



May 4, 2021

Attention: Lindsay Martin
Georgia Department of Economic Development
75 5th Street NW, Suite 1200
Atlanta, Georgia 30308

Reference: **Reliance Letter**
 Protected Species Assessment
 White Oak Business Park Phase II
 Appling, Columbia County, Georgia
 S&ME Project No. 3319-19-044

Dear Mr. Martin:

S&ME, Inc. is a consulting engineering firm and offers several primary services lines. Our firm was contracted to perform various due diligence efforts on the approximate 322-acre tract located at 1450 Appling Harlem Road in Appling, Columbia County, Georgia. To assist the Development Authority with their GRAD site certification application for Phase II of White Oak Business Park, this letter intends to address the reliability of the due diligence reports.

Our Protected Species Assessment Request for Phase II at White Oak Business Park was completed October 1, 2019. Typically, assessments are valid up to five years or until a new species is listed in the vicinity of the site. Based on a May 4, 2021 U.S. Fish and Wildlife Services database review, no new species are listed for Columbia County in the vicinity of the site.

The investigation remains valid, accurate, and may be relied upon for future site development.

If you have questions, please do not hesitate to contact me at 803-561-9024 or via e-mail at cdaves@smeinc.com.

Sincerely,
S&ME, Inc.

A handwritten signature in cursive script that reads "Chris Daves".

Chris Daves, P.W.S.
Senior Scientist

LETTER OF TRANSMITTAL



S&ME, Inc., (S&ME)
134 Suber Road
Columbia, South Carolina 29210
803 / 561-9024
Fax 803 / 561-9177

DATE:	10-2-2019
Project#:	3319-19-044
RE:	Protected Species Assessment - White Oak Business Park Phase II – Appling, Columbia Co., GA
Request for Consultation	

TO:

Mr. Don Imm, Field Supervisor
U.S. Fish and Wildlife Service
Georgia Ecological Services
Coastal Georgia Sub Office
4890 Wildlife Drive NE
Townsend, GA 31331

E-MAIL
Donald_imm@fws.gov

WE ARE SENDING YOU:

COPIES	DATE	NO.	DESCRIPTION
1	10/1/2019		Protected Species Assessment – White Oak Business Park Phase II

THESE ARE TRANSMITTED as checked below:

For your approval For your use As requested For review and comment

REMARKS:

S&ME is submitting a Protected Species Assessment for review and comment regarding the above-reference project located in Columbia County, Georgia. S&ME is requesting your assistance providing consultation as per Section 7/9 of the Endangered Species Act. Location maps and site photographs are included with this letter.

Thank you for your continued technical assistance. Please contact us at (803) 561-9024 if you have questions concerning this project.

**Thank you,
Chris Daves**

COPY TO: FILE
 CLIENT

SIGNED: _____ *Chris Daves*

IF ENCLOSURES ARE NOT AS NOTED, PLEASE NOTIFY US AT ONCE.

This Letter of Transmittal and the documents accompanying this Letter of Transmittal contain information from S&ME, Inc., which is confidential and legally privileged. The information is intended only for the use of the individual or entity named on this Letter of Transmittal. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance on these documents is strictly prohibited.



Protected Species Assessment
White Oak Business Park Phase II
Appling, Columbia Co., Georgia
S&ME Project No. 3319-19-044

PREPARED FOR:

Development Authority of Columbia County
1000 Business Boulevard
Evans, GA 30809

PREPARED BY:

S&ME, Inc.
134 Suber Road
Columbia, SC 29210

October 1, 2019



October 1, 2019

Development Authority of Columbia County
1000 Business Boulevard
Evans, Georgia 30809

Attention: Mr. Robert Bennett, MPA, CecD – Executive Director
rbennett@developcolumbiacounty.com

Reference: **Protected Species Assessment**
White Oak Business Park Phase II
Appling, Columbia County, Georgia
S&ME Project No. 3319-19-044

Dear Mr. Bennett:

S&ME, Inc. (S&ME) is pleased to submit our Protected Species Assessment for the above-referenced project located in Columbia County, Georgia. This work was performed in general accordance with S&ME Proposal Number 33-1800282 Revision 1, dated July 9, 2019 and our Agreement for Services Form AS-071.

S&ME appreciates the opportunity to be of service to you by performing this Protected Species Assessment for this project. Please contact us at (803) 561-9024 with questions regarding this report or if you require additional information.

Sincerely,

S&ME, Inc.

A handwritten signature in cursive script that reads "Chris Handley".

Chris Handley
Biologist
chandley@smeinc.com

A handwritten signature in cursive script that reads "Chris Daves".

Chris Daves, P.W.S.
Senior Scientist
cdaves@smeinc.com



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1.0 Project Background

This Protected Species Assessment has been conducted to assess the potential for the presence of protected species on the site in preparation for proposed development. The site is being considered for a potential commercial business or industrial park. S&ME is requesting the technical assistance (in the form of a written Response Letter) of the U.S. Fish and Wildlife Service (USFWS) as to whether site development would likely result in “take” as defined under Section 9 of the Endangered Species Act (ESA). The approximate 322-acre site consists of one Columbia County tax parcel (028-027). The site is located at 1450 Appling Harlem Road in Appling, Columbia County, Georgia as shown on **Exhibits 1-3** in **Appendix I**.

