

# Blue Sky Preserve Management Plan



*October 2013*

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The County of Chatham  
Georgia  
  
Resolution

**A RESOLUTION TO ADOPT THE BLUE SKY PRESERVE MANAGEMENT PLAN DEVELOPED BY THE CHATHAM COUNTY RESOURCE PROTECTION COMMISSION AND TO ADHERE TO THE RULES OF THE MANAGEMENT PLAN.**

**WHEREAS**, the Board of Commissioners of Chatham County has adopted the Chatham County Open Space Plan, Chatham County Green Space Plan, and Resource Protection Ordinance as guiding principles of public stewardship for acquisition, protection, and use of public lands; and

**WHEREAS**, as part of its conservation land program, Chatham County has acquired property known as the Blue Sky Preserve, PIN 2-1033 -01-001; and

**WHEREAS**, the Resource Protection Ordinance requires the Chatham County Resource Protection Commission to establish a Site Acquisition Policy which details the creation of management plans for acquired conservation lands; and

**WHEREAS**, the Chatham County Resource Protection Commission established a Site Acquisition Policy in March 2009 and thereby the Technical Advisory Committee of the Chatham County Resource Protection Commission developed the Blue Sky Management Plan; and

**WHEREAS**, the Chatham County Resource Protection Commission reviewed, approved, and recommended the Blue Sky Management Plan to Chatham County for adoption.

**NOW THEREFORE BE IT RESOLVED** by the Board of Commissioners of Chatham County, as follows:

**Section 1.** The Board of Commissioners hereby approves the Blue Sky Preserve Management Plan and adopts said management plan for future protection and use of the property.

\_\_\_\_\_  
**Albert J. Scott, Chairman**

Attest: \_\_\_\_\_  
**Janice E. Bocoock, Clerk**

# Blue Sky Preserve

Parcel Number: 2-1033 -01-001  
Address: Fort Argyle Road  
Savannah, GA 31401  
Acreage: 641.01  
Property Owner: Chatham County

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## Legal Description of Property

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All that certain lot, tract or parcel of land lying and being in the State of Georgia, County of Chatham, described upon a plat entitled "A 641.01 Acre Portion of Union Camp Corporation's Southern States N/S Co., No 5 Tract," Prepared for International Paper by Thomas and Hutton Engineering Co., dated December 14, 2006, recorded in Plat Record Book 40-P, Page 106, in the Office of the Clerk of the Superior Court of Chatham County, Georgia.

Subject, However, to all covenant, valid restrictions, taxes for the current year, easements and rights-of-way of record.

This being the same property conveyed by Limited Warranty Deed, dated December 18, 2008 from Blue Sky Timber Properties, LLC to Chatham County, A Political Subdivision of The State of Georgia, and recorded in the Office of the Clerk of the Superior Court of Chatham County, Georgia in Deed Record Book 347 F, Page 323.

### Timber Reservation

There is hereby expressly reserved to Grantor, its successors and assigns (a) all merchantable timber ("Timber") in excess of sixty (60) stems per acre now or hereafter standing, lying, located or growing on that portion of the Property identified on the Survey as "Upland 57.78 Acres" (the "Timber Parcel"), (b) a temporary easement ("Temporary Easement") across the existing timber roads located on the property for ingress and egress to Highway 204, and (c) the use of the surface of the Timber Parcel to the extent reasonably necessary for the purposes of removing, cutting, harvesting and transporting timber.

Grantor's reservation of Timber shall include the right to cut, remove and sell such Timber and to retain any and all proceeds from such cutting, removal and/or sale of the Timber. Grantor shall use commercially reasonable efforts to complete cutting within ninety (90) days of the effective date hereof, subject to extension(s) for such periods that cutting is delayed by weather and other causes beyond Grantor's reasonable control. The temporary Easement and aforementioned rights to use the surface of the Timber Parcel shall expire at such time as Grantor has completed cutting the Timber.

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## Property Description

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### *Property Location*

The Blue Sky Preserve (PIN 2-1033 -01-001) is located off of Fort Argyle Road (Appendix B, Figure 1). The property is bordered to the north by Fort Argyle Road, vacant properties, and properties utilized for residential purposes. The property is bordered by Interstate 95 to the south. To the east, the property is bordered by vacant lands and property utilized for surface mining. A portion of the property to the east has been placed under a restrictive covenant by the Army Corps of Engineers and has been utilized for wetland mitigation. To the west, the vast majority of the property is bordered by the Ogeechee River. The remainder of the western border is shared with vacant property owned by the Georgia Department of Transportation, which has been placed under a perpetual restrictive covenant and has been utilized as a wetland mitigation bank.

### *Property Attributes*

Parcel 2-1033 -01-001 is an approximately 641 acre property located in the Southern Coastal Plain Ecoregion within the Sea Islands/Coastal Marsh Subdivision. It is in the Lower Ogeechee Sub-basin of the larger Ogeechee River basin.

The property is located adjacent to the Ogeechee River and is comprised of Tidal Rivers and Freshwater Tidal Marsh, Blackwater Rivers and Swamp, Bottomland Hardwood Forest, and Forested Depressional Wetlands. The hardwood wetlands are drained by two intermittent streams in the northern portion of the property and in the southern portion by several man-made drainage ditches which flow into an intermittent stream and then into the Ogeechee River. These ditches appear to have been utilized historically for agriculture. The protection of these water resources contribute directly to the overall health of the Ogeechee basin.

The majority of the property is comprised of bottomland hardwood forest and wetlands that cover approximately 537 acres of the total area. There are no access roads into the bottomland areas. The area is largely inaccessible due to extremely wet and boggy conditions. The major tree species in this area are blackgum, cypress, and tupelo.

The remainder of the property is a mix of natural pine and natural pine/hardwood stands. There is a historical tram line in the southeastern portion of the pine/hardwood stand that leads into the bottomland hardwood stand. These built up tram lines were originally used to access wet areas for logging purposes.

The Georgia Comprehensive Wildlife Conservation Strategy (GCWCS) has identified a number of High Priority Species and Habitats for the Southern Coastal Plain Ecoregion where the property is located. Habitats designated as high priority that are found on the property include Bottomland Hardwood Forests and Nonalluvial (Blackwater) Rivers and Swamps. The property provides habitat for rare and endangered species such as the Flatwoods Salamander and provides essential ecosystem services, including water filtration which contributes to the quality of the Ogeechee River.

### *Past and Current Property Uses*

The Blue Sky Property was purchased by Chatham County for greenspace. As such, the current and future intent is to preserve the property in its natural state, while allowing the public to use the site for passive recreational activities, such as hiking, biking, and birdwatching. If deemed appropriate and will not negatively impact the environment, water access for non-motorized water based recreational uses such as kayaking and canoeing may be made available on site. A conservation easement shall be placed on the property in order to protect the property from any incompatible uses being permitted on site.

Prior to being owned by Chatham County, the Blue Sky Property was owned by the Blue Sky Timber Property, LLC. Blue Sky Timber Property, LLC sold the property to Chatham County in December of 2008. Blue Sky Timber Property, LLC purchased the property from Sustainable Forests, LLC in March of 2003. Sustainable Forests, LLC is a subsidiary of International Paper Company, who transferred title of the property to Sustainable Forests, LLC in June of 1999. International Paper Company became the owner of the property in April of 1999 after a merger with Union Camp Corporation.

The property has primarily been used for agriculture and light timber production, although historic borrow pits have been noted on a survey of the property as well. The property has also been utilized for hunting and aesthetic enjoyment.

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### Plan Objectives

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1. To preserve the natural state of the property.
2. To provide a safe place for the community to enjoy passive forms of recreation.
3. To preserve, document, and interpret the cultural history of the property.
4. To preserve the current functions of the wetlands located on the property, including the protection of water quality, protection against flooding, and the creation of habitat and habitat corridors for flora and fauna.

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### Uses of Site

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Any use considered inconsistent with the objectives of this plan by the Chatham County Resource Protection Commission, and not listed below, will be prohibited.

Ecological Uses:        The bottomland hardwood areas along the river and the mixed pine hardwoods in the upland portions of the property (see Appendix B, Figure 2) should be reserved as a Special Natural Area (SNA). In addition, human activities shall be prohibited within the Forested Depressional Wetlands.

Recreational Uses: Passive recreational activities will be allowed on any (future or existing) trails within the Blue Sky Preserve. Recreational uses are restricted to non-motorized activities (with the exception of the use of motorized wheelchairs), which may include hiking, running, jogging, biking, walking, birding, observing or photographing nature, picnicking, or engaging in free play. Non-motorized water based recreational uses such as kayaking and canoeing on the adjacent Ogeechee River may be made accessible via a launch site on the property, if deemed appropriate.

Archaeological Uses: Archaeological surveying of the property shall be allowed, but only at the request of Chatham County and to the degree that it does not significantly disrupt the natural state and ecological functions of the property.

Educational Uses: The property may be used for educational purposes, such as environmental field trips, so long as the activities remain outside of the preserved ecological areas. All educational groups wishing to use the property must register with the Resource Protection Professional at the Chatham County-Savannah Metropolitan Planning Commission (912-651-1440).

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## Enhancement Opportunities

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Several enhancement opportunities exist that would improve the protection of and access to the Blue Sky Preserve, educate its users, and create additional recreational possibilities. These opportunities are the creation of a designated parking area, the creation of informational/educational signs, the development of trails, and the application of a conservation easement on the property. Details of each opportunity are as follows:

1. Informational/Educational Sign(s): A sign may be located at the trailhead to express the following: rules of the site/uses allowed, the site's status as a greenspace area, safety concerns for the site (e.g. no ranger on duty, visitors enter at their own risk), trail locations, and educational information about the site. No sign shall be larger than 25 square feet in size.
2. Designated Parking Area: A pervious parking area may be located near the trailhead at the Blue Sky Preserve. A locked gate will be located at the entrance area in order to prevent vehicle access to the property.
3. Trails: Additional trails may be created to extend the current trail system and to provide more recreational opportunities. Trails will be constructed of pervious materials, preferably natural substrate, and shall not be more than six feet in width. The trails must be designed in such a way as to prevent damage to sensitive ecological areas.
4. Interpretive Trailside Signs: Signs may be created and placed along the trail to educate the public about the habitats present, the flora and fauna existing within these habitats, the ecosystem services each provides, as well as any cultural/historical information regarding the site.

5. Establishment of Conservation Easement: An easement shall be established to protect the property's bottomland hardwoods along the Ogeechee River and pine hardwood stands in the interior of the property with Special Natural Areas (SNA). Yearly monitoring by the easement holder shall be completed to ensure that the property is being protected as detailed in the easement.

6. Archaeological Study: An archaeological study of the Blue Sky Preserve Property may be conducted to interpret the cultural history of the site. Such a study shall be designed so as not to significantly disrupt the natural state and ecological functioning of the environment.

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## Resource Protection

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In order to ensure the continual protection of the Blue Sky Preserve's natural and cultural resources, the property shall be monitored for overuse, boundary control, illegal dumping, and invasive species. If, at any point, the use of the property or the spread of invasive species proves detrimental to the property's resources, control measures will be taken. For example, if large amounts of trash have been discarded on the property (illegal dumping), management may install fencing along the border of the Blue Sky Preserve in order to control access to the property. In this way, the management of the Blue Sky Preserve shall be adaptive so that it provides adequate responses to future situations. In addition, as Chatham County Public Works and Park Services directs the management of County properties, this agency shall provide oversight for the monitoring and management of the Blue Sky Preserve. As a general rule, the agency shall ensure that all management activities are carried out in such a way as to comply with the objectives of this management plan.

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## Other Projects

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It is envisioned that any trail system established on the Blue Sky Preserve will also be a part of a larger trail system: the Coastal Georgia Greenway. Still in its design phase, this greenway will encompass 450 miles of recreational trails suitable for hiking and biking. Once developed, these trails will connect South Carolina to Florida as part of the larger East Coast Greenway project. The Coastal Georgia Greenway portion of this larger project will run along the northern border of the Blue Sky Preserve. Due to the greenway's proximity to the Blue Sky Preserve, Chatham County has designed the Blue Sky Preserve trails to serve as an extension of the Greenway.



Appendix A:  
Property Deeds

FILED FOR RECORD

99 MAY 27 AM 9:31

STATE OF GEORGIA )  
COUNTY OF CHATHAM )

DEP  
SUSAN FROUSE CLK. SUP. CL.  
CHATHAM COUNTY, GEORGIA

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BOOK 203 0

PROPERTY: All Real Property of Union Camp Corporation  
in Chatham County, Georgia

PRESENT OWNER: Union Camp Corporation

FILE IN GRANTOR INDEX - UNION CAMP CORPORATION  
FILE IN GRANTEE INDEX - INTERNATIONAL PAPER COMPANY

AFFIDAVIT OF TITLE

Personally appeared before the undersigned officer, duly authorized to administer oaths, Robert A. Kriscunas, who, after being duly sworn, deposes and says:

1. That he is Assistant Secretary of International Paper Company, a New York corporation registered to do business in the State of Georgia.
2. That Union Camp Corporation, a Virginia corporation, merged with International Paper Company on April 30, 1999, and the successor corporation was International Paper Company, a New York corporation.
3. As a result of said merger, title to all Real Property of Union Camp Corporation vested in International Paper Company as of April 30, 1999, the date of said merger.

*Robert A. Kriscunas* (d.s.)  
Robert A. Kriscunas

Sworn to and subscribed before me  
this 4th day of May, 1999.

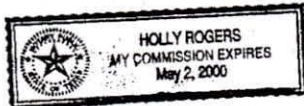
*James R. Kobleur*  
Witness

*Holly Rogers*  
Notary Public

My Commission Expires: 5/2/2000

This instrument prepared by:  
James R. Kobleur, Esq.  
International Paper Company  
P. O. Box 1391  
Savannah, GA 31402  
(912) 238-7704

Please return to the above address.



9644222 05/27/99 TOTAL 10.00

CORRECTION On  
DEED Book 300F Page 269  
On 1/9/2006

QUITCLAIM DEED On  
DEED Book 300F Page 278  
On 1/9/2006

CORRECTION On  
DEED Book 292B Page 65  
On 8/3/2005

FILED FOR RECORD  
99 JUN 25 AM 8:29

DEP  
SUSAN POLK, CLK. SUP. CT.  
CHATHAM COUNTY, GEORGIA

Chatham County Georgia  
Real Estate Transfer Tax  
Paid \$ 7460 Date 6-25-99  
S. Trudel  
Clerk of Sup. Court

(For Official Use by Clerk's Office Only)

This instrument prepared by and to be returned to:  
James R. Kobleur, Esq.  
International Paper Company  
P. O. Box 1391  
Savannah, GA 31402

STATE OF GEORGIA  
COUNTY OF CHATHAM

**FEE SIMPLE DEED WITHOUT WARRANTIES**

THIS INDENTURE made and entered into on this 16<sup>th</sup> day of June, 1999, by and between INTERNATIONAL PAPER COMPANY, a New York corporation duly authorized by law to transact business in the State of Georgia, hereinafter called GRANTOR, and SUSTAINABLE FORESTS L.L.C., a Delaware Limited Liability Company duly authorized by law to transact business in the State of Georgia, hereinafter called GRANTEE, whose mailing address is: P. O. Box 1391, Savannah, Georgia 31402.

WHEREAS, on April 30, 1999, INTERNATIONAL PAPER COMPANY merged with Union Camp Corporation, a Virginia Corporation, in accordance with Articles of Merger on file with the Offices of the Secretaries of State of New York and Virginia; and

742762A001 06/25/99TRANS PD 7460.00

38.00

742762A001 06/25/99TOTAL

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BUVA

PAUL

WHEREAS, pursuant to said Articles of Merger, a copy of which is attached hereto as Exhibit "A," INTERNATIONAL PAPER COMPANY is the "Surviving Corporation," as referenced in Georgia Code Annotated, § 14-2-1106; and

WHEREAS, title to all property, both real and personal, formerly vested in Union Camp Corporation is now, pursuant to Georgia Code Annotated, § 14-2-1106, vested in INTERNATIONAL PAPER COMPANY; and

WHEREAS, INTERNATIONAL PAPER COMPANY deems it in its best interests to transfer certain Real Estate, title to which was formerly vested in Union Camp Corporation, to a subsidiary of INTERNATIONAL PAPER COMPANY, to-wit: SUSTAINABLE FORESTS L.L.C.

NOW, THEREFORE:

W I T N E S S E T H :

That the GRANTOR, for and in consideration of the premises and the sum of TEN AND 00/100 (\$10.00) DOLLARS and other good and valuable consideration to it in hand paid, at and before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto the said GRANTEE, its successors and assigns, the following described Property, to-wit:

All those certain tracts or parcels of land situate, lying and being in Chatham County, Georgia, containing, in the aggregate, 7,460 acres, more or less, and constituting all of the land in Chatham County, Georgia, title to which was, as of the date of the merger between INTERNATIONAL PAPER COMPANY and Union Camp Corporation, April 30, 1999, vested in Union Camp Corporation.

The land conveyed hereby includes, without limitation, those tracts or parcels of land in Chatham County, Georgia, which are identified in the tax

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records of Chatham County, Georgia, as having the Property Identification Numbers set out in Exhibit "B" attached hereto.

LESS AND EXCEPT from the above described property, and reserving unto the GRANTOR:

1. All of the minerals located thereon as described in Exhibit "C" attached hereto.
2. The Property shown on Exhibit "D" attached hereto.

TO HAVE AND TO HOLD the said bargained premises, together with all and singular the rights, members, easements, hereditaments and appurtenances thereof, to the same being, belonging, or in anywise appertaining to the only proper use, benefit and behoof of the said GRANTEE, its successors and assigns, in fee simple forever.

IN WITNESS WHEREOF, the said GRANTOR has caused these presents to be executed by its proper officers thereunto duly authorized and its corporate seal affixed on this the day and year first above written.

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Signed, sealed and delivered in the presence of:

Donald H. Hanks  
Witness

Jean E. Hampton  
Notary Public  
My Commission Expires: 4/21/03

(NOTARIAL SEAL)



O:\Land Reorganization\Deeds\Georgia\Form IP to SF LLC timberlands.doc

INTERNATIONAL PAPER COMPANY

By: George A O'Brien  
Name: George A O'Brien  
Vice President

Attest: Robert A. Kiscunas  
Name: Robert A. Kiscunas  
Assistant Secretary

(CORPORATE SEAL)

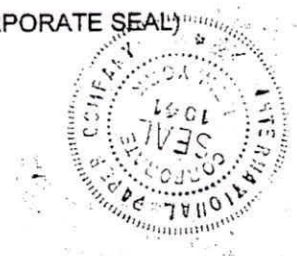


EXHIBIT "A"

State of New York }  
Department of State } ss:

*I hereby certify that the annexed copy has been compared with the original document in the custody of the Secretary of State and that the same is a true copy of said original.*

*Witness my hand and seal of the Department of State on* JUN 0 8 1999



A handwritten signature in black ink, appearing to read "J. Clark", with a long horizontal line extending to the right.

*Special Deputy Secretary of State*

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F 990430000591

CSC 45

CERTIFICATE OF MERGER

OF

UNION CAMP CORPORATION

INTO

INTERNATIONAL PAPER COMPANY

Section 905 of the Business Corporation Law

204 K

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204 K 286

1-CC

STATE OF NEW YORK  
DEPARTMENT OF STATE

FILED 1999

BY: P.W.

WESTCHESTER

Filer: Davis Polk & Wardwell  
450 Lexington Avenue  
New York, NY 10017  
224240MPJ

4

990430000612

Certificate of Merger

F 990430000591

of

03045

Union Camp Corporation

into

International Paper Company

(Under Section 903 of the Business Corporation Law)

It is hereby certified by the corporation named herein as the surviving corporation as follows:

FIRST: The Board of Directors of the corporation named herein as the surviving corporation has adopted a plan of merger setting forth the terms and conditions of merging the corporation named herein as the subsidiary corporation into said surviving corporation.

SECOND: The laws of the jurisdiction of incorporation of the corporation named herein as the subsidiary corporation permit a merger of the kind certified herein,

THIRD: The name of the subsidiary corporation to be merged, which was organized under the laws of the State of Virginia, on December 11, 1936, is Union Camp Corporation. The name under which the corporation was formed is Chesapeake-Camp Corporation. The Application for Authority in the State of New York of said corporation to transact business as a foreign corporation therein was filed by the Department of State of the State of New York on July 9, 1956.

FOURTH: The name of the surviving corporation, the certificate of incorporation of which was filed by the Department of State on June 23, 1941, is International Paper Company. The name under which the surviving corporation was formed is International Paper and Power Corporation.

FIFTH: The designation and number of outstanding shares of each class of the subsidiary corporation, all of which are owned by the surviving corporation, as set forth in the plan of merger, are as follows:

DESIGNATION	NUMBER
Common shares, par value \$1.00	100

SIXTH: The merger of the subsidiary corporation into the surviving corporation is authorized under the laws of the jurisdiction of incorporation of the subsidiary corporation and is in compliance therewith.

SEVENTH: The effective date of the merger herein certified, insofar as the provisions of the New York Business Corporation Law govern such effective date, shall be the 30th day of April, 1999.

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2

James W. Gaddy  
Title: Vice President, Secretary and Associate General  
Counsel of International Paper Company

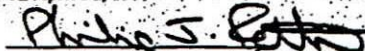
IN WITNESS WHEREOF, we have subscribed this document on the date set forth  
below and do hereby affirm, under the penalties of perjury, that the statements contained therein  
have been examined by us and are true and correct.  
Date: April 30, 1999

STATE OF NEW YORK )  
 ) ss:  
COUNTY OF NEW YORK )

James W. Guedry, being duly sworn, deposes and says that he is one of the persons who signed the foregoing certificate of merger on behalf of the corporation named therein as the surviving corporation; that he signed said certificate in the capacity set beneath or opposite his signature thereon; that he has read the foregoing certificate and knows the contents thereof; and that the statements contained therein are true to his knowledge.

  
James W. Guedry  
Vice President, Secretary & Associate General Counsel

Subscribed and sworn to before me  
on April 30, 1999

  
Notary Public

PHILIP PETITI  
NOTARY PUBLIC, State of New York  
No. 001-000000000  
Qualified in New York County  
Commission Expires Feb. 17, 2002

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EXHIBIT "B"

CHATHAM COUNTY, GEORGIA

<u>PIN #</u>	<u>TRACT</u>	<u>ACRES</u>
1-0153-1-1	SKIDAWAY MARSH	1,857.00
1-1009-1-1	C & S	240.30
1-1014-01-002	HARRY ANDERSON	10.70
1-1024-1-1	CARTER BROTHERS & A. F. OLIVER	2,467.13
1-1033-1-1	SOUTHERN STATES	495.26
1-1033-2-1	LITCHFIELD PLANTATION	615.70
1-1039-01-005	LOT 12 CARTER TRCT NEAR	
1-1039-01-015	ACREAGE S. OF PINE BARREN	
1-1039-1-6	C. C. PATRICK #1	69.33
1-1040-2-2	CARTER BROTHERS	21.87
1-1040-3-3	C. C. PATRICK #3	65.30
1-1041-01-001	NEWTON UNIT HG TUTEN	
1-1041-01-012	NEWTON UNIT CARTER EST. 1	
1-1044-01-002	C. R. LIGHTSEY ESTATE	57.10
1-1047-2-7	T. J. NEWTON	676.10
1-1047-3-1	CARSON & SMITH	130.38
1-1047-3-9	WALLACE ADAMS #1	1,985.77
1-1048-4-1	CARTER ESTATE #2	200.84
5-1013-1-43	HARRY ANDERSON	18.92
7-1017-1-7	GODLEY	385.00
8-0006-1-3	DUBOSE-MCINTOSH	256.62
8-1039-1-3	CARTER BROTHERS	117.91
8-1040-1-6	CARTER ADAMS *	176.87
	TOTAL - LAND	<u>9,848.10</u>

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\* Located in Bloomingdale

EXHIBIT "C"

MINERAL RESERVATION

All the oil, gas, associated hydrocarbons, industrial minerals, precious and semi precious gems and minerals, lead, zinc, copper, coal, coal seam gas, lignite, peat, sulfur, phosphate, iron ore, sodium, salt, uranium, thorium and other fissionable materials, molybdenum, vanadium, titanium, rutile ilmenite, leucosene, zircon, monazite, gold, silver, bauxite, limestone, granite, saprolite, kaolin (and other forms of clay), sand, gravel, aggregate and other mined or quarried stone, bedrock and other rock materials, geothermal energy and all other substances and ore deposits of any kind or character, whether solid, liquid or gaseous, and without limitation by enumeration of the minerals and substances expressly mentioned above, presently owned by Grantor in, on or under any of the land conveyed by the deed to which this exhibit is attached, and all executive rights and other rights, including the right to convey or the right to execute leases presently owned or held by Grantor with respect to the interests of any other parties in any or all said minerals, in or under any of the land conveyed by the deed to which this Exhibit is attached to the extent reasonably necessary for exploring, drilling, mining, developing, producing, removing, transporting and owning all of said elements, compounds, minerals, mineral substances, and/or rock, and mineral rights herein reserved to the Grantor; provided, further, however, this reservation of mineral rights shall not prohibit or restrict the Grantee from using "on-site" sand or gravel for the purposes of constructing and maintaining roads now existing or hereinafter constructed on the land conveyed by the deed to which the Exhibit is attached.

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**EXHIBIT "D"**

**All those certain tracts or parcels of land being all of the land of International Paper Company in Chatham County, Georgia, located within a circle, the centerpoint of which is located N. 766073.28, E. 978852.94 according to the Georgia State Plane Coordinate System NAD 83, East Zone, and having a radius of 7584.02 feet.**

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EXHIBIT "D"  
Godley #2  
Chatham County, Georgia

All that certain tract or parcel of land situate, lying and being in Chatham County, Georgia, containing 2060.52 acres, more or less, this acreage taken from plat by J. Dean Gowen, Georgia Reg. Land Surveyor No. 6, dated July 28, 1947, and being a portion of lands locally as Union Camp Corporation's "Godley No. 2" and being more particularly described as follows:

Beginning at a point described as point number 46 as shown on said plat by J. Dean Gowen, said point being located by reference to grid coordinates, in feet of the Georgia Coordinates System, East Zone, NAD 1927 at N 790,654.26 and E 786,351.72:

THENCE North 87 degrees 28 minutes 49 seconds West for a distance of 705.56 feet to a point;  
THENCE North 86 degrees 39 minutes 17 seconds West for a distance of 938.80 feet to a point;  
THENCE North 86 degrees 52 minutes 57 seconds West for a distance of 1347.07 feet to a point;  
THENCE North 82 degrees 36 minutes 25 seconds West for a distance of 682.17 feet to a point;  
THENCE North 82 degrees 13 minutes 37 seconds West for a distance of 644.14 feet to a point;  
THENCE North 85 degrees 45 minutes 33 seconds West for a distance of 312.38 feet to a point;  
THENCE North 89 degrees 30 minutes 49 seconds West for a distance of 699.63 feet to a point;  
THENCE North 89 degrees 13 minutes 24 seconds West for a distance of 1753.12 feet to a point;  
THENCE North 87 degrees 26 minutes 25 seconds West for a distance of 1802.94 feet to a point;  
THENCE South 03 degrees 13 minutes 17 seconds West for a distance of 1057.01 feet to a point;  
THENCE North 88 degrees 39 minutes 18 seconds West for a distance of 618.59 feet to a point;  
THENCE North 88 degrees 55 minutes 55 seconds West for a distance of 991.49 feet to a point;  
THENCE South 06 degrees 32 minutes 41 seconds West for a distance of 387.97 feet to a point;  
THENCE South 04 degrees 14 minutes 29 seconds West for a distance of 571.14 feet to a point;  
THENCE North 88 degrees 08 minutes 33 seconds West for a distance of 732.99 feet to a point;  
THENCE North 88 degrees 08 minutes 58 seconds West for a distance of 817.51 feet to a point;  
THENCE North 86 degrees 56 minutes 01 seconds West for a distance of 555.19 feet to a point;  
THENCE North 86 degrees 51 minutes 01 seconds West for a distance of 1249.29 feet to a point;  
THENCE North 87 degrees 59 minutes 37 seconds West for a distance of 1658.94 feet to a point;  
THENCE South 01 degrees 44 minutes 31 seconds West for a distance of 542.77 feet to a point;  
THENCE North 88 degrees 00 minutes 10 seconds West for a distance of 757.48 feet to a point;  
THENCE North 87 degrees 19 minutes 35 seconds West for a

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distance of 212.38 feet to a point;  
THENCE North 49 degrees 05 minutes 52 seconds East for a  
distance of 16521.14 feet to a point;  
THENCE South 83 degrees 59 minutes 01 seconds East for a  
distance of 303.63 feet to a point;  
THENCE South 88 degrees 46 minutes 32 seconds East for a  
distance of 1760.62 feet to a point;  
THENCE South 12 degrees 45 minutes 35 seconds West for a  
distance of 639.49 feet to a point;  
THENCE South 12 degrees 12 minutes 02 seconds West for a  
distance of 349.78 feet to a point;  
THENCE South 02 degrees 25 minutes 56 seconds West for a  
distance of 373.24 feet to a point;  
THENCE South 76 degrees 27 minutes 07 seconds East for a  
distance of 563.48 feet to a point;  
THENCE South 76 degrees 50 minutes 55 seconds East for a  
distance of 777.41 feet to a point;  
THENCE South 74 degrees 36 minutes 42 seconds East for a  
distance of 298.46 feet to a point;  
THENCE South 76 degrees 39 minutes 05 seconds East for a  
distance of 200.11 feet to a point;  
THENCE South 84 degrees 10 minutes 25 seconds East for a  
distance of 292.57 feet to a point;  
THENCE North 14 degrees 14 minutes 53 seconds East for a  
distance of 303.02 feet to a point;  
THENCE North 16 degrees 01 minutes 27 seconds East for a  
distance of 461.45 feet to a point;  
THENCE South 71 degrees 11 minutes 47 seconds East for a  
distance of 421.81 feet to a point;  
THENCE South 19 degrees 07 minutes 04 seconds West for a  
distance of 181.50 feet to a point;  
THENCE South 70 degrees 50 minutes 35 seconds East for a  
distance of 692.04 feet to a point;  
THENCE South 07 degrees 33 minutes 49 seconds West for a  
distance of 7403.00 feet to the POINT OF BEGINNING.

Together with and subject to covenants, easements, and  
restrictions of record.

Said property contains 2060.52 acres more or less.

