and a Conditional Site Rehabilitation Completion Order.

**Project Director; Facility Response Plan Update, Gainesville Regional Utilities (GRU)**—Updated facility response plan for Deerhaven Generating Station in Gainesville, Florida.

**Project Manager; Brownfield Site Rehabilitation Agreement (BSRA), ZP No. 317 LLC**—Prepared BSRA for Zimmer Development Corporation's redevelopment of former CSX Parcel 4 in Tallahassee, Florida. Developed soil management plan for contractors to follow during construction activities at the site. Coordinated collection of information and developed voluntary cleanup tax credit application.

**Project Manager; Compliance Monitoring of Closed Solid Waste Ponds, Confidential Client**—Conducted groundwater monitoring and reporting to comply with a closure permit issued by FDEP. Conducted hydrogeologic investigation of the facility in Fort Meade, Florida, to provide data needed to

complete the closure permit application. In addition, conducted an evaluation of the existing groundwater monitoring program and provided recommendations to reduce the number of parameters requiring monitoring and proposed a regulatory closure strategy to address groundwater quality issues.

**Project Manager; Airport Site Assessment: Pool Aircraft, City of Avon Park**—Conducted site assessment at a former engine test stand. Site assessment was conducted in accordance with Chapter 62-780, F.A.C. Site assessment included summary of source removal activities conducted by the city. Supplemental site assessment activities are underway to complete the assessment.

**Project Geologist; City of Tallahassee: Gas Pocket Investigation**—Conducted subsurface assessment along Capitol Circle to investigate sources of depressurization events associated with driving piles for roadway construction. Found depressurization was likely because of excessive heat buildup in the steel piles as piles were driven through dense formations reacting moisture in the formation.

**Project Manager; Groundwater Monitoring Plan Evaluation, GRU**—Conducted evaluation of groundwater monitoring plan for the Deerhaven Generating Station to evaluate sources of arsenic and gross alpha in groundwater samples collected from one of the monitoring wells. Prepared report summarizing results of the evaluation which was approved by the FDEP.

**Project Director, Stormwater Pollution Prevention Plan (SWPPP), GRU**—Updated the SWPPP for the Deerhaven Generating Station in Gainesville, Florida.

**Project Director; Monitoring Well Replacement, GRU**—Replaced groundwater monitoring well damaged by a contractor at the Kelly Generating Station in Gainesville, Florida.

**Project Director; Third-Party Advisor on Chlorinated Solvent Remediation at the Young-Rainey STAR Center, Pinellas County**—Served as technical advisor to Pinellas County concerning an historic manufacturing facility built in the 1950s that was sold by the U.S. Department of Energy (DOE) to the Pinellas County Industry Council in 1995. One of the legacies from the historic manufacturing operations was chlorinated solvent contamination. The DOE is responsible for conducting remediation of the chlorinated solvents at the STAR Center. Provided technical advice to the county and represented their interests in negotiations with DOE and their consultants. Services included reviewing DOE's reports and plans for supplemental remediation and proposed closure alternatives.

**Project Geologist; Citrus County Combined-Cycle Project, Confidential Client**—Prepared portions of the site certification application related to geology and hydrogeology. Work consisted of compilation, analysis, and evaluation of existing geologic and hydrogeologic information.



**Project Manager; RCRA Closure, Former General Components, Inc.**—Conducted closure permit-required groundwater monitoring for purposes of evaluating effectiveness of remedial actions. Prepared RCRA permit transfer for transfer of permit to new owner of the property in Largo, Florida. In addition, submitted application for renewal of post-closure permit in accordance with Chapter 62-730, F.A.C. Acted as liaison between the property owner and the FDEP.

**Project Manager; Brownfield Contractor; City of St. Petersburg**—Worked with the economic development coordinator for the city, providing programmatic support and participated in community meetings. In addition to conducting 19 Phase I ESAs, prepared 17 health and safety plans, quality assurance project plans (QAPPs), and Phase II ESAs. Conducted Assessments on a variety of properties, including former residential, commercial, and industrial properties. Assessed both petroleum and non-petroleum sites.

**Project Manager, RCRA 3013 Actions, Confidential Client**—Managing RCRA 3013 assessments at two phosphate processing and fertilizer manufacturing facilities in the phosphate district of Central Florida. Duties include preparation of work plans, negotiating work plans with EPA and FDEP, implementing work plans which includes collection and analysis of soil, groundwater, sediment, and surface water samples. Prepared reports and reviewed with EPA and FDEP.

**Project Manager; Site Assessment and Remedial Actions at Former Fertilizer Blending Facility, Vigindustries**—Conducted site assessment at former fertilizer and blending facility in Winter Haven, Florida. Contamination consists of typical fertilizer-related chemicals (nitrates, ammonia, and sulfates), organochlorine pesticides, as well as petroleum compounds. The assessment consisted of the analysis of soil, groundwater, sediments, and surface water. A municipal potable well is located within 500 yards of the facility and was sampled to confirm there were no water quality impacts at that well and other water supply wells in the area. Conducted nitrogen and oxygen isotope analyses to investigate the source of nitrates, ammonia, and sulfates in groundwater. A peat layer present in the subsurface is acting as a growth medium for reducing bacteria, which are consuming pesticides compounds and acting as a passive remedial action. Prepared two RAPs based on redevelopment of the property. The RAPs propose soil excavations of areas that will remain unpaved, and the use of buildings and parking areas as engineering controls for underlying portions of the site.

**Project Manager; Phase II ESA and Redevelopment Consulting, Former Harmon Glass Property, City of Tallahassee**—Retained by the City of Tallahassee to evaluate a property in the Gaines Street Brownfields Area to evaluate the options for site closure and identify soil management requirements that will facilitate redevelopment. Prepared a Phase II ESA report and attended meetings with the FDEP.

**Project Manager; Phase II ESA and Redevelopment Consulting, O'Connell Property, City of Tallahassee**—Retained by the City of Tallahassee to evaluate a property in the Gaines Street Brownfields area to evaluate the options for site closure and identify soil management requirements that will facilitate redevelopment. Assessed petroleum contamination and found that previously documented groundwater quality impacts were no longer present. Developed a soil management strategy to allow for redevelopment and proper management of potentially impacted soils.

**Project Manager; NFA Proposal for J.R. Kelly Generating Station. GRU**—Reviewed existing site assessment data and prepared a NFA proposal in accordance with Chapter 62-780, F.A.C. for an historic No. 6 fuel oil release. The NFA proposal consisted of an evaluation of geologic and hydrogeologic setting, a human health and ecological risk assessment, and an evaluation of technical impracticability.

**Project Manager; Underground Injection Control (UIC) Permitting, J.R. Kelly Generating Station, GRU**—Prepared a UIC permit application to allow for discharge of cooling water into an injection well. Project consisted of evaluating various discharge options including the existing surface water discharge option to Sweetwater Branch Creek. Background water quality in the aquifer has been impacted by stormwater recharge wells and sinkholes. The groundwater in the aquifer is used as a source of cooling tower make-up water. This water does not meet the surface water standards and the UIC permit was envisioned as an alternative means of discharging this water.

**Project Manager; Spill Prevention, Control, and Countermeasures (SPCC) Plans; GRU**—Prepared SPCC plans for J.R. Kelly Generating Station, Deerhaven Generating Station, the Admin Building, and several GRUCOM facilities in Gainesville, Florida.