2.0 Site and Habitat Descriptions

The site is located in southwestern Columbia County within the Piedmont/Southern Outer Piedmont ecoregion of Georgia. The site consists of predominantly of forestland.

The site can be classified into four habitat types: planted pines, pine-mixed hardwoods, mixed hardwoods (floodplain and riparian), and aquatic features (streams and wetlands). The properties adjacent to the site consist of forestland, cutover forestland, rural residential parcels, and the Club Car distribution facility. Please refer to **Exhibit 3** and the site photographs in **Appendix I** for depictions of the predominant habitat types located on the site.

2.1 Pine Stands

The site was actively being logged during the field review. The logging thinned out the pine stands substantially only leaving around 10 trees to the acre. The standing pine trees remaining were observed on the southern, western, and northern portions of the site (Photographs 1-3). The pines left standing were approximately 20 to 25 years in age, 12 inches in diameter-at-breast-height (DBH), and approximately 60 feet tall. The stands consisted of loblolly pines (*Pinus taeda*). The areas which were actively being logged were left sparse of understory growth. Some areas on the southern and south-central portions of the site were logged within the past year. These areas contained a dense understory growth including sweetgum (*Liquidambar styraciflua*), water oak (*Quercus nigra*), persimmon (*Diospyros virginiana*), blackberry (*Rubus* spp.), muscadine (*Vitis rotundifolia*), and lespedeza (*Lespedeza virginica*).

2.2 Pine-Mixed Hardwoods

Pine-mixed hardwoods were the predominant habitat type observed on the site (Photographs 4-6). Several areas of pine-mixed hardwoods were also being logged. Dominant overstory species observed included loblolly pine, sweetgum, mockernut hickory (*Carya tomentosa*), and water oak. The understory was comprised of the canopy dominants and ironwood (*Carpinus caroliniana*), American holly (*Ilex opaca*), black cherry (*Prunus serotina*), American beautyberry (*Callicarpa americana*), and eastern hophornbeam (*Ostrya virginiana*). Groundcover and woody vine species included muscadine, Japanese honeysuckle (*Lonicera japonica*), ragweed (*Ambrosia artemisiifolia*), rosette grass (*Dichanthelium acuminatum*), and slender woodoats (*Chasmanthium laxum*).



2.3 Mixed Hardwoods (Riparian and Floodplain)

Mixed hardwood forestland was observed adjacent to the on-site tributaries and along the floodplain areas of Kiowkee Creek and Hawes creek located on the southern and western portions of the site (Photographs 7-9). Overstory species consisted of black walnut (*Juglans nigra*), tulip poplar (*Liriodendron tulipifera*), red maple (*Acer rubrum*), sweetgum, ironwood, mockernut hickory, and eastern hophornbeam. Understory species consisted of the canopy dominants and American holly, silverthorn (*Elaeagnus pungens*), paw-paw (*Asimina triloba*), and flowering dogwood (*Cornus florida*). Ground cover and woody vine species included muscadine, Japanese honeysuckle, common greenbrier (*Smilax rotundifolia*), giant cane (*Arundinaria gigantea*), Virginia creeper (*Parthenocissus quinquefolia*), Christmas fern (*Polystichum acrostichoides*), and Japanese stiltgrass (*Microstegium vimineum*).

2.4 Aquatic Features

2.4.1 Tributaries

Sixteen streams were observed on the site (Photographs 10-13). Three of the streams were perennial, including Hawes Creek and Kiokee Creek. Seven of the streams were seasonal/intermittent in nature and the remaining were ephemeral channels. The streams varied in width from approximately 3 to 10 feet. The streams were lined with mixed hardwood forestland and consisted of the species listed in Section 2.3.

2.4.2 Wetlands

Twelve wetlands were observed across the site (Photographs 14-16). The wetlands included forested riparian, forested floodplain, and emergent wetlands. Dominant canopy species included red maple, sweetgum, water oak, American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*), American sycamore (*Platanus occidentalis*), tulip poplar, and ironwood. Understory species consisted of those of the canopy dominants. Ground cover and woody vine species included netted chain fern (*Woodwardia areolata*), giant cane, common greenbrier, Christmas fern, and peppervine (*Ampelopsis arborea*).

3.0 Methodology

S&ME personnel reviewed the Georgia Department of Natural Resources (GADNR) Wildlife Resources Division and the USFWS websites to determine those species that are currently listed as federally protected (threatened or endangered) in Columbia County. The results of this search, including identified protected species and preferred habitat, served as the basis of the field review and are presented in **Table 1**.

GADNR maintains a database of elements of occurrence for protected species in the state of Georgia. A search of this database did not reveal the known presence of federally protected (occurrences) on or immediately adjacent to the site. Supporting information was researched for the purpose of identifying soil types, vegetative communities, and possible drainage features on the site. The supporting information reviewed included aerial photography, topographic quadrangle maps, soil survey sheets, land use information, and data from the National Wetlands Inventory.