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**EXHIBIT "D"**

**Chatham County, Georgia**

All that certain tract or parcel of land situate, lying and being in the 7<sup>th</sup> G. M. District of Chatham County, Georgia, known as Grantor's "**West C & S Tract**," containing **301.50 acres**, more or less, and consisting of all of the property described in that certain deed from the Citizens and Southern National Bank, as Trustee, to Union Bag & Paper Corporation, dated July 10, 1956, and recorded in Deed Book 65 E, page 349, Chatham County records, which currently lies west of the western right-of-way line of U. S. Interstate Highway 95.

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**EXHIBIT "D"**

**Carter Adams Landfill Site  
Chatham County, Georgia**

All that certain lot, tract or parcel of land situate, lying and being in the 8<sup>th</sup> G.M. District of Chatham County, Georgia, being known as Grantor's "Carter-Adams Tract," the northeast corner of said tract being located approximately 1,300 feet south of the intersection of Little Neck Road and Old Pine Barren Road, the said tract of land being more particularly described as follows:

Beginning at a corner on the western right of way line of Little Neck Road as described above, proceeding thence in a southerly direction along the western right of way line of Little Neck Road S 09° 09' 00" East a distance of 5,267.72 feet to a point; thence in a westerly direction leaving the western right of way line of Little Neck Road South 83° 02' 35" West a distance of 2,585.56 feet to a point; thence South 69° 21' 03" West a distance of 713.07 feet to a point; thence North 87° 46' 45" West a distance of 1,345.43 feet to a point; thence North 02° 25' 14" West a distance of 3,000.40 feet to a point; thence North 07° 08' 35" West a distance of 1,549.83 feet to a point; thence North 87° 48' 24" East a distance of 1,414.10 feet to a point; thence North 21° 44' 38" West a distance of 488.15 feet to a point; thence South 87° 26' 48" East a distance of 1,466.66 feet to a point; thence North 02° 22' 38" West a distance of 1,257.06 feet to a point; thence South 66° 54' 47" East a distance of 622.76 feet to a point; thence South 71° 49' 40" East a distance of 818.99 feet to a point; thence South 71° 49' 40" East a distance of 67.00 feet to a point being described above as the Point of Beginning. Said tract of land containing 500.83 acres, more or less.

The tract of land as a whole is bounded as follows: on the North, South and West by remaining lands of International Paper Company, corporate successor of Union Camp Corporation, and on the East by Little Neck Road – a 100 foot right of way.

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PARTIAL RELEASE On  
 DEED Book 347D Page 458  
 On 12/23/2008

Clock#: 390279  
 FILED FOR RECORD  
 5/08/2003 04:40pm

PAID: 34.00

CORRECTION On  
 DEED Book 292B Page 73  
 On 8/3/2005

Susan D. Prouse, Clerk  
 Superior Court of Chatham County  
 Chatham County, Georgia

Real Estate Transfer Tax

PAID \$1524.20

After recording return to:  
 John G. Lientz, Esq.  
 Buchanan, Williams & Levy LLP  
 447 Park Street  
 Savannah, Georgia 31401  
 On 8/3/2005

*S. Prouse*  
 For Clerk of Superior Court

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STATE OF GEORGIA )  
 )  
 COUNTY OF CHATHAM )

LIMITED WARRANTY DEED

CORRECTION On

DEED Book ~~KNOW FILE~~ ~~292B~~ ~~Page 80~~  
 On 8/3/2005

2003, SUSTAINABLE FORESTS, L.L.C., a/k/a Sustainable Forests L.L.C., a Delaware limited

liability company ("Grantor"), duly authorized to do business in the State of Georgia, whose address

RELEASE On

is Atlantic Region, 1515 Bourne Street, Georgetown, SC 29440, for and in consideration of the  
 DEED Book 280J Page 5

On 12/15/2004  
 payment in the sum of Ten and no/100 (\$10.00) Dollars and other valuable consideration to it paid

(the receipt of which is hereby acknowledged) has granted, bargained, sold and conveyed, and by

these presents does grant, bargain, sell and convey unto BLUE SKY TIMBER PROPERTIES

L.L.C., a Delaware limited liability company ("Grantee"), duly authorized to do business in the

State of Georgia, whose address is Atlantic Region, 1515 Bourne Street, Georgetown, SC 29440,

the following:

**SEE EXHIBIT "A" ATTACHED**

This conveyance is subject to the following:

- (1) Rights, if any, relating to the construction and maintenance in connection with any public utility of wires, poles, pipes, conduits and appurtenances thereto, on, under or across the Property;

(2) Any "rollback" or additional taxes, penalties or interest imposed on the Property by any governmental authority for any year and the current year's real property taxes, which will be prorated between Grantor and Grantee as of the effective date of this conveyance, assessments and other charges of any kind or nature imposed upon or levied against or on account of the Property by any governmental authority, which taxes, assessments and other charges are not yet due and payable but are liens on the Property;

(3) Restrictions on Grantee's ability to build upon or use the Property imposed by any current or future building or zoning ordinances or any other law or regulation (including environmental protection laws and regulations) of any governmental authority;

(4) Any state of facts which an accurate survey or an inspection of the Property would reveal, including, but not limited to, the location of boundary lines, improvements and encroachments, if any;

(5) All previous reservations, exceptions and conveyances of record of the oil, gas, associated hydrocarbons, minerals and mineral substances, and royalty and other minerals rights and interests;

(6) All claims of governmental authorities in and to any portion of the Property lying in the bed of any streams, creeks or waterways or other submerged lands or land now or formerly subject to the ebb and flow of tidal waters or any claims of riparian rights;

(7) All matters of record, outstanding easements, servitudes, rights-of-way, flowage rights, restrictions, licenses, leases, reservations, covenants, agreements, log sale agreements, timber cutting contracts, cemeteries, access rights and other rights in third parties of record or acquired through prescription, adverse possession or otherwise;

(8) Any and all restrictions of use of the Property due to environmental protection laws, including, without limitation, endangered species and wetlands protection laws, rules, regulations and orders.

(9) Such other matters as described on Exhibit B.

Grantor hereby reserves for itself, its successors and assigns from this conveyance the following:

- (A) A free, non-exclusive, uninterrupted, perpetual access easement and right of way for vehicular and pedestrian ingress and egress over the roads and accessways (whether currently existing or if relocated or to be constructed) on the Property. Grantor's use of the roads and accessways shall include the right to move timber and timber products (together with the equipment necessary to remove and haul such timber and timber products) and also include the right of Grantor's agents, recreational users and invitees to use this easement as well as third parties to whom Grantor is contractually required to maintain access;

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(B) Any valid and existing cutting rights and rights of ingress and egress on and along existing roads on the Property as may be required to manage the timber by the timber purchasers set forth in prior plantation sales affecting the Property heretofore entered into with other parties identified on Exhibit B, attached hereto and made a part hereof;

(C) Access to any research tracts listed on Exhibit B.

TOGETHER with all and singular, the rights, members, hereditaments and appurtenances to the said premises belonging or in anywise incident or appertaining.

TO HAVE AND TO HOLD all and singular the premises before mentioned unto the said Grantee, its Successors and Assigns forever.

AND, Grantor, for itself, its successors and assigns, does covenant with Grantee, its successors and assigns, that Grantor will forever defend the title to the above described property against the lawful claims and demands of all persons claiming the same or to claim any part thereof from, through or under Grantor.

IN WITNESS WHEREOF, Grantor has caused these presents to be executed by its proper officers thereunto duly authorized and its corporate seal affixed on the day and year first above written.

WITNESSES:

[Signature]  
Witness

[Signature]  
Notary Public, State of Georgia  
commission expires: \_\_\_\_\_



DENNITTA C. SAUNDERS  
Notary Public, Liberty County, GA  
My Commission Expires November 13, 2008

SUSTAINABLE FORESTS, L.L.C., a Delaware limited liability company

By: [Signature]  
Name: Kenneth Munson  
Title: Vice President/Manager

Attest: [Signature]  
Name: Joseph W. [Signature]  
Title: ASSISTANT SECRETARY

(SEAL)



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EXHIBIT "A"

Portion of Wallace Adams Tract:

All that certain portion of tract or parcel of land situate, lying and being in the 8<sup>th</sup> G. M. District, Chatham County, Georgia, comprising a portion of the tract locally known as the "Wallace Adams Tract," as said property was conveyed by Wallace Adams to Union Bag & Paper Corporation by Deed dated December 4, 1951, and recorded in the Office of the Clerk of Superior Court of Chatham County, Georgia, in Deed Book 54-W, page 246, as shown upon that certain plat of survey prepared under the direction of J. Dean Gowen, dated December 4, 1951, and recorded in Plat Record Book E, page 73, said records, reference to said deed and plat being made for all purposes hereof. Said portion of the Wallace Adams Tract lies along the north and south side of Georgia Highway 204, and is bounded as follows: North by the Old Georgia Highway 204, and lands now or formerly of Cason; East by Sand Hill Road; South by lands now or formerly of Connor; and West by the thread of the Ogeechee River.

Saving and excepting that certain 1.354-acre parcel conveyed by Union Bag-Camp Paper Corporation to John G. Warren by Deed dated November 2, 1961, and recorded in Deed Book 79-G, page 107, said records, s shown upon a map thereof recorded in Plat Record Book M, page 198, said records, and

Saving and excepting that certain 7.82-acre parcel conveyed by Union Camp Corporation to Julian J. Rountree and Ruth G. Rountree by deed dated November 17, 1983, and recorded in Deed Book 122-D, page 560, said records, and shown upon a plat thereof recorded in Plat Record Book 5-P, page 51, said records.

All those certain tracts or parcels of land situate lying and being in the City of Bloomingdale, 8<sup>th</sup> G.M. District, Chatham County, Georgia, containing in the aggregate 346 acres, more or less, and being more fully described as follows:

Parcel 1 - Dubose-McIntosh Tract: All that certain lot, tract or parcel of land situate, lying and being in the City of Bloomingdale, 8<sup>th</sup> G. M. District of Chatham County, Georgia, containing 278.12 acres, more or less, and locally known as the "Dubose-McIntosh Tract," as said property was conveyed by George C. McCoy, Commissioner of the Superior Court of Chatham County, Georgia, to Union Bag and Paper Company, by deed dated April 25, 1956, and recorded in Deed Book 64-0, page 291, reference to said deed being made for all purposes hereof. Said property is described in said deed as follows:

All that certain lot, tract or parcel of land situate, lying and being in Chatham County, Georgia, and known as the Ennis Tract, containing, according to a survey made December 1949, by R. D. Gignilliat, County Surveyor, 287.2 acres, and being bounded as follows: Northwest by lands of Douglas, DuBose and Waller; East by lands of Seabrook and lands formerly of Thompson but now of Atlantic Creosoting Company; South by the thread of the Little Ogeechee River; and West by Catina Tract, now lands of the Union Bag & Paper Corporation, and lands of Douglas; being the same property conveyed by James Ennis to Daniel E. Waller and William H. DuBose

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by deed dated May 11, 1907, and recorded in the Office of the Clerk of the Superior Court of Chatham County, Georgia in Deed Book 9-M, page 65, and described on a plat by E. J. Thomas, Surveyor of Chatham County, dated 1907, the acreage being stated in said last mentioned deed as 260 acres, said plat of the Gignilliat Survey is recorded in Plat Record Book H, page 38. Said property is also shown upon that certain plat of survey prepared by J. Dean Gowen, dated June 24, 1959, and recorded in Map Book M, page 1, reference to said plats being made for all purposes hereof

Saving and excepting that certain 16.36-acre parcel located adjacent to New Pine Barren Road conveyed by Union Camp Corporation to The Mayor and Council of the City of Bloomingdale, Georgia, dated April 30, 1976, and recorded in Deed Book 106-U, page 342, as shown upon a plat thereof recorded in Plat Record Book Z, page 178.

Parcel 2 - Portion of Carter Brothers Tract: All that certain portion of tract or parcel of land situate, lying and being in the City of Bloomingdale, 8<sup>th</sup> G.M. District, Chatham County, Georgia, comprising a portion of the tract locally known as the "Carter Brothers Tract," as said property was conveyed by John A. Carter and W. H. Carter to Union Bag & Paper Corporation, by Warranty Deed dated June 12, 1946, and recorded in Deed Book 42-V, page 464, said records, as shown on that certain plat of survey recorded in Plat Record Book C, page 23, said records, reference to said deed and plat being made for all purposes hereof. Said portion of the Carter Brothers Tract comprises that portion of said tract bounded as follows: North and East by the thread of the Little Ogeechee River; South by I-16; and West by Bloomingdale Road.

Parcel 1 - Portion of Litchfield Plantation Tract:

All that certain portion of tract or parcel of land situate, lying and being in the 7<sup>th</sup> G. M. District, Chatham County, Georgia, comprising a portion of the tract locally known as the "Litchfield Plantation Tract," as said property was conveyed by Southern States Naval Stores Company and C. C. Stebbins, Sr. to Union Bag-Camp Paper Corporation by deed dated December 22, 1956, and recorded in the Office of the Clerk of Superior Court of Chatham County, Georgia, in Deed Book 66-D, page 341, as shown upon that certain plat of survey prepared by J. Dean Gowen, dated January 3, 1957, and recorded in Plat Record Book H, page 188, said records, reference to said deed and plat being made for all purposes hereof.

Saving and excepting that certain 13.576-acre tract adjacent to I-95 as conveyed by Union Camp Corporation to Transtates Properties Incorporated by deed dated March 15, 1972, and recorded in Deed Book 101-Q, page 201, said records, as shown upon a plat recorded in Plat Record Book W, page 141, said records.

Parcel 2 - Portion of Southern States No. 5 Tract:

All that certain portion of tract or parcel of land situate, lying and being in the 7<sup>th</sup> G. M. District, Chatham County, Georgia, comprising a portion of the tract locally known as the "Southern States No. 5 Tract," as said property was conveyed by O. T. McIntosh, Sr., Joseph H. Newton, Jr., and Winston (Van Sickle) Newton, as Executors and Trustees u/w Joseph H. Newton, Sr., deceased, and Southern States Naval Stores Company, to Union Bag-Camp Paper Corporation,

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by deed dated July 23, 1956, and recorded in Deed Book 65-F, page 463, said records, as shown upon that certain plat of survey prepared by J. Dean Gowen, dated June 22, 1959, and recorded in Plat Record Book M, page 90, said records, reference to said deed and plat being made for all purposes hereof.

Saving and excepting that certain 7.8-acre parcel conveyed by Union Bag-Camp Paper Corporation to William D. Love, by deed dated December 1, 1965, and recorded in Deed Book 90-A, page 279, and shown upon a plat recorded in Plat Record Book Q, page 267.

The portions of the Litchfield Plantation Tract and Southern States No. 5 Tract herein described lie contiguous, and are bounded as follows: North by Georgia Highway 204; East by I-95 and that certain tract containing 317.53 acres, 7<sup>th</sup> G. M. District, Chatham County, Georgia, as conveyed by Union Camp Corporation to UC Realty Corp. by deed dated December 20, 1989, and recorded in Deed Book 144-N, page 601, and Correction Deed dated March 19, 1991, and recorded in Deed Book 148-Z, page 473, and shown upon that certain plat recorded in Plat Record Book 11-P, page 166, said records; and by lands now or formerly of the Arkwright Estates; South and West by the thread of the Ogeechee River; and Northwest by that certain tract containing 170.53 acres, more or less, as conveyed by Union Bag-Camp Paper Corporation to Youth Museum of Savannah, Inc., by deed dated August 1, 1963, and recorded in Deed Book 84-U, page 558, said records, and shown upon that certain plat prepared by J. Dean Gowen, dated December 20, 1962, and recorded in Plat Record Book O, Page 221, said records, reference to said deeds and plats being made for all purposes hereof.

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Parcel 1 - H. G. Tuten Tract:

All that certain tract or parcel of land situate, lying and being in the 8<sup>th</sup> G. M. District, Chatham County, Georgia, containing 102.25 acres, more or less, and being locally known as the "Tuten Tract," as said property was conveyed by H. G. Tuten to Union Bag & Paper Corporation, by deed dated February 17, 1953, and recorded in the Office of the Clerk of Superior Court of Chatham County, Georgia, in Deed Book 57-K, page 129, as said property is shown upon that certain plat of survey prepared by J. Dean Gowen, dated February 5, 1953, and recorded in Plat Record Book F, Page 9, said records, reference to said deed and plat being made for all purposes hereof.

Parcel 2 - Carter Estate Tract #1:

All that certain tract or parcel of land situate, lying and being in the 8<sup>th</sup> G. M. District, Chatham County, Georgia, containing 48.4 acres, more or less, and locally known as the "Carter Estate Tract #1," as the same was conveyed by Laurie K. Abbott, Commissioner of the Superior Court of Chatham County, Georgia, to Union Bag & Paper Corporation, by deed dated April 17, 1952, and recorded in Deed Book 55-R, page 33, said records, and re-recorded in Deed Book 55-T, page 177, said records, reference to said deed being made for all purposes hereof.

Parcel 3 - C. C. Patrick Tract:

All that certain tract or parcel of land situate, lying and being in the 8<sup>th</sup> G. M. District of Chatham County, Georgia, containing 74.22 acres, more or less, and locally known as the "C. C. Patrick Tract," as said property was conveyed by C. C. Patrick to Union Bag & Paper Corporation, by deed dated December 21, 1953, and recorded in Deed Book 59-C, page 246, and by Correction Deed recorded in Deed Book 69-F, page 497, said records, as shown upon that certain plat of survey prepared by J. Dean Gowen, dated September 29, 1953, and recorded in Plat Record Book F, page 142, reference to said deed and plat being made for all purposes hereof. Said property is described in said deed as follows:

All that certain tract or parcel of land situate, lying and being in the 8<sup>th</sup> G. M. District of Chatham County, Georgia, containing 74.22 acres and consisting of all those several tracts and parcels of land described as follows, to wit:

All of Lots 3 and 4 and portions of Lots 2, 5 and 6 of a plan of the B. R. Lightsey Land as shown on the plat thereof prepared by Edwin J. Thomas, County Surveyor, Chatham County, Georgia, dated February 3, 1911, a copy of which is recorded in Plat Book F, page 142, said records, said tract being irregular in shape and bounded as follows:

Southeast by Union Bag & Paper Corporation's Samwilka-Morgan Tract; Southwest by Union Bag & Paper Corporation's T. J. Newton Tract; Northwest by lands of P. C. Lightsey; and Northeast by lands of C. R. Lightsey, Willie Lightsey and Eva M. Lightsey.

Said tract or parcel of land is more fully described and delineated upon a boundary map of a transit survey of said lands made and prepared under the direction of and certified by J. Dean Gowen, Georgia Registered Surveyor No. 6, September 29, 1953, and with such boundaries, metes, courses, distances and controls as shown thereon, fixed and determined in accordance with the grid coordinates of the Georgia Coordinate System, East Zone, as established by the U. S. Coast and Geodetic Survey, a copy of which map is recorded in Plat Book F, page 142, [said records], to which reference is hereby expressly made for a more full and complete description of said lands.

Saving and excepting Right-of-Way Deed from Union Bag-Camp Paper Corporation to State Highway Department of Georgia, dated May 18, 1964, and recorded in Deed Book 86-H, page 579, and shown upon a plat thereof recorded in Plat Record Book P, page 121, said records.

Parcel 4 - Lightsey Tract:

All that certain tract or parcel of land situate, lying and being in the 8<sup>th</sup> G. M. District, Chatham County, Georgia, locally known as the "Lightsey Tract," as said property was conveyed by Claude R. Lightsey, Jr., Nellie M. Lightsey and Mary Eva Lightsey Wendelken, to Union Bag-Camp Paper Corporation, by Warranty Deed dated March 24, 1958, and recorded in Deed Book 69-F, page 477, said records, said property also being shown upon that certain plat of survey prepared by J. Dean Gowen, dated February 25, 1958, and recorded in Plat Record Book I, page

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100, said records, reference to said deed and plat being made for all purposes hereof. Said property is described in said deed as follows:

All those two certain tracts and parcels of land situate, lying and being in the 8<sup>th</sup> G.M. District of Chatham County, Georgia, designated on the Gowen plat of survey hereinafter referred to as "Tract A" and "Tract B," containing in the aggregate a total of 57.06 acres and being more particularly described by tracts as follows:

Tract "A": All that certain tract and parcel of land situate, lying and being in the 8<sup>th</sup> G.M. District of Chatham County, Georgia, containing 46.95 acres, being irregular in shape and bounded as follows: Northwest and North by lands leased to Union Bag-Camp Paper Corporation and known as the "Samwilka-Morgan Tract," being separated therefrom by marked, agreed upon, surveyed and established lines; Northeast by lands now or formerly of L. Newham; Southeast by reserved and excluded lands of Claude R. Lightsey, Jr., Nellie M. Lightsey and Mary Eva Lightsey Wendelken, being separated therefrom by a marked, agreed upon, surveyed and established line, by other lands of Union Bag-Camp Paper Corporation, known as its "C. C. Patrick No. 3 Tract," being separated therefrom by a marked, agreed upon, surveyed and established line, and by lands now or formerly of P. C. Lightsey; Southwest by reserved and excluded lands of Claude R. Lightsey, Jr., Nellie M. Lightsey and Mary Eva Lightsey Wendelken, being separated therefrom by a marked, agreed upon surveyed and established line, and by lands now or formerly of P. C. Lightsey.

Also,

Tract "B": All that certain tract and parcel of land situate, lying and being in the 8<sup>th</sup> G. M. District of Chatham County, Georgia, containing 10.11 acres, and bounded as follows: North and Northeast by lands now or formerly of L. Newham; Southeast by lands leased to Union Bag-Camp Paper Corporation, known as the "Samwilka-Morgan Tract," being separated therefrom by a marked, agreed upon, surveyed and established line; Southwest by lands now or formerly of W. R. Lightsey; West by other lands of Union Bag-Camp Paper Corporation, known as its "C. C. Patrick No. 3 Tract," being separated therefrom by a marked, agreed upon, surveyed and established line; and Northwest by reserved and excluded lands of Claude R. Lightsey, Jr., Nellie M. Lightsey and Mary Eva Lightsey Wendelken, being separated therefrom by a marked, agreed upon, surveyed and established line.

Said Tract "A" and Tract "B" constitute all of a tract of 25.3 acres, ore or less, conveyed to C. R. Lightsey, Sr., by Mrs. Marie E. Blicht, by deed dated December 28, 1936, as recorded in Deed Book 31-W, page 359, said records, and portions of Lots 8, 6 and 1 of the plan of the B. R. Lightsey Land as shown on the plat thereof prepared by Edwin J. Thomas, County Surveyor, Chatham County, Georgia, dated February 3, 1911, a copy of which is recorded in Plat Book F, page 142, said records.

Said Tract "A" and Tract "B" are more fully described, bounded and delineated upon a boundary map of a transit survey of said lands, made and prepared by J. Dean Gowen, G.R.S. 6, dated February 26, 1958, with the boundaries, metes, courses, distances and controls as shown thereon having been fixed and determined in accordance with the grid coordinates of the Georgia

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Coordinate System, East Zone, as established by the U. S. Coast and Geodetic Survey, a copy of which map is recorded in Plat Record Book I, page 100, said records, reference to which is hereby expressly made for a more full and complete description of said land.

Parcel 5 - T. J. Newton Tract:

All that certain tract or parcel of land situate, lying and being in the 8<sup>th</sup> G. M. District, Chatham County, Georgia, containing 680.02 acres, more or less, and locally known as the "T. J. Newton Tract," as said property was conveyed by Ted J. Newton to Union Camp Corporation by Warranty Deed dated July 18, 1967, and recorded in Deed Book 92-G, page 446, and Deed Book 92-H, page 108, and shown upon that certain plat of survey prepared by J. Dean Gowen, dated April 26, 1952, and recorded in Plat Record Book E, page 136, reference to said deeds and plat being made for all purposes hereof. Said property is described in said deed as follows:

All of those certain lots, tracts or parcels of land situate, lying and being in the 8<sup>th</sup> G. M. District, Chatham County, Georgia, consisting in the aggregate of 680.02 acres, and partially fronting on the north side of Pine Barren Road in said County, and being the same lands conveyed to Ted J. Newton (a/k/a T. J. Newton) in three different parcels by the deeds of conveyance on the dates and then having the description as hereinafter more fully set forth, to wit:

That certain tract or parcel of land conveyed by L.M.H. Schuman, Willie E. Schuman Kirkland and Clyde B. Schuman to Ted J. Newton (a/k/a T. J. Newton) by deed dated January 5, 1934, and recorded in the Office of the Clerk of Superior Court of Chatham County, Georgia, in Deed Book 29-T, page 45, and therein described as follows:

All that certain lot, tract or parcel of land situate, lying and being in the 8<sup>th</sup> G.M. District, Chatham County, Georgia, containing 100 acres, more or less, and bounded as follows: North by lands of D. C. Newton; East by lands of Carter and Blitch; South by Pine Barren Road and lands of Stokes; and West by lands of Sheftall...this being part of the same property described and conveyed in that certain deed dated July 29, 1891, from Martha E. Baker to L. V. Schuman, and recorded in Deed Book 14-U, page 398, said records, the said three parties of the first part being, and representing themselves to be, the sole heirs at law of said L. V. Schuman, their mother, who died intestate on March 17, 1917, and reference is hereby made to the trust agreement between said first parties in regard to the estate lands of said L.V. Schuman recorded in Deed Book 21-I, page 5, said records.

That certain tract or parcel of land conveyed by Mrs. Dora P. Galbreath to Ted J. Newton (a/k/a T. J. Newton) by deed dated March 5, 1934, as recorded in Deed Book 29-N, page 184, said records, and therein described as follows:

All of that certain lot, tract or parcel of land situate, lying and being in the 8<sup>th</sup> G.M. District of Chatham County, Georgia, containing 226 acres, more or less, and bounded as follows: North by lands of Blitch; East by lands of D. C. Newton; South by lands of D. C. Newton; and West by lands of Sheftall....This being the same property described and conveyed in that certain deed dated April 15, 1933, from Bessie E. Heinrichs to Mrs. Dora P. Galbreath, and recorded in Deed Book 28-Y, page 472, said records.

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PAGE

That certain tract or parcel of land conveyed by D. C. Newton to Ted J. Newton (a/k/a T. J. Newton) by deed dated December 31, 1940, and recorded in Deed Book 35-T, page 285, said records, and therein described as follows:

All that lot, tract or parcel of land situate, lying and being in the 8<sup>th</sup> G.M. District of Chatham County, Georgia, containing 381 acres, more or less, of land and being bounded as follows: North by the lands of Mrs. L. D. Blich; South by lands of T. J. Newton; East by lands of the Lightsey Estate and Mrs. L. D. Blich; and West by lands of T. J. Newton and the Sheftall Estate.

The lands herein set forth being made up of said three parcels with the exception that Ted J. Newton (a/k/a T. J. Newton) has expressly excluded and reserved therefrom 37.44 acres containing the house site and a part of the cultivated area on said lands and which excepted portion is specifically described and delineated on the boundary map hereinafter referred to.

The lands herein described lie in one body and aggregate 680.02 acres and are more fully described and delineated upon a boundary map of a transit survey of said lands (also showing the reserved area above mentioned and the access road hereinafter mentioned) made and prepared by J. Dean Gowen, G.R.S. 6, dated April 26, 1952, and having such boundaries, metes, courses, distances and controls as fixed and determined in accordance with the grid coordinates of the Georgia Coordinate System, East Zone, as established by the U. S. Coast and Geodetic Survey, a copy of which map is recorded in Plat Book E, page 136, said records, reference to which is hereby expressly made for a more full and complete description of said tract.

Ted J. Newton (a/k/a T. J. Newton) further expressly reserves unto himself, his heirs and assigns, full rights to the use of the road providing access to the reserved 37.44 acres from Pine Barren Road as the same now exists and as delineated upon said map by the broken lines.

Saving and excepting a 3.00-acre parcel conveyed by Union Camp Corporation to Robert Bowen, *et al.*, as Trustees of South Newington Baptist Church, by deed dated May 31, 1968, and recorded in Deed Book 94-A, page 3, said records.

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PAGE  
250 2 229

EXHIBIT "B"

1. Existing roads or rights-of-way in favor of the general public; road easements in favor of the general public; and utility easements whether recorded or unrecorded.
2. Rights of others thereto entitled in and to the continued uninterrupted flow of any creeks or streams.
3. Title to that portion of the land within the normal bounds of any river or lake.
4. Mineral reservations reserved in Fee Simple Deed Without Warranties from International Paper Company to Sustainable Forests, L.L.C., dated June 16, 1999, and recorded in Deed Book 204-K, page 282, said records.
5. Title, rights or claims of the State of Georgia, the United States of America or any agencies thereof to any portion of caption property which is or may be alleged to be, or is hereafter determined to be, salt marsh, tidelands or meadowland or land now or formerly flowed by the waters of the ocean or any bays, rivers, canals, streams, creeks or their tributaries or which is marshland as defined in the Georgia Coastal Marshlands Protection Act of 1970, as amended.
6. Rights of upper and lower riparian owners in and to the waters of the Little Ogeechee River and the natural flow thereof, free from diminution or pollution.
7. Condemnation Right-of-Way vested in Savannah Electric and Power Company under instrument dated September 26, 1941, and recorded in Deed Book 36-V, page 87, said records (as to Parcel 1).
8. Mineral rights reserved in Mineral Right and Royalty Transfer dated April 5, 1944, and recorded in Deed Book 40-A, page 425, said records (as to Parcel 2).
9. Right-of-Way Deed from Union Bag-Camp Paper Corporation to State Highway Department of Georgia, dated May 18, 1964, and recorded in Deed Book 86-H, page 577, said records, and shown upon a plat thereof recorded in Plat Record Book P, page 122, said records.
10. Right-of-Way Deed from Union Bag-Camp Paper Corporation to State Highway Department of Georgia, dated May 18, 1964, and recorded in Deed Book 86-H, page 578, said records, and shown upon a plat thereof recorded in Plat Record Book P, pages 123 and 124, said records.
11. Right-of-Way Deed from Union Bag-Camp Paper Corporation to State Highway Department of Georgia, dated May 18, 1964, and recorded in Deed Book 86-H, page 579, said records, and shown upon a plat thereof recorded in Plat Record Book P, page 121, said records.