**Project Manager; Coal Combustion By-Product Characterization, Tampa Electric Company (Tampa Electric)**—Developed a sampling plan to characterize the chemical characteristics of coal combustion by-products, namely fly ash and bottom ash at the former Gannon Power Plant in Tampa, Florida. The objective of the study was to evaluate the potential for leachate generated from exposure to coal combustion by-products to contain target analyses at concentrations greater than the maximum contaminant limits for groundwater resources. Following FDEP's approval of the sampling plan, implemented the plan and analyzed statistical tests to characterize data. Prepared a report summarizing the results.

**Project Manager; Coal Combustion By-Product Characterization, Confidential Client**—Developed a sampling plan to characterize the chemical characteristics of coal combustion by-products, namely fly ash and bottom ash at the Crystal River Power Plant in Crystal River, Florida. The objective of the study was to evaluate the potential for leachate generated from exposure to coal combustion by-products to

contain target analytes at concentrations greater than the maximum contaminant limits for groundwater resources. Following FDEP's approval of the sampling plan, implemented the plan and analyzed statistical tests to characterize the data. Prepares a report summarizing the results.

**Project Director; Programmatic Support for Brownfields Assessment Grant, City of Tallahassee**—Provided oversight of programmatic support activities of the Brownfields Assessment Grant for the City of Tallahassee. Programmatic support includes assisting in the preparation of minority business enterprise/women's business enterprise utilization forms and financial reimbursement forms; drafting EPA Brownfields Cleanup Quarterly Reports and Performance Evaluation Reports for review; drafting and preparing Quarterly Measures reports required by the terms and conditions of the EPA Cleanup Grants, as necessary; and providing data entry of EPA property profile information into the ACRES database as required by grant's terms and conditions.

**Project Quality Assurance Officer and Project Geologist; Brownfields Assessment Grant, City of Tallahassee**—Provided review and revision of QAPP, prepared work plans, reviewed field notes and laboratory reports, and prepared the Phase II ESA report for the Art Alley project.

**Project Quality Assurance Officer and Project Geologist; Building Deconstruction Project for Former Incinerator Building, City of Tallahassee**—Project consisted of deconstruction of the former incinerator building containing residual ash, which had been tested and classified as hazardous. Conducted project under a RCRA RAP. Prepared QAPP, and reviewed work plan for characterization of residual ash present in the building for hazardous waste determination. Reviewed analytical data from ash and revised waste determination. Prepared responses to regulatory agency comments regarding waste determination and method of deconstruction.

**Project Geologist; Chlorinated Solvent Site Assessment, Daytona Beach International Airport, Volusia County**—Developed dynamic work plan to evaluate the distribution of chlorinated solvents and assess hydrogeologic factors controlling plume migration at the Daytona Beach International Airport. Implemented work plan and found that chlorinated solvents were preferentially moving along a shell hash that varied in depth and thickness across the site and gave the plume an appearance of a diving plume.

**Project Geologist; Environmental Consulting Services, Tampa International Airport, Hillsborough County Aviation Authority (HCAA)**—Conducted due diligence in the Drew Park area prior to acquisition for airport expansion. Prepared and implemented contamination assessment and remedial actions for numerous isolated contaminated areas within the Drew Park area. Conducted assessment and prepared RAP for a chlorinated solvent plume. Represented HCAA in regulatory agency negotiation. Provided oversight of implementation of remedial actions.

#### **Project Geologist; Piney Point Phosphates**

**Decommissioning Support, HRK Holdings**—Conducted emergency management of two billion gallons of industrial wastewater in an environmentally sensitive setting near Cockroach Bay, a pristine aquatic preserve in lower Tampa Bay. Assisted in review of assessment data collected by others and evaluation of water treatment data as part of the closure of gypsum stacks and impounded water in the stacks. This 24/7 operation required treatment of industrial waste water prior to discharge.

**Project Manager; Miscellaneous Consulting Services, Industrial Galvanizers**—Provided miscellaneous services, including support on hazardous materials management, aboveground storage tank compliance, health and safety regulations, spill response and removal actions, and regulatory agency negotiations for facility in Tampa, Florida. Served as technical representative on Superfund and RCRA-related issues.

**Project Manager; Assessment of Three Former Landfills, Pinellas County**—Assessed soil and groundwater quality at three former landfills in Pinellas County, Florida. The landfills are near a residential area and it is anticipated that these landfills will be redeveloped. Assessment concluded that the existing conditions at the landfills do not pose a threat to human health in their current condition. Proposed to FDEP that additional assessment and remediation be delayed until redevelopment plans are prepared.

**Task Manager; Permitting for a Bulk Commodities Terminal (Active Brownfields), Southern Monitoring and Environmental, LLC**—Prior to dredging operations, prepared a sampling and analysis plan and a QAPP. The objectives of the study were to evaluate possible uses of the sediments after they were dredged and to determine if there were potential impacts to surface water quality during the dredging operations. Included statistical procedure to evaluate whether a sufficient number of samples had been collected to characterize the variability of the data in the sampling and analysis plan. Provided oversight of the sampling. Upon receipt of the data, conducted statistical analyses to confirm a sufficient number of samples had been collected. Conducted the analysis of the data and compared the data to soil cleanup target levels to evaluate re-use options for the sediments. Analyzed the analyses of elutriate samples and determined that there could be surface water quality issues related to the dredging operations and made recommendations to minimize potential surface water quality problems. Analyzed the existing analytical data for samples of screened material from the onsite landfill. Prepared and submitted a report to the FDEP requesting authorizing reuse of screened solid waste. The report consisted of statistical analysis of the analytical data and a comparison to soil cleanup target levels. Once the statistical analyses were completed, identified possible re-use options and conducted an exposure assessment based on re-use options.

**Project Geologist; Development of a Sampling and Analysis Plan to Evaluate Reuse of Screened Materials from a Former Industrial Landfill, Southern Monitoring and Environmental, LLC**—Reviewed existing analytical data from solid waste in a former industrial landfill used by a wood pulp operation in Jacksonville, Florida. Conducted an exposure assessment for potential reuse of the screened solid waste to evaluate whether reuse of the screened material posed a threat to human health or the environment under redevelopment scenarios. Prepared a sampling and analysis plan to characterize the screened materials prior to reuse, to confirm its chemical characteristics, and to ensure assumptions of the exposure assessment were not violated.

**Project Manager; Phase I and II ESAs, Site Assessments, and Remedial Actions, Lowes Home Companies**—Provided Phase I and Phase II ESAs, site assessments, and rapid response remedial actions as needed for numerous facilities in Florida. Worked with Lowes real estate group during redevelopment projects by conducting asbestos and lead-based paint surveys prior to demolition of existing facilities. At one site, prepared permit to allow for development on top of a former landfill and conducted methane monitoring of facility after construction.

**Project Manager; Contamination Assessment, Texaco**—Conducted contamination assessment of retail petroleum marketing facility in Nassau, Bahamas. The assessment evaluated the extent of free product, dissolved hydrocarbons, and adsorbed hydrocarbons. Controlled the distribution of hydrocarbons and subsequent remediation by the karst nature of the limestone and island hydraulics.

**Project Geologist, Preliminary Assessment, Confidential Client**—Conducted a preliminary assessment of possible soil and groundwater impacts related to an accidental release of diesel fuel in a coastal environment in Antigua in the Caribbean.