S&ME Biologists, Chris Daves and Chris Handley, performed the field review on August 13 and 28, 2019. The information obtained from supporting documentation was integrated with the field review to identify potential areas of preferred habitat of protected species. Portions of the site that matched descriptions of preferred habitat for protected species listed in **Table 1** were considered to be potential habitat for the respective protected species. These areas were subsequently field reviewed to confirm the presence/absence of the respective species

4.0 Federally Protected Species

Descriptions of the species and their respective federal status are identified in **Table 4-1** and in **Appendix II**. The GADNR and USFWS websites identified the following federally listed species for Columbia County:

Table 4-1 Federally Protected Flora and Fauna Summary

Species	Listing	Habitat
Pool Sprite <i>Amphianthus pusillus</i>	T	Vernal pools on granite outcrops.
Mat-Forming Quillwort <i>Isoetes tegetiformans</i>	E	Vernal pools on granite outcrops.
Relict Trillium <i>Trillium reliquum</i>	E	Calcium-rich soils in hardwood forests of ravines and adjacent bottomlands near the fall line in the Savannah River area.

E = Endangered T = Threatened

4.1 Pool Sprite

BIOLOGICAL DETERMINATION: NO EFFECT

Pool sprite is a very small, delicate, aquatic annual plant that measures approximately two to four inches in height. It is greenish to purple in color. The plant has only one set of leaves that grow 0.4 inch long growing from the stem base. The leaves are very narrow and thin and are completely submerged under water. Thin branches grow from the submerged plant stem and will possess a pair of broad leaves. These leaves are rounded and are approximately 0.16 to 0.32 inch in width, green, and have purple edges. They will float around a single white flower. Flowering occurs between March and April and fruiting occurs in April through May. The fruits are small capsules which measure 0.08 to 0.12 inch in width and 0.04 inch in length and will contain numerous banana-shaped dark brown seeds. Habitat consists of vernal pools on granite outcrops in full sunlight formed by natural erosion. Shading, drainage, and siltation have significant impacts on the plant.

No vernal pools on granite outcrops were observed on the site. Accordingly, future development of the site is not expected to impact this species.



4.2 Mat-Forming Quillwort

BIOLOGICAL DETERMINATION: NO EFFECT

Mat-forming quillwort is a perennial herb that forms dense mats in granite outcrop pools. It has a brown stem, which runs horizontal with or just below the surface, often pushing up small amounts of soils. Roots are often coiled near the leaf bases and slender, straight roots grow near the end of the stem. Leaves are typically less than 1.5 inches tall, and rarely growing more than 2.75 inches vertically. The leaves are very narrow and pointed, and are generally found in clusters of four to eight leaves along the top of the horizontal stem. Leaves are hollow with cross partitions. Spores are produced in a chamber known as a sporangium in the flared leaf base. The brown female spores and dust-sized male spores which occur on separate leaves are present but require high powered magnification to see. Habitat consists of vernal pools in granite outcrops formed by natural erosion.

The site does not contain suitable habitat for the mat-forming quillwort. No vernal pools within granite outcrops were observed on the site. Accordingly, future development of the site is not expected to impact this species.

4.3 Relict Trillium

BIOLOGICAL DETERMINATION: NO EFFECT

Relict trillium is a low, perennial herb growing to a height of two to eight inches. The stems are long and curved. Leaves are stalkless, elliptical, and heavily blue-green mottled with a silvery streak down their middle. The flowers of the relict trillium are brown and have a foul odor. The flowering period is from March through April. The primary habitat of relict trillium is calcium-rich soils in hardwood forests of ravines and adjacent bottomlands near the fall line in the Savannah River area.

The site does not contain suitable habitat for relict trillium. No ravines were located on the site. Per the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) soil survey, the on-site soils were listed as Cecil, Chewacla, Madison, Toccoa, Wedowee, and Wickham and are not considered calcium-rich. No members of the genus *Trillium* were observed on the site. Accordingly, future development of the site is not expected to impact this species.

5.0 Qualifications

The field survey was led by Chris Daves of S&ME. Mr. Daves is a biologist and natural resources project manager with over 18 years of experience in environmental consulting. Mr. Daves is proficient in conducting wetland delineations, environmental permitting activities, and habitat assessments, including protected species surveys. He is a Professional Wetland Scientist (PWS) and holds a B.S. degree in Biology from Wofford College and a Master's degree in Earth & Environmental Resources Management from the University of South Carolina. Mr. Handley holds a B.S. degree in Forest Resource Management and a Master's degree in Forest Resources (GIS Emphasis) from Clemson University. Mr. Handley has over six years of experience in environmental consulting and GIS mapping and is proficient in conducting wetland delineations and habitat assessments, including protected species surveys.



6.0 Summary and Conclusions

Based on the literature review, habitat assessment, and pedestrian field review of the site, the following conclusions are given regarding federally listed species in Columbia County:

- ◆ The site does not provide suitable habitat for federally listed species in Columbia County. Our opinion is that proposed development of the site will have *no effect* on these species.

This report will be forwarded to the USFWS for review and comment. S&ME will provide you with the USFWS comments when they become available.