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250 2 230  
PAGE

12. Right-of-Way Deed from Union Bag-Camp Paper Corporation to State Highway Department of Georgia, dated May 18, 1964, and recorded in Deed book 86-H, page 584, said records, and shown upon a plat thereof recorded in Plat Record Book P, page 123, said records.
13. Easement from Union Camp Corporation to Southern Bell Telephone and Telegraph Company dated December 21, 1989, and recorded in Deed Book 148-W, page 171, and in Deed Book 148-W, page 624, said records.
14. Right-of-Way Deed from Union Bag-Camp Corporation to Chatham County, dated August 19, 1960, and recorded in Deed Book 76-G, page 41, said records, as shown upon a plat thereof recorded in Plat Record Book L, page 10, said records.
15. Right-of-Way Deed from Union Bag-Camp Paper Corporation to State Highway Department of Georgia, dated January 7, 1965, and recorded in Deed Book 88-H, page 367, and show on a plat thereof recorded in Plat Record Book Q, page 71, said records.
16. Right-of-Way Deed from Union Camp Corporation to State Highway Department of Georgia dated June 30, 1967, and recorded in Deed Book 92-J, page 588, said records.
17. Right-of-Way Easement from Union Camp Corporation to Savannah Electric and Power Company dated June 25, 1992, and recorded in Deed Book 155-Y, page 316, said records.
18. Pipeline Easement from Sustainable Forests, L.L.C. to Cypress Natural Gas Company, L.L.C., dated January 31, 2001, and recorded in Deed Book 221-C, page 346, as amended by instruments dated December 30, 2001, and recorded in Deed Book 229-I, page 403, and dated December 5, 2002, and recorded in Deed Book 244-J, page 61.
19. Recreational leases as follows:
  - a. (Egan) Osteen Road Hunt Club, expiration date June 30, 2003;
  - b. Greenway Hunting Club, expiration date June 30, 2003;
  - c. King's Ferry Hunting Club, expiration date June 30, 2003;
  - d. Pine Island Hunting Club, expiration date June 30, 2003;
  - e. Reddick Hunting Club, expiration date June 30, 2003; and
  - f. Woodyard Hunting Club, expiration date June 30, 2003.
20. Communication Tower Sites as follows:
  - a. American Tower, 10,000 square foot parcel (0.23 acres) located off of the Jimmy Deloach Parkway and I-95, Savannah, Georgia (TMS #2-0980-04-001);
  - b. Southern Communications Services, Inc., East side of I-95, 1 mile south of Highway 204, Godley Circle Compartment 8; and

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PAGE

c. American Tower, Site #SVG 971.3/Mainhard Jimmy Deloach Parkway  
(TMS #59-00-0159).

21. Research tracts: None.

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250 2 232

Clock#: 1122524  
FILED FOR RECORD  
12/30/2008 08:10am  
PAID: 22.00  
Daniel W. Massey, Clerk  
Superior Court of Chatham County  
Chatham County, Georgia

After recording, return to  
Chatham County  
124 Bull Street, Suite 220  
Savannah, GA 31401

BOOK  
347F

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323

STATE OF GEORGIA )  
 ) LIMITED WARRANTY DEED  
COUNTY OF CHATHAM )

THIS INDENTURE, made December 18, 2008, between **BLUE SKY  
TIMBER PROPERTIES LLC**, a Delaware limited liability company, (hereinafter  
referred to as "Grantor") and **CHATHAM COUNTY**, a political subdivision of the  
State of Georgia hereinafter referred to as "Grantee");

**WITNESSETH:**

**WHEREAS**, Grantor is the owner of that certain tract or parcel of land  
containing 641.01 acres, more or less, located in Chatham County, Georgia,  
more fully described on Exhibit A attached hereto and incorporated herein by this  
reference (hereinafter referred to as the "Property"), which Grantor desires to  
convey to Grantee and Grantee desires to acquire from Grantor and to quitclaim  
all of Grantor's interest in any minerals owned by Grantor, including, but not  
limited to, Grantor's interest in any sand, clay and gravel rights lying in, on or  
under the Property.

**NOW, THEREFORE**, Grantor, for and in consideration of the sum of Ten

L:\LAND TRANSACTIONS\SALES 08\Georgia\7767 Sale to County\Deed.doc

and No/100 Dollars (\$10.00), paid to Grantor by Grantee, the receipt whereof is hereby acknowledged, and subject to the reservations, covenants, restrictions, conditions, requirements and other provisions set forth below, has granted, bargained, sold and conveyed and by these presents does grant, bargain, sell and convey to Grantee, its successors and assigns, the Property.

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This conveyance is made subject to the following:

1. Rights, if any, relating to the construction and maintenance in connection with any public utility of wires, poles, pipes, conduits and appurtenances thereto, on, under or across the Property.
2. Any "rollback" or additional taxes, penalties or interest imposed on the Property by any governmental authority for any year and the current year's real property taxes, which will be prorated between the Grantor and Grantee as of the effective date of this conveyance, assessments and other charges of any kind or nature imposed upon or levied against or on account of the Property by any governmental authority, which taxes, assessments and other charges are not yet due and payable but are liens on the Property.
3. Restrictions on Grantee's ability to build upon or use the Property imposed by any current or future building or zoning ordinances or any other law or regulation (including environmental protection laws and regulations) of any governmental authority.
4. All previous reservations, exceptions and conveyances of record of the oil, gas, associated hydrocarbons, minerals and mineral substances, and royalty and other minerals rights and interests, including, but not limited to, any prior reservations of sand, clay or gravel rights.
5. All claims of governmental authorities in and to any portion of the



Property lying in the bed of any streams, creeks or waterways or other submerged lands or land now or formerly subject to the ebb and flow of tidal waters or any claims of riparian rights.

6. All matters of record, including outstanding easements, servitudes, rights-of-way, flowage rights, restrictions, cemeteries, licenses, leases, reservations, covenants, agreements, log sale agreements, timber cutting contracts, cemeteries, access rights and other rights in third parties of record or acquired through prescription, adverse possession or otherwise.
7. Any and all restrictions of use of the Property due to environmental protection laws, including, without limitation, endangered species and wetlands protection laws, rules, regulations and orders.
8. All matters as shown on the boundary survey prepared recorded in Plat Book 40-P, Page 106, office of the Clerk of Superior Court of Chatham County, Georgia.
9. Such other matters disclosed on Grantee's title commitment to which Grantee either does not object or agrees to accept.
10. The reservation set forth in Exhibit B attached hereto and made a part hereof.

**TO HAVE AND TO HOLD** the Property, together with any and all of the rights, members and appurtenances thereof, to the same being, belonging or in anywise appertaining to the only proper use, benefit and behalf of Grantee and the successors and assigns of Grantee, forever, in fee simple, subject to the foregoing provisions of this Deed.

Subject to the foregoing provisions of this Deed, Grantor shall warrant and forever defend the right and title to the Property unto Grantee and the successors

L:\LAND TRANSACTIONS\SALES 08\Georgia\7767 Sale to County\Deed.doc


and assigns of Grantee, against the claims of all persons claiming by, through or under Grantor, except that no warranty is hereby extended to the conveyance of any mineral rights, including sand, clay and gravel rights, being conveyed herein.

Grantor is selling the Property "AS IS, WHERE IS". Except for the warranties of title contained in this conveyance, Grantor has not made, does not and has not authorized anyone else to make representations as to: (i) the existence or non-existence of access to or from the Property or any portion thereof; (ii) the location of the Property or any portion thereof within any flood plain, flood prone area, water shed or the designation of any portion thereof as "wetlands", (iii) the availability of water, sewer, electrical, gas or other utility services, (iv) the number of acres in the Property, (v) the present or future physical condition or suitability of the Property for any purposes, (vi) the existence of any environmental hazards of contaminants, (vii) the knowledge of any unrecorded agreements, (viii) the amount and type of timber of the Property, if any, and (ix) the condition of the Property. Grantee expressly acknowledges that no such representations have been made and that Grantee is not relying on any representations or warranties other than as set forth herein.

[Remainder of page left intentionally blank]


**IN WITNESS WHEREOF**, Grantor has caused these presents to be executed on the day and year first above written.

Signed, sealed and delivered in the presence of:

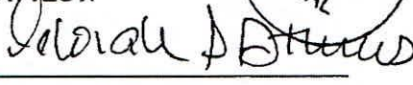
  
\_\_\_\_\_  
Unofficial Witness

**GRANTOR:**

**BLUE SKY TIMBER PROPERTIES LLC**

By:   
\_\_\_\_\_  
E. Wayne Plummer,  
Vice President

  
\_\_\_\_\_  
Notary Public 2-1-2012

**ATTEST:**  
  
\_\_\_\_\_  
Deborah S. Stivers,  
Assistant Secretary



**Attachments**  
**Exhibit A: Property Description**  
**Exhibit B: Timber Reservation**

**EXHIBIT A**

**Property Description**

ALL THAT CERTAIN LOT, TRACT OR PARCEL OF LAND SITUATE, LYING AND BEING IN CHATHAM COUNTY, GEORGIA, DESCRIBED UPON A PLAT "ENTITLED " A 641.01 ACRE PORTION OF UNION CAMP CORPORATION'S SOUTHERN STATES N/S CO., NO 5 TRACT" PREPARED FOR INTERNATIONAL PAPER BY THOMAS AND HUTTON ENGINEERING CO., DATED DECEMBER 14, 2006, RECORDED IN PLAT RECORD BOOK 40-P, PAGE 106, IN THE OFFICE OF THE CLERK OF THE SUPERIOR COURT OF CHATHAM COUNTY, GEORGIA. THIS IS THE SAME PROPERTY CONVEYED TO BLUE SKY TIMBER PROPERTIES, LLC BY LIMITED WARRANTY DEED DATED MARCH 21, 2003, RECORDED IN DEED BOOK 250-Z, PAGE 220, IN THE AFORESAID CLERK'S OFFICE.. SAID PLAT IS INCORPORATED HEREIN BY REFERENCE.

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PAGE 328

**EXHIBIT B**

**Timber Reservation**

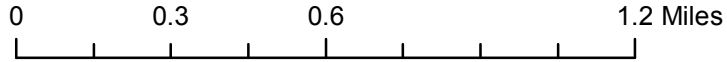
BOOK  
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There is hereby expressly reserved to Grantor, its successors and assigns (a) all merchantable timber ("Timber") in excess of sixty (60) stems per acre now or hereafter standing, lying, located or growing on that portion of the Property identified on the Survey as "Upland 57.78 Acres" (the "Timber Parcel"), (b) a temporary easement ("Temporary Easement") across the existing timber roads located on the Property for ingress and egress to Highway 204, and (c) the use of the surface of the Timber Parcel to the extent reasonably necessary for the purposes of removing, cutting, harvesting and transporting the Timber.

Grantor's reservation of Timber shall include the right to cut, remove and sell such Timber and to retain any and all proceeds from such cutting, removal and/or sale of the Timber. Grantor shall use commercially reasonable efforts to complete cutting within ninety (90) days of the effective date hereof, subject to extension(s) for such periods that cutting is delayed by weather and other causes beyond Grantor's reasonable control. The Temporary Easement and aforementioned rights to use the surface of the Timber Parcel shall expire at such time as Grantor has completed cutting the Timber.

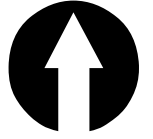
Appendix B:  
Maps

# Figure 1 - Blue Sky Preserve

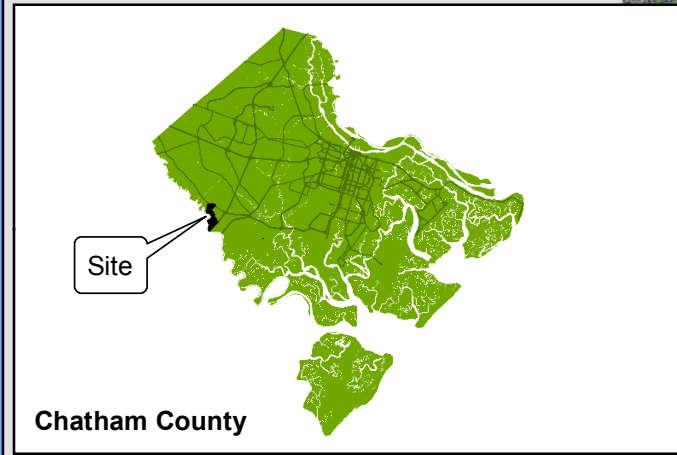
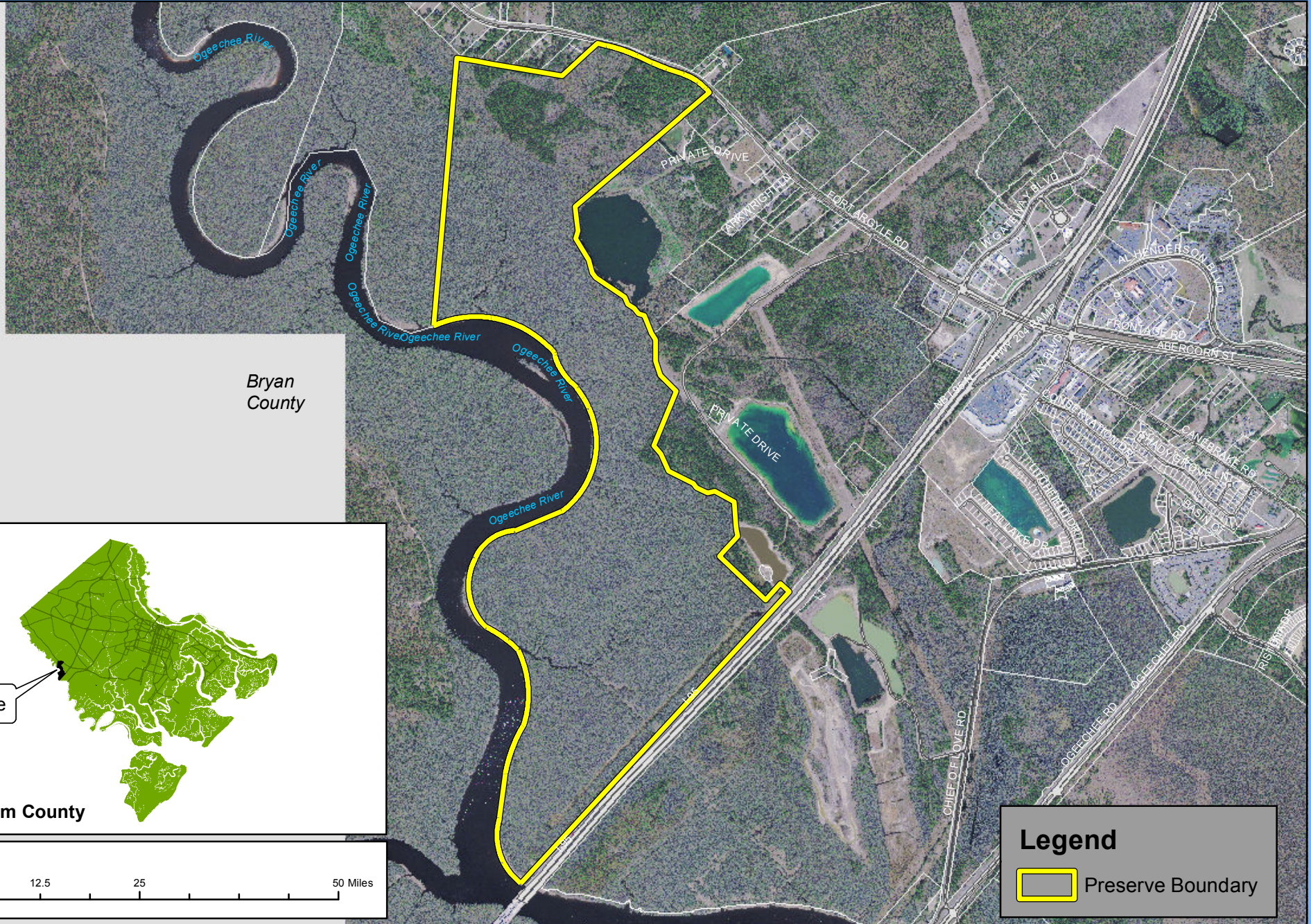


**CHATHAM COUNTY - SAVANNAH**  
**METROPOLITAN PLANNING COMMISSION**  
110 E. STATE ST. SAVANNAH, GA 31412-8246 PHONE 912-651-1440

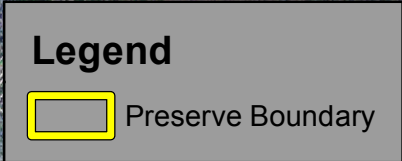
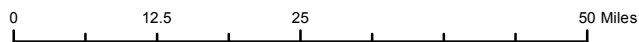
THIS MAP IS A COMPILATION OF INFORMATION FROM VARIOUS SOURCES AND SCALES. IN MOST CASES THE INFORMATION HAS NOT BEEN FIELD VERIFIED. USE THIS MAP FOR GENERAL PLANNING PURPOSES ONLY.



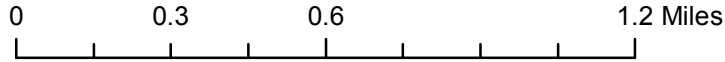
Date: 10/9/2013



Chatham County



# Figure 2 - Special Natural Areas

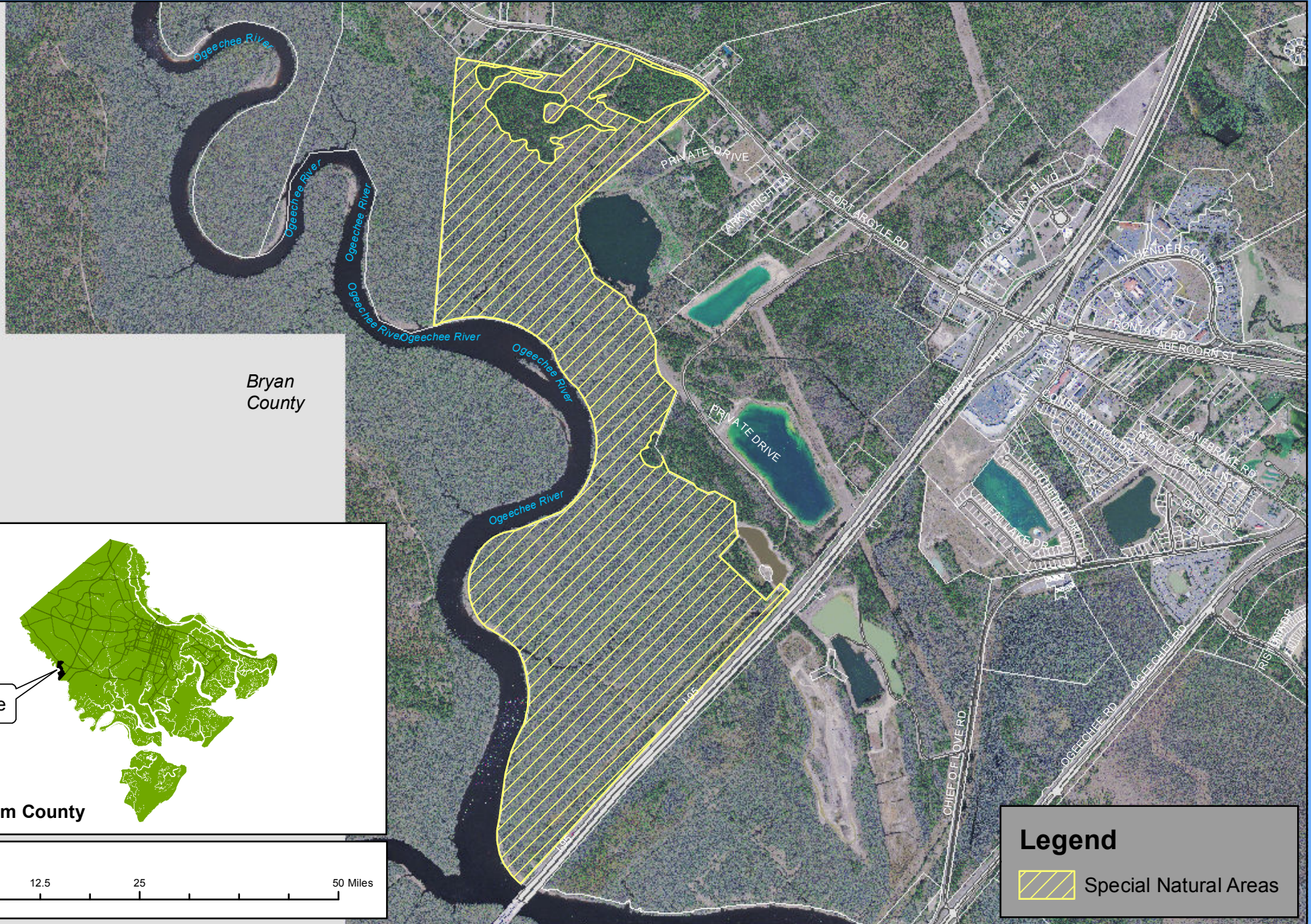


**CHATHAM COUNTY - SAVANNAH**  
**METROPOLITAN PLANNING COMMISSION**  
110 E. STATE ST. SAVANNAH, GA 31412-8246 PHONE 912-651-1440

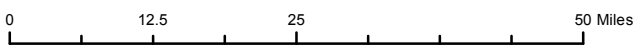
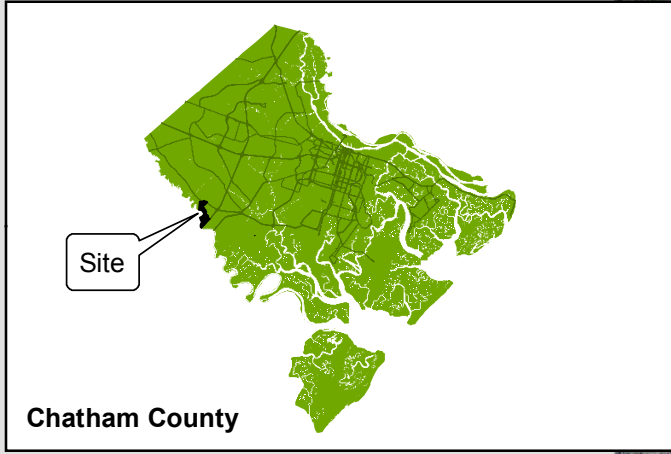
THIS MAP IS A COMPILATION OF INFORMATION FROM VARIOUS SOURCES AND SCALES. IN MOST CASES THE INFORMATION HAS NOT BEEN FIELD VERIFIED. USE THIS MAP FOR GENERAL PLANNING PURPOSES ONLY.




Date: 10/9/2013



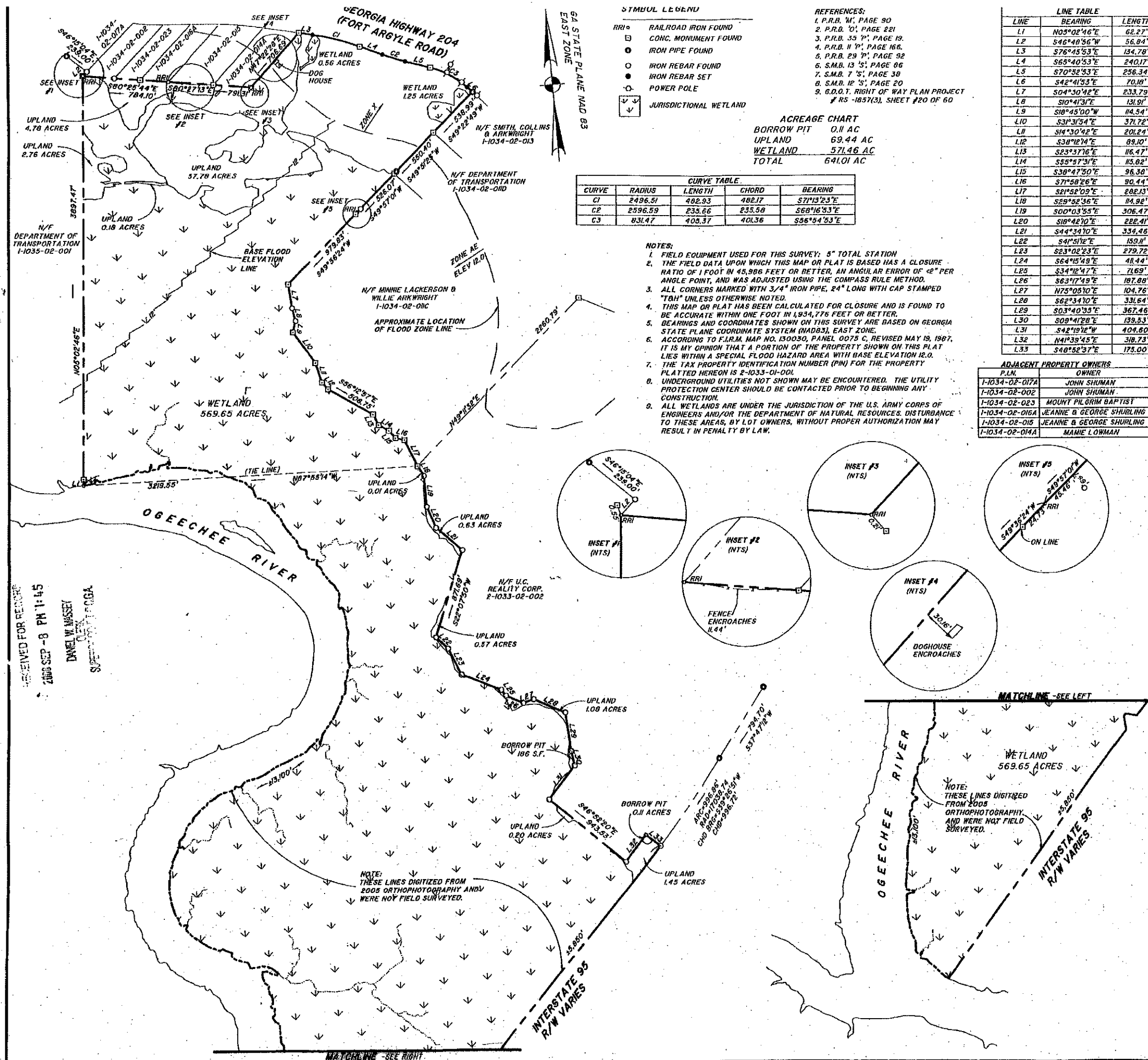
Bryan County



**Legend**

 Special Natural Areas





**SYMBOL LEGEND**

RR1	RAILROAD IRON FOUND
□	CONC. MONUMENT FOUND
○	IRON PIPE FOUND
○	IRON REBAR FOUND
○	IRON REBAR SET
○	POWER POLE
W	JURISDICTIONAL WETLAND

- REFERENCES:**
1. P.R.B. 'W', PAGE 90
  2. P.R.B. 'O', PAGE 221
  3. P.R.B. '35' P', PAGE 19.
  4. P.R.B. 'H' P', PAGE 166.
  5. P.R.B. '29' P', PAGE 92
  6. S.M.B. '13' S', PAGE 86
  7. S.M.B. '7' S', PAGE 38
  8. S.M.B. '12' S', PAGE 20
  9. G.O.O.T. RIGHT OF WAY PLAN PROJECT # R5 - 1857(3), SHEET #20 OF 60

**ACREAGE CHART**

BORROW PIT	0.11 AC
UPLAND	69.44 AC
WETLAND	571.46 AC
<b>TOTAL</b>	<b>641.01 AC</b>

**CURVE TABLE**

CURVE	RADIUS	LENGTH	CHORD	BEARING
C1	2496.51	482.93	482.17	57°13'23"E
C2	2596.59	235.66	235.58	568°16'53"E
C3	831.47	405.37	401.36	556°54'53"E

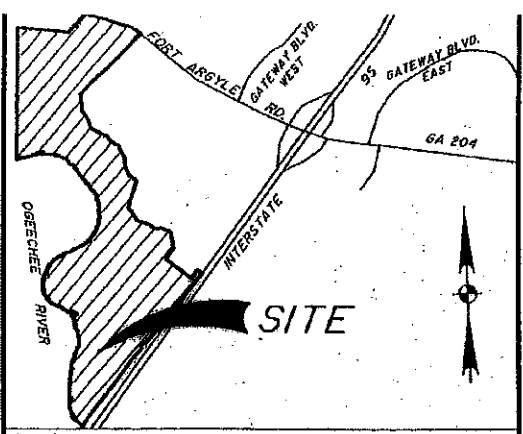
- NOTES:**
1. FIELD EQUIPMENT USED FOR THIS SURVEY: 5" TOTAL STATION
  2. THE FIELD DATA UPON WHICH THIS MAP OR PLAT IS BASED HAS A CLOSURE RATIO OF 1 FOOT IN 45,986 FEET OR BETTER, AN ANGULAR ERROR OF 2" PER ANGLE POINT, AND WAS ADJUSTED USING THE COMPASS RULE METHOD.
  3. ALL CORNERS MARKED WITH 3/4" IRON PIPE, 24" LONG WITH CAP STAMPED "T&H" UNLESS OTHERWISE NOTED.
  4. THIS MAP OR PLAT HAS BEEN CALCULATED FOR CLOSURE AND IS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 1,934,776 FEET OR BETTER.
  5. BEARINGS AND COORDINATES SHOWN ON THIS SURVEY ARE BASED ON GEORGIA STATE PLANE COORDINATE SYSTEM (NAD83), EAST ZONE.
  6. ACCORDING TO F.I.R.M. MAP NO. 130030, PANEL 0075 C, REVISED MAY 19, 1987, IT IS MY OPINION THAT A PORTION OF THE PROPERTY SHOWN ON THIS PLAT LIES WITHIN A SPECIAL FLOOD HAZARD AREA WITH BASE ELEVATION 12.0.
  7. THE TAX PROPERTY IDENTIFICATION NUMBER (PIN) FOR THE PROPERTY PLATTED HEREON IS 2-1033-01-001.
  8. UNDERGROUND UTILITIES NOT SHOWN MAY BE ENCOUNTERED. THE UTILITY PROTECTION CENTER SHOULD BE CONTACTED PRIOR TO BEGINNING ANY CONSTRUCTION.
  9. ALL WETLANDS ARE UNDER THE JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS AND/OR THE DEPARTMENT OF NATURAL RESOURCES. DISTURBANCE TO THESE AREAS, BY LOT OWNERS, WITHOUT PROPER AUTHORIZATION MAY RESULT IN PENALTY BY LAW.