**Project Geologist; Contamination Assessment at Former Coal Gasification Site, GRU**—Performed a contamination assessment investigation at a former coal gasification plant site that had operated from the 1890s to 1960 in Gainesville, Florida. The contamination assessment included the installation of 16 monitoring wells, the drilling of soil test borings, and the collection of groundwater and soil samples for laboratory chemical analyses. The monitoring wells were used to measure water level elevations for determining hydraulic gradients and groundwater flow velocities. Installed a free-product recovery well (6-inch diameter) to recover non-aqueous phase liquid along the southern boundary of the site. Prepared and approved contamination assessment plans, quality assurance plans, and health and safety plans prior to implementation of the field activities. Performed technical negotiations and interactions with local and state regulatory agencies during the investigation. Conducted and regulatory agencies approved a human health and ecological risk assessment and a feasibility study in support of the preparation of a RAP.

**Project Geologist; Tropicana Field Tampa Bay Devil Rays Baseball Stadium, Former Gasification Site Contamination Assessment-Remedial Action, City of St. Petersburg**—Performed a supplemental site assessment to assess extent of residual soil and groundwater quality impacts following previous remedial actions. Conducted evaluation of surface water quality and groundwater quality below Booker Creek to assess effectiveness of a bulkhead in preventing impacted groundwater from entering the creek and the surficial aquifer beneath the creek. Designed and implemented supplemental source removal to remove residual coal tars identified in the supplemental assessment. Conducted groundwater monitoring and demonstrated that the plume was stable and not migrating offsite or into surface waters. Based on supplemental data, proposed to FDEP that the site be given a NFA status under Risk Management Option II.

**Project Advisor; Depot Park Redevelopment, City of Gainesville**—Depot Park is being constructed on top of formerly contaminated property in Gainesville, Florida. ECT completed the assessment, documented the extent of contamination, conducted a human health and ecological risk assessment, prepared a remedial action feasibility study and RAP, and implemented the remedial actions. ECT also designed the stormwater ponds constructed following remedial actions and is assisting in documenting the property into a park. ECT is conducting post-remediation monitoring, participating in public outreach events, and documenting that site conditions are safe for use as a park.

**Project Manager; Phase I/II ESAs for Brownfield Sites, Pinellas County Economic Development**—Responsible for Phase I/II's on the Gooden Crossing and Korkis properties in the Pinellas County brownfields area.

**Project Manager; Initial Response Actions, Tampa Electric**—Responded to mineral oil release following transformer/substation fire in Tampa, Florida. Recovered mineral oil and contaminated groundwater and documented clean groundwater within 21 days of initial contact.

**Project Manager; Environmental and Health and Safety Audit, Delta Group Australia**—Conducted environmental, health, and safety audits of five Industrial Galvanizers operations in the southeastern United States.

**Project Manager, Petroleum Assessment and Remediation, Pebble Creek Collection**—Conducted assessment of the site related to historic petroleum releases. Developed an innovative RAP and remedial actions for petroleum impacted property in Tampa, Florida.

**Project Manager; Site Assessment of Former Manufacturing Facility, Highwoods Properties**—Developed soil and groundwater sampling program to characterize the arsenic geochemistry of the surficial aquifer following release of mineral spirits from an underground storage tank (UST) in Hillsborough County, Florida.

Demonstrated using geostatistics that arsenic was naturally occurring in the soils at the site based on historical soil classifications and geochemistry. Furthermore, the arsenic detected in groundwater samples suggested dissolution of arsenic from the soils as a result of the reducing conditions that developed with the release of the mineral spirits.

**Project Manager; Site Assessment of Former Wood Preserving Facility, Courtesy Toyota**—Developed site assessment strategy to assess soil and groundwater characteristics at a former wood preserving facility in Hillsborough County, Florida. Initial assessment consisted of cone penetrometer survey to characterize stratigraphy and vertical variations in relative permeability and laser-induced fluorescence to screen the soils for the presence of residual creosote. Site assessment consisted of installing nested monitoring wells, soil and groundwater sampling, surface water sampling, and sediment sampling. Provided oversight and confirmatory sampling for source removal.

**Project Manager; Initial Response Actions, Sunoco**—Provided initial response actions throughout Florida when accidental releases of petroleum occurred at Sunoco facilities. Initial responses typically consisted of recovering available product, removal of impacted media, working with appropriate regulatory agencies, and documenting all actions.

**Project Manager; Tank Closure Assessments, Sunoco**—Provided closure assessment services throughout Florida as needed and prepared closure assessment reports.

**Project Manager; Site Assessments, Sunoco**—Provided contaminated site assessments at retail marketing facilities in Hillsborough and Pinellas counties, in Florida.

**Project Manager; Phase I and II ESAs, Federal Deposit Insurance Corporation (FDIC)**—Conducted numerous Phase I and II ESAs of vacant and undeveloped properties and operating facilities throughout Florida. Scope of work was provided by FDIC.

**Project Manager; Phase I ESAs, Republic Bank**—Conducted numerous Phase I audits throughout Hillsborough and Pinellas counties, Florida. Audits conformed to proposed American Society for Testing and Materials guidelines.

**Project Manager; ESA, Sabal Realty Corporation**—Conducted numerous site assessments of commercial properties prior to sale in Hillsborough County, Florida. Assessments consisted of geophysical surveys, monitoring well installation, and soil and groundwater sampling. One assessment included evaluating the soil, groundwater, and surface water quality characteristics of a property located adjacent to Reeves Southeastern Galvanizing, a National Priorities List Superfund site. Another assessment included a ground penetrating radar survey to identify the morphology of a paleo sink.

**Project Manager; Contamination Assessment, Archbold Biological Station**—Conducted a contamination assessment as a result of the suspected release of petroleum products detected during the removal of existing tanks in Venus, Florida. Completed assessment with an NFA recommendation. FDEP accepted this recommendation.

**Project Manager; Closure of Existing UST System and Installation of New USTs and Dispensing Equipment, Archbold Biological Station**—Conducted a compliance inspection of existing UST and dispensing systems in Venus, Florida. Designed and installed new petroleum product storage and distribution system in accordance with applicable environmental regulations and building codes. Removed and conducted a closure assessment of former petroleum product storage and distribution system.

**Project Manager; UST Closure and Installation, Central Florida Gas**—Removed and conducted closure assessment of existing UST in Winter Haven, Florida. Installed new UST in accordance with all appropriate environmental regulations.

**Project Manager; Initial Remedial Action (IRA), Contamination Assessment, and Remedial Action, Eaton Corporation**—Prepared contamination assessment plan and conducted contamination assessment of chlorinated solvent spill from degreasing operations of manufacturing facility in Sarasota, Florida. Plume was approximately 35-ft thick and covered approximately five acres. Installed, operated, and maintained vacuum extraction system designed as an IRA to remove adsorbed solvents from the soils prior to entering the surficial aquifer. Designed the RAP to remediate the surficial aquifer. FDEP approved all plans and reports.

**Project Manager; Contamination Assessment and Remediation, Manatee Towne Centre**—Conducted a contamination assessment at a dry-cleaning facility operation of the groundwater extraction system to remove dissolved chlorinated solvents and the soil vapor extraction (SVE) system to remove adsorbed solvents in the dewatered zone. To enhance removal of adsorbed hydrocarbons, proposed shutting down the groundwater recovery pumps to allow the dewatered zone to resaturate; therefore, allowing for desorption of adsorbed solvents. After equilibration, the groundwater recovery system will be restarted to again remove the mobile dissolved mass of solvents and the vacuum extraction operation will again continue to enhance volatilization of the adsorbed solvents and recover vapors. The client and FDEP approved the remedial action approach.