7.0 References

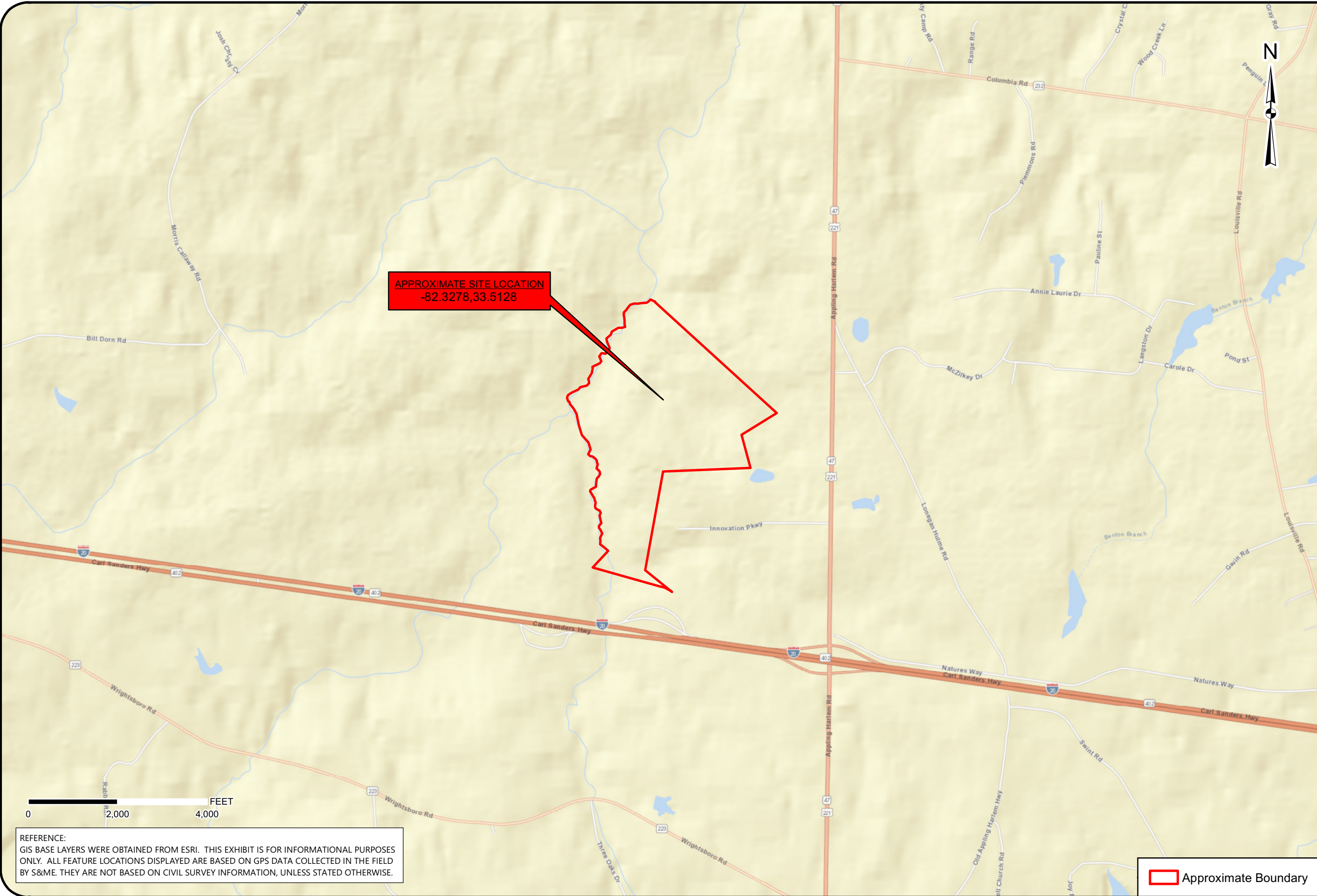
The following sources were referenced during this assessment:

- ◆ Georgia Department of Natural Resources Wildlife Resources Division. 2019. Georgia Rare Natural Elements Data Portal - <http://gakrakow.github.io/>.
- ◆ USFWS. 2019. Information for Planning and Conservation. <https://ecos.fws.gov/ipac/>.
- ◆ U.S. Fish and Wildlife Service. 2019. Georgia Ecological Services Field Offices. <https://www.fws.gov/athens/endangered.html>.
- ◆ U.S. Department of Agriculture – National Resources Conservation Service Web Soil Survey. 2019. <http://websoilsurvey.nrcs.usda.gov/app/>.
- ◆ U.S. Department of Agriculture-National Resources Conservation Service Soil Survey. 1981. Columbia, McDuffie, and Warren Counties, Georgia. https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/georgia/columbia_mcduffie_warrenGA1981/CMW.pdf.

Appendices

Appendix I – Exhibits and Site Photographs

Drawing Path: T:\Projects\2019\ENV\Other Office Jobs\3319-19-044 White Oak Biz Park Phase II\GIS\mxd\Vicinity Exhibit - White Oak Business Park.mxd plotted by chandley.09-26-2019



APPROXIMATE SITE LOCATION
-82.3278, 33.5128



Vicinity Exhibit

White Oak Business Park Phase II +/- 322 Acres
Appling, Columbia County, Georgia
World Street Map

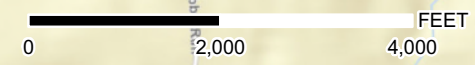
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1" = 2,000'

DATE:
9-26-19


PROJECT NUMBER
3319-19-044

EXHIBIT NO.