**LINE TABLE**

LINE	BEARING	LENGTH
L1	N03°02'46"E	62.27'
L2	S46°40'56"W	56.04'
L3	S76°45'53"E	134.78'
L4	S65°40'53"E	240.17'
L5	S70°32'53"E	256.34'
L6	S42°41'53"E	70.16'
L7	S04°30'42"E	233.79'
L8	S10°41'31"E	131.91'
L9	S18°45'00"W	14.54'
L10	S31°31'54"E	371.72'
L11	S14°30'42"E	201.24'
L12	S38°12'14"E	89.10'
L13	S23°37'16"E	116.47'
L14	S55°57'31"E	15.82'
L15	S38°47'50"E	96.38'
L16	S77°58'26"E	90.44'
L17	S21°52'09"E	282.13'
L18	S29°52'36"E	14.92'
L19	S00°03'55"E	306.47'
L20	S18°42'10"E	222.41'
L21	S44°34'10"E	334.46'
L22	S4°51'12"E	159.11'
L23	S23°02'23"E	279.72'
L24	S64°15'49"E	41.44'
L25	S34°18'47"E	71.69'
L26	S63°17'49"E	187.88'
L27	N75°05'10"E	104.76'
L28	S62°34'10"E	331.64'
L29	S03°40'33"E	367.46'
L30	S09°41'28"E	139.53'
L31	S42°19'12"W	404.60'
L32	N41°39'45"E	318.73'
L33	S48°52'37"E	175.00'

**ADJACENT PROPERTY OWNERS**

P.L.M.	OWNER
1-1034-02-017A	JOHN SHUMAN
1-1034-02-002	JOHN SHUMAN
1-1034-02-023	MOUNT PILGRIM BAPTIST
1-1034-02-016A	JEANNE B GEORGE SHURLING
1-1034-02-015	JEANNE B GEORGE SHURLING
1-1034-02-014A	MAMIE LOWMAN



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**THOMAS & HUTTON ENGINEERING CO.**

**BOYCE L. YOUNG**  
 GA. REG. LAND SURVEYOR  
 LICENSE NO. 2282

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS PLAT IS A CORRECT REPRESENTATION OF THE LAND PLATTED, AND HAS BEEN PREPARED IN CONFORMITY WITH THE MINIMUM TECHNICAL STANDARDS AND REQUIREMENTS OF LAW.

NO. REVISION BY DATE

**A BOUNDARY SURVEY OF**

**A 641.01 ACRE PORTION OF UNION CAMP CORPORATION'S SOUTHERN STATES N/S CO. NO. 5 TRACT**

7th G.M.D.  
 CITY OF SAVANNAH  
 CHATHAM COUNTY, GEORGIA

PREPARED FOR:  
**INTERNATIONAL PAPER**

RECORDED IN BOOK **40** PAGE **106**  
 DATE \_\_\_\_\_

OFFICE OF THE CLERK OF SUPERIOR COURT  
 CHATHAM COUNTY, GA

PREPARED BY:  
**THOMAS & HUTTON ENGINEERING CO.**  
 50 PARK OF COMMERCE WAY, P.O. BOX 2727  
 SAVANNAH, GA 31406 / (912) 234-6300  
 www.thomas-hutton.com

SCALE: 1" = 600'

SCALE: 1" = 600'  
 FILE: J-19324  
 FIELD DATE: 11/13/06  
 PLAT DATE: 12/14/06

DRAWN BY: L.C.S.  
 REVIEWED BY: R.K.M.  
 APPROVED BY: B.L.Y.  
 PARTY CHIEF: B.D.

SHEET 1 OF 1

RECEIVED FOR RECORD  
 2006 SEP -8 PM 1:45  
 DANIEL W. MASSEY  
 CLERK  
 SUPERIOR COURT, CHATHAM COUNTY, GA

NOTE: THESE LINES DIGITIZED FROM 2005 ORTHOPHOTOGRAPHY AND WERE NOT FIELD SURVEYED.

NOTE: THESE LINES DIGITIZED FROM 2005 ORTHOPHOTOGRAPHY AND WERE NOT FIELD SURVEYED.

NOTE: THESE LINES DIGITIZED FROM 2005 ORTHOPHOTOGRAPHY AND WERE NOT FIELD SURVEYED.

**Appendix C:  
Conservation Easement Baseline Documentation  
Report**

**Completed by David J. Tipper, ACUB Conservation  
Planner, Georgia Land Trust, Inc.**

# Georgia Land Trust, Inc.

## CONSERVATION EASEMENT BASELINE DOCUMENTATION REPORT

### COVER SHEET

Easement Name: Chatham County (Blue Sky)

County: Chatham County, Georgia  
City: Savannah, Georgia

Date of Easement: November 29<sup>th</sup>, 2012

Easement Grantor: Chatham County  
A Political Subdivision of the State of Georgia  
Attn: County Manager  
124 Bull Street, Suite 220  
Savannah, Georgia 31401

Easement Holder: Georgia Land Trust, Inc.  
Attn: Executive Director  
428 Bull Street, Suite 201  
Savannah, Georgia 31401

Documentation Prepared by: David J. Tipper, ACUB Conservation Planner

Signature: \_\_\_\_\_

Date: November 2, 2012 – November 7, 2012

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## Declaration of Property Condition:

### Grantor Acknowledgment of Property Condition

This is to certify that I, **Patrick C. Monahan**, as representative of **Chatham County**, a Political Subdivision of the State of Georgia, Grantor of a Conservation Easement to the **Georgia Land Trust, Inc.**, on land in the County of Chatham, State of Georgia, to be recorded in the Chatham County Registry of Deeds, am familiar with the condition of the land subject to said Conservation Easement and do acknowledge and certify that this Baseline Documentation Report is an accurate representation as of the date of the grant of said Conservation Easement. In any conflict or inconsistency between the Baseline Documentation Report and the terms of the Conservation Easement, the Conservation Easement shall prevail.

Easement Grantor: **Chatham County**, a Political Subdivision of the State of Georgia

\_\_\_\_\_  
By: Patrick C. Monahan  
Its Assistant County Manager

\_\_\_\_\_  
Date

Witness: \_\_\_\_\_

\_\_\_\_\_  
Witness: Print Name

State of \_\_\_\_\_

County of \_\_\_\_\_

On the \_\_\_\_ day of November, 2012 personally appeared before me the above named Patrick C. Monahan, as representative for **Chatham County**, a Political Subdivision of the State of Georgia and made oath that the foregoing description and acknowledgments made to the best knowledge and belief are true.

\_\_\_\_\_  
Notary Public: Signature

\_\_\_\_\_  
Notary Public: Print Name

My Commission Expires: \_\_\_\_\_

Grantor \_\_\_\_\_

Grantee \_\_\_\_\_

**Grantee Acknowledgment of Property Condition**

This is to certify that I, **David J. Tipper**, as an authorized representative of the Grantee of a Conservation Easement granted to the **Georgia Land Trust, Inc.** by **Chatham County** on land in the County of Chatham, State of Georgia, to be recorded at the Chatham County Registry of Deeds, am familiar with the condition of the land subject to said Conservation Easement and, in compliance with Section 1:170A-14(g)(5) of the federal tax regulations, do acknowledge and certify that this Baseline Documentation Report is an accurate representation as of the date of the grant of said Conservation Easement. In any conflict or inconsistency between the Baseline Documentation Report and the terms of the Conservation Easement, the Conservation Easement shall prevail.

Easement Grantee: **Georgia Land Trust, Inc.**

\_\_\_\_\_  
By: **David J. Tipper**  
Conservation Planner, ACUB

\_\_\_\_\_  
Date

Witness: \_\_\_\_\_

\_\_\_\_\_  
Witness: Print Name

State of \_\_\_\_\_

County of \_\_\_\_\_

On the \_\_\_\_ day of \_\_\_\_\_, 2012 personally appeared before me the above named **David J. Tipper**, and made oath that the foregoing description and acknowledgments made to the best of her knowledge and belief are true.

\_\_\_\_\_  
Notary Public: Signature

\_\_\_\_\_  
Notary Public: Print Name

My Commission Expires: \_\_\_\_\_ (SEAL)

## Conservation Easement Abstract:

**Name of Easement:** Chatham County (Blue Sky)

**Grantor(s) Contact Information:** County Manager  
Chatham County, Georgia  
124 Bull Street, Suite 220  
Savannah, Georgia 31401  
(912) 652-7869

**Easement Size** (approximate acreage): +/- 641 acres

**Location of Easement:** Chatham County, Georgia

### Restrictions and Retained Rights:

The Property is protected from activities or land uses that would have a detrimental effect on the Conservation Values of the Property set forth in the Conservation Easement. With prior notice/permission, the Land Trust retains the right to visually inspect the Property, in a reasonable manner and at reasonable and regular times, in order to verify the compliance with the Conservation Easement.

**Reserved Rights:** The Grantor's rights to use the Property, as specifically set forth in the Conservation Easement, do not significantly impact the Conservation Values protected by the Conservation Easement.

Reserved rights are set forth in the Conservation Easement.

**Restrictions:** Activities inconsistent with the Conservation Easement are set forth in the Conservation Easement.

### Man-Made Features/Improvements:

The Property contains the following improvements:

- Approximately 4,565 feet (or .86 miles) of woods roads or trails.
- One gate restricting access to or on the property.
- Several historical drainage ditches.
- One historical borrow pit found, others noted on survey.
- A historical tram line.

These man-made improvements may be seen on the Man-Made Features Map in Appendix 3 of this Report.

## Concise Summary Statement of Easement Purposes:

The purpose of this Conservation Easement is to:

- Preservation of open space (including farmland and forestland), pursuant to Chatham County Resource Protection Ordinance.
- Preservation of significant, relatively-natural habitats of fish, wildlife, or plants, or similar ecosystems through the protection of Southern Coastal Plain Ecoregion High Priority Habitats as identified by the Wildlife Resources Division of the Georgia Department of Natural Resources' state wildlife action plan known as the Georgia Comprehensive Wildlife Conservation Strategy.
- Contribute to the open space within the Fort Stewart Military Installation's Army Compatible Use Buffer (ACUB) program.
- Preservation of open space for the scenic enjoyment of the general public, allowing the public to enjoy the view of the property from the Ogeechee River, Interstate 95, and along Highway 204.

## Target Elements:

- The easement will protect the property's bottomland hardwoods along the Ogeechee River and the pine hardwood stands in the interior of the Property, with a Special Natural Area (SNA).
- The Property is directly across the Ogeechee River from Fort Stewart, a military training facility maintained by the Army. The open space character of the Property buffers important areas on Fort Stewart and contributes to a larger protected ecological system.
- Protection of the Property promotes key protection themes set forth in the Georgia Comprehensive Wildlife Conservation Strategy (GCWCS). Protection of the Property's Bottomland Hardwood Forests and Nonalluvial Rivers identified by the Georgia Department of Natural Resources as the Southern Coastal Plain Ecoregion's "High Priority Habitats".

## Potential Threats to Ecological Integrity:

The primary threats to the land are loss of habitat associated with agricultural land-use practices and a growing human population in the Ogeechee Coastal Sub-Basin, particularly in nearby Savannah, Georgia. The ecology and economy of the river basin and public health in the basin is threatened by numerous pollution problems. These include dams, sedimentation, point-source releases, non-point-source runoff, and stormwater runoff, air pollution, past industrial and land use practices, introduced or



exotic species and water transfers outside the basin. Erosion control practices on the Property would protect its drainages to the larger Ogeechee River Basin, which is mostly intact but faces increasing pressures from incompatible development and agricultural practices, commercial contamination, and invasive species.

Non-point sources of pollution include a variety of pollutants that are carried across the ground with rainwater or snowmelt and are deposited in water bodies. The major categories of nonpoint source pollution in most river basins include the following:

- Urban, industrial, and residential sources, which may contribute stormwater runoff, unauthorized discharges, oxygen-demanding waste, oil and grease, nutrients, metals, bacteria, and sediments.
- Agricultural sources, which may contribute nutrients from animal wastes and fertilizers, sediment, herbicides/pesticides, and bacteria and pathogens.
- Forestry activities, which may contribute sediments and herbicides/pesticides

**Required Frequency of Monitoring for this Easement:**

At least annually.

**Condition of Property Summary:**

**Prior Land Use**

Historically, the Property has been used primarily for agriculture and light timber production. In addition, the Property has been used for hunting and aesthetic enjoyment.

During the field survey, the following conditions were observed or noted:

Structures or former structures that potentially contained hazardous materials or residue thereof:	<b>None.</b>
Impoundments, such as lagoons or ditches, that potentially contained hazardous liquids:	<b>None.</b>
Abandoned Storage tanks:	<b>None.</b>
Above Ground Storage Tanks:	<b>None.</b>
Electrical cables and Transformers above/below ground:	<b>None.</b>
Abandoned surface or hydrocarbon mines:	<b>None.</b>
Drains, Sumps, Pits, Ditches, Pools:	<b>None.</b>

Odors, Stains, Corrosion, Stressed Vegetation:	None.
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### Current Land Use

Currently, all areas of the Property are being used solely for scenic enjoyment. The bottomland hardwood areas of the Property are largely untouched.

### Physical Environment:

#### Ecoregion

The physical environment of the Property is described using the Environmental Protection Agency's (EPA) Ecoregion Descriptions. Ecoregions denote areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources. They are designed to serve as a spatial framework for the research, assessment, management, and monitoring of ecosystems and ecosystem components. Ecoregions are directly applicable to the immediate needs of state agencies, including the development of biological criteria and water quality standards and the establishment of management goals for non-point-source pollution. They are also relevant to integrated ecosystem management, an ultimate goal of many federal and state resource management agencies.

The Property is located within the Southern Coastal Plain Ecoregion. The Southern Coastal Plain extends from South Carolina and Georgia through much of central Florida, and along the Gulf coast lowlands of the Florida Panhandle, Alabama, and Mississippi. From a national perspective, it appears to be mostly flat plains, but it is a heterogeneous region also containing barrier islands, coastal lagoons, marshes, and swampy lowlands along the Gulf and Atlantic coasts. This ecoregion is generally lower in elevation with less relief and wetter soils than the Southeastern Plain Ecoregion. Once covered by a variety of forest communities, that included such tree species as longleaf pine, slash pine, pond pine, beech, sweetgum, southern magnolia, white oak, and laurel oak, land cover in the region is now mostly slash and loblolly pine with oak-gum-cypress forest in some low-lying areas.

Originally, pine and mixed hardwood forests covered much of the Ecoregion. The native longleaf pine (*Pinus palustris*) was the dominant tree species; however, its current extent has been reduced by as much as 98 percent. Forests have been cleared for lumber and converted to pine plantations that favor the faster growing slash (*Pinus elliotii*) and loblolly pine (*Pinus taeda*) species. Longleaf pine and other forests have also been converted to cropland, pasture, mining, and urban uses.

The Southern Coastal Plains Ecoregion has been further divided into a number of subdivisions. Specifically, the Property is located within the Sea Islands/Coastal Marsh subdivision. The Sea Islands/Coastal Marsh region contains the lowest elevations in

Georgia and is a highly dynamic environment affected by ocean wave, wind, and river action. Mostly sandy soils occur on the barrier islands, while organic and clayey soils occur in the freshwater, brackish, and salt marshes. Maritime forests of live oak, red cedar, slash pine, and cabbage palmetto grow on parts of the sea islands, and various species of cordgrass, saltgrass, and rushes are dominant in the marshes. The coastal marshes, tidal creeks, and estuaries are important nursery areas for fish, crabs, shrimp, and other marine species. Parts of the region have a long history of human alterations. Native Americans cultivated corn, melons, squash, and beans; a Spanish mission period during the 1500-1600's included crops of citrus, figs, peaches, olives, artichokes, and onions; and a plantation agriculture economy in the late 1700's through the 1800's produced indigo, rice, sugar cane, and sea island cotton.

Much of the above information is included in Table 1 of Appendix 5, which presents a summary of the EPA Level III Southern Coastal Plain Ecoregion. The proximity and range of the Ecoregions of Georgia are illustrated in the Ecoregion Map located in Appendix 3.

## Hydrology

The Property is located in the Lower Ogeechee Sub-basin of the larger Ogeechee River basin. The Ogeechee River basin is located in mid to southeastern Georgia and is flanked by the Altamaha and Oconee River basins to the west and the Savannah River basin to the east. The headwaters are located in the southeastern edge of the Piedmont Province and the basin continues southeastward to the Atlantic Ocean. In the headwaters, the North and South Fork Ogeechee Rivers join to form the Ogeechee River which runs 245 miles in a southeasterly direction nearly the entire length of the basin. The Ogeechee River basin is located entirely in the State of Georgia and drains approximately 5,540 square miles. The Ogeechee River basin includes four Sub-basins: Upper Ogeechee, Lower Ogeechee, Ogeechee Coastal and the Canoochee Sub-basins.

The Ogeechee River, which begins in the Georgia Piedmont, flows southeast for 245 miles and empties into the Atlantic Ocean at Ossabaw Sound, 15 miles south of Savannah. Maximum elevation of about 650 feet above sea level occurs at the headwaters of the Ogeechee, near Union Point in Greene County in Georgia's Piedmont Province. This occasionally steep, rolling area comprises only about five percent of the river basin. The Upper Coastal Plain portion of the river basin extends some 90 miles to the southeast and includes about 57 percent of the basin area. The Lower Coastal Plain, comprising about 38 percent of the basin area, is nearly flat. At the extreme seaward end of the Lower Coastal Plain, river water and land form an irregular and intricate pattern in which estuaries, sloughs, lagoons, mud flats, brackish swamps and barrier islands all play a part. The Ogeechee's principle tributary, the Canoochee River, originates in the Upper Coastal Plain southwest of the Ogeechee River and, for most of its 85 miles, flows parallel to the Ogeechee. The Canoochee joins the Ogeechee about 35 miles above its mouth. Freely translated to be "River of

the Uchees,” the Ogeechee referred to a sub-tribe of the Creek Confederation. The British settlers called the stream “Hogeechee.”

The freshwater streams in this river system are known as blackwater streams due to their dark, tea-colored water. Blackwater streams are ecologically unique. The tannins from the swamps that stain the water the tea-color also make the water more acidic than other streams. This acidity reduces the amount of vegetation that can grow naturally in the rivers, and also affects the mercury uptake by fish.

The property is on the Ogeechee River with extensive bottomland hardwood wetlands and swamp areas. The hardwood wetlands are drained by two intermittent streams in the northern portion of the Property and in the southern portion by several man-made drainage ditches which flow into an intermittent stream and then into the Ogeechee River. These ditches appear to have been utilized historically for agriculture. The protection of these water resources contribute directly to the overall health of the Lower Ogeechee Sub-basin and the Ogeechee basin.

The location of the Property with respect to Georgia's major watersheds can be found in Appendix 3 on the Watersheds Map.

## **Geology**

The northernmost part of the basin is within the Piedmont Province. This province constitutes less than 5 percent of the Ogeechee River basin and is underlain by crystalline metamorphic and igneous rocks. The metamorphic rocks originally were sedimentary, volcanic, and plutonic igneous rocks that have been altered by several stages of regional metamorphism as well as several episodes of granite intrusion. A large portion of the exposed rocks of the Ogeechee River basin consist of several types of gneisses and granites. The gneisses include several varieties of biotite gneiss, felsic gneiss, granite gneiss, and amphibolite gneiss. Granites include biotite and porphyritic varieties. Other rock types found in the basin include metasedimentary rocks, schists and phyllites, felsic and mafic metavolcanic rocks, and amphibolite.

Coastal Plain sediments constitute more than 95 percent of the Ogeechee River basin. Approximately 80 percent of the Coastal Plain sediments in the basin are sands and clays. The rest include calcareous sediments and Quaternary alluvium. Coastal Plain sediments overlap the igneous and metamorphic rocks of the southern edge of the Piedmont Province at the Fall Line. Coastal Plain sediments nearest to the Fall Line are Cretaceous to Eocene in age. These sediments are dominantly terrestrial to shallow marine in origin and consist of sand, kaolinitic sand, kaolin, and pebbly sand. They host the major kaolin deposits in Georgia with many of these deposits found within the Ogeechee River basin.

Much of the southeastern Piedmont is covered by deeply weathered bedrock called saprolite. Average saprolite thickness in the Piedmont rarely exceeds 20 meters, but the thickness can vary widely within a short distance. A considerable amount of ground water flows through the saprolite and recharges streams in the Piedmont. Saprolite is

easily eroded when covering vegetation and soil are removed. Extensive erosion of soil and saprolite caused by agricultural practices during the 1800s and early 1900s contributed a vast quantity of sediment into stream valleys, choking the streams and raising the streams base level. As conservation practices stabilized erosion, streams began to reestablish grade and cut into the thick accumulations of sediments, remobilizing them into the major rivers and eventually into reservoirs.

## Soils

Major land resource areas (MLRA) are geographically associated land resource units, usually encompassing several thousand acres, characterized by a particular pattern of soils, geology, climate, water resources, and land use. A unit can be one continuous area or several separate nearby areas. Chatham County is encompassed by the Atlantic Coast Flatwoods MLRA. The Ogeechee River watershed in Georgia crosses four MLRA's. About 6 percent of the area is in the Southern Piedmont MLRA, about 4 percent in the Carolina and Georgia Sand Hills MLRA, 48 percent in the Southern Coastal Plain MLRA, and 42 percent in the Atlantic Coast Flatwoods MLRA. Soils vary widely across the watershed, ranging from nearly level to steep, from shallow to very deep, from excessively drained to very poorly drained, and from sandy to clayey. There are some general trends with soils across the watershed. Going from north to south, degree of slope decreases, water tables are generally higher, and soil textures go from to clayey in the Southern Piedmont, to sandy or sandy over loamy in the Sand Hills, Coastal Plain, and Atlantic Coast Flatwoods.

Most of the soils in the Southern Piedmont region are characterized by very deep, well-drained, red clay soils that formed from felsic, high-grade metamorphic or igneous rocks. The dominant soil orders in this MLRA are Ultisols, Inceptisols, and Alfisols. The soils in the area dominantly have a thermic soil temperature regime, a udic soil moisture regime, and kaolinitic or mixed mineralogy. They are shallow to very deep, generally well drained, and loamy or clayey. Hapludalfs (Enon and Wilkes series), Hapludults (Badin, Nason, and Tatum series), and Kanhapludults (Appling, Cecil, Georgeville, Herndon, Madison, Pacolet, and Wedowee series) formed in residuum on hills and ridges. Dystrudepts (Chewacla series) formed in alluvium on flood plains. Udults in the Rhodic subgroup (Davidson, Hiwassee, and Lloyd series) formed in old alluvium on stream terraces or in residuum derived from mafic rocks.

The Carolina and Georgia Sand Hills portion of the Ogeechee basin is characterized by soils formed primarily in sandy and loamy marine sediments, which occasionally overlie residual Piedmont materials. There are two major groups of soils in this area. One group consists of deep sands ranging from 40 to more than 80 inches deep. The other group consists primarily of soils that have a sandy surface and a loamy subsoil, often exhibiting dense or brittle properties. Soils in this MLRA are generally less developed than soils in other parts of the watershed. The dominant soils in this part of the watershed have 40 to 60 inches of sandy materials overlying a loamy subsoil. Soils in

the Southern Coastal Plain part of the watershed are more variable than in other parts, particularly with regards to textures and water table depths. Typically, soils have a sandy surface layer that overlies a red to yellow, loamy subsoil. The depth of the sandy surface is quite variable. Soils in this region are on more gently sloping landforms than in previously mentioned MLRA's. There is a continuum of soils ranging from well-drained soils on ridges and hillsides to poorly drained soils in depressions and along drainageways.

Landforms in the Atlantic Coast Flatwoods part of the watershed, where the Property is located, are nearly level. Water tables are generally closer to the surface in this area than in other parts of the watershed. Typically, soils have a sandy surface layer that is 20 to 40 inches deep over a loamy subsoil. This varies considerably, however. Characteristic of part of this MLRA are sandy soils that have an accumulation of an organic matter-aluminum complex. There is also a significant area of marsh soils along coastal areas.

## **Ecological Features**

On 2 November, 2012, an on-site survey of the Property was performed by Land Trust personnel. Various Checkpoints (CPs) were established on the Property by Global Positioning System (GPS) and representative photographs were obtained. A topographic map illustrating the photographic checkpoints can be found in Appendix 2 of this report. Photographs associated with these checkpoints can be found in Appendix 2. In addition, biological and ecological observations were made during this visit. At the time of this site visit, the Property was covered by a mosaic of natural upland pines, areas of mixed pine/hardwoods, and bottomland hardwoods.

Currently, the approximately 650-acre Property is used primarily for scenic enjoyment. The majority of the Property is comprised of bottomland hardwood forest and wetlands that cover approximately 537 acres or 82.6% of the total area. There are no access roads into the bottomland areas. At the time of this report, the area was largely inaccessible due to extremely wet and boggy conditions. The major tree species in this area are blackgum, cypress, and tupelo.

The upland portions of the Property are a mix of natural pine and natural pine/hardwood stands. The natural pine areas comprise 62.06 acres, or 9.5%, and the natural pine/hardwood stands cover approximately 51.45 acres, or 7.9% of the total area. There is a historical tram line in the southeastern portion of the pine/hardwood stand that leads into the bottomland hardwood stand. These built up tram lines were originally used to access wet areas for logging purposes. The bottomland hardwood areas along the river and the mixed pine hardwoods in the upland portions of the Property have been reserved as a Special Natural Area (SNA). These areas can be seen on the Stand Delineation Map and the Ecological Features Map in Appendix 3 of this report.

The Georgia Comprehensive Wildlife Conservation Strategy (GCWCS) has identified a number of High Priority Species and Habitats for the Southern Coastal Plain Ecoregion where the Easement Property is located. Habitats designated as high priority that are found on the Easement Property include Bottomland Hardwood Forests and Nonalluvial (Blackwater) Rivers and Swamps. These high priority habitats and features are depicted on the Ecological Features Map in Appendix 3 of this Report and in the photographs herein. Here is a more detailed description of the high priority habitat types for the Southern Coastal Plain Ecoregion as described by the GCWCS:

#### Bottomland Hardwood Forests

Diverse hardwood-dominated forests found on natural levees, upper floodplain flats and terraces along brownwater and blackwater rivers. Characterized by a diverse canopy of hardwood species dominated by various oaks, green ash, sweetgum, red maple, water hickory, and other mesic species. These extensive forested systems provide habitat for a wide variety of wildlife species, and are especially important for wide-ranging forest interior species. Bottomland hardwood forests have been impacted by altered hydrologic conditions, forest conversion, and invasive exotic species.

#### Nonalluvial (Blackwater) Rivers and Swamps

Large, meandering rivers with tea-stained, but translucent waters and narrow to wide floodplains. Dominant substrate is sand, which may form extensive bars in larger systems. Runs and pools are dominant habitats. Large snags are a significant component of habitat heterogeneity. Limestone shoals occur on some of these rivers.

### **Animals**

The habitat diversity in this region supports a wide variety of wildlife. Although small numbers of black bears may be found in isolated areas, the white-tailed deer is the only large indigenous mammal in this region. Populations of feral hogs have become quite prevalent and their destructive foraging habits have made them a nuisance species in agricultural locales. Small mammals that are common to the basin include raccoons, opossums, flying squirrels, rabbits and numerous species of ground-dwelling rodents.

The bobwhite quail, eastern wild turkey and mourning dove are the primary game birds. Migratory nongame bird species, as well as waterfowl are numerous in this region. The red-cockaded woodpecker, which inhabits mature longleaf pine stands, is a federally listed endangered species.

The protection, restoration and enhancement of this Property would provide a relatively natural habitat for many species of mammals, amphibians, reptiles, and birds within these terrestrial environments and the river corridors that exist in the basin. The abundance and diversity of the wildlife on the Property would decline or be extinguished if the habitat created by the Property were improvidently altered. Special concern species of animals and plants that are known from Chatham County are presented in Table 3 of Appendix 5.

Technical teams for the Georgia Comprehensive Wildlife Conservation Strategy conducted research studies within the Southern Coastal Plain Ecoregion and identified 74 high priority animal species. In addition, 88 species of high priority plants were identified for the Southern Coastal Plain. A detailed list of high priority plants and animals for the Southern Coastal Plain Ecoregion are listed in Tables 4 and 5 of Appendix 5.

The diverse fish fauna of the Ogeechee River basin includes 59 species representing 23 different families. The largest group of species in the Ogeechee River basin belongs to the sucker family Catostomidae. Even though suckers are not highly prized by most fishermen, they are ecologically important because they often account for the largest fish biomass in Georgia streams. In a 1988 survey conducted by the Fisheries Section of the Georgia Department of Natural Resources on the Ogeechee River, spotted suckers comprised 28 percent of the total sample by weight. Other families with large numbers of species are the sunfish and bass family (Centrarchidae) and the catfish family (Ictaluridae).

Striped bass are spawned and raised to intermediate size at Richmond Hill Hatchery for stocking when late spring and early summer flows drop below 30 percent of average annual discharge. Research has shown that flows less than 800 cubic feet per second, during this period result in poor recruitment of striped bass to juvenile stage. Artesian cool water refuges (springs) are critical to the survival of adult striped bass during summer months. The Ogeechee River offers excellent fishing for redbreast sunfish, largemouth and striped bass, catfish, redear sunfish, spotted sunfish, black crappie and chain pickerel. The Canoochee River is the largest tributary to the Ogeechee River and is home to many freshwater fish species and offers excellent fishing for redbreast sunfish, largemouth bass, catfish, red ear sunfish, and spotted sunfish.

The Property's natural forestlands provide suitable habitat for several reptilian species. American alligators enjoy the wetlands and swampy areas adjacent to the River. Snakes benefitting from the protected forests afforded by the Property include the venomous eastern diamondback rattlesnake and many other non-poisonous varieties such as the scarlet snake, rainbow snake, and the eastern indigo snake, a federally listed species, as well as the southern hognose snake, a state listed species. A list of amphibians and reptiles that may find suitable habitat on the Property is presented in Table 6 of Appendix 5.

The Property lies within a migratory path for threatened Neotropical birds. Migratory non-game bird species, as well as waterfowl are numerous in this region. Many familiar songbirds such as warblers, vireos, orioles, and tanagers are a few of the Neotropical migratory birds that have the potential to use the open areas provided by the Property. These birds breed in North America and migrate to Mexico, Central and South America and the Caribbean to spend the winter. Loss of habitat needed for wintering, breeding, and as stopovers during migration has caused significant declines in numerous species of migratory birds.



The mixed-pine hardwood forests on the Property provide habitat for a variety of migratory bird species. Species that favor such habitat include the Brown-headed Nuthatch, Grasshopper Sparrow (Georgia High Priority Species) and the Field Sparrow. Bobwhite quail, eastern wild turkey, and mourning dove are the primary game birds that may find suitable habitat on the Property. Additional resident species that may find habitat include the barn owl (high priority), screech owls, hawks, herons and great horned owls. Many waterfowl species enjoy and use the marshy areas. A listing of birds that may find suitable habitat on the Property is presented in Table 7 of Appendix 5.