**Project Manager; Hydrocarbon Contamination Assessments and Remedial Actions, Numerous Clients**—Conducted numerous contamination assessments and designed and implemented remedial actions for petroleum-contaminated sites throughout Florida. These assessments and remedial actions were conducted in accordance with the Florida petroleum cleanup regulations in Chapter 62-770, Florida Administrative Code.



**Project Manager; Contamination Assessment, Texaco, Clifton Terminal**—Conducted contamination assessment at bulk storage terminal in Nassau, Bahamas. Site contained free product and dissolved hydrocarbons in a karst limestone. Assessment included evaluation of island hydraulics and contaminant transport in a karst environment.

**Project Manager; Contamination Assessment and Remedial Action, PDVSA**—Designed work plan and conducted contamination assessment of a weathered marine fuel oil in a fractured pillow basalt. Free product was accumulating in residential wells from pipeline leaks between refinery and terminal in Curacao. Data gathered during the assessment was used to design remedial actions for three residential areas. Remedial design included evaluation of alternate water supplies for the residents and reuse of treated groundwater for agricultural purposes.

**Project Geologist; 58th Street Landfill, EPA Superfund Site**—Conducted geophysical surveys (electromagnetic terrain conductivity) to delineate contaminant plume in carbonate aquifer as part of feasibility study evaluating closure and remediation alternatives. Used geophysical data to develop a monitoring well network and subsequent groundwater model for the site in Miami, Florida.

**Project Manager; Coal Tar Assessment, Peoples Gas Systems**—Conducted contamination assessment at a former coal gas manufacturing facility in Miami, Florida. Assessment included geophysical investigations to identify the presence of subsurface features acting as reservoirs holding coal tars. Used monitoring well and laboratory analyses of soil and groundwater samples to evaluate the extent of coal tars in the subsurface.

**Geologist; Geophysical Surveys, Sherwood Medical**—Conducted surface and borehole geophysical investigations in Deland, Florida. Used ground penetrating radar to locate subsurface features and evaluate shallow stratigraphy. Reviewed a suite of borehole geophysical logs to evaluate the lithology of the site and flow zones in existing open hole fire water supply well. Used geophysical logs, including electric logs, gamma logs, caliper, and flow meter logs.

**Project Manager; Preliminary Contamination Assessment, Former Coal Gas Manufacturing Facility**—Preliminary contamination assessment that involved extensive soil sampling followed by monitoring well installation and groundwater sampling in Jacksonville, Florida.

**Project Manager; Contamination Assessment and RAP, T&T, Inc.**—Conducted contamination assessment at retail petroleum marketing facility in Sarasota, Florida. Site contained free product, adsorbed hydrocarbons, and a three-acre dissolved hydrocarbon plume. Upgradient contaminant plume is migrating onto this site. The RAP comprised conducting a long-term pumping test, a vacuum extraction pilot study, and an air sparging pilot study.

**Project Manager; Tank Closure Assessment, IRA and Contamination Assessment, Fina Oil and Chemical Company**—Excavated and removed six USTs from active retail petroleum marketing facility in Clewiston, Florida. Excessively contaminated soils were removed and thermally treated. A contamination assessment was completed.

**Project Manager; Remedial Action, Fina Oil and Chemical Company**—Maintained and operated remediation system at this active retail petroleum marketing facility in St. Petersburg, Florida. Remediation system consisted of groundwater recovery and treatment as well as vacuum extraction. Prepared all necessary monitoring reports as required by FDEP.

**Technical Manager; Contamination Assessment, Shell Oil and Texaco Refining and Marketing**—Provided technical oversight during the contamination assessment for these two adjacent retail petroleum marketing facilities in Gainesville, Florida. The dissolved hydrocarbon plumes were commingled and migrating through a karst limestone.

**Project Manager; Tank Closure and IRA, Environmental Waste Management Associates, Inc. (EWMAI)**—Excavated USTs and excessively contaminated soils from former retail petroleum marketing facility in Tampa, Florida. Results of closure assessment indicated that no further actions should be required at the site. The closure assessment and IRA report were submitted to the Environmental Protection Commission of Hillsborough County.

**Project Manager; Tank Closure and IRA, EWMAI**—Excavated two USTs and excessively contaminated soils at former retail petroleum marketing facility in Tampa, Florida. Transported approximately 350 cubic yards of excessively contaminated soils offsite for thermal treatment and disposal.

**Project Manager; Contamination Assessment, First Union National Bank**—Conducted a contamination assessment at a former retail petroleum marketing facility in Clearwater, Florida. The recommendation provided in the contamination assessment report (CAR) was for an NFA; FDEP approved the CAR.

**Project Manager; Tank Closure, IRA, and Contamination Assessment, First Union National Bank**—Excavated and removed three USTs and excessively contaminated soils at a site in Lake Suzy, Florida. Transported the soils offsite for thermal treatment and disposal. The results of the closure assessment indicated the presence of hydrocarbons in the subsurface. Completed a contamination assessment and the FDEP approved the CAR along with an NFA recommendation.

**Project Manager; Remedial Actions, Texaco (Star Enterprises)**—Acquired project management responsibilities for operation and maintenance (O&M) of remediation systems at two retail petroleum marketing facilities in Naples, Florida.

Remediation systems included groundwater recovery and treatment, as well as vacuum extraction.

**Project Manager; Remedial Actions, Texaco (Star Enterprises)**—Acquired project management responsibilities for O&M of remediation systems at two retail petroleum marketing facilities in Fort Myers, Florida. Modified remediation systems to enhance performance by adding vacuum extraction systems.

**Project Manager; Remedial Actions, Fina Oil and Chemical Company**—Acquired project management responsibilities for O&M of remediation systems in Cape Coral, Florida. Plugged burner portion of recovery well that was screened in a high permeability shell hash. Following plugging, influent concentrations from the recovery well increased by one order of magnitude.

**Project Manager; Contamination Assessment and Remedial Actions, Texaco (Star Enterprises)**—Conducted a contamination assessment and prepared a RAP for the retail petroleum marketing facility in Sarasota, Florida. Remedial actions consisted of groundwater extraction as treatment along with vacuum extraction. Treated groundwater was discharged to the stormwater sewer under a NPDES permit.

**Project Manager; Contamination Assessment, Remedial Action, and Monitoring, Fina Oil and Chemical Company**—Conducted a contamination assessment after the USTs were removed at this former retail marketing facility in North Miami Beach, Florida. The assessment results suggested that the most appropriate remedial action would consist of excavating excessively contaminated soils followed by a monitoring period. Dade County Department of Environmental Resources Management approved the recommendation.

**Project Manager; Contamination Assessment and Monitoring, Fina Oil and Chemical Company**—Completed a contamination assessment at this former retail petroleum marketing facility in Fort Lauderdale, Florida. Recommendation presented in the CAR was for monitoring only. Therefore, a monitoring only plan was prepared for and approved by Broward County.

**Project Manager; Contamination Assessment and Remedial Actions, Fina Oil and Chemical Company**—Completed a contamination assessment at retail petroleum marketing facility in Tamarac, Florida. Broward County approved the CAR and a RAP consisting of both groundwater extraction and treatment, and soil vacuum extraction. The recovery systems were installed according to specifications and operated as outlined in the RAP.