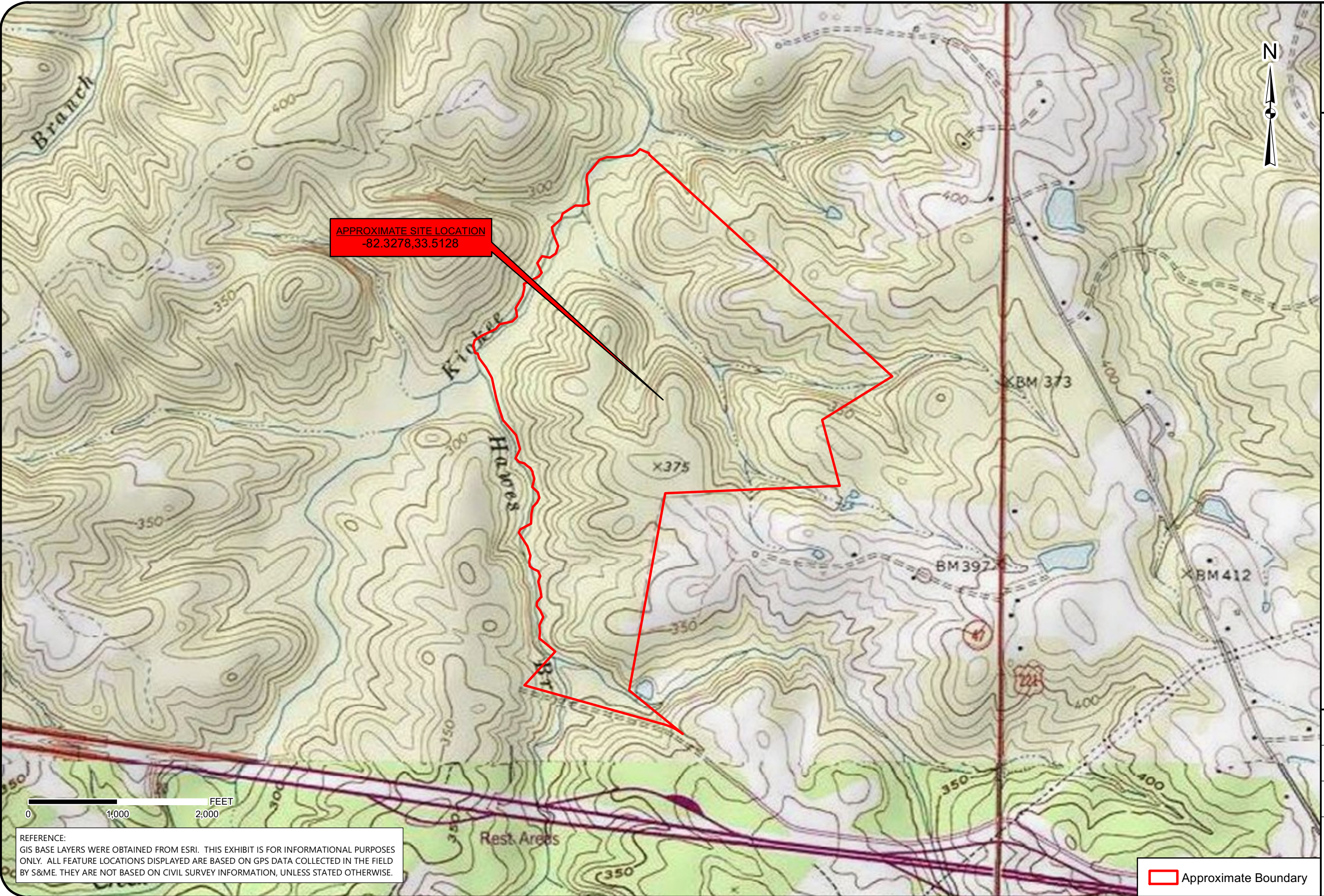
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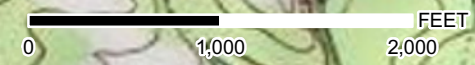
REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE BASED ON GPS DATA COLLECTED IN THE FIELD BY S&M.E. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

 Approximate Boundary

Drawing Path: T:\Projects\2019\ENV\Other Office Jobs\3319-19-044 White Oak Biz Park Phase II\GIS\mxd\Topographic Exhibit- White Oak Business Park.mxd plotted by chandley 09-26-2019



APPROXIMATE SITE LOCATION
-82.3278,33.5128



REFERENCE:
GIS BASE LAYERS WERE OBTAINED FROM ESRI. THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. ALL FEATURE LOCATIONS DISPLAYED ARE BASED ON GPS DATA COLLECTED IN THE FIELD BY S&M.E. THEY ARE NOT BASED ON CIVIL SURVEY INFORMATION, UNLESS STATED OTHERWISE.