The Property has many areas that are prime habitats for a variety of mammals, songbirds, reptiles, amphibians, and other living organisms associated with ecosystems similar to those found on the Property. More than ninety species of mammals inhabit Georgia, from the coastal waters of the Atlantic Ocean to the mountains of northeast Georgia at elevations of more than 4,700 feet. The habitat diversity in the region supports a wide variety of wildlife.

Many mammals familiar to people, such as the white-tailed deer, live in the state; however about half of the area's mammals are rodents or bats, which are seldom seen and often unknown to most people. The mature natural forests of the Property supports habitat for numerous mammals, including bats. State priority and greatest conservation need bat species include Rafinesque's big-eared bat, northern yellow bat and southeastern myotis. Mammals with potential to live in the Property's habitats include white-tailed deer, black bear, wild hog, northern raccoon, swamp rabbit, eastern cottontail, eastern spotted skunk, red fox, gray fox, northern river otter, American mink, bobcat, American beaver, coyote, muskrat, eastern gray squirrel, eastern fox squirrel, eastern woodrat, and numerous other grounding dwelling species such as the white-footed mouse, other mice, rats, moles, voles, shrews, chipmunk, and woodchuck. The presence of some mammals may be limited by the size of the forest, since larger animals need more space. A detailed listing of mammals that may find suitable habitat on the Property is presented in Table 8 of Appendix 5.

## References:

Georgia Department of Natural Resources, Georgia Environmental Protection Division, *Ogeechee River Basin Plan 2001*.

URL: "<http://www.georgiaepd.org/Documents/ogeechee.html>"

Georgia Department of Natural Resources (GA DNR), Wildlife Resources Division,

URL: "<http://georgiawildlife.com/conservation>"

Georgia Department of Natural Resources, Georgia Comprehensive Wildlife Conservation Strategy (GCWCS).

URL: "<http://www1.gadnr.org/cwcs/>"

Natural Resources Conservation Service, United States Department of Agriculture. Soil Data Mart. Website: <http://soildatamart.nrcs.usda.gov/>

Natural Resources Conservation Service, United States Department of Agriculture. Major Land Resource Areas in Georgia.

URL: "[http://www.mo15.nrcs.usda.gov/technical/mlra\\_ga.html](http://www.mo15.nrcs.usda.gov/technical/mlra_ga.html)"

United States Department of Agriculture, Natural Resources Conservation Service, Plants Database. Website: <http://plants.usda.gov>

U.S. Fish & Wildlife Service, Migratory Birds of the Southeast. Website:

<http://www.fws.gov/southeast/birds/>

North Carolina State University. GAP Regional Data. Website:

<http://www.gapservice.ncsu.edu/>

## Biography of Preparer:

**Report Writer & Field Work Technician: David Tipper** graduated from Lake City Community College, School of Forest Technology in the fall of 1982 with an A.S. in Forest Technology. Since graduation, David has been employed with numerous private land management companies. His duties at these organizations included timber stand inventory, reforestation, and other related silvacultural activities. He was responsible for the mapping, and incorporation into a GIS database of over 200,000 acres of privately owned timberland while employed in the Land Management Division of a major pulp and paper company in south west Alabama. He has trained employees at these organizations in the use of GPS and timber volume inventory data collectors. David has been employed with the Georgia Land Trust since October of 2010. He currently serves as Conservation Planner with the responsibilities of Conservation Planning, and GIS mapping.

## Appendix 1: Directions to Property

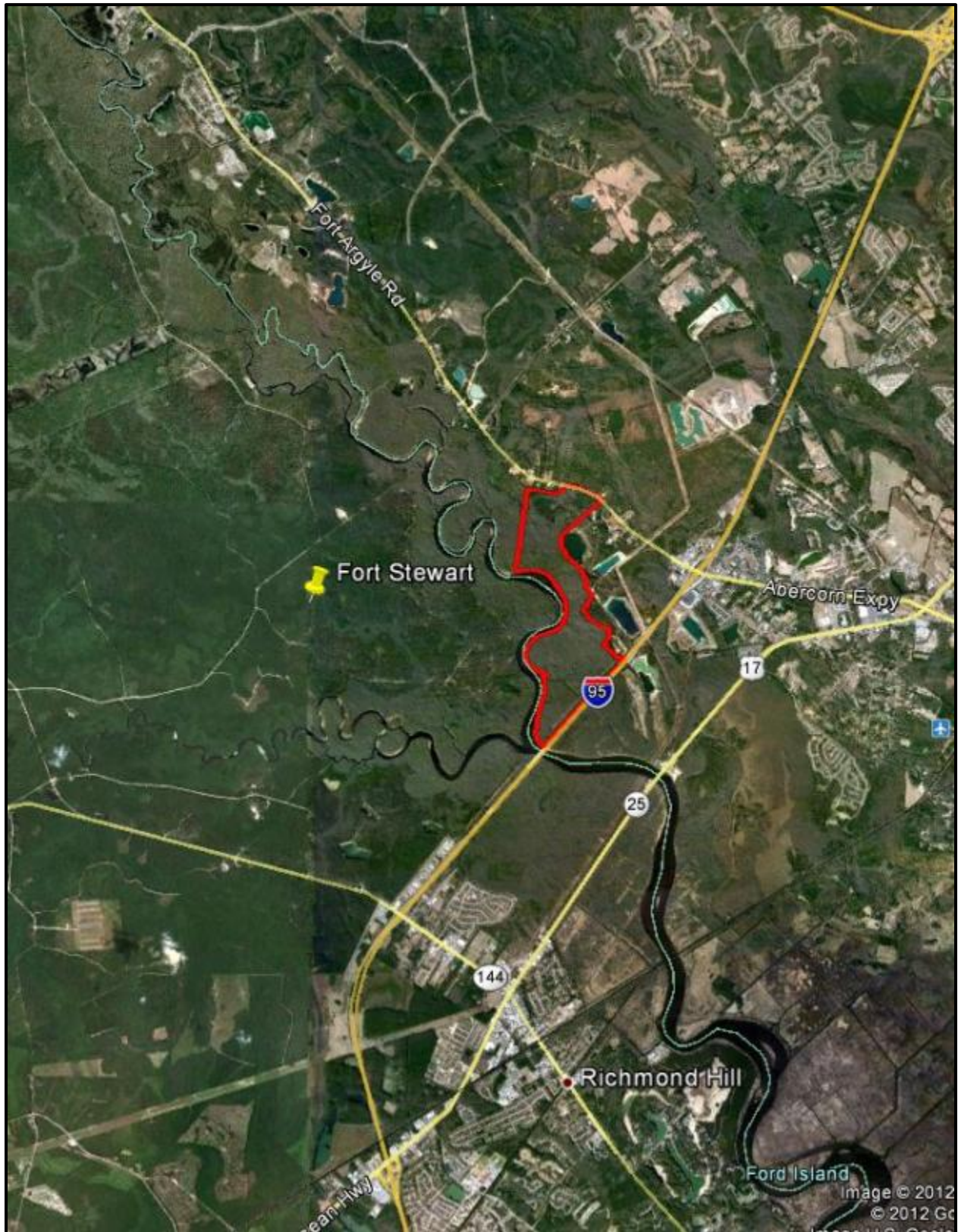
**Written Directions:** From Savannah take I-16 west to exit 157A to merge onto I-95 south toward Brunswick/Jacksonville. Take exit 94 from I-95, merging onto Highway 204-West, also known as Fort Argyle Road. Proceed west on Highway 204 for 1.25 miles. The entrance to the Property is on the south side of Highway 204 and is marked by a yellow gate.

### Photo of Property Entrance



The main entrance road into the Property from U.S. Highway 204.

## Proximity Map of Property

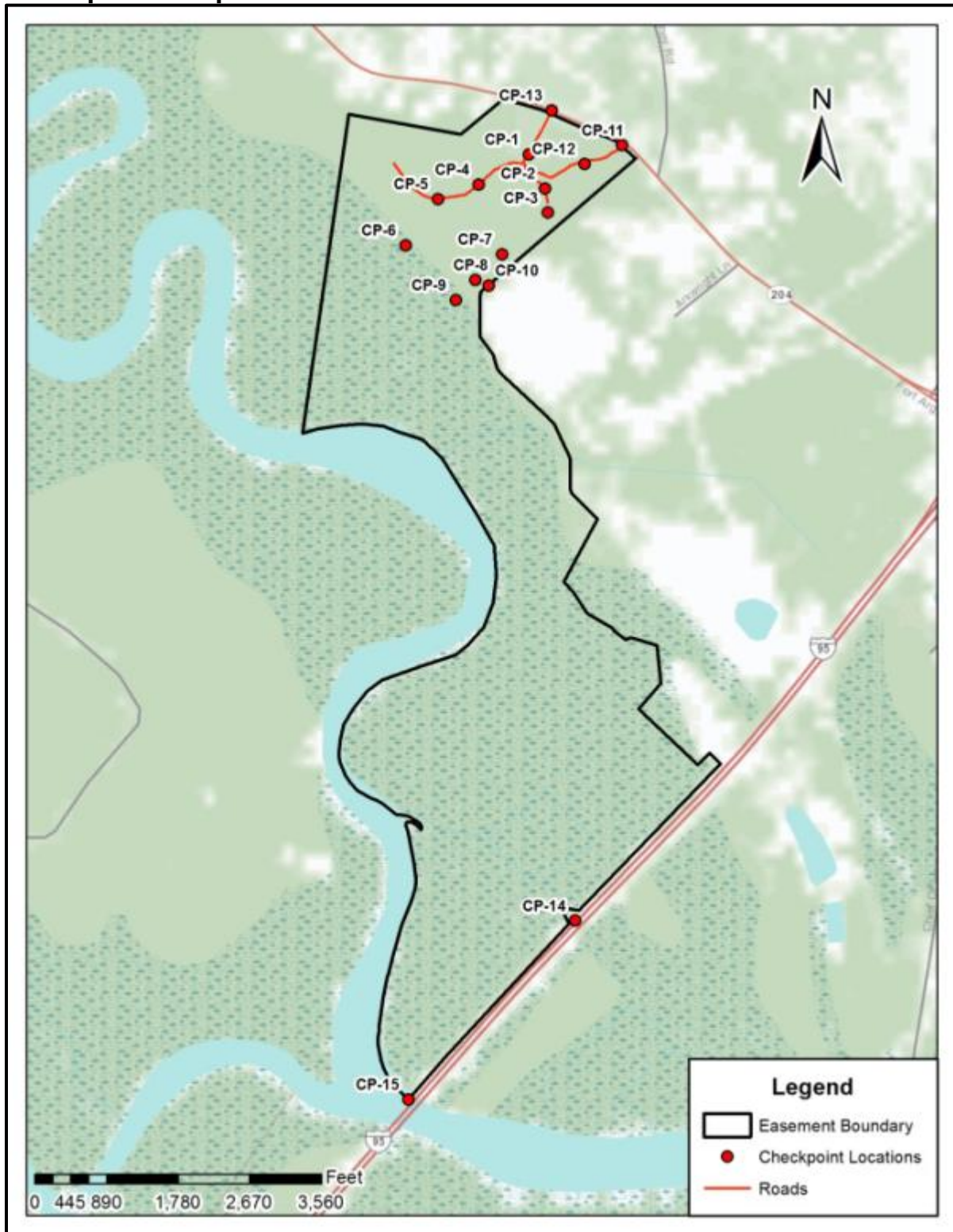


Grantor \_\_\_\_\_

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## Appendix 2: Checkpoints

### Checkpoints Map



**Photographs of the Property:**

Refer to the topographic site map annotated with checkpoints (CPs) and the referenced photographs taken on November 2, 2012, for descriptions of the areas visited.



**Photo 1 - CP 1. (50°) An interior road in upland pines looking toward Hwy. 204.  
(32°0'50.70"N 81°18'08.99"W) (17SMR 71432 42037)**



**Photo 2 - CP 1. (310°) Pre-merchantable pines in the northern portion of the Property.  
(32°0'50.70"N 81°18'08.99"W) (17SMR 71432 42037)**



**Photo 3 - CP 1. (140°) Another view of pre-merchantable pines.  
(32°0'50.70"N 81°18'08.99"W) (17SMR 71432 42037)**



**Photo 4 - CP 2. (60°) A natural pine stand with little understory due to a closed canopy.  
(32°0'46.57"N 81°18'06.68"W) (17SMR 71492 41909)**





**Photo 5 - CP 2. (260°) Looking southerly into a pine hardwood stand.  
(32°0'46.57"N 81°18'06.68"W) (17SMR 71492 41909)**



**Photo 6 - CP 2. (170°) A woods road that divides a pine upland stand and a pine hardwood stand.  
(32°0'46.57"N 81°18'06.68"W) (17SMR 71492 41909)**



**Photo 7 - CP 3. (80°) A hunting stool found in the bottomland hardwoods that implies illegal trespass.  
(32°0'43.54"N 81°18'06.22"W) (17SMR 71504 41816)**



**Photo 8 - CP 3. (80°) The transition between an upland pine stand and a pine hardwood stand.  
(32°0'43.54"N 81°18'06.22"W) (17SMR 71504 41816)**



**Photo 9 - CP 3. (280°) A pine hardwoods stand that is occasionally flooded.  
(32°0'43.54"N 81°18'06.22"W) (17SMR 71504 41816)**



**Photo 10 - CP 4. (110°) Natural pine uplands.  
(32°0'46.93"N 81°18'16.24"W) (17SMR 71241 41921)**



Photo 11 - CP 4. (280°) A transitional area between upland pines and pine hardwoods.  
(32°0'46.93"N 81°18'16.24"W) (17SMR 71241 41921)



Photo 12 - CP 4. (130°) A woods road through a stand of upland pine.  
(32°0'46.93"N 81°18'16.24"W) (17SMR 71241 41921)



**Photo 13 - CP 5. (180°) Hog pen, unauthorized by owner, in an upland pine stand.  
(32°0'45.16"N 81°18'22.03"W) (17SMR 71089 41867)**



**Photo 14 - CP 6. (270°) A bottomland hardwood stand indicative of the majority of the stand throughout the  
Property.  
(32°0'40.72"N 81°18'24.61"W) (17SMR 71021 41731)**



**Photo 15 - CP 6. (340°) Major tree species in the bottomland hardwoods include tupelo, black gum, and cypress.  
(32°0'40.72"N 81°18'24.61"W) (17SMR 71021 41731)**



**Photo 16 - CP 6. (190°) Boggy ground conditions in the bottomland hardwood stand.  
(32°0'40.72"N 81°18'24.61"W) (17SMR 71021 41731)**



**Photo 17 - CP 7. (140°) A pine hardwood stand in the northern portion of the Property.  
(32°0'38.52"N 81°18'12.79"W) (17SMR 71331 41662)**



**Photo 18 - CP 7. (290°) Pine species in the pine hardwood stand is predominantly natural slash pine.  
(32°0'38.52"N 81°18'12.79"W) (17SMR 71331 41662)**



**Photo 19 - CP 7. (30°) Upland red oaks in a pine hardwood stand.  
(32°0'38.52"N 81°18'12.79"W) (17SMR 71331 41662)**



**Photo 20 - CP 8. (340°) A historical tram line leading into the bottomland hardwoods.  
(32°0'35.28"N 81°18'16.67"W) (17SMR 71229 41562)**





**Photo 21 - CP 8. (50°) Looking easterly along the tram line.  
(32°0'35.28"N 81°18'16.67"W) (17SMR 71229 41562)**



**Photo 22 - CP 9. (240°) A very wet and boggy bottomland hardwood stand.  
(32°0'34.41"N 81°18'17.38"W) (17SMR 71210 41536)**



**Photo 23 - CP 9. (20°) Palmettos within the bottomland hardwoods.  
(32°0'34.41"N 81°18'17.38"W) (17SMR 71210 41536)**



**Photo 24 - CP 9. (130°) The transition between bottomland hardwoods and upland pine hardwoods.  
(32°0'34.41"N 81°18'17.38"W) (17SMR 71210 41536)**



**Photo 25 - CP 10. (40°) Trash from the adjoining tract close to the boundary line of the Property.  
(32°0'34.63"N 81°18'14.83"W) (17SMR 71277 41542)**



**Photo 26 - CP 10. (265°) Trash from the adjoin property is encroaching on the Property.  
(32°0'34.63"N 81°18'14.83"W) (17SMR 71277 41542)**



**Photo 27 - CP 11. (310°) Looking westerly along Hwy. 204 at a point near an un-gated Property entrance.  
(32°0'51.94"N 81°17'55.60"W) (17SMR 71783 42074)**



**Photo 28 - CP 11. (220°) An un-gated entrance to the Property accessed from Hwy. 204.  
(32°0'51.94"N 81°17'55.60"W) (17SMR 71783 42074)**



**Photo 29 - CP 11. (140°) Looking easterly along Hwy. 204. The Property is on the right of the photograph.  
(32°0'51.94"N 81°17'55.60"W) (17SMR 71783 42074)**



**Photo 30 - CP 12. (265°) A woods road through a stand of upland pines.  
(32°0'49.54"N 81°18'00.95"W) (17SMR 71643 42000)**



**Photo 31 - CP 12. (200°) A heavy stand of upland natural pine.  
(32°0'49.54"N 81°18'00.95"W) (17SMR 71643 42000)**



**Photo 32 - CP 12. (30°) Another view of the upland pines.  
(32°0'49.54"N 81°18'00.95"W) (17SMR 71643 42000)**



**Photo 33 - CP 13. (210°) The main gated entrance to the Property.  
(32°0'56.12"N 81°18'05.74"W) (17SMR 71518 42203)**



**Photo 34 - CP 13. (310°) Looking westerly along Hwy. 204 from the main entrance.  
(32°0'56.12"N 81°18'05.74"W) (17SMR 71518 42203)**



**Photo 35 - CP 13. (120°) Travelers along Hwy. 204 view these natural areas of the Property.  
(32°0'56.12"N 81°18'05.74"W) (17SMR 71518 42203)**



**Photo 36 - CP 14. (290°) Bottomland hardwoods as seen from I-95.  
(31°59'16.60"N 81°18'02.02"W) (17RMR 71607 39139)**





Photo 37 - CP 14. (210°) Bottomland hardwoods next to an excluded piece of the Property.  
(31°59'16.60"N 81°18'02.02"W) (17RMR 71607 39139)



Photo 38 - CP 14. (45°) Travelers on I-95 can see the natural beauty of the Property.  
(31°59'16.60"N 81°18'02.02"W) (17RMR 71607 39139)



**Photo 39 - CP 15. (315°) The Property along the Ogeechee River as seen from I-95.  
(31°58'54.20"N 81°18'25.95"W) (17RMR 70977 38451)**



**Photo 40 - CP 15. (45°) A small strip of upland pines along I-95. Behind the pine are bottomland hardwoods.  
(31°58'54.20"N 81°18'25.95"W) (17RMR 70977 38451)**

## Appendix 3: Maps of the Property

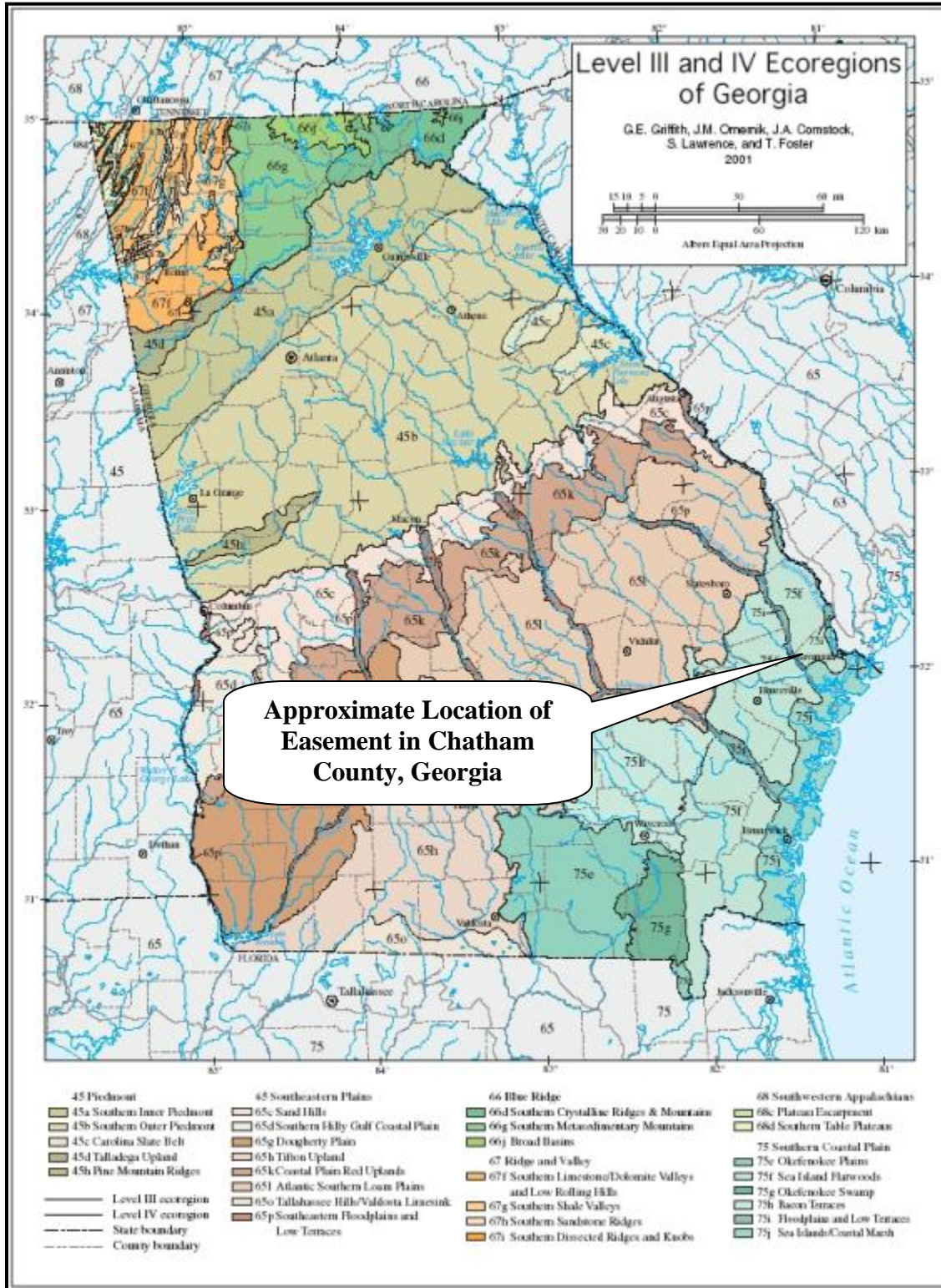
### List of Maps:

- **Georgia Ecoregion Map**
- **Georgia Watershed Map**
- **Hydrology Map**
- **Man-Made Features Map**
- **Stand Delineation Map**
- **Ecological Features Map**
- **Trailhead Building Envelope Map**
- **Proximity to Protected Lands Map**

**Map Datum:** All map coordinates are in UTM/MGRS using the 1927/83 North American Datum on USGS Topographic Maps.

**Map Disclaimer:** Maps contained in this report are not surveys and must not be construed as surveys. The Land Trust and its staff are not licensed surveyors. The information imparted with these maps is meant to assist the Land Trust in their efforts to clearly depict Property boundaries, describe placement of certain retained, reserved or excluded rights, and to calculate acreage figures. Property boundaries, while approximate, were established using the best available information, which may include: surveys, tax maps, and field mapping using G.P.S. and/or orthophotos.