**Project Manager; Contamination Assessment and Remediation, Eaton Corporation**—Completed a contamination assessment at an electronics manufacturing facility in Sarasota, Florida, as part of a consent order. The

assessment was conducted following a spill of trichloroethene, which was used as a degreaser. Direct push technologies (DPTs) were utilized in the beginning of the assessment to rapidly characterize the subsurface stratigraphy and to collect groundwater samples at discrete depths. These samples were analyzed using an onsite gas chromatograph to rapidly delineate the horizontal and vertical extent of contamination. Permanent nested monitoring wells were subsequently installed to confirm the presence of chlorinated solvents. Designed and operated a SVE system installed in the spill area as an IRA. Designed the RAP using a phased approach. The first phase was for strictly groundwater recovery only with air stripping as the treatment followed by discharge to the sanitary sewer. Air sparging is currently being evaluated as an additional remedial technology to volatilize adsorbed hydrocarbons in the source area.

**Project Manager; Contamination Assessment, Unique Electronics**—Conducted a contamination assessment at an electronics manufacturing company in Orlando, Florida. Dissolved chlorinated solvents were detected in soil and groundwater samples. Utilized DPT to quickly characterize the site stratigraphy and collect groundwater samples at discrete depths.

**Project Geologist; Contamination Assessment, ERO Industries**—Conducted a contamination assessment at a manufacturing facility that had a loss of solvents from aboveground storage tanks in Winter Haven, Florida. The solvents included methyl ethyl ketone, methyl isobutyl ketone, and toluene. Backhoe test pits were used to evaluate the shallow stratigraphy beneath the tank farm. A peat layer around the tank farm was found to be adsorbing much of the solvents. Underlying the peat layer was a very thick layer of well-sorted sands. Given the regional hydrogeology, contaminant migration was found to be nearly vertical. The horizontal and vertical extent of dissolved solvents was found to be very limited. The hydrogeology and geochemistry of the site were evaluated for dilution and degradation of the solvents. The assessment was completed and approved with an NFA recommendation.

**Project Manager; Initial Assessment, Commercial Carriers, Inc.**—Conducted an initial assessment at a vehicle repair facility following a spill of tetrachloroethene in Tampa, Florida. The assessment consisted of collecting soil samples into the water table and groundwater samples for temporary wells. A field gas chromatograph was used to quickly provide analytical results and delineate the extent of contamination.

### ***Representative Publications***

Culbreth, M.A., D.R. Ehlenbeck, R.R. Colberg, A.C. Bailey.  
1998. Accelerated Remediation of Chlorinated Solvents via Cyclic Multiphase Extraction, in Physical, Chemical, and Thermal Technologies, Remediation of Chlorinated and Recalcitrant Compounds, p. 147-152, eds. G.B. Wickramanayake, and R.E. Hinchee, Battelle Press, Columbus.

- Culbreth, M.A. 1988. Geophysical Investigation of Lineaments in South Florida. Master's Thesis, University of South Florida, Tampa, Florida.
- Geophysical Investigation of Lineaments in South Florida. 1988. University of South Florida.
- Littlefield, J.R., M.A. Culbreth, S.B. Upchurch, and M.T. Stewart. 1984. Relationship of Modern Sinkhole Development to Large Scale Photolinear Features. In: Sinkholes: Their Geology, Engineering, and Environmental Impact. Proceedings of the First Multidisciplinary Conference on Sinkholes, Orlando, Florida, October 15-17, 1984, B.F. Beck, editor.
- Karst Processes in Cave Development. 1983. National Association of Cave Divers.
- Culbreth, M.A. 1983. Significance of Lineaments in Florida. Florida Scientist, 48(1):48-49.
- Structural Framework and Movement of Regional Groundwaters. 1982. Tampa Bay Area Scientific Information Symposium.
- Culbreth, M.A., R.E. Bretnall, Jr., and M.T. Stewart. 1982. Structural Framework and Movement of Regional Groundwaters. In: Proceedings of the Tampa Bay Area Scientific Information Symposium, 65-86. S.F. Treat, J.L. Simon, R.R. Lewis, and R.L. Whitman, editors. Report number 65, Florida Sea Grant College.

### ***Presentations***

- Unusual Dichloroethylene Isomer Ratios and External Nitrate Input Help Decipher *In Situ* Pilot Test Outcomes. 2017. Florida Remediation Conference.
- Biogeochemical Reductive Dechlorination (BiRD) Bench Study: TCE in Tampa Limestone. 2015. Battelle's Bioremediation Conference. Miami, Florida.
- Innovations in Remedial Technologies. 2003. Training Program for the Southwest District of Florida Department of Environmental Protection and County Agencies.
- Use of Induced Fluorescence in Coal Tar and Creosote Assessments. 2000. Second International Conference Remediation of Chlorinated and Recalcitrant Compounds. May 2000. Monterey, California.
- Role of Well Development on Performance of Extraction Systems. 2000. Second International Conference Remediation of Chlorinated and Recalcitrant Compounds. May 2000. Monterey, California.
- Contamination Assessment and Remedial Action Activities at Hydrocarbon Contaminated Sites. 1990. Training Program for the Southwest District of Florida Department of Environmental Protection and County Agencies.
- Accelerated Remediation of Chlorinated Solvents via Cyclic Multiphase Extraction. 1998. First International Conference Remediation of Chlorinated and Recalcitrant Compounds. May 1998. Monterey, California.



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## PETER M. WALLACE, MS

President, Ecosystem Research Corporation

Natural and Disturbed Ecosystems Ecologist

Peter Wallace, a natural and disturbed ecosystems ecologist and Registered Gopher Tortoise Agent, has more than 40 years of experience in Florida's ecosystems, including ground verification of upland and wetland habitat, aerial photo interpretation of natural and disturbed Florida habitats, T&E species surveys, wetland jurisdictions, plant community mapping, permitting, and wetlands mitigation and monitoring. He has provided Environmental Assessments on over 1000 projects within the State of Florida and southeastern United States. The projects include State and Federal government projects as well as providing assessments within 33 counties within Florida. He has extensive experience in Phosphate mining areas and has designed and monitored many wetland mitigation projects. He has performed assessment for 7 counties for lands acquired for landfill construction and has worked on several

projects involving several thousand acres for the Gainesville Regional Deerhaven Power Plant and City of Gainesville Annexation Property. Mr. Wallace has extensive experience with performance of baseline inventory and operational monitoring of several large wastewater to wetlands systems throughout Florida. He has performed the wetlands delineation, habitat mapping, and listed species surveys for the Baseline Inventory Studies for siting of the Orange County ( $\pm 4,000$  acres), Sarasota County ( $\pm 6,000$  acres), and Okeechobee County ( $\pm 2,000$  acres) landfills. In addition, Mr. Wallace was contracted by the U.S. Air Force to perform the wetlands delineation of the Avon Park Bombing Range (125,000 acres). He also assisted with habitat delineations for development of a Management Plan by Florida Natural Areas Inventory for this property. Mr. Wallace assisted the Florida Department of Environmental Protection as a team member for providing technical support for developing a State of Florida Assumption Package for the Federal 404 Permit Program. In addition, he is a coauthor of the Florida Department of Environmental Protection manual *Identification Manual for Wetland Plant Species of Florida and Florida Wetland Plants: An Identification Manual*. He was invited by FDEP to assist in preparation of this book to aid the public and consulting personnel in application of the Florida Wetland and Surface Water Delineation Rule as described in Chapter 62-340 FAC.