Approximate Boundary

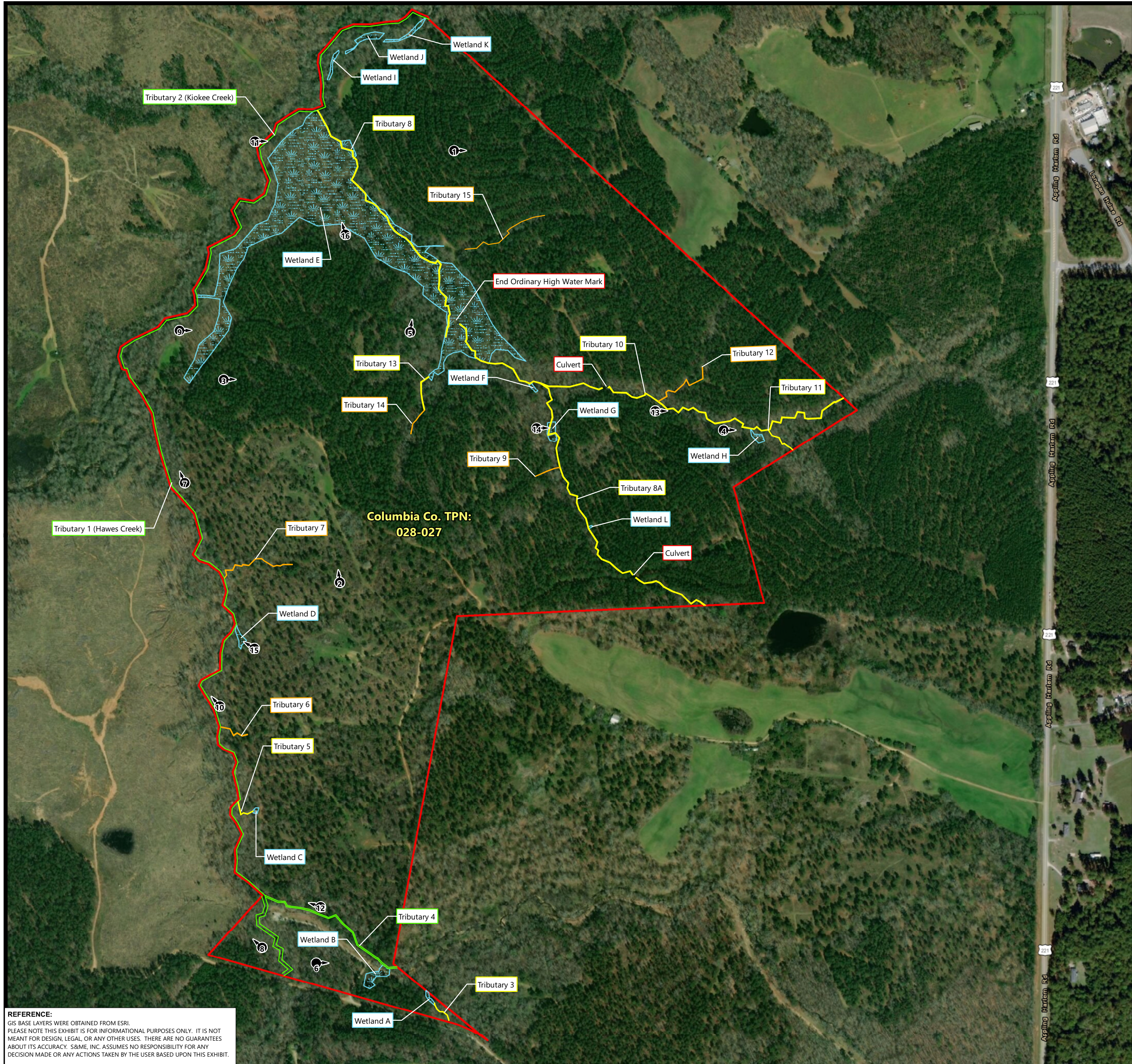


Topographic Exhibit

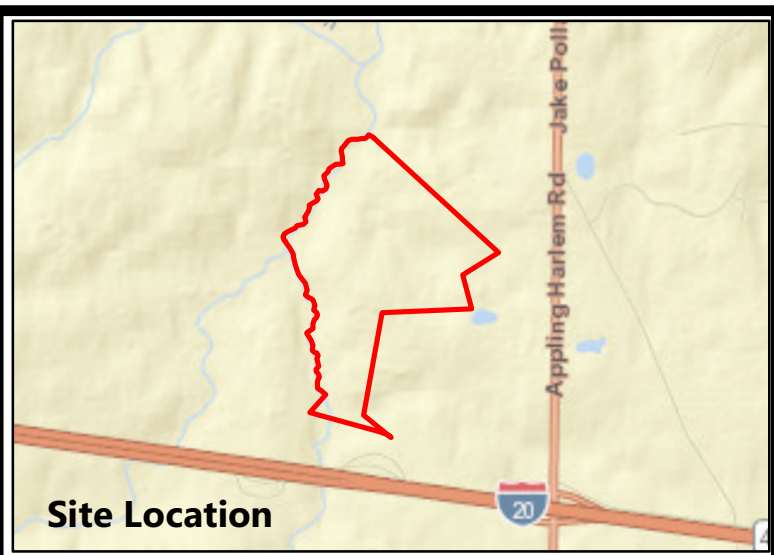
White Oak Business Park Phase II +/- 322 Acres
Appling, Columbia County, Georgia
USA Topo Maps, USGS 7.5-Minute Topo Quad Appling, GA 1971

SCALE:
1" = 1,000'
DATE:
9-26-19
PROJECT NUMBER
3319-19-044
EXHIBIT NO.