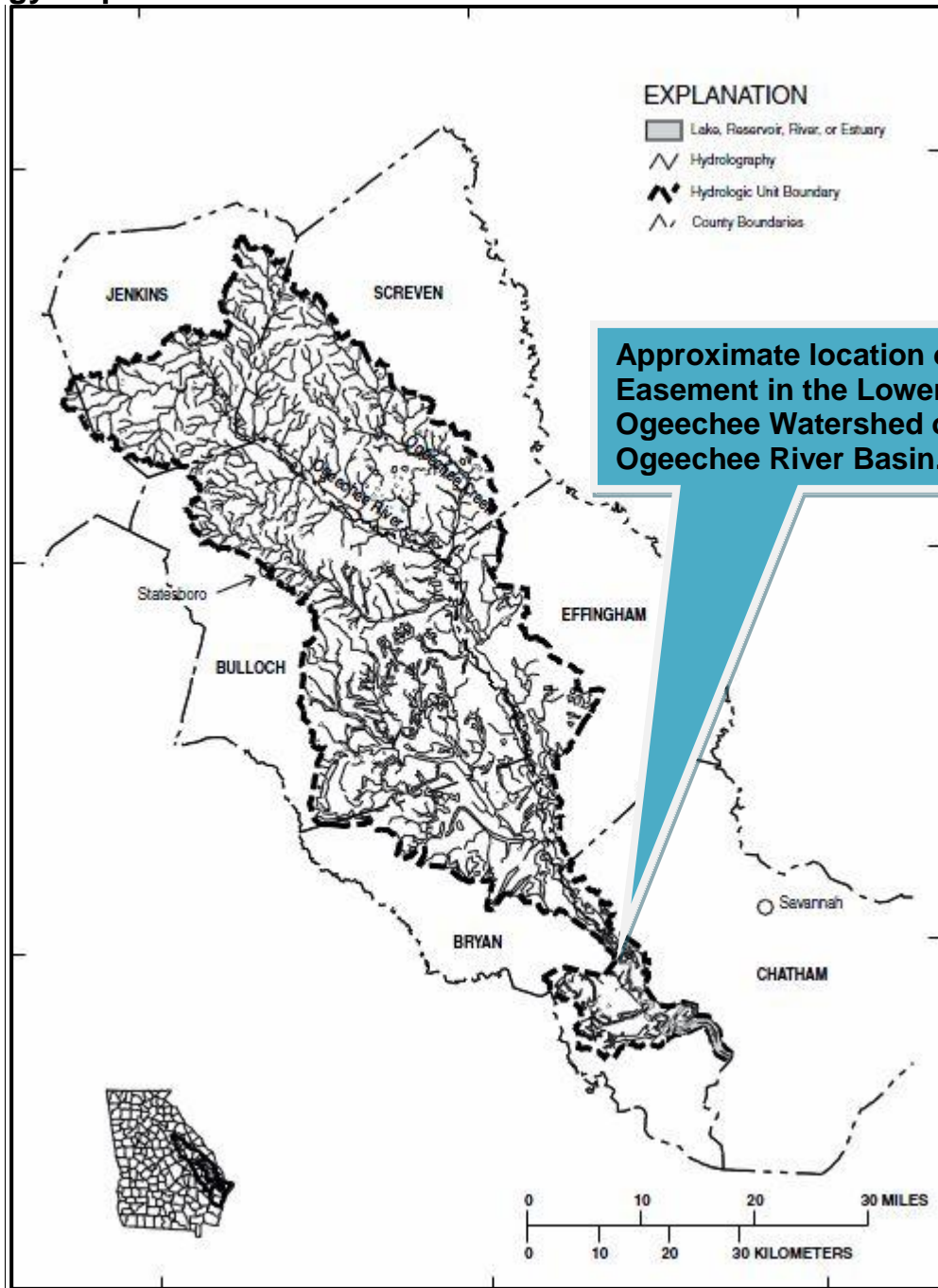
## Georgia Ecoregion Map



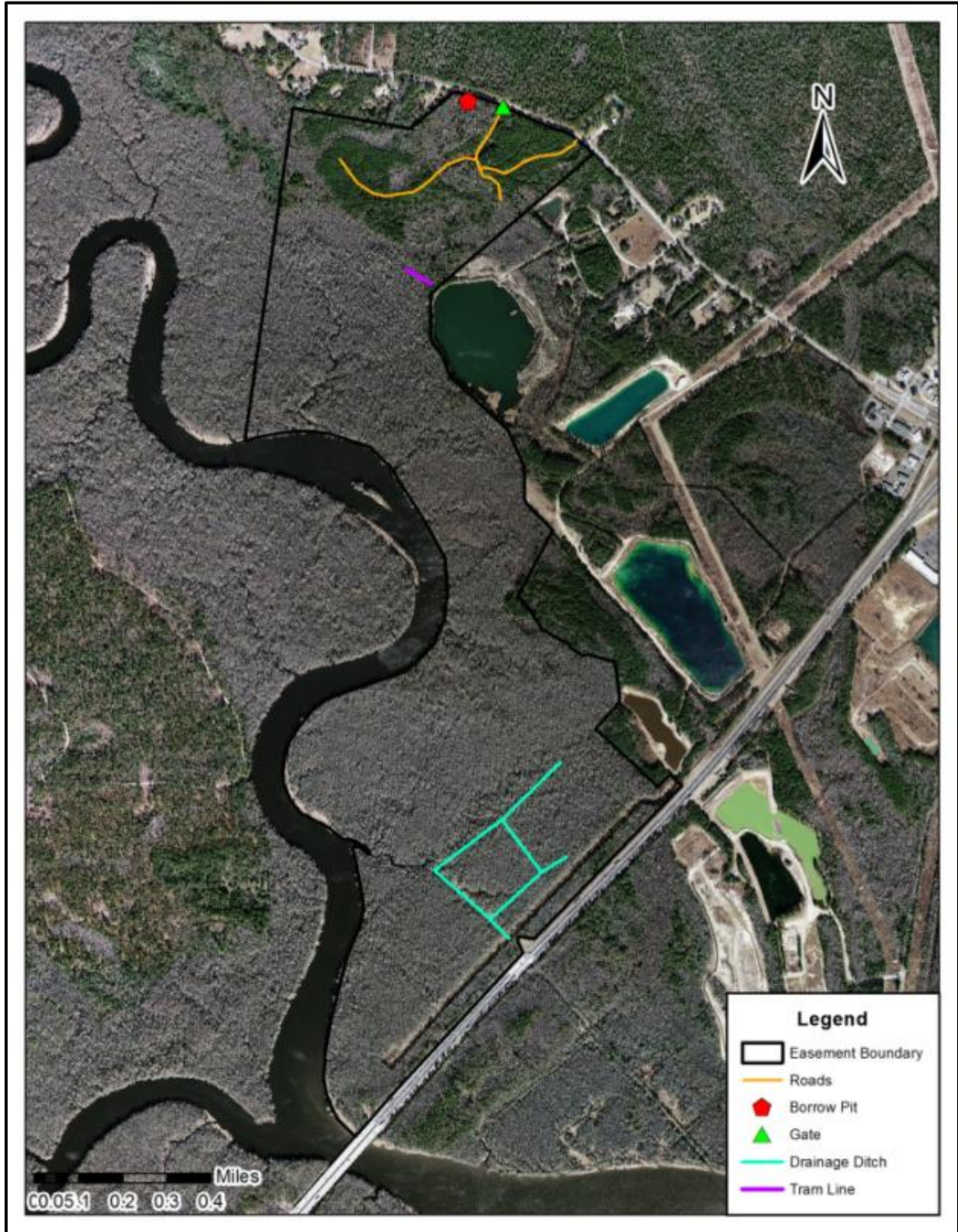
## Georgia Watershed Map



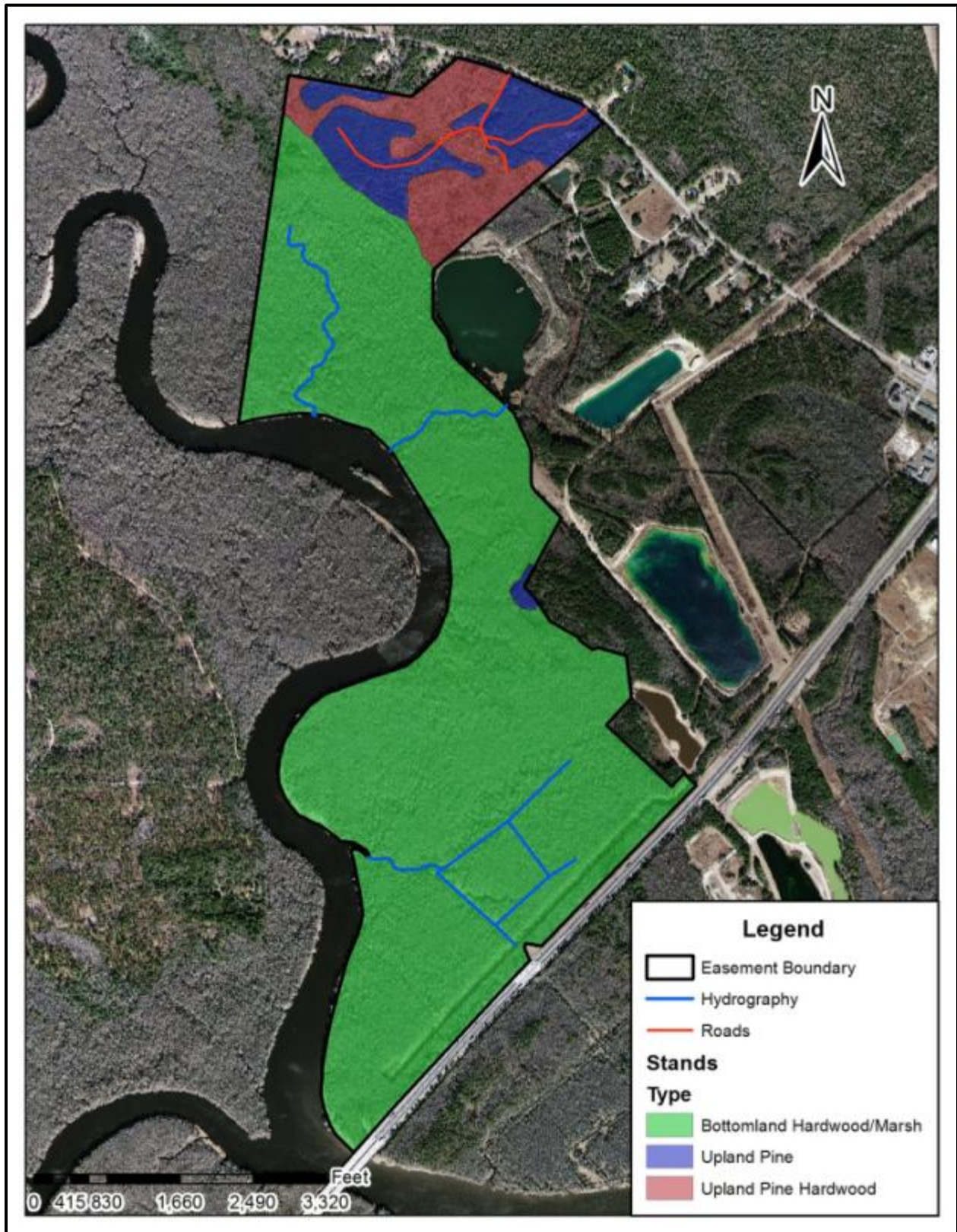
### Hydrology Map



### Man-Made Features Map

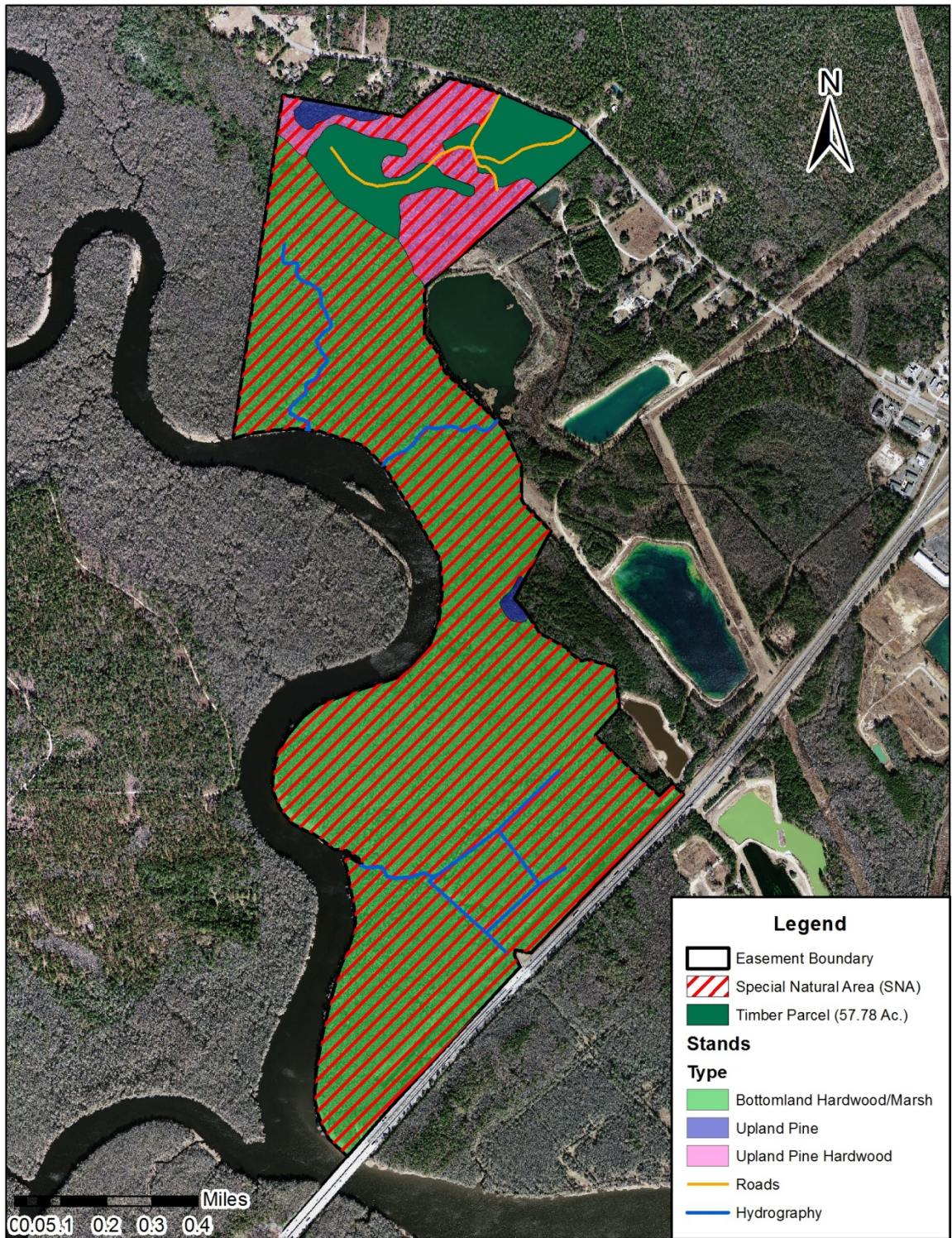


### Stand Delineation Map

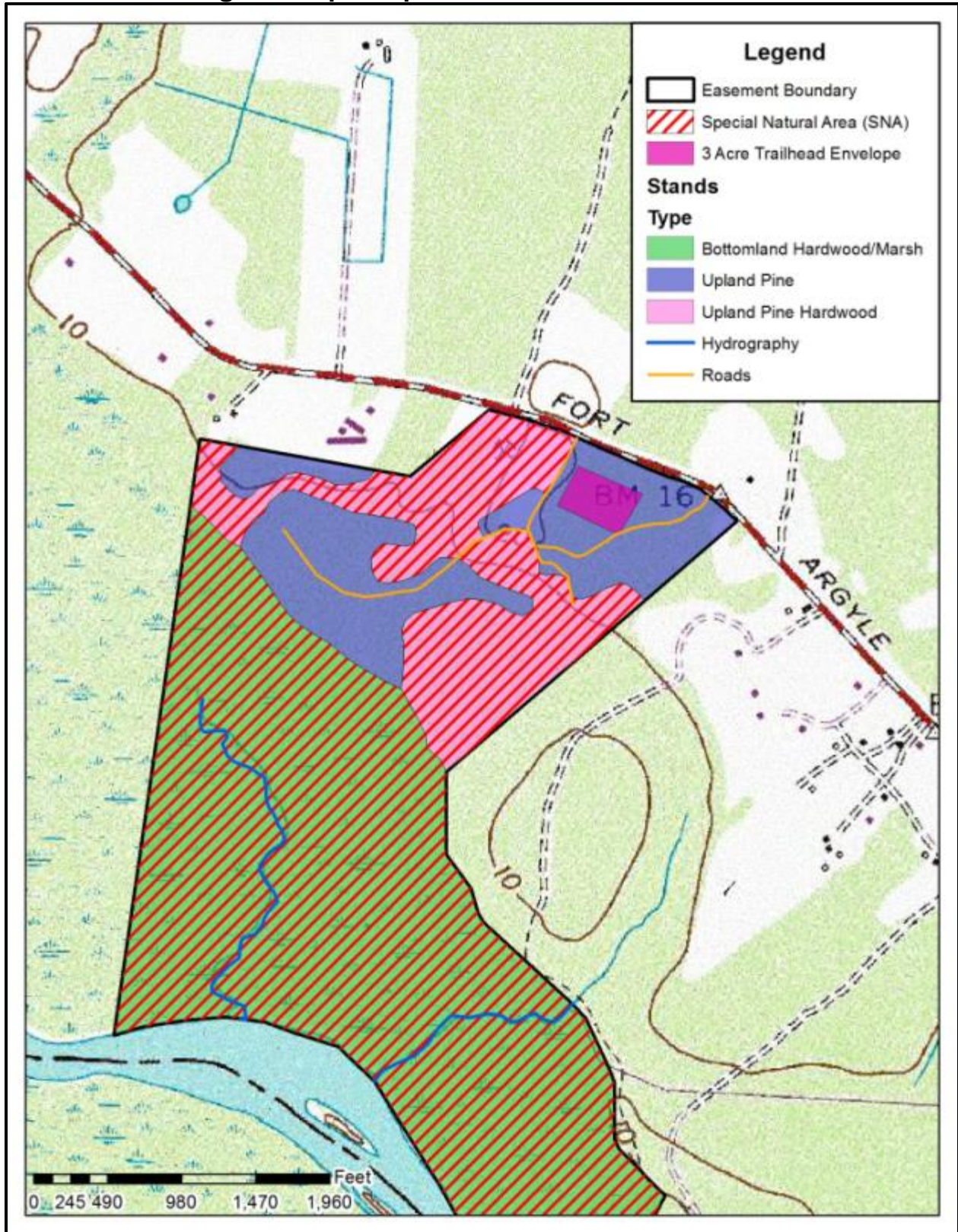




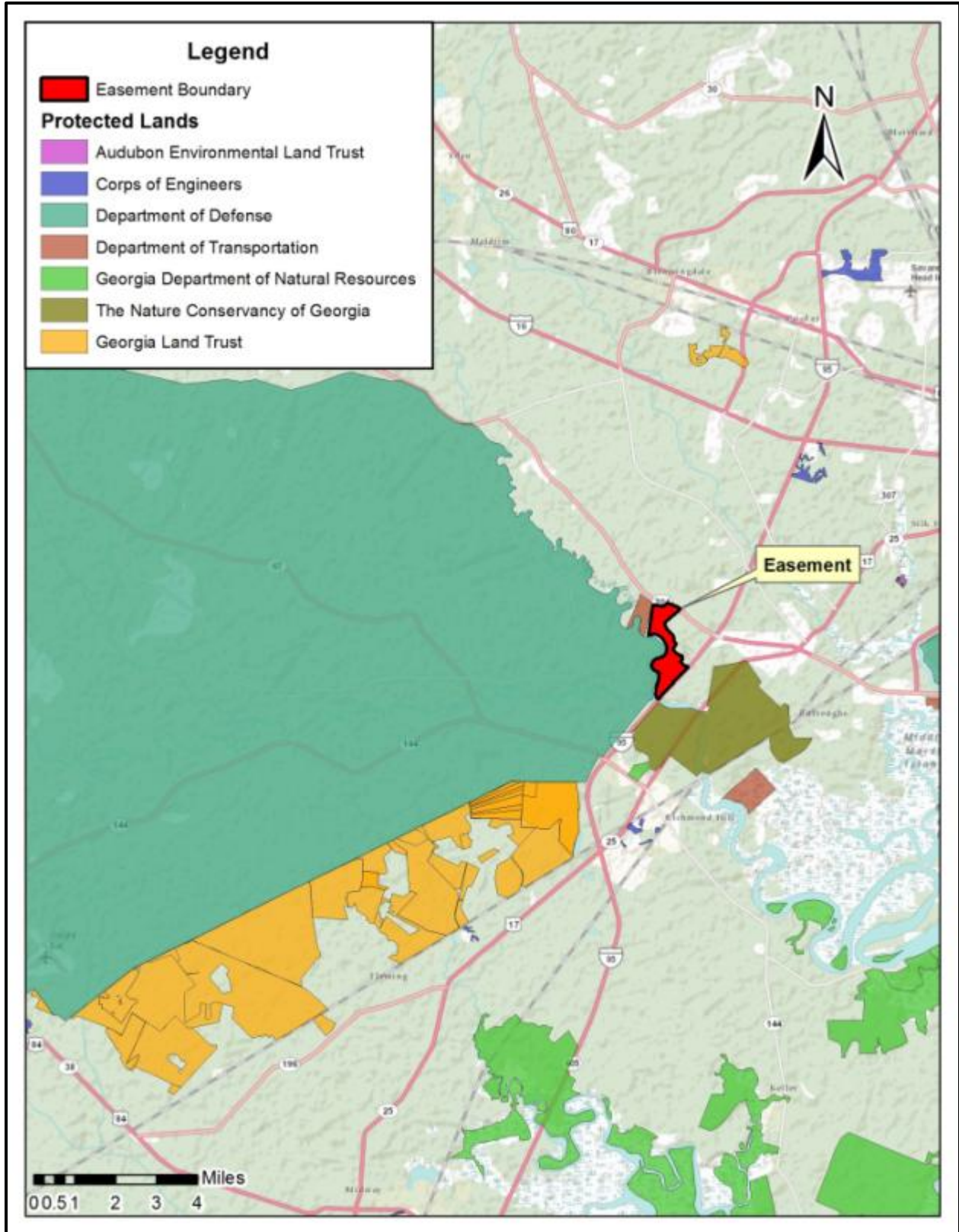
### Ecological Features Map



### Trailhead Building Envelope Map



### Proximity to Protected Land Map

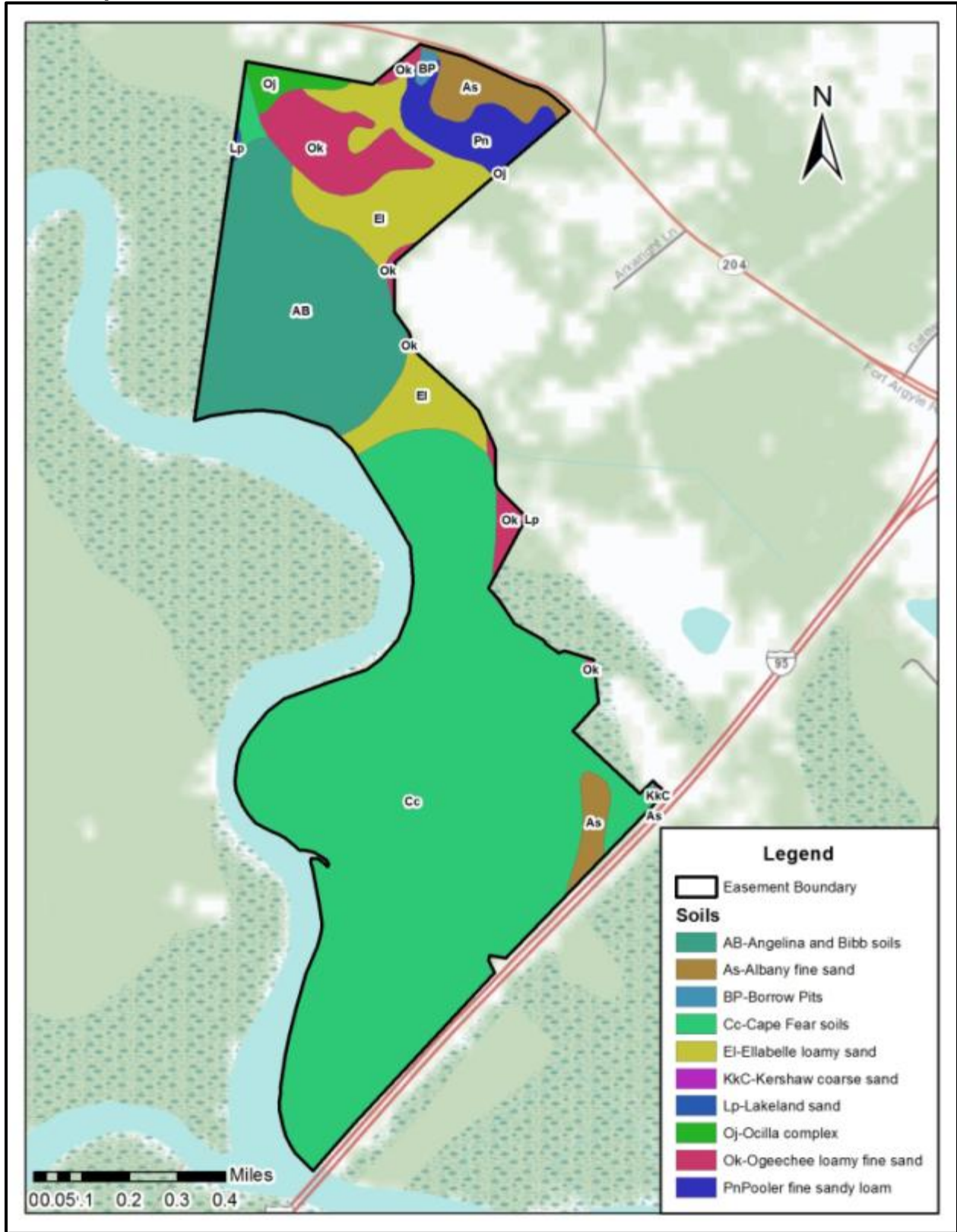


## Appendix 4: Soils

**Table 1: Acres and Classification of Soils found on the Property as identified by the U. S. Natural Resources Conservation Service (NRCS)**

Symbol	Map Unit Name	Hydric	Acres	Percent
AB	Angelina and Bibb soils	Yes	110.42	17.0
As	Albany fine sand	Yes	22.36	3.4
BP	Borrow Pits	No	1.46	0.2
Cc	Cape Fear soils	Yes	396.02	60.8
EI	Ellabelle loamy sand	Yes	59.31	9.1
KkC	Kershaw coarse sand	No	0.33	0.1
Lp	Lakeland sand	No	0.64	0.1
Oj	Ocilla complex	Yes	6.55	1.0
Ok	Ogeechee loamy fine sand	No	34.32	5.3
Pn	Pooler fine sandy loam	Yes	19.39	3.0
		<b>Totals</b>	<b>~650</b>	<b>100</b>

### Soils Map



## **Appendix 5: Tables**

### **List of Tables:**

- **Table 1: Characteristics Summary of EPA Level III Southern Coastal Plains Ecoregion.**
- **Table 2: Table 2. Observed Plant Species.**
- **Table 3: Special Concern Animals, Plants and Natural Communities in Chatham County, Georgia (GADNR)**
- **Table 4: Plant List of Georgia’s Priority Plants in the Southern Coastal Plain (GCWCS)**
- **Table 5: Animal List of Georgia’s Priority Animals in the Southern Coastal Plain (GCWCS)**
- **Table 6: Amphibian and Reptile List of Potential Species That May Find suitable Habitat on the Easement Property**
- **Table 7: Bird List of Potential Species That May Find Suitable Habitat on the Easement Property**
- **Table 8: Mammal List of Potential Species That May Find Suitable Habitat on the Easement Property**

**Table 1 – Characteristics Summary of EPA Level IV Southern Coastal Plain Ecoregion**

65 SOUTHEASTERN PLAINS												
Level IV Ecoregion		Physiography		Geology	Soil			Climate			Potential Natural Vegetation	Land Use and Land Cover
75j. <b>Sea Islands / Coastal Marsh</b>	1295	Barrier islands, dunes, beaches, lagoons, estuaries, tidal marshes.	0-30 / 5-20	Holocene saline marsh deposits of silt, sand, peat, and clay; Holocene beach and dune sand; Pleistocene beach and near-shore marine sand.	Inceptisols (Humaquepts), Spodosols (Alorthods, Alaquods), Entisols (Sulfaquents, Psammaquents, Quartzipsaments)	Mandarin, Rutlege, Chipley, Cainhoy; Fripp and Duckston near beaches; Bohicket, Capers in tidal marshes.	Thermic / Aquic	50-52	260-285	39/60 72/90	Live oak-sea oats, cordgrass-saltgrass-rushes.	Marsh, forested wetland, evergreen forest, urban, wildlife habitat, beaches, recreation, fish and shellfish production.

**Table 2. Observed Plant Species.** Plants observed during the site visit on 2 November, 2012.

Common Name	Scientific Name
<b>Dominant</b>	
Bald cypress	<i>Taxodium distichum</i>
Maple (Red)	<i>Acer rubrum</i>
Water Tupelo/Swamp Tupelo/Blackgum	<i>Nyssa sylvatica</i>
Oak (Water)	<i>Quercus nigra</i>
Oak (White)	<i>Quercus alba</i>
Oak (Laurel)	<i>Quercus laurifolia</i>
Oak (Willow)	<i>Quercus phellos</i>
Oak (Swamp Chestnut)	<i>Quercus michauxii</i>
Pine (Loblolly)	<i>Pinus taeda</i>
<b>Co-Dominant</b>	
Sweetbay Magnolia	<i>Magnolia virginiana</i>
Pine (Slash)	<i>Pinus elliottii</i>
River birch	<i>Betula nigra</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Persimmon	<i>Diospyros virginiana</i>
Sugarberry	<i>Celtis laevigata</i>
<b>Understory</b>	
Elm (Winged)	<i>Ulmus alata</i>
Elm (American)	<i>Ulmus americana</i>
Cherry (Black)	<i>Prunus serotina</i>
Dogwood (flowering)	<i>Cornus florida</i>
Boxelder	<i>Acer negundo</i>
Sassafras	<i>Sassafras albidum</i>
Sumac (Winged)	<i>Rhus copallinum</i>
Sumac (Smooth)	<i>Rhus glabra</i>
Chinaberry	<i>Melia azedarach</i>
Saw Palmetto	<i>Serenoa repens</i>
Willow (Black)	<i>Salix nigra</i>
Mulberry	<i>Morus spp.</i>
Blackberry	<i>Rubus spp.</i>
Blueberry	<i>Vaccinium spp.</i>
Wild Grape	<i>Vitis spp.</i>
Lanceleaf Greenbrier	<i>Smilax amallii</i>



Roundleaf Greenbrier	<i>Smilax rotundifolia</i>
Purple passionflower	<i>Passiflora incarnata</i>
Green ash	<i>Fraxinus pennsylvanica</i>
Yaupon	<i>Ilex vomitoria</i>
American holly	<i>Ilex opaca</i>
Wild Plum	<i>Prunus americana</i>
Wax myrtle	<i>Morella cerifera</i>
Button bush	<i>Cephalanthus occidentalis</i>
Swamp Titi	<i>Cyrilla racemiflora</i>
Fleabane	<i>Erigeron spp.</i>
Partridge Pea	<i>Chamaecrista fasciculata</i>
Hawthorn	<i>Crataegus spp.</i>
Huckleberry	<i>Gaylussacia spp.</i>
Alabama supplejack	<i>Berchemia scandens</i>
Mistflower	<i>Conoclinium coelestinum</i>
Beggar Lice	<i>Bidens spp.</i>
Virginia Creeper	<i>Parthenocissus quinquefolia</i>
Rattlesnake fern	<i>Botrychium virginianum</i>
Lespedeza	<i>Lespedeza virginica</i>
Lizard's Tail	<i>Saururus cernuus</i>
Bushy bluestem	<i>Andropogon glomeratus</i>
Tickseed	<i>Coreopsis spp.</i>
Sedge	<i>Carex spp.</i>
Fimbry	<i>Fimbristylis spp.</i>
Goldenrod	<i>Solidago spp.</i>
Flatsedge	<i>Cyperus spp.</i>
Smartweed	<i>Polygonum spp.</i>
Spanish moss	<i>Tillandsia usneoides</i>
Swamp Verbena	<i>Verbena hastata</i>
Common Mullen	<i>Verbascum thapsus</i>
Carolina geranium	<i>Geranium carolinianum</i>
Dog fennel/Stinkweed	<i>Eupatorium capillifolium</i>
Duckweed	<i>Lemna minor</i>

**Table 3. Special Concern Animals, Plants and Natural Communities in Chatham County, Georgia According to Georgia Department of Natural Resources Wildlife Resources Division.**

**Plants – Chatham Co., GA**

Taxonomy	Scientific Name	Common Name	Global	State	Federal	State	Habitat in Chatham County, Georgia
			Rank	Rank	Status	Status	
	<i>Acacia farnesiana</i>	Sweet Acacia	G5	S1			Sandy flats behind dunes; open live oak woods
	<i>Amorpha georgiana</i> <i>var. georgiana</i>	Georgia Indigo-bush	G3T2	S1			River terraces; floodplain woods; Flint Kaolin outcrops; mesic habitats with wiregrass, longleaf pine, mixed oaks
	<i>Forestiera segregata</i>	Florida Wild Privet	G4	S2		R	Shell mounds on barrier islands in scrub or maritime forests
	<i>Hibiscus grandiflorus</i>	Swamp Hibiscus	G4?	S2			Tidal marshes, coastal flatwoods; wet savannas
	<i>Illicium parviflorum</i>	Yellow Anise-tree	G2	SH			Evergreen hammocks, bayheads
	<i>Lindera melissifolia</i>	Pond Spicebush	G2G3	S2	LE	E	Pond margins and wet savannas
	<i>Physostegia leptophylla</i>	Narrowleaf Obedient Plant	G4?	S2S3			Freshwater tidal marshes; disjunct in wet savannas of extreme SW Georgia
	<i>Rhynchospora punctata</i>	Pineland Beaksedge	G1?	S1?			Wet savannas, pitcherplant bogs
	<i>Sageretia minutiflora</i>	Climbing Buckthorn	G4	S2		T	Calcareous bluff forests; maritime forests over shell mounds
	<i>Sapindus marginatus</i>	Soapberry	G5	S1S2		R	Shell mound forests
	<i>Sarracenia minor</i> <i>var. minor</i>	Hooded Pitcherplant	G4T4	SNR		U	Georgia habitat information not available
	<i>Scutellaria mellichampii</i>	Mellichamp's Skullcap	G3G4	S2?			Sandy deciduous woods
	<i>Sporobolus pinetorum</i>	Pineland Dropseed	G3	S2?			Wet savannas with wiregrass
	<i>Vigna luteola</i>	Wild Yellow Cowpea	G5	S2?			Open swamps; maritime beaches and tidal flats

**Animals – Chatham Co., GA**

Taxonomy	Scientific Name	Common Name	Global	State	Federal	State	Habitat in Chatham County, Georgia
			Rank	Rank	Status	Status	

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Reptiles	<i>Caretta caretta</i>	Loggerhead Sea Turtle	G3	S2	LT	E	Open ocean; sounds; coastal rivers; beaches
	<i>Chelonia mydas</i>	Green Sea Turtle	G3	S1	LT	T	Open ocean; sounds; coastal rivers; beaches
	<i>Clemmys guttata</i>	Spotted Turtle	G5	S3		U	Heavily vegetated swamps, marshes, bogs, and small ponds; nest and possibly hibernate in surrounding uplands
	<i>Crotalus adamanteus</i>	Eastern Diamond-backed Rattlesnake	G4	S4			Early successional habitats on barrier islands and mainland; pine flatwoods; sandhills
	<i>Dermochelys coriacea</i>	Leatherback Sea Turtle	G2	S1	LE	E	Open ocean; sounds; coastal beaches
	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S2		T	Sandhills; dry hammocks; longleaf pine-turkey oak woods; old fields
	<i>Lepidochelys kempii</i>	Kemp's or Atlantic Ridley	G1	S1	LE	E	Open ocean; sounds; coastal rivers; beaches
	<i>Malaclemys terrapin</i>	Diamondback Terrapin	G4	S3		U	Entire coast, estuarine and marine edge; All saltmarsh, beaches
	Birds	<i>Ammodramus maritimus</i>	Seaside Sparrow	G4	S3		
<i>Charadrius melodus</i>		Piping Plover	G3	S1	LT	T	Sandy beaches; tidal flats
<i>Charadrius wilsonia</i>		Wilson's Plover	G5	S2		T	Sandy beaches; tidal flats
<i>Haematopus palliatus</i>		American Oystercatcher	G5	S2		R	Sandy beaches; tidal flats; salt marshes
<i>Haliaeetus leucocephalus</i>		Bald Eagle	G5	S2		T	Edges of lakes & large rivers; seacoasts
<i>Himantopus mexicanus</i>		Black-necked Stilt	G5	S3			Shallow ponds; lagoons
<i>Lanius ludovicianus migrans</i>		Migrant Loggerhead Shrike	G4T3Q	S3			Open woods; field edges
<i>Mycteria americana</i>		Wood Stork	G4	S2	LE	E	Cypress/gum ponds; marshes; river swamps; bays
<i>Nyctanassa violacea</i>		Yellow-crowned Night-heron	G5	S3S4			River swamps; marshes; cypress/gum ponds
<i>Nycticorax nycticorax</i>		Black-crowned Night-heron	G5	S4			River swamps; marshes; cypress/gum ponds
<i>Passerina ciris</i>		Painted Bunting	G5	S3			Lower coastal plain in thickets, woodland borders, and brushy areas
<i>Picoides borealis</i>		Red-cockaded Woodpecker	G3	S2	LE	E	Open pine woods; pine savannas
<i>Rynchops niger</i>		Black Skimmer	G5	S1		R	Tidal ponds; sandy beaches
<i>Sterna antillarum</i>		Least Tern	G4	S3		R	Sandy beaches; sandbars
<i>Tyto alba</i>		Barn owl	G5	S3S4			Georgia habitat information not available