### EDUCATION

M.S. Systems Ecology, University of Florida

B.S. Biology, Virginia Tech, *cum laude*

### PROFESSIONAL EXPERIENCE

1980–1993 Peter M. Wallace, Ecologist

1993–Pres Ecosystem Research Corporation,  
President

### PERSONAL

Born: 13 April 1953, Newport News, Virginia

### REPRESENTATIVE PROJECT EXPERIENCE

**Florida Native Plant Nursery.** Since 1980 Mr. Wallace has owned and operated a Florida native plant nursery. The nursery specializes in growth and propagation of Florida native trees, shrubs, grasses, sedges, and rushes. Through his cooperation with the Alachua County Farmers Market and Florida Native Plant Society, Mr. Wallace has educated the public and provided to the public information regarding growth and management of native plants.

**Environmental Resource Assessment, Habitat Mapping, and Listed Plant and Animal Surveys for Camp McConnell.** ERC was retained by Alachua County Forever (ACF) to perform an Environmental



Resource Assessment (ERA) for Camp McConnell, which is a recent acquisition property for Alachua County. The ERA was in support of a Conservation Easement and Conservation Management Plan that was being proposed for this property.

**Celebration Pointe: A Transit Oriented Development, Celebration Pointe Partners, LLC & Viking Construction Company of FL, LLC, Gainesville, Florida, 2007–2017.** Celebration Pointe is a 210-acre Transit Oriented Development located in southwest Alachua County within the Hogtown Prairie Strategic Ecosystem. Following many years of predevelopment application studies beginning in 2007, construction began in 2016 and continue to date. In 2007, Ecosystem Research Corporation was retained to perform an Environmental Assessment of the project site, which included high-quality Mesic Uplands, agricultural lands historically maintained in silviculture and pasture, and a large borrow historically associated with construction of I-75. The property is associated with Lake Kanapaha and Hogtown Creek and occurs within the Hogtown Prairie Strategic Ecosystem Overlay as mapped by Alachua County. The Environmental Resource Assessment consisted of mapping all native and disturbed upland habitats, delineation of the wetland boundary, and subsequent approval by Alachua County, the St. Johns River Water Management District, and the U.S. Army Corps of Engineers. In addition, listed species surveys were performed and a gopher tortoise relocation effort was performed following completion of the 100% survey of all project site uplands. Within the project site, the boundaries of all significant upland and wetland habitats were mapped and a ±88-acre Conservation Management Area (CMA) was delineated for perpetual protection. A CMA Management Plan was written that details the perpetual management strategies to be employed in the CMA area to include performance of an exotic species removal, maintenance, and monitoring plan. In addition, a Conservation Easement was established and granted in favor of Alachua County.

**Santa Fe Village Transit Oriented Development and Conservation Management Area Management Plan, Santa Fe Health Care, Inc., and Law Office of C. David Coffey, PA, Gainesville, Florida, 2012–2015.** Santa Fe Village is a proposed 159-acre Transit Oriented Development (TOD) that was making application to Alachua County, Florida, to construct and operate a TOD in northwest Alachua County. With the Santa Fe Village TOD there exists expansive undeveloped significant upland and wetland habitat. Significant Habitat within Alachua County is defined as habitats with an S1, S2, or S3 state ranking as defined by the Florida Natural Areas Inventory. The Santa Fe Village TOD habitats bordered the Conservation Lands associated with San Felasco Hammock owned by the State of Florida. For this project, Ecosystem Research Corporation was retained to delineate all project site uplands and wetlands with special deference to describing the Significant Habitat areas and delineating a Conservation Management Area (CMA) to protect the Significant Habitat Resources. To accomplish this, a CMA Management Plan was written in which a Baseline Inventory report was attached that described all habitat resources and identification and delineation of all listed species habitats. The CMA further protected by creation of a Conservation Easement that was dedicated in favor of Alachua County. The CMA forms the central focus of the Development Plan and further protects the adjacent State resources. Specifically, affected by the CMA Management Plan were a number of stream-to-sink habitats with associated Hydric and Mesic Hammock communities that surround well-defined active sinkhole depressions. These are the most unique environmental features within Alachua County. The CMA currently consists of ±45 acres.

**Springhills Transit Oriented and Traditional Neighborhood Developments, Pennsylvania Real Estate Investment Trust (PREIT) and Law Office of C. David Coffey, PA, Gainesville, Florida, 2012–2105.** The Springhills property is a 389-acre parcel of land consisting of agricultural lands with a mosaic of native upland and wetland habitats. In 2010, PREIT (the owner of the Springhills property)

petitioned Alachua County with a series of comprehensive plans and zoning requests in preparation of a Preliminary Development Plan (PDP) submittal for a mixed Transit Oriented Development and Traditional Neighborhood Development for the property. As part of these series of applications, Ecosystem Research Corporation performed a host of environmental services in support of these applications, to include the following: 1. Performance of a formal wetland delineation with the St. Johns River Water Management District; 2. Upland and wetland habitat mapping with delineation of Significant Upland Habitats, which are defined as those ranked as S1, S2, or S3 by the Florida Natural Areas Inventory; 3. Surveys for listed plant and animal species and delineation of listed species habitat; 4. Delineation of a Conservation Management Area (CMA) to protect the Significant Upland and Wetland Habitats; 5. Preparation of a CMA Management Plan that details the conservation strategies that will be employed to protect the Significant Habitat areas in perpetuity; 6. Assistance in preparation of a Conservation Easement as the perpetual conservation protection tool; 7. Assistance in all aspects of project permitting to a Comprehensive Plan Amendment to Rezoning to Development Plan Applications. The CMA that is protected as part of this development project totals ±88 acres, which will protect all Significant Habitat areas on site. In addition, the CMA lies adjacent to lands that abut San Felasco Hammock, a State Preserve, and this CMA provides valuable protection for the State Preserve.

**Gainesville 121 Planned Unit Development, Weyerhaeuser NR Company.** ERC performed habitat mapping, wetlands evaluation, and listed species surveys for a 1,788-acre Planned Development. For this project, natural habitats and areas converted to silviculture were assessed related to existing habitat quality and hydrologic conditions. Comprehensive plant community maps were constructed and related to the delineated wetland boundary, soil mapping units, and the 100-year and annual flood elevations. Surveys were conducted for listed species as well as exotic and native nuisance species. Significant natural habitat areas were identified, and a comprehensive Conservation Management Area Management Plan and Conservation Easement are currently being prepared for protection of these areas.

**Weyerhaeuser Site 1, Montechoa (800 ac).** ERC was contracted to evaluate development potential of an 800-acre silvicultural site located in northwest Alachua County. The project involved performance of an Environmental Resource Assessment, wetland delineation, habitat mapping, and listed species surveys for the potential development site.

**Weyerhaeuser Site 2, Windsor (350 ac).** ERC was contracted to evaluate development potential of an 350-acre silvicultural site located in northeast Alachua County. The project involved performance of an Environmental Resource Assessment, wetland delineation, habitat mapping, and listed species surveys for the potential development site.