Drawing Path: T:\Projects\2019\ENV\Other Office Jobs\3319_Augusta\3319-19-044 White Oak Biz Park Phase II GIS\mxd\17 x 22 78E Aerial Exhibit.mxd plotted by chandley 10-01-2019



REFERENCE:
 GIS BASE LAYERS WERE OBTAINED FROM ESRI.
 PLEASE NOTE THIS EXHIBIT IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES. THERE ARE NO GUARANTEES ABOUT ITS ACCURACY. S&ME, INC. ASSUMES NO RESPONSIBILITY FOR ANY DECISION MADE OR ANY ACTIONS TAKEN BY THE USER BASED UPON THIS EXHIBIT.



Legend

- Photograph Location & Direction
- Tributaries**
 - Ephemeral
 - Perennial
 - Seasonal
- Wetlands
- Approximate Boundary

SOURCE: World Imagery 2017 0 225 450 900 Feet

**AERIAL EXHIBIT
 WHITE OAK BUSINESS PARK PHASE II
 APPLING, COLUMBIA COUNTY, GEORGIA**

DRAWN BY: CCH	CHECKED BY: WCD
PROJECT NO:	3319-19-044
SCALE: 1 in = 450 ft	Date: 9/27/2019
	EXHIBIT NO. 3



1 Recently thinned planted pine stand located on the northern portion of the site.



2 Open pine stand with dense understory located on the south-central portion of the site.



3 Recently thinned planted pine stand located on the western portion of the site.



4 Pine-mixed hardwood forestland located on the northeastern portion of the site.



Site Photographs
White Oak Business Park Phase II
Appling, Columbia County, Georgia

S&ME Project 3319-19-044

Taken by: CH/CD

Date: August 13 & 28, 2019



5 Recently thinned pine-mixed hardwood forestland located on the northern portion of the site.



6 Pine-mixed hardwood forestland located on the southern portion of the site.



7 Mixed hardwoods located along Hawes Creek on the western portion of the site.



8 Mixed hardwoods along Hawes Creek on the southwestern portion of the site.





9 Thinned mixed hardwoods along Kiokee Creek located on the northwestern portion of the site.



10 Tributary 1 (Hawes Creek) located on the western portion of the site.



11 Tributary 2 (Kiokee Creek) located on the northwestern portion of the site.



12 Tributary 4 located on the southern portion of the site.





13 Tributary 10 (Seasonal) located on the northeastern portion of the site.



14 Wetland G located on the central portion of the site.



15 Wetland D located on the western portion of the site.



16 Wetland E located on the northwestern portion of the site.



Appendix II – County Species Lists from USFWS and GADNR



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601
Phone: (706) 613-9493 Fax: (706) 613-6059

In Reply Refer To:
Consultation Code: 04EG1000-2019-SLI-2586
Event Code: 04EG1000-2019-E-04947
Project Name: White Oak Business Park Phase II

September 24, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

This list identifies threatened, endangered, proposed and candidate species, as well as critical habitat, that may be affected by your proposed project. This list may change before your project is completed. Under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation.

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*). Projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html).

Wind energy projects should follow the wind energy guidelines <http://www.fws.gov/windenergy/> for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts of communication towers on migratory birds can be found under the "Bird Hazards" tab at: www.fws.gov/migratorybirds.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Georgia Ecological Services Field Office

355 East Hancock Avenue

Room 320

Athens, GA 30601

(706) 613-9493

Project Summary

Consultation Code: 04EG1000-2019-SLI-2586

Event Code: 04EG1000-2019-E-04947

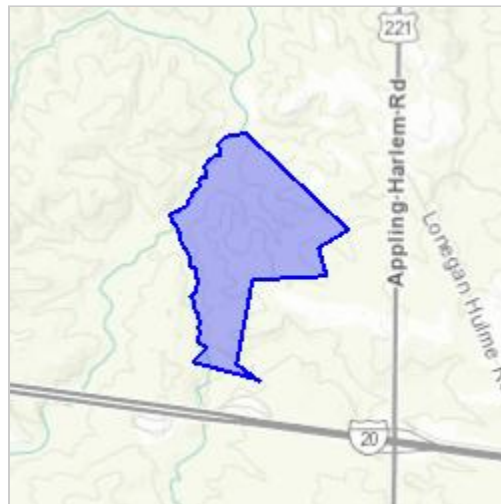
Project Name: White Oak Business Park Phase II

Project Type: DEVELOPMENT

Project Description: Due Diligence.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/33.509954832458604N82.3272606899921W>