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Amphibians	<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S2	LT	T	Pine flatwoods; moist savannas; isolated cypress/gum ponds
	<i>Pseudacris brimleyi</i>	Brimley's Chorus Frog	G5	S1			Moist forests; swamps; bottomlands
	<i>Rana capito</i>	Gopher Frog	G3	S3		R	Sandhills; dry pine flatwoods; breed in isolated wetlands
	<i>Stereochilus marginatus</i>	Many-lined Salamander	G5	S3			Sluggish, swampy streams and bayheads with substrate of leaf litter
Mammals	<i>Eubalaena glacialis</i>	Northern Atlantic Right Whale	G1	S1	LE	E	Open ocean
	<i>Lasiurus intermedius</i>	Northern Yellow Bat	G4G5	S2S3			Wooded areas near open water or fields
	<i>Pseudorca crassidens</i>	False Killer Whale	G4	SNRN			Open ocean
	<i>Trichechus manatus</i>	Manatee	G2	S1S2	LE	E	Open ocean; estuaries; tidal rivers
Fish	<i>Acipenser brevirostrum</i>	Shortnose Sturgeon	G3	S2	LE	E	Estuaries; lower end of large rivers in deep pools with soft substrates
	<i>Acipenser oxyrinchus oxyrinchus</i>	Atlantic Sturgeon	G3T3	S3			Georgia habitat information not available
	<i>Moxostoma robustum</i>	Robust Redhorse	G1	S1		E	Medium to large rivers, shallow riffles to deep flowing water; moderately swift current
	<i>Umbra pygmaea</i>	Eastern Mudminnow	G5	S2S3			Sluggish streams, ponds, and sloughs with mud bottoms and heavy vegetation
Invertebrates	<i>Toxolasma pullus</i>	Savannah Lilliput	G2	S2		T	Large rivers to small creeks, oxbows, and sloughs

**\*Natural Communities – None in Chatham County**

**Table 4: Southern Coastal Plain High Priority Plants (88 Records) From Georgia Comprehensive Wildlife Conservation Strategy (GCWCS)**

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	Habitat in Georgia	Range in Georgia
<i>Amorpha georgiana</i> var. <i>georgiana</i>	Georgia indigo-bush	G3T2	S1			River terraces; floodplain woods; flint kaolin outcrop; mesic habitats with wiregrass, longleaf pine, mixed oaks	UCP
<i>Amorpha herbacea</i> var. <i>floridana</i>	Florida leadbush	G4T?Q	S1			River terraces along the Apalaha River	LCP, if accepted as taxonomically significant
<i>Arabis georgiana</i>	Georgia rockcress	G2	S1	C	T	Rocky or sandy river bluffs and banks, in circumneutral soil	PD, RV, UCP; along Coosa, Oostanaula and lower Chattahoochee Rivers
<i>Aristida simpliciflora</i>	Chapman three-awn grass	G3	SH			Longleaf pine-wiregrass savannas	UCP
<i>Amoglossum diversifolium</i>	Variable-leaf Indian-plantain	G2	S2		T	Calcareous swamps	UCP
<i>Amoglossum sulcatum</i>	Grooved-stem Indian-plantain	G2G3	S1			Bottomland forests	UCP
<i>Asplenium heteroresiliens</i>	Morzenti's spleenwort	G2Q	S1		T	Limestone and marl outcrops; tabby ruins	UCP, LCP
<i>Astragalus michauxii</i>	Sandhill milkvetch	G3	S2			Longleaf pine-wiregrass savannas; turkey oak scrub	UCP
<i>Balduina atropurpurea</i>	Purple honeycomb head	G2G3	S2		R	Wet savannas, pitcherplant bogs	UCP, LCP
<i>Baptisia arachnifera</i>	Hairy rattleweed	G1	S1	LE	E	Pine flatwoods	LCP, entire global range in parts of Brantley and Wayne Cos.
<i>Brickellia cordifolia</i>	Heartleaf brickellia	G2G3	S2			Mesic hardwood forests	UCP
<i>Calamintha ashei</i>	Ashe's wild savory	G3	S2		T	Ohoopsee dunes	UCP, Tattnall and Candler Cos.
<i>Campylopus caroliniae</i>	Sandhills awned-moss	G1G2	S2?			Fall line sandhills; Altamaha Grit outcrops in partial shade of mesic oak forests	UCP
<i>Carex calcifugens</i>	Lime-fleeing sedge	G2G4	SR			Said by FNA to occur in "Mesic deciduous forests, in sandy loams and sands, usually on stream bank slopes."	LCP (only?)
<i>Carex dasycarpa</i>	Velvet sedge	G4?	S3		R	Evergreen hammocks; mesic hardwood forests	LCP, UCP
<i>Carex decomposita</i>	Cypress-knee sedge	G3	S2?			Swamps and lake margins on floating logs	LCP, UCP
<i>Carex godfreyi</i>	Godfrey's sedge	G3G4	S3?			Forested depressional wetlands.	UCP, possibly LCP?, uncertain, verification needed
<i>Carex lupuliformis</i>	Mock hop sedge	G5	SU			Said by FNA to occur in "Wet forests, especially in openings around forest ponds, riverine wetlands, marshes, wet thickets, 0-500 m."	LCP?, uncertain, verification needed
<i>Coreopsis integrifolia</i>	Tickseed	G1G2	S1S2			Floodplain forests, streambanks	UCP, LCP
<i>Ctenium floridanum</i>	Florida orange-grass	G2	S1			Moist pine barrens	LCP
<i>Dicerandra radfordiana</i>	Radford's dicerandra	G1Q	S1			Sandridges	LCP, entire global range consists of 2 small areas in McIntosh Co.
<i>Eccremidium floridanum</i>	Florida eccremidium moss	G1?	S1			Sandy or sometimes clay soil in open, disturbed sites, often in areas that are wet part of the year and quite dry other parts of the year, fields and roadsides, thin soil over rock outcrops, around margins of cypress	UCP
<i>Eleocharis tenuis</i> var. <i>tenuis</i>	Slender spikerush	G5T?	SU			Moist to wet sandy-peaty soils; pine flatwoods	RV, PD, where doubtfully recorded and in need of comparison with other named varieties known to be present

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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	Habitat in Georgia	Range in Georgia
<i>Elliottia racemosa</i>	Georgia plume	G2G3	S2S3		T	Scrub forests; Altamaha Grit outcrops; open forests over ultramafic rock	PD, UCP, LCP; from Ft. Stewart to Ashburn, Turner Co.; disjunct on piedmont on Burks Mtn., Columbia Co.
<i>Epidendrum conopseum</i>	Green-fly orchid	G4	S3		U	Epiphytic on limbs of evergreen hardwoods; also in crevices of Altamaha Grit outcrops	UCP, LCP; widespread, sometimes locally abundant especially in bottomland forests along major rivers in Southeast Georgia
<i>Eriochloa michauxii</i> var. <i>michauxii</i>	Michaux's cupgrass	G3G4T3T4	S1?			Coastal freshwater and brackish marshes; flatwoods	LCP; map in FNA shows records from Charlton, Glynn, Liberty and McIntosh Cos.
<i>Eupatorium anomalum</i>	Florida boneset	G2G3	SU			Wet, low ground	LCP, UCP; likely close to Florida pending scrutiny of closely related <i>E. mohrii</i> and <i>E. rotundifolium</i>
<i>Evolvulus sericeus</i> var. <i>sericeus</i>	Creeping morning-glory	G5T?	S1		E	Altamaha Grit outcrops; open calcareous uplands	UCP
<i>Forestiera godfreyi</i>	Godfrey's wild privet	G2	S1			Mesic, maritime forests over shell mounds	LCP, Camden Co.
<i>Forestiera segregata</i>	Florida wild privet	G4	S2			Shell mounds on barrier islands in scrub or maritime forests	Restricted to shell middens overlooking or upon barrier islands; LCP
<i>Fothergilla gardenii</i>	Dwarf witch-alder	G3G4	S2		T	Openings in low woods and swamps; edges of seepage bogs	UCP, LCP; widely distributed from Fall Line Sandhills to more southern flatwoods
<i>Habenaria quinqueseta</i> var. <i>quinqueseta</i>	Michaux's orchid	G4G5T?	S1			Moist shade, Altamaha Grit outcrops; open pine woods	UCP, LCP; widely scattered sites
<i>Hartwrightia floridana</i>	Hartwrightia	G2	S1		T	Wet savannas; ditches, sloughs and flatwood seeps	LCP, restricted to Okefenokee Basin
<i>Hypericum</i> sp. 3	Georgia St.-John's-wort	G2G3	S2S3			Seepage bogs; roadside ditches	UCP, LCP, upper Ogeechee and Canoochee watersheds (only?), and near Eulonia, McIntosh Co.
<i>Justicia angusta</i>	Narrowleaf water-willow	G3Q	SH			Roadside ditches; perhaps with <i>Hartwrightia</i> in shallow sloughs and wet savannas	LCP
<i>Lachnocaulon beyrichianum</i>	Southern bog-button	G2G3	S1			Flatwoods	UCP, LCP
<i>Leitneria floridana</i>	Corkwood	G3	S1			Swamps; sawgrass-cabbage palmetto marshes	UCP, LCP
<i>Lindera melissifolia</i>	Pondberry	G2	S1	LE	E	Margins of seasonal ponds, both sandhill and limesink with swamp blackgum ( <i>Nyssa biflora</i> ).	LCP, UCP
<i>Litsea aestivalis</i>	Pondspice	G3	S2		T	Cypress ponds; swamp margins	UCP, LCP; especially southeastern Georgia
<i>Lycium carolinianum</i>	Carolina wolfberry	G4	S1			Coastal sand spits	LCP, Cumberland Island, Camden Co.
<i>Malaxis spicata</i>	Florida adders-mouth orchid	G4?	S1			Low hammocks; spring-fed river swamps	UCP, LCP, potentially over Coastal Plain based on Florida distribution; documented recently only from LCP; historic from UCP in Jenkins Co.
<i>Matelea alabamensis</i>	Alabama milkvine	G2	S1		T	Open bluff forests; mesic margins of longleaf pine sandridges	UCP, LCP; on Gulf CP and an area of Atlantic CP along the Altamaha River, Wayne Co.
<i>Matelea pubiflora</i>	Trailing milkvine	G3G4	S2		R	Exposed sandy soils; sandridges	UCP, LCP
<i>Myriophyllum laxum</i>	Lax water-milfoil	G3	S2		T	Bluehole spring runs; shallow, sandy, swift-flowing creeks; clear, cool ponds	UCP, in many watersheds, most often in westcentral Georgia sandhills
<i>Orbexilum virgatum</i>	Slender leather-root	G1	SH			Sandridges	LCP, Charlton Co.
<i>Oxypolis temata</i>	Savanna cowbane	G3	S2			Wet pine savannas and bogs	UCP, widely scattered

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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	Habitat in Georgia	Range in Georgia
<i>Peltandra sagittifolia</i>	Arrow arum	G3G4	S2?			Swamps; wet hammocks on pristine sphagnum mats	UCP, LCP; locally abundant in Okefenokee Swamp
<i>Penstemon dissectus</i>	Cutleaf beardtongue	G2	S2?		R	Altamaha Grit outcrops and adjacent pine savannas; rarely sandridges	UCP, endemic to Altamaha Grit (Tifton Uplands)
<i>Phaseolus polystachios</i> var. <i>sinuatus</i>	Trailing bean-vine	G4T3?	S2?			Sandhills; dry pinelands and hammocks	UCP, LCP
<i>Physostegia leptophylla</i>	Tidal marsh obedient-plant	G4?	S2S3		T	Freshwater tidal marshes; perhaps disjunct in wet savannas of extreme SW Georgia	LCP, coastal cos. on tidally influenced shorelines; reports from UCP in SW Georgia need verification
<i>Plantago sparsiflora</i>	Pineland plantain	G3	S2			Open, wet pine savannas; shallow ditches	UCP, LCP
<i>Platanthera blephariglottis</i> var. <i>blephariglottis</i>	White fringed-orchid	G4G5T4?	S1?				
<i>Platanthera blephariglottis</i> var. <i>conspicua</i>	Southern white fringed-orchid	G4G5T3T4	S2?			Bogs, seeps, roadsides, wet savannas	UCP, LCP; scattered from Fall Line Sandhills to coast and South Georgia plantations
<i>Platanthera chapmanii</i>	Chapman's fringed-orchid	G4?	S1			Open, wet meadows; pine flatwoods	UCP, LCP, extreme Southeast Georgia; historic in Southwest Georgia
<i>Platanthera integra</i>	Yellow fringeless orchid	G3G4	S2			Wet savannas, pitcherplant bogs	UCP, LCP; documented from 9 cos., scattered on coastal plain
<i>Polygonum glaucum</i>	Sea-beach knotweed	G3	SH			Coastal beaches in dune depressions and among protected accumulations of beach wrack	LCP
<i>Portulaca biloba</i>	Grit portulaca	G1G2	S1			Altamaha Grit outcrops	UCP
<i>Pteroglossaspis ecrinata</i>	Wild coco	G2	S1			Grassy saw palmetto barrens; longleaf pine grasslands, sometimes with <i>Schwalbea americana</i>	LCP, UPC; widely scattered, including barrier islands
<i>Ptilimnium</i> sp. 1	Mock bishop-weed	G1	SH			Tidal freshwater marshes	LCP, narrow endemic from Savannah into South Carolina
<i>Rhynchospora breviseta</i>	Short-bristle beakrush	G3G4	SU			Bogs; flatwoods	Uncertain, documentation needed, UCP, LCP
<i>Rhynchospora decurrens</i>	Decurrent beakrush	G3G4	S1?			Swamps	UCP, LCP
<i>Rhynchospora fernaldii</i>	Fernald's beakrush	G3G4	SR			Flatwoods depressions	LCP (only?), to be considered as a rarity from Okefenokee Swamp, whence all specimens from Georgia came
<i>Rhynchospora macra</i>	Many-bristled beakrush	G3	S1?			Peaty, sandhill seepage slopes; streamhead pocosins	LCP an old record from Coffee Co. near Douglas
<i>Rhynchospora pleiantha</i>	Clonal thread-leaved beakrush	G2	SH			Margins of limesink depression ponds (dolines)	UCP
<i>Rhynchospora punctata</i>	Spotted beakrush	G1?	S1?			Wet savannas, pitcherplant bogs	UCP, LCP
<i>Ruellia noctiflora</i>	Night-blooming wild petunia	G2	SH			Open, slash pine flatwoods	LCP, outer Coastal Plain on the Barrier Island Sequence
<i>Sageretia minutiflora</i>	Climbing buckthorn	G4	S1?		T	Calcareous bluff forests; maritime forests over shell mounds	UCP, LCP
<i>Sagittaria graminea</i> var. <i>chapmanii</i>	Chapman's arrowhead	G5T3?	S3?			Low woods and seasonal wet swamps with <i>Carex leptalea</i> , <i>Rhynchospora miliacea</i>	UCP, LCP, perhaps widespread, including a pond on Sapelo Island
<i>Sapindus saponaria</i>	Soapberry	G5	S1			Shell mound forests	LCP

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Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	Habitat in Georgia	Range in Georgia
<i>Sarracenia flava</i>	Yellow flytrap	G5?	S3S4		U	Wet savannas, pitcherplant bogs	UCP, LCP
<i>Sarracenia minor</i> var. <i>minor</i>	Hooded pitcherplant	G4T4	S4			Wet savannas, pitcherplant bogs	UCP LCP
<i>Sarracenia minor</i> var. <i>okefenokeense</i>	Okefenokee giant	G4T2T3	S2S3			Wet savannas, pitcherplant bogs	LCP, Okefenokee Basin only
<i>Sarracenia psittacina</i>	Parrot pitcherplant	G4	S2S3		T	Wet savannas, pitcherplant bogs	UCP, LCP
<i>Sarracenia rubra</i>	Sweet pitcherplant	G3	S2	(PS)	E	Atlantic white cedar swamps; wet savannas	UCP, in two areas, Atlantic Coastal Plain and Fall Line Sandhills west of Macon
<i>Schoenolirion elliotii</i>	White sunnybell	G3	S1?			Wet savannas	LCP, few observations from Wayne and Brantley Cos.
<i>Scutellaria altamaha</i>	Altamaha skullcap	G2G3	S1?			Sandy, deciduous woods	UCP, LCP. (only?), perhaps adjacent Piedmont, of Southeast Georgia
<i>Scutellaria arenicola</i>	Sandhill skullcap	G3G4	SH			Sandy scrub	LCP, Trail Ridge; Camden Co.
<i>Scutellaria mellichampii</i>	Mellichamp's skullcap	G?Q	S1?			Sandy deciduous woods	LCP, UCP; widely scattered
<i>Sideroxylon</i> sp. 1	Dwarf buckthorn	G3Q	S3			Dry longleaf pine woods with oak understory; often hidden in wiregrass	UCP, LCP
<i>Sideroxylon thomei</i>	Swamp buckthorn	G2	S2		E	Forested limesink depressions; calcareous swamps	UCP, LCP
<i>Sphagnum cyclophyllum</i>	Round-leaved peat-moss	G3	S2			CP: bare sand where wet or submerged for part of the year and then drying, as around seasonal ponds in pine barrens.. PD: seepage over granite outcrops	PD, LCP, UCP
<i>Spiranthes floridana</i>	Florida ladies-tresses	G1	S1?				
<i>Sporobolus pinetorum</i>	Pineland dropseed	G3	S2?			Wet savannas with wiregrass	LCP
<i>Stewartia malacodendron</i>	Silky camellia	G4	S2		R	Along streams on lower slopes of beech-magnolia or beech-basswood-Florida maple forests	PD, UCP
<i>Tillandsia bartramii</i>	Bartram's airplant	G4	S2				
<i>Vaccinium crassifolium</i>	Evergreen lowbush blueberry	G4G5	SH			Open margins of Carolina bays	LCP, historically in or near Screven Co.
<i>Xyris drummondii</i>	Drummond's yellow-eyed grass	G3	S1			Pine flatwoods	UCP, LCP
<i>Xyris scabrifolia</i>	Harper's yellow-eyed grass	G3	S1			Sedge bogs; pitcherplant bogs; pine flatwoods	UCP, LCP



**Table 5: Southern Coastal Plain Ecoregion High Priority Animals (74 Records) From Georgia Comprehensive Wildlife Conservation Strategy (GCWCS)**

(Group Codes: AA = aquatic arthropod; AM = amphibian; BI = bird; FI = fish; MA = mammal; MO = mollusk; RE = reptile)

Group	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	Habitat in Georgia	Range in Georgia
AA	<i>Cordulegaster sayi</i>	Say's spiketail	G2	S1			Trickling hillside seepages in deciduous forest near weedy fields	Southeastern coastal plain only.
AM	<i>Ambystoma cingulatum</i>	Flatwoods salamander	G2G3	S2	LT	T	Pine flatwoods; moist savannas; isolated cypress/gum ponds	Lower CP, extremely localized throughout large but fragmented range. Only four sites with known extant populations
AM	<i>Desmognathus auriculatus</i>	Southern dusky salamander	G5	S3			In or around the margins of slowly moving or stagnant bodies of water with mucky, acidic soils; cypress swamps, floodplains, sloughs	Lower CP
AM	<i>Necturus punctatus</i>	Dwarf waterdog	G4	S2			Sluggish streams with substrate of leaf litter or woody debris	Atlantic drainages, primarily CP, one record in the PD
AM	<i>Notophthalmus perstriatus</i>	Striped newt	G2G3	S2		R	Pine flatwoods, sandhills; isolated wetlands	CP
AM	<i>Pseudobranchius striatus</i>	Dwarf siren	G5	S3			Swamps; marshes; limesink ponds; cypress ponds	lower CP
AM	<i>Rana capito</i>	Gopher frog	G3G4	S3			Sandhills; dry pine flatwoods; breed in isolated wetlands	CP
AM	<i>Stereochilus marginatus</i>	Many-lined salamander	G5	S3			Sluggish, swampy streams and bayheads with substrate of leaf litter	eastern CP
BI	<i>Aimophila aestivalis</i>	Bachman's sparrow	G3	S3	SAR	R	Open pine or oak woods; old fields; grassy forest regeneration	RV, PD, CP: where appropriate habitat
BI	<i>Ammodramus henslowii</i>	Henslow's sparrow	G4	S3	SAR		Grassy areas, especially wet grasslands; wet pine savanna & flatwoods	CP, PD - historically and migrants
BI	<i>Ammodramus savannarum</i>	Grasshopper sparrow	G5	S4			Grassland surrounded by open country (ag, grassland etc.)	CP, PD predominantly, less common in CU, RV, rare in BR
BI	<i>Calidris canutus</i>	Red knot (SE winter population)	G5	S3	SAR		Beaches and sandbars	Coastal
BI	<i>Charadrius melodus</i>	Piping plover	G3	S1	(LE,LT)	T	Sandy beaches; mud and sand flats; isolated sand spits	CP - coastal
BI	<i>Charadrius wilsonia</i>	Wilson's plover	G5	S2		R	Sandy beaches; sand and mud flats, dunes, and back dune swales	CP - coastal
BI	<i>Colinus virginianus</i>	Northern bobwhite	G5	S4			Early successional mixed grass/forb habitat; longleaf pine savanna	CP most numerous; uncommon in PD, RV; scattered in CU, BR
BI	<i>Egretta tricolor</i>	Tricolored heron	G5	S3			Coastal aquatic environments, salt and fresh, nests with other waders in low thick cover	All coastal counties
BI	<i>Elanoides forficatus</i>	Swallow-tailed kite	G5	S2	SAR	R	River swamps and upland adjacent habitats particularly with large, emergent pines and pine islands; marshes	CP - nesting primarily in SE CP with scattered records statewide post breeding
BI	<i>Falco sparverius paulus</i>	Southeastern American kestrel	G5T4	S3	SAR		Pine sandhills and savannas; open country with scattered trees for nesting; military base habitats; artificial/man-made nesting habitats include nest boxes, power poles, building columns	CP
BI	<i>Grus canadensis pratensis</i>	Florida sandhill crane	G5T2T3	S1			Freshwater prairies	Restricted to Okefenokee and Grand Bay
BI	<i>Haematopus palliatus</i>	American oystercatcher	G5	S2	SAR	R	Sandy beaches; tidal flats; salt marshes, oyster shell bars	CP - coastal
BI	<i>Haliaeetus leucocephalus</i>	Bald eagle	G4	S2	(PS-LT, PDL)	E	Edges of lakes & large rivers; seacoasts	CP - primarily and reservoirs and rivers PD, BR, RV

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Group	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	Habitat in Georgia	Range in Georgia
BI	<i>Himantopus mexicanus</i>	Black-necked stilt	G5	S3	(PS)		Shallow ponds; lagoons; isolated freshwater wetlands; dredge spoil sites; managed wetlands	CP - coastal
BI	<i>Ixobrychus exilis</i>	Least bittern	G4	S3			Freshwater and brackish marshes with tall, dense emergent vegetation. Nests close to open areas	Probably more common as a breeder in CP due to much more potentially suitable habitat than in PD
BI	<i>Lanius ludovicianus migrans</i>	Loggerhead shrike	G4T3Q	S?	SAR		Open woods; field edges; savannas	CP - primary area of abundance; scattered and low number in the PD (none in 20-county metro Atlanta area); low numbers in RV
BI	<i>Laterallus jamaicensis</i>	Black rail	G4	S2?	SAR		Freshwater marsh grassy margins; wet grassy meadows; brackish high marsh	PD, CP - most likely breeding would occur in eastern PD or along Coast
BI	<i>Limnothlypis swainsonii</i>	Swainson's warbler	G4	S3	SAR		Dense undergrowth with heavy litter (CP,M); canebrakes in swamps and river floodplains (CP)	Although found widespread, bulk of population restricted to river floodplains of CP and PD; small BR population
BI	<i>Mycteria americana</i>	Wood stork	G4	S2	(PS:LE)	E	Cypress/gum ponds; freshwater marshes, saltmarshes, river swamps, bays, isolated wetlands, ephemeral wetlands, coastal hammocks	1,200 pairs nesting in Coastal Plain 2002, with post-nest dispersal throughout state
BI	<i>Numenius phaeopus</i>	Whimbrel	G5	S3			Saltmarsh openings, Mud flats, shell rakes, outer barrier sand spits	All coastal counties
BI	<i>Passerina ciris</i>	Painted bunting	G5	S3	SAR		Shrub-scrub and open grassy habitats; open mature pine forest and maritime oak forest associated with freshwater wetlands	CP - primarily barrier islands and immediate coast with scattered occurrences up major river corridors; occurrences in CP agricultural lands reduced and poorly understood
BI	<i>Picoides borealis</i>	Red-cockaded woodpecker	G3	S2	LE	E	Open pine woods; pine savannas	Found mostly in CP, also lower PD. Disjunct populations in counties of Muscogee, Chattahoochee (Ft Benning); Liberty, Long, Bryan (Ft Stewart); Charlton, Brantley (Okefenokee NWR, private); Jones, Jasper (Piedmont NWR, Oconee NF, Hitchiti); Thomas, Grady
BI	<i>Rallus elegans</i>	King rail	G4G5	S3			Freshwater marshes, often cattail bulrush, cutgrass, for breeding; also brackish marshes non-breeding (saltmarshes?)	Principally Piedmont and CP; possibly R&V
BI	<i>Rynchops niger</i>	Black skimmer	G5	S1			Sandy beaches, isolated accretional sand spits, N and S tips of barrier islands	Strictly outer coast
BI	<i>Sterna antillarum</i>	Least tern	G4	S3	(PS:LE)	R	Sandy beaches; sandbars, large flat gravel roof tops	Coastal Counties
BI	<i>Sterna nilotica</i>	Gull-billed tern	G5	S1		T	Outer sand beaches and mud flats, Salt marshes; fields on barrier islands; isolated sand spits	Coastal
BI	<i>Tyto alba</i>	Barn owl	G5	S3/S4			Grassland savanna with large cavity trees, also neighborhoods with large cavity trees, generally needs open country	Local: CP, PD, RV, CU, rare in BR
FI	<i>Acipenser brevirostrum</i>	Shortnose sturgeon	G3	S2	LE	E	Estuaries; lower end of large rivers in deep pools with soft substrates	Atlantic drainage large rivers
FI	<i>Elassoma okatie</i>	Bluebarred pygmy sunfish	G2G3	S1S2			Temporary ponds and stream backwaters with dense aquatic vegetation	Fort Gordon
FI	<i>Enneacanthus chaetodon</i>	Blackbanded sunfish	G4	S1		R	Blackwater streams; bays; cypress/gum ponds	Disjunct historic locales in SE GA; T. Peterson (recent) able to find at one historic locale outside of OK Swamp
FI	<i>Lucania goodei</i>	Bluefin killifish	G5	S1		U	Heavily vegetated ponds and streams with little or no current; frequently associated with springs	Lower Flint River system and in McIntosh County on east coast of GA

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Group	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	Habitat in Georgia	Range in Georgia
FI	<i>Micropterus notius</i>	Suwannee bass	G3	S2		R	Flowing water over rocky shoals or large springs and spring runs	Suwannee drainage so. GA
MA	<i>Condylura cristata</i>	Star-nosed mole	G5	S2?			Moist meadows; woods; swamps	Known only from Charlton, Chatham, Clinch, Effingham, Jackson, and Union counties
MA	<i>Corynorhinus rafinesquii</i>	Rafinesque's big-eared bat	G3G4	S3?		R	Pine forests; hardwood forests; caves; abandoned buildings; bridges; bottomland hardwood forests and cypress-gum swamps	Range in state disjunct— <i>C. r. rafinesquii</i> found in northern BR and <i>C. r. macrootis</i> found in lower CP. Not known from PD, but either subsp might occur there.
MA	<i>Eubalaena glacialis</i>	North Atlantic right whale	G1	S1 and S?	LE	E	Inshore and offshore oceanic waters of Georgia	Occurs along the entire Georgia coast and also observed offshore up to 40 nm. Most frequently observed in waters > 8ft. Maximum depth or distance from shore is unknown but strongly suspected to occur West of the Gulf Stream
MA	<i>Geomys pinetis</i>	Southeastern pocket gopher	G5	S4			Sandy well-drained soils in open pine woodlands with grassy or herbaceous groundcover, fields, grassy roadsides	Fairly widespread over CP, but population apparently greatly reduced and fragmented; small local populations
MA	<i>Lasiurus intermedius</i>	Northern yellow bat	G4G5	S2S3			Wooded areas near open water or fields	Has been found only in lower CP
MA	<i>Neofiber alleni</i>	Round-tailed muskrat	G3	S3		T	Freshwater marshes; bogs	Okefenokee and surrounding areas in Camden, Charlton, and Ware; also Grand Bay WMA in Lanier and Lowndes; also Brooks.
MA	<i>Sciurus niger shermani</i>	Sherman's fox squirrel	G5T2	S?			Pine forests; pine savannas	Some sources say this subspecies only occurs in extreme SE corner of Georgia around Okefenokee Swamp. However, Turner and Laerm (1993) say <i>S. n. shermani</i> occurs up into Piedmont.
MA	<i>Trichechus manatus</i>	West Indian manatee	G2	S1S2	LE	E	Inshore ocean; estuaries, tidal rivers, warm and fresh water discharges	Found in six coastal counties. These animals are unique because they can migrate between fresh and salt water.
MA	<i>Tursiops truncatus</i>	Bottlenose dolphin	G5	S?			Coastal estuarine and offshore waters of Georgia	Bottlenose dolphins range in all 6 coastal counties; Camden, Glynn, McIntosh, Liberty, Bryan, and Chatham. All tidal rivers and creeks provide dolphin habitat. They also extend offshore. CP.
MA	<i>Ursus americanus floridanus</i>	Florida black bear	G5T2	S2			Large undeveloped wooded tracts in areas that include multiple forest types	Parts of Echols, Clinch, Charlton, Ware, and Brantley counties support breeding population. Individuals frequently wander into surrounding counties and along Altamaha corridor.
MO	<i>Alasmidonta triangulata</i>	Southern elktoe	G2Q	S1			Large creeks and river mainstems in sandy mud and rock pools	Confined to the Chattahoochee, Flint, Ogeechee, Savannah river drainages
MO	<i>Alasmidonta varicosa</i>	Brook floater	G3	S2			Small rivers and creeks in sand and gravel shoals	Present distribution includes 4 sites in the Chattooga River in Rabun County (Savannah River drainage).
MO	<i>Eliptio fraterna</i>	Brother spike	G1	SU			Sandy substrates of river channels with swift current	Uncertain of range in Savannah River system
MO	<i>Fusconaia masoni</i>	Atlantic pigtoe	G2	S1		E	Moderate to fast current in substrate of sand or gravel	Historical range included 6 sites in the Ogeechee and Savannah River basins—all of which have been extirpated. One newly discovered population was found in Williamson Swamp Creek in Jefferson County (Alderman 1991).
MO	<i>Medionidus walkeri</i>	Suwannee moccasinshell	G1	SH			Large creeks and medium-sized rivers with sand and gravel substrate	Endemic to the Suwannee River basin in GA and FL