**Special Area Study: Paynes Prairie West Strategic Ecosystem, Alachua County Department of Growth Management.** ERC was retained by Alachua County to perform wetland surveys, plant community mapping, and environmental features inventory on a 503.97-acre group of parcels located west of Paynes Prairie. This project involved performance of the first Special Area Plan conducted by Alachua County for determination of a development footprint within multiple private parcels located within a designated Strategic Ecosystem Overlay area. For this project, a Baseline Inventory Report was prepared identifying the location of native and man-altered habitats as well as defining the boundaries of significant habitat areas to be set-aside and protected within a Conservation Management Area and Conservation Easement.

**Trout Lake Water Reclamation Project, Watershed Technologies, LLC, and Florida Department of Agriculture and Consumer Services, Lake County, Florida.** Performed an Environmental

Assessment consisting of wetland jurisdiction, listed species surveys, and feasibility analysis for using Hybrid Wetland Treatment Technology for renovation of agricultural discharges to Hicks Ditch and Trout Lake. The Trout Lake project is a natural lake/wetland reuse and renovation project in which phosphorus-contaminated waters from historical agricultural runoff sources are collected from Trout Lake and treated within constructed floating and emergent macrophyte treatment ponds. This is an FDACS project contracted through Watershed Technologies, LLC. For this project extensive natural habitat mapping of the Trout Lake wetland system was performed. The wetland boundary was delineated and surveys for listed species were performed. Nuisance and exotic species populations were documented and plans were devised to avoid reintroduction of exotic species into renovated waters.

**Deep Creek Water Reclamation Project, Watershed Technologies, LLC, and Florida Department of Agriculture and Consumer Services, St. Johns County, Florida.** Performed an Environmental Assessment consisting of wetland jurisdiction, listed species surveys, and feasibility analysis for using Hybrid Wetland Treatment Technology for renovation of agricultural discharges to Deep Creek. The Deep Creek water reclamation project is an FDACS project contracted through Watershed Technologies, LLC. The project is designed to renovate the phosphate-contaminated surface waters of Deep Creek (St. Johns County) that have been affected by long-term historical agricultural discharges. For this project, extensive field surveys were performed to document the existing native and man-altered agricultural habitats. Listed species surveys were performed and extensive analysis of mean annual and 100-year flood elevations were also provided. The Baseline Inventory studies were used to determine the most appropriate areas where waters could be pumped from and discharged into Deep Creek to effect the minimal impacts to the natural system.

**Hatchet Creek: An Environmental Cluster Subdivision, Gainesville East Development Partners, LLC.** Performed wetlands jurisdiction, T&E species surveys, and environmental features inventory on a 498± acre site to be developed for a mixed use commercial and residential area located adjacent to the Ironwood Golf Course.

**Gainesville Regional Utilities Deerhaven Annexation Property, Gainesville Regional Utilities, City of Gainesville.** Performed wetland/upland and plant community boundary mapping, T&E species survey, and environmental features inventory for the Deerhaven Power Plant Land Annexation, a 2,342-acre site.

**Gainesville Regional Utilities Eastside Maintenance Facility, Gainesville Regional Utilities, City of Gainesville.** Performed wetlands jurisdiction, mitigation, and permitting services on a 117-acre parcel for the GRU Eastside Maintenance Facility.

**Gainesville Regional Utilities Deerhaven Power Plant Rezoning, Gainesville Regional Utilities, City of Gainesville.** Performed wetlands jurisdiction, T&E species surveys and plant community mapping for the Gainesville Regional Utilities rezoning application (136-acre site).

**T. J. Hawes Trustee Conceptual Water Management District ERP Application, T. J. Hawes Trustee, Henderson Engineering.** Performed wetlands jurisdiction on 185 acres for obtaining a binding jurisdiction determination from SJRWMD for a conceptual ERP modification for lands located along NW 39th Avenue east of North Main Street.

## RECENT AND CURRENT FLORIDA COUNTY-ROAD PROJECTS

**Environmental Resource Assessments, Listed Species Surveys, and wetland delineations for drainage and safety improvements for the following:**

- Carlton Cemetery Road, Taylor County
- Houck Road, Taylor County
- Pine Crest Road, Taylor County
- Foley Cut-off Road, Taylor County
- 199 St. Road, Marion County
- 212 St. Road, Marion County
- CR 491, Citrus County
- SE 49th Avenue, Bradford County
- NW 53rd Avenue/NW 219th Street, Bradford County

## EXAMPLE TECHNICAL REPORTS AND PUBLICATIONS

- Kent, Donald M., M. A. Langston, D. W. Hanf, and P. M. Wallace. 1997. "Utility of a camera system for investigating gopher tortoise burrows." *Florida Scientist* 60(3):193-196.
- Tobe, John D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeney, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. *Florida Wetland Plants: An Identification Manual*. Gainesville, FL: University Presses of Florida. 598 pp.
- Wallace, P. M., R. A. Garren, and J. C. Carter. 2009. *Environmental Features Inventory: Plant Communities & Natural Resources Occurring within the Hatchet Creek Project Site*. Environmental Data Submitted in Support of a Design Plat Application. 299 pp.
- Wallace, P. M., R. A. Garren, and J. C. Carter. 2008. *Environmental Resource Assessment: Plant Communities & Natural Resources Occurring within the Gainesville Regional Utilities Deerhaven Annexation Properties February–April 2008*. Prepared for Gainesville Regional Utilities, City of Gainesville. 369 pp.
- Wallace, P. M., R. A. Garren, and J. C. Carter. 2007. *Special Area Study: Ecological Assessment of the Plant Communities & Natural Resources Occurring within the Paynes Prairie West Strategic Ecosystem*. Prepared for Department of Growth Management, Alachua County. 264 pp.
- Wallace, P. M., R. A. Garren, and J. C. Carter. 2008. *The Market at Schmidt Farms: Environmental Resource Assessment, Large-Scale Comprehensive Plan Amendment, City of Alachua, Alachua County, Florida*. Prepared for Mesa-Sand Realty, LLC, Indianapolis, IN. 156 pp.
- Wallace, P. M., R. A. Garren, and J. C. Carter. 2008. *Megahee Enterprises, LTD, LLLP: Environmental Resource Assessment, Large-Scale Comprehensive Plan Amendment, City of Alachua, Alachua County, Florida*. Prepared for Megahee Enterprises, LTD, LLLP. 112 pp.
- Wallace, P. M., D. M. Kent, and D. R. Rich. 1996. "Responses of Wetland Tree Species to Hydrology and Soils." *Restoration Ecology* 4(1):33—41.
- Schwartz, Larry N., P. M. Wallace, P. M. Gale, W. F. Smith, J. T. Wittig, and S. L. McCarty. 1994. "Orange County Florida Eastern Service Area Reclaimed Water Wetlands Reuse System." *Water Science Technology* 29(4):273-281.