Counties: Columbia, GA

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Flowering Plants

NAME	STATUS
Relict Trillium <i>Trillium reliquum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8489	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601
Phone: (706) 613-9493 Fax: (706) 613-6059

In Reply Refer To:
Consultation Code: 04EG1000-2019-SLI-2587
Event Code: 04EG1000-2019-E-04949
Project Name: White Oak Business Park Phase II

September 24, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

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This species list is provided by:

Georgia Ecological Services Field Office

355 East Hancock Avenue

Room 320

Athens, GA 30601

(706) 613-9493

Project Summary

Consultation Code: 04EG1000-2019-SLI-2587

Event Code: 04EG1000-2019-E-04949

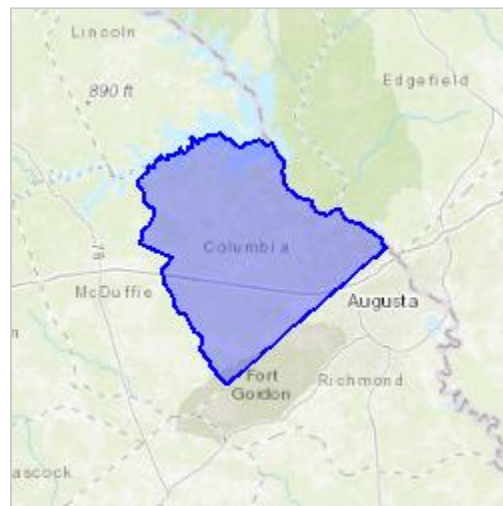
Project Name: White Oak Business Park Phase II

Project Type: DEVELOPMENT

Project Description: Due Diligence

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/33.527820881616776N82.22118593160566W>



Counties: Columbia, GA

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Flowering Plants

NAME	STATUS
Little Amphianthus <i>Amphianthus pusillus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6445	Threatened
Relict Trillium <i>Trillium reliquum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8489	Endangered

Ferns and Allies




NAME	STATUS
Mat-forming Quillwort <i>Isoetes tegetiformans</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/887	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Georgia Department of Natural Resources Species Data for County and Quarter Quad

<https://georgiabiodiversity.org/natels/natural-element-locations.html>



Columbia County

All Tracked Natural Elements With Federal Protection Status

[Customize](#) [Clear Location Filter](#) [Clear Nonlocation Filters](#)

5 element records in list

ANIMALS

Fusconaia masoni (Atlantic Pigtoe), Rank: G2/S1, GA: E, US: PT, SWAP: Yes, EOs: 7, Habitat: Medium sized streams to large rivers from the Ogeechee River northward; coarse sand and gravel at downstream edge of riffles; fast flowing and well oxygenated water [PROFILE](#) [RANGE MAP](#) [EXPLORER](#)

Picoides borealis (Red-cockaded Woodpecker), Rank: G3/S2, GA: E, US: LE, SWAP: Yes, EOs: 324, Habitat: Open pine woods; pine savannas [PROFILE](#) [RANGE MAP](#) [EXPLORER](#)

PLANTS

Amphianthus pusillus (Pool Sprite, Snorkelwort), Rank: G2/S2, GA: T, US: LT, SWAP: Yes, EOs: 71, Habitat: Vernal pools on granite outcrops [PROFILE](#) [RANGE MAP](#) [EXPLORER](#)

Isoetes tegetiformans (Mat-forming Quillwort), Rank: G1/S1, GA: E, US: LE, SWAP: Yes, EOs: 15, Habitat: Vernal pools on granite outcrops [PROFILE](#) [RANGE MAP](#) [EXPLORER](#)

Trillium reliquum (Relict Trillium), Rank: G3/S3, GA: E, US: LE, SWAP: Yes, EOs: 59, Habitat: Mesic hardwood forests; limesink forests; usually with Fagus and Tilia [PROFILE](#) [RANGE MAP](#) [EXPLORER](#)

Exported from Biotics conservation database on June 7, 2019



Appling, GA, SW Quarter Quad

All Tracked Natural Elements With Federal Protection Status

[Customize](#) [Clear Location Filter](#) [Clear Nonlocation Filters](#)

0 element records in list



Winfield, GA, SE Quarter Quad

All Tracked Natural Elements With Federal Protection Status

[Customize](#) [Clear Location Filter](#) [Clear Nonlocation Filters](#)

0 element records in list

Appling, GA, SE Quarter Quad

All Tracked Natural Elements With Federal Protection Status

[Customize](#)  [Clear Location Filter](#)  [Clear Nonlocation Filters](#) 

2 element records in list

PLANTS

Amphianthus pusillus (Pool Sprite, Snorkelwort), Rank: G2/S2, GA: T, US: LT, SWAP: Yes, EOs: 71, Habitat:
Vernal pools on granite outcrops [PROFILE](#) [RANGE MAP](#) [EXPLORER](#)

Isoetes tegetiformans (Mat-forming Quillwort), Rank: G1/S1, GA: E, US: LE, SWAP: Yes, EOs: 15, Habitat: Vernal
pools on granite outcrops [PROFILE](#) [RANGE MAP](#) [EXPLORER](#)