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Group	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	Habitat in Georgia	Range in Georgia
MO	Quincuncina kleiniana	Suwanee pigtoe	GU	S2			Small to large rivers in the Suwannee Basin, in slow to moderate current, pools of flowing rivers, often in detritus. More common in Alapaha and Withlacoochee rivers and tribs	Endemic to the Suwannee River basin in GA and FL
MO	Toxolasma pullus	Savannah lilliput	G2	S2			Altamaha River; Savannah River	Historical distribution included the Altamaha River basin (Johnson 1970, Sepkoski and Rex 1974, and Keferl 1981). Present distribution from recent surveys appears to be only the Ochoopee River (Keferl pers. com.).
RE	Caretta caretta	Loggerhead	G3	S2	LT	T	Open ocean; sounds; coastal rivers; beaches	Ocean, sounds, coastal rivers, beaches
RE	Chelonia mydas	Green sea turtle	G3	S2	(LE,LT)	T	Open ocean; sounds; coastal rivers; beaches	Ocean, sounds, coastal rivers, beaches
RE	Clemmys guttata	Spotted turtle	G5	S3		U	Heavily vegetated swamps, marshes, bogs, and small ponds; nest and possibly hibernate in surrounding uplands	Widely distributed across CP
RE	Crotalus adamanteus	Eastern diamondback rattlesnake	G4	S4			Early successional habitats on barrier islands and mainland; pine flatwoods; sandhills	CP, including barrier islands
RE	Dermochelys coriacea	Leatherback sea turtle	G3	S2	LE	E	Open ocean; sounds; coastal beaches	Ocean, sounds, beaches
RE	Drymarchon couperi	Eastern indigo snake	G4T3	S3	LT	T	Sandhills; pine flatwoods; dry hammocks; summer habitat includes floodplains and bottomlands	Middle and lower CP
RE	Eumeces anthracinus	Coal skink	G5	S2			Mesic forests; often near streams, springs or bogs	Very little known about range especially in CP
RE	Eumeces egregius	Mole skink	G4	S3	(PS)		Coastal dunes; longleaf pine-turkey oak woods; dry hammocks	Widespread throughout CP
RE	Gopherus polyphemus	Gopher tortoise	G3	S2	(PS:LT)	T	Sandhills; dry hammocks; longleaf pine-turkey oak woods; old fields	CP
RE	Heterodon simus	Southern hognose snake	G2	S2			Sandhills; fallow fields; longleaf pine-turkey oak	CP
RE	Lepidochelys kempii	Kemp's or Atlantic ridley	G1	S1	LE	E	Open ocean; sounds; coastal rivers; beaches	Ocean, sounds, coastal rivers
RE	Macrochelys temminckii	Alligator snapping turtle	G3G4	S3		T	Large streams and rivers; impoundments; river swamps	Gulf CP drainages
RE	Malaclemys terrapin	Diamondback terrapin	G4	S3			Entire coast, esturine and marine edge. All saltmarsh, beaches	Strictly Coastal
RE	Ophisaurus mimicus	Mimic glass lizard	G3	S2			Pine flatwoods; savannas; seepage bogs	Lower CP, substantial gaps in range
RE	Pituophis melanoleucus mugitus	Florida pine snake	G4T3?	S3			Sandhills; scrub; old field	CP
RE	Rhineura floridana	Florida worm lizard	G4	S1			Dry upland hammocks, sand pine and longleaf pine-turkey oak sandhills; old fields	Lanier Co. in CP
RE	Tantilla relicta	Florida crowned snake	G5	S1			Sandhills, scrub, and moist hammocks	Lowndes Co. in CP

**Table 6: Amphibian & Reptile List of Potential Species that May Find Suitable Habitat on the Property**

“FLS” – Federally Listed Species

“NS-Global” – NatureServe Global Priority

“NS-GA” – NatureServe Georgia Priority

“SP-GA” – Georgia State Protected Species

“GCNS” – Greatest Conservation Need

Common Name	Scientific Name	High Priority Species
<b>Toads &amp; Frogs</b>		
Oak Toad	<i>Bufo quercicus</i>	
Southern Toad	<i>Bufo terrestris</i>	
Southern Cricket Frog	<i>Acris gryllus</i>	
Bird-voiced Treefrog	<i>Hyla avivoca</i>	
Cope's Gray Treefrog	<i>Hyla chrysoscelis</i>	
Green Treefrog	<i>Hyla cinerea</i>	
Pine Woods Treefrog	<i>Hyla femoralis</i>	
Barking Treefrog	<i>Hyla gratiosa</i>	
Squirrel Treefrog	<i>Hyla squirella</i>	
Brimley's Chorus Frog	<i>Pseudacris brimleyi</i>	
Spring Peeper	<i>Pseudacris crucifer</i>	
Southern Chorus Frog	<i>Pseudacris nigrita</i>	
Little Grass Frog	<i>Pseudacris ocularis</i>	
Ornate Chorus Frog	<i>Pseudacris ornata</i>	
Eastern Narrowmouth Toad	<i>Gastrophryne carolinensis</i>	
Gopher Frog	<i>Rana capito</i>	SP-GA; NS-Global; NS-GA; GCNS
Bullfrog	<i>Rana catesbeiana</i>	
Green Frog	<i>Rana clamitans</i>	
Pig Frog	<i>Rana grylio</i>	
River Frog	<i>Rana heckscheri</i>	
Southern Leopard Frog	<i>Rana sphenocephala</i>	
Carpenter Frog	<i>Rana virgatipes</i>	
Eastern Spadefoot	<i>Scaphiopus holbrookii</i>	
<b>Turtles</b>		
Snapping Turtle	<i>Chelydra serpentina</i>	
Spotted Turtle	<i>Clemmys guttata</i>	SP-GA; NS-GA; GCNS
Chicken Turtle	<i>Deirochelys reticularia</i>	SP-GA; NS-Global; NS-GA; GCNS
Diamondback Terrapin	<i>Malaclemys terrapin</i>	SP-GA; NS-GA
River Cooter	<i>Pseudemys concinna</i>	
Cooter	<i>Pseudemys floridana</i>	
Slider	<i>Trachemys scripta</i>	
Striped Mud Turtle	<i>Kinosternon baurii</i>	
Eastern Mud Turtle	<i>Kinosternon subrubrum</i>	
Loggerhead Musk Turtle	<i>Sternotherus minor</i>	
Common Musk Turtle	<i>Sternotherus odoratus</i>	
Gopher Tortoise	<i>Gopherus polyphemus</i>	SP-GA; NS-Global; NS-GA; GCNS
Florida Softshell	<i>Apalone ferox</i>	
Gulf Coast Spiny Softshell	<i>Apalone spinifera aspera</i>	

<b>Alligators</b>		
American Alligator	<i>Alligator mississippiensis</i>	FLS
<b>Salamanders</b>		
Two-toed Amphiuma	<i>Amphiuma means</i>	
Slimy Salamander	<i>Plethodon glutinosus</i>	
Southeastern slimy salamander	<i>Plethodon grobmani</i>	
Southern Dusky Salamander	<i>Desmognathus auriculatus</i>	NS-GA; GCNS
Southern Two-lined Salamander	<i>Eurycea cirrigera</i>	
Three-lined Salamander	<i>Eurycea guttolineata</i>	
Dwarf Salamander	<i>Eurycea quadridigitata</i>	
Mud Salamander	<i>Pseudotriton montanus</i>	
Red Salamander	<i>Pseudotriton ruber</i>	
Many-lined Salamander	<i>Stereochilus marginatus</i>	NS-GA; GCNS
Striped Newt	<i>Notophthalmus perstriatus</i>	SP-GA; NS-Global; NS-GA; GCNS
Eastern Newt	<i>Notophthalmus viridescens</i>	
Flatwoods Salamander	<i>Ambystoma cingulatum</i>	FLS; SP-GA; NS-Global; NS-GA; GCNS
Marbled Salamander	<i>Ambystoma opacum</i>	
Mole Salamander	<i>Ambystoma talpoideum</i>	
Tiger Salamander	<i>Ambystoma tigrinum</i>	NS-GA
Dwarf Waterdog	<i>Necturus punctatus</i>	NS-GA; GCNS
Lesser Siren	<i>Siren intermedia</i>	
Greater Siren	<i>Siren lacertina</i>	
Northern Dwarf Siren	<i>Pseudobranchius striatus</i>	
<b>Lizards</b>		
Slender Glass Lizard	<i>Ophisaurus attenuatus</i>	NS-GA
Mimic Glass Lizard	<i>Ophisaurus mimicus</i>	SP-GA; NS-Global; NS-GA; GCNS
Eastern Glass Lizard	<i>Ophisaurus ventralis</i>	
Mole Skink	<i>Eumeces egregius</i>	NS-GA; GCNS
Five-lined Skink	<i>Eumeces fasciatus</i>	
Southeastern Five-lined Skink	<i>Eumeces inexpectatus</i>	
Broadhead Skink	<i>Eumeces laticeps</i>	
Ground Skink	<i>Scincella lateralis</i>	
Fence/prairie/plateau Lizard	<i>Sceloporus undulatus</i>	
Green Anole	<i>Anolis carolinensis</i>	
Six-lined Racerunner	<i>Aspidoscelis sexlineata</i>	
<b>Snakes</b>		
Scarlet Snake	<i>Cemophora coccinea</i>	
Racer	<i>Coluber constrictor</i>	
Ringneck Snake	<i>Diadophis punctatus</i>	
Eastern Indigo Snake	<i>Drymarchon corais couperi</i>	NS-GA
Corn Snake	<i>Elaphe guttata</i>	
Eastern Rat Snake	<i>Elaphe obsoleta</i>	
Mud Snake	<i>Farancia abacura</i>	
Rainbow Snake	<i>Farancia erytrogramma</i>	NS-GA
Eastern Hognose Snake	<i>Heterodon platirhinos</i>	

Southern Hognose Snake	<i>Heterodon simus</i>	SP-GA; NS-Global; NS-GA; GCNS
Eastern Kingsnake	<i>Lampropeltis getula getula</i>	
Scarlet Kingsnake	<i>Lampropeltis triangulum elapsoides</i>	
Coachwhip	<i>Masticophis flagellum</i>	
Plainbelly Water Snake	<i>Nerodia erythrogaster</i>	NS-GA; GCNS
Brown Water Snake	<i>Nerodia taxispilota</i>	
Rough Green Snake	<i>Opheodrys aestivus</i>	
Florida Pine Snake	<i>Pituophis melanoleucus mugitus</i>	NS-GA; GCNS
Glossy Crayfish Snake	<i>Regina rigida</i>	
Black Swamp Snake	<i>Seminatrix pygaea</i>	NS-GA
Brown Snake	<i>Storeria dekayi</i>	
Redbelly Snake	<i>Storeria occipitomaculata</i>	
Eastern Ribbon Snake	<i>Thamnophis sauritus</i>	
Common Garter Snake	<i>Thamnophis sirtalis</i>	
Rough Earth Snake	<i>Virginia striatula</i>	NS-GA
Smooth Earth Snake	<i>Virginia valeriae</i>	
Eastern Coral Snake	<i>Micrurus fulvius</i>	
Cottonmouth	<i>Agkistrodon piscivorus</i>	
Eastern Diamondback		GCNS
Rattlesnake	<i>Crotalus adamanteus</i>	
Pygmy Rattlesnake	<i>Sistrurus miliarius</i>	

### Table 7: Bird List of Potential Species that May Find Suitable Habitat on the Property

#### Birds of the Southeast Species Occurrence by Vegetation Type and Habitat Quality (Year-Round Resident, Breeding Range, or Winter Range)

“FLS” – Federally Listed Species

“SP-GA” – Georgia State Protected Species

“NS-Global” – NatureServe Global Priority

“NS-GA” – NatureServe Georgia Priority

“GCNS”

– Greatest Conservation Need

Common Name	Scientific Name	Status
<b>Herons &amp; Bitterns (Ardeidae)</b>		
American Bittern	<i>Botaurus lentiginosus</i>	
Great Blue Heron	<i>Ardea herodias</i>	
Great Egret	<i>Ardea alba</i>	
Snowy Egret	<i>Egretta thula</i>	
Black-crowned Night Heron	<i>Nycticorax nycticorax</i>	
Least Bittern	<i>Ixobrychus exilis</i>	GCNS
Little Blue Heron	<i>Egretta caerulea</i>	
Cattle Egret	<i>Bubulcus ibis</i>	
Yellow-crowned Night Heron	<i>Nyctanassa violacea</i>	NS-GA
<b>Swans, Geese &amp; Ducks (Anatidae)</b>		
Wood Duck	<i>Aix sponsa</i>	
Canada Goose	<i>Branta canadensis</i>	

Northern Pintail	<i>Anas acuta</i>	
American Wigeon	<i>Anas americana</i>	
Mallard	<i>Anas platyrhynchos</i>	
Northern Shoveler	<i>Anas clypeata</i>	
Green-winged Teal	<i>Anas crecca</i>	
Blue-winged Teal	<i>Anas discors</i>	
Gadwall	<i>Anas strepera</i>	
Redhead	<i>Aythya americana</i>	
Lesser Scaup	<i>Aythya affinis</i>	
Canvasback	<i>Aythya valisineria</i>	
Ruddy Duck	<i>Oxyura jamaicensis</i>	
Red-breasted Merganser	<i>Mergus serrator</i>	
Hooded Merganser	<i>Lophodytes cucullatus</i>	
Bufflehead	<i>Bucephala albeola</i>	
Ring-necked Duck	<i>Aythya collaris</i>	
American Black Duck	<i>Anas rubripes</i>	
<b>Anhinga (Anhingidae)</b>		
Anhinga	<i>Anhinga anhinga</i>	
<b>Ospreys, Hawks &amp; Kites (Accipitridae)</b>		
Osprey	<i>Pandion haliaetus</i>	NS-GA
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SP-GA; NS-GA; GCNS
Northern Harrier	<i>Circus cyaneus</i>	
Sharp-shinned Hawk	<i>Accipiter striatus</i>	
Cooper's Hawk	<i>Accipiter cooperii</i>	NS-GA
Mississippi Kite	<i>Ictinia mississippiensis</i>	NS-GA
Northern Goshawk	<i>Accipiter gentilis</i>	
Red-shouldered Hawk	<i>Buteo lineatus</i>	
Broad-winged Hawk	<i>Buteo platypterus</i>	
Short-tailed Hawk	<i>Buteo brachyurus</i>	
Swainson's Hawk	<i>Buteo swainsoni</i>	
Red-tailed Hawk	<i>Buteo jamaicensis</i>	
Ferruginous Hawk	<i>Buteo regalis</i>	
Rough-legged Hawk	<i>Buteo lagopus</i>	
<b>Caracaras &amp; Falcons (Falconidae)</b>		
American Kestrel	<i>Falco sparverius</i>	NS-GA
Merlin	<i>Falco columbarius</i>	
<b>Grouse, Quails, Turkeys &amp; Allies (Phasianidae)</b>		
Wild Turkey	<i>Meleagris gallopavo</i>	
Northern Bobwhite	<i>Colinus virginianus</i>	
<b>Snipe, Woodcock, &amp; Sandpipers (Scolopacidae)</b>		
Common Snipe	<i>Gallinago gallinago</i>	
American Woodcock	<i>Scolopax minor</i>	NS-Global, NS-GA
<b>Plovers &amp; Lapwings (Charadriidae)</b>		
Killdeer	<i>Charadrius vociferous</i>	GCNS
<b>Finches &amp; Allies (Fingillidae)</b>		



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American Goldfinch	<i>Carduelis tristis</i>	
<b>Cuckoos, Roadrunners &amp; Allies (Cuculidae)</b>		
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	
<b>Woodpeckers &amp; Wrynecks (Picidae)</b>		
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>	
Downy Woodpecker	<i>Picoides pubescens</i>	
Hairy Woodpecker	<i>Picoides villosus</i>	
Pileated Woodpecker	<i>Dryocopus pileatus</i>	
Yellow-bellied Sapsucker	<i>Sphyrapicus vaius</i>	
Northern Flicker	<i>Colaptes auratus</i>	
Yellow-Shafted Flicker	<i>Colaptes auratus</i>	
<b>Jays, Magpies &amp; Crows (Corvidae)</b>		
Blue Jay	<i>Cyanocitta cristata</i>	
American Crow	<i>Corvus brachyrhynchos</i>	
Fish Crow	<i>Corvus ossifragus</i>	
<b>Goatsuckers (Caprimulgidae)</b>		
Chuck-will's-widow	<i>Caprimulgus carolinensis</i>	
Common Night Hawk	<i>Chordeiles minor</i>	
<b>Barn Owls (Tytonidae)</b>		
Barn Owl	<i>Tyto alba</i>	NS-GA; GCNS
<b>Typical Owls (Strigidae)</b>		
Eastern Screech Owl	<i>Otus asio</i>	
Great Horned Owl	<i>Bubo virginianus</i>	
Barred Owl	<i>Strix varia</i>	
<b>Hummingbirds (Trochilidae)</b>		
Ruby-throated Hummingbird	<i>Archilochus colubris</i>	
Rufous Hummingbird	<i>Selasphorus rufus</i>	
<b>Kingfishers (Alcedinidae)</b>		
Belted Kingfisher	<i>Ceryle alcyon</i>	
<b>Pigeons &amp; Doves (Columbidae)</b>		
Mourning Dove	<i>Zenaidura macroura</i>	
<b>Swifts (Apodidae)</b>		
Chimney Swift	<i>Chaetura pelagica</i>	
<b>Swallows (Hirundinidae)</b>		
Purple Martin	<i>Progne subis</i>	
Barn Swallow	<i>Hirundo rustica</i>	
Tree Swallow	<i>Tachycineta bicolor</i>	
<b>Nuthatches (Sittidae)</b>		
Red-breasted Nuthatch	<i>Sitta canadensis</i>	
White-breasted Nuthatch	<i>Sitta carolinensis</i>	
<b>Tyrant Flycatchers (Tyrannidae)</b>		

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Great-crested Flycatcher	<i>Myiarchus crinitus</i>	
Eastern Phoebe	<i>Sayornis phoebe</i>	
Eastern Kingbird	<i>Tyrannus tyrannus</i>	
Acadian Flycatcher	<i>Empidonax vireescens</i>	
<b>Wrens (Troglodytidae)</b>		
Carolina Wren	<i>Thryothorus ludovicianus</i>	
Marsh Wren	<i>Cistothorus palustris</i>	
<b>Emberizids (Emberizidae)</b>		
Yellow-rumped Warbler	<i>Dendroica coronata</i>	
Yellow-throated Warbler	<i>Dendroica dominica</i>	
Pine Warbler	<i>Dendroica pinus</i>	
American Redstart	<i>Setophaga ruticilla</i>	
Hooded Warbler	<i>Wilsonia citrine</i>	
Brown-headed Cowbird	<i>Molothrus ater</i>	
Orchard Oriole	<i>Icterus spurius</i>	
Chipping Sparrow	<i>Spizella passerine</i>	
Field Sparrow	<i>Spizella pusilla</i>	
Song Sparrow	<i>Melospiza melodia</i>	
White-throated Sparrow	<i>Zonotrichia albicollis</i>	
Dark-eyed Junco	<i>Junco hyemalis</i>	
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	
Eastern Meadowlark	<i>Sturnella magna</i>	
Summer Tanager	<i>Piranga rubra</i>	
Scarlet Tanager	<i>Piranga olivacea</i>	
Northern Cardinal	<i>Cardinalis cardinalis</i>	
Indigo Bunting	<i>Passerina cyanea</i>	
Rufous-sided Towhee	<i>Pipilo erythrophthalmus</i>	
Yellow-rumped Warbler	<i>Dendroica coronata</i>	
<b>Mockingbirds &amp; Thrashers (Mimidae)</b>		
Gray Catbird	<i>Dumetella carolinensis</i>	
Brown Thrasher	<i>Toxostoma rufum</i>	
<b>Thrushes (Turdidae)</b>		
Hermit Thrush	<i>Catharus guttatus</i>	NS-Global, NS-GA
Wood Thrush	<i>Hylocichla mustelina</i>	
American Robin	<i>Turdus migratorius</i>	
<b>New World Vultures (Cathartidae)</b>		
Black Vulture	<i>Coragyps atratus</i>	
Turkey Vulture	<i>Cathartes aura</i>	
<b>Vireo (Vireonidae)</b>		
White-eyed Vireo	<i>Vireo griseus</i>	
Yellow-throated Vireo	<i>Vireo flavifrons</i>	
Red-eyed Vireo	<i>Icterus oberi</i>	
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	

**Table 8: Mammal List of Potential Species that May Find Suitable Habitat on the Property**

“FLS” – Federally Listed Species

“NS-Global” – NatureServe Global Priority

“NS-GA” – NatureServe Georgia Priority

“SP-GA” – Georgia State Protected Species

“GCNS” – Greatest Conservation Need

Common Name	Scientific Name	Distribution and Habitat
<b>Rodents</b>		
Eastern Gray Squirrel	<i>Sciurus carolinensis</i>	Common. Found statewide in hardwood forests, mixed forests, and urban areas.
Eastern Fox Squirrel	<i>Sciurus niger</i>	Ranges across the forested eastern one half of the U.S., and is found throughout Georgia. This attractive species has also been introduced in several western cities, including Seattle, Washington and San Francisco, California. This large tree squirrel favors mature deciduous and pine-oak woodlands, but also occurs at forest edges and in riparian woodlands.
Southern Flying Squirrel	<i>Glaucomys volans</i>	Found across the eastern U.S. in hardwood and mixed hardwood - pine forests where there are many old trees with natural cavities or woodpecker holes. It is present throughout Georgia. Most common in mature, broad-leaved forests, but also found in coniferous-deciduous woodlands, and urban areas.
American Beaver	<i>Castor canadensis</i>	Found statewide in all habitats with open water. Considered a pest in some areas, because of flooding caused by construction of dams.
Eastern Harvest Mouse	<i>Reithrodontomys humulis</i>	Species has a southeastern U.S. distribution, ranging from Virginia west to southern Arkansas, south to eastern Texas, and east throughout northern Florida. The Eastern Harvest Mouse can be found anywhere in Georgia in suitable habitat. Once common in old fields containing dense stands of weeds and grasses, but may be declining.
Oldfield Mouse	<i>Peromyscus polionotus</i>	Poorly known. Primarily distributed in sandy-soiled habitats in eastern and southern Georgia, but also occurs in west-central and northwestern parts of state. Occurs in fallow fields with herbaceous vegetation, and along roadsides in agricultural areas.
Golden Mouse	<i>Ochrotomys nuttalli</i>	Found throughout the southeastern quarter of the U.S., from Virginia to Missouri south to eastern Texas to Georgia and the northern half of Florida. Common in a variety of habitats, including woodlands, floodplains, borders of fields, and thickets bordering swamps and dense woods.
Cotton Mouse	<i>Peromyscus gossypinus</i>	Found throughout the southeastern quarter of the U.S., but does not occur in the highlands of the Appalachian mountains or in the Piedmont Region. Found in dense underbrush, bottomland hardwood forests, and a variety of other habitats, including old

		fields, upland forests, hammocks, and swamps.
Hispid Cotton Rat	<i>Sigmodon hispidus.</i>	A Neotropical species which has been rapidly expanding its geographic range northward during this century. It now has an extensive geographic distribution but apparently does not occur above altitudes of 914.4 m (3,000 ft). It ranges from southern Nebraska and Virginia west to central Arizona, then south all the way into northern South America. This species can be found in suitable habitat throughout Georgia, especially in grassy areas of fields and along roadways. Populations fluctuate greatly among years, but usually abundant in densely vegetated habitats.
Marsh Rice Rat	<i>Oryzomys palustris</i>	Occurs throughout Georgia where favorable habitat is present. The species ranges throughout the southeastern United States. Found in wet meadows and dense vegetation near marshes, swamps, streams, ponds, and ditches.
Eastern Woodrat	<i>Neotoma floridana</i>	Occurs throughout all of Georgia except for a pie-shaped wedge in the Piedmont Region of northeastern Georgia. Elsewhere in the United States, it ranges from Connecticut west to eastern Colorado, south to Texas, and east to Florida. It is absent from the Piedmont of Georgia and South Carolina and the Coastal Plain from North Carolina to Maryland. Usually found associated with rocky outcrops, but also in areas with dense vegetation.
Woodland Vole	<i>Microtus pinetorum</i>	Occur largely in woodland areas where ground cover in the form of leaf litter and lodged grasses offers suitable protection.
Black Rat	<i>Rattus rattus</i>	<b>Exotic.</b>
Norway Rat	<i>Rattus norvegicus</i>	<b>Exotic.</b>
House Mouse	<i>Mus musculus</i>	<b>Exotic.</b>
<b>Bats</b>		
Southeastern Myotis	<i>Myotis austroriparius.</i>	May be most common in southern tier of counties. <b>NS-Global / NS-GA; GCNS</b>
Eastern Pipistrelle	<i>Pipistrellus subflavus.</i>	Found statewide and common. Occupies hollow trees, tree foliage, caves, mines, rock crevices, and buildings.
Big Brown Bat	<i>Eptesicus fuscus.</i>	Found statewide and common. Roosts typically in human-made structures, but also in caves, mines, hollow trees, and crevices, or behind loose bark. Commonly inhabits bat houses, attics, and louvered attic vents.
Eastern Red Bat	<i>Lasiurus borealis</i>	Found statewide and common. Roosts in a variety of trees, but frequently uses clumps of Spanish moss.
Seminole Bat	<i>Lasiurus seminolus</i>	Found statewide. Common in mixed coniferous and deciduous woodlands; often associated with Spanish moss.
Evening Bat	<i>Nycticeius humeralis.</i>	Found statewide, but may be most common in southern half. Primary habitat is deciduous forest where it roosts in hollow trees, under loose bark, and in human-made structures, such as outbuildings, churches, belfries, and attics.

Rafinesque's Big-eared Bat	<i>Corynorhinus rafinesquii.</i>	Poorly known. Found statewide, but among least-known bats in region. <b>NS-Global / NS-GA; SP-GA; GCNS</b>
<b>Carnivores</b>		
Coyote.	<i>Canis latrans</i>	Found statewide, including urban areas. Common in all habitats.
Red Fox	<i>Vulpes vulpes</i>	Common statewide in forested uplands interspersed with pastures and farmland.
Gray Fox	<i>Urocyon cinereoargenteus.</i>	Found in mixed pine-hardwood forests of the Piedmont region. Common in forested habitats statewide.
Northern Raccoon	<i>Procyon lotor.</i>	Common in all habitats statewide, including urban areas. Often associated with water, especially bottomland swamps, marshes, and flooded woodlands.
American Mink	<i>Mustela vison</i>	Poorly known. This semiaquatic species occurs statewide, usually near permanent water. Status of populations unknown.
Northern River Otter	<i>Lontra canadensis</i>	Poorly known. Probably present statewide in association with rivers, creeks, and lakes, especially open water bordered with wooded habitat. Current status of populations unknown.
Eastern Spotted Skunk	<i>Spilogale putorius.</i>	Found in a variety of habitats such as pastures, woodlands, forest edges, and farmlands. Although statewide in distribution, little known about this species.
Bobcat	<i>Lynx rufus.</i>	Common statewide in a wide array of habitats including dense understory, bottomland hardwood forests, swamps, and farmlands.
<b>Insectivores</b>		
Southern Short-tailed Shrew	<i>Blarina carolinensis.</i>	Commonly found in forests, marshes, fields, and bogs. Southern Short-tailed Shrews range throughout the state except in the mountains of northern Georgia.
Least Shrew	<i>Cryptotis parva.</i>	It inhabits a wide variety of habitats from shortgrass prairie to coastal prairies and marshes, and upland oak - hickory forests. Found in grasslands and other upland areas, weedy fencerows, fields, roadsides, and meadows.
Southeastern Shrew	<i>Sorex longirostris.</i>	Poorly known. Occupies a variety of habitats from bogs and marshes to upland grassy areas and forests, and even bare hillsides and dry upland hardwoods. May favor moist areas bordering swamps, marshes, lakes, and streams.
Eastern Mole	<i>Scalopus aquaticus.</i>	Found statewide and common in a variety of habitats in both forested and un-forested areas. Occupies moist, loose, sandy or loamy soils, and spends most of life underground.
<b>Rabbits</b>		
Eastern Cottontail	<i>Sylvilagus floridanus.</i>	Common and found statewide. Primarily occurs in deciduous forests and forest edges, but also in grasslands, along fencerows, and in urban areas.
<b>Ungulates</b>		
White-tailed Deer	<i>Odocoileus virginianus.</i>	This common and important game species is a

		browser and grazer found statewide, including urban habitats.
Feral Swine