- Schwartz, L. N., P. M. Wallace, P. M. Gale, W. F. Smith, J. T. Wittig, and S. L. McCarty. 1992. "Orange County Florida Eastern Service Area Reclaimed Water Wetlands Reuse System." Pages 40.1–40.10 in *Wetland Systems in Water Pollution Control. Proceedings of the Wetlands Downunder International Specialist Conference, 30 November–3 December, University of New South Wales, Sydney, Australia.*
- Schwartz, L. N., P. M. Wallace, P. M. Gale, W. F. Smith, J. T. Wittig, and S. L. McCarty. 1992. "Orange County Florida Eastern Service Area Reclaimed Water Wetlands Reuse System." In *Natural Systems for Wastewater Treatment. Proceedings of a Technology Transfer Seminar presented by the Georgia Department of Natural Resources, Environmental Protection Division, 22–23 October.*
- Wallace, P. M. 1988. *The role of mycorrhizae in reclamation of phosphate mined lands by ecological successional processes. Master's thesis. University of Florida, Gainesville.*
- Wallace, P. M., G. R. Best, and J. A. Feiertag. 1985. "Mycorrhizae enhanced growth of sweetgum (*Liquidambar styraciflua*) in phosphate mined overburden soils." In *Better Reclamation with Trees. Proceedings of a conference June 5-7, 1985, University of Southern Illinois, Carbondale.*
- Erwin, K. L., G. R. Best, W. J. Dunn, and P. M. Wallace. 1985. "Effects of hydroperiod on survival and growth of tree seedlings in phosphate surface-mined reclaimed wetland." *Journal of the Society of Wetland Scientists.*
- Wallace, P. M., G. R. Best, J. A. Feiertag, and K. M. Kervin. 1984. "Mycorrhizae enhanced growth of sweetgum (*Liquidambar styraciflua*) in phosphate mined overburden soils." In *Symposium on Surface Mining, Hydrology, Sedimentology, and Reclamation. University of Kentucky, Lexington.*
- Wallace, P. M., and G. R. Best. 1984. "Applications of mycorrhizal fungi in reclamation of phosphate mined lands." Pages 69-78 in J. J. Ferguson, ed., *Applications of mycorrhizal fungi in crop production. Proceedings of a workshop at the University of Florida, Gainesville, Feb. 22-23, 1984.*
- Best, G. R., W. J. Dunn, and P. M. Wallace. 1983. "Enhancing ecological succession: 1. Effects of various soil amendments on establishment and growth of forest trees from seeds." In *Symposium on Reclamation and the Phosphate Industry. Florida Institute of Phosphate Research, Bartow, Florida.*
- Wallace, P. M., and G. R. Best. 1983. "Enhancing ecological succession: 3. Succession of endomycorrhizal fungi on phosphate strip mined lands." In *Symposium on Reclamation and the Phosphate Industry. Florida Institute of Phosphate Research, Bartow, Florida.*
- Best, G. R., W. J. Dunn, P. M. Wallace, and J. A. Feiertag. 1983. "Enhancing ecological succession: 4. Growth, density, and species richness of forest communities established from seed on amended overburden soils." In *Symposium on Surface Mining, Hydrology, Sedimentology, and Reclamation. University of Kentucky, Lexington.*
- Wallace, P. M., and G. R. Best. 1983. "Enhancing ecological succession: 6. Succession of endomycorrhizal fungi on phosphate strip mined lands." In *Symposium on Surface Mining, Hydrology, Sedimentology, and Reclamation. University of Kentucky, Lexington.*
- Neal, J. L., A. E. Linkins, and P. M. Wallace. 1980. "Influence of temperature on nonenzymatic hydrolysis of p-Nitrophenyl phosphate in soil." *Commun. in Soil Science and Plant Analysis* 12(3):279-287.

## GERRY DEDENBACH, AICP, LEED AP

Vice President

(352) 331-1976 · gerryd@chw-inc.com

### ROLE

Working with communities across the State of Florida with varying economies, conditions, and socio-economic clines, focused on creating and designing socially, economically, and environmentally sound communities through collaboration. Assisting communities through focused work on economic development, educational, and master planning that links Land Use and Transportation decisions in a sustainable framework at all levels and for all user groups. Utilizing Geographic Information Systems (GIS) and sustainability principals, Gerry has facilitated numerous community design charrettes, public engagement processes, and built strong consensus on local, regional, and statewide planning initiatives.

### SPECIALIZATIONS

- Project Development and Management
- Community Design and Charrette Facilitation
- Comprehensive Site / Campus Master Planning
- Development of Regional Impact (DRI) Facilitation
- Development Order / Agreement Preparation & Negotiation
- Multimodal Transportation Corridor Design
- Special Use / Special Exception Permitting
- Rezoning and Planned Development Zoning Preparation
- Expert Witness/Testimony – Quasi-Judicial Proceedings
- Comprehensive Plan & Land Development Code Author

### EXPERIENCE

Supervise and facilitates strategic planning and development initiatives focused on long-term community and development implementation on local and region context level

Principal owner of CHW, serving the Southeastern U.S. and Florida since 1988

Former CHW Planning Department Director serving public and private clients in Florida

Manager of both technical and non-technical planning initiatives for both public- and private-sector clients

Facilitation of approximately 75-100 projects annually; including Due Diligence Planning, Conceptual Master Planning, Annexation, Comprehensive Plan Amendments, Rezonings, Variances, and similar related regulatory permitting efforts

### EDUCATION

B.S., Bachelor of Science in Landscape Architecture, University of Florida, 1989

### PROFESSIONAL LICENSE / CERTIFICATIONS

American Institute of Certified Planners – 017024, 2001

Green Building Certification Institute, LEED Accredited Professional Certification – 2009

### ACTIVITIES

Urban Land institute (ULI) North Central Florida, Gainesville Chapter Chair

Gainesville/Alachua County Airport Regional Airport Authority, Strategy and Facilities Planning Chair

Builders Association of North Central Florida, 1997-present, Immediate Past Associate Vice President

Gainesville Area Chamber of Commerce, 2003-present, Member & Leadership Gainesville Graduate, Class 38 President

City of Gainesville Land Development Code Updated Task Force, Co-Chair, 2014-2016

City of Gainesville Mayor's Blue Ribbon Advisory Committee on Economic Competitiveness, 2015-2016

Innovation Gainesville (iG), 2010-2015, Land Development Subcommittee Co-Chair

City of Gainesville Community Development Review Committee, Chair, 2011-2012

## KEVIN HEWETT, PSM

Vice President / Principal Surveyor  
(386) 518-5131 kevinh@chw-inc.com

### ROLE

Mr. Hewett is a Principal owner and Vice President of CHW since 2007, with over 35 years of experience in the Land Surveying Industry throughout Florida. He ensures the successful delivery of 400 survey projects annually and all survey department personnel.

Mr. Hewett has experience with all phases of production for boundary, topographic, geodetic, route, easement, and control surveys for a variety of projects including design surveys, boundary surveys, detailed topographic maps, and right-of way maps for road and utility corridors, pipeline projects, electrical transmission, and distribution lines and contract administration. Kevin is proficient with a number of specialty AutoCAD add-on engineering and surveying software packages, as well as current field work data and points collection methods using total stations, robotics electronic data collection devices, and survey quality Global Positioning Systems (GPS).

### SPECIALIZATIONS

- Project Management
- Subdivision Design and Layout
- Large and Small Acreage Boundary Surveys
- Topographic, As-built, and Route Surveys
- Geodetic Surveys
- Record and Title Research
- Survey Data Analysis

### EXPERIENCE

City of Alachua San Felasco Parkway  
*Alachua, FL / 7,300 lf roadway / \$6.75M*

*City of Alachua Legacy Park Master Plan, Phases I + II*  
*Alachua, FL / 105 acres / \$7.5M*

UF Data Science and Information Technology  
*Gainesville, FL / 260,000 sf / \$96M*

UF Baseball Stadium  
*Gainesville, FL / 127,900 sf / \$45.8M*

### PROFESSIONAL LICENSE / CERTIFICATIONS

Professional Land Surveyor – [Florida](#) 6093, 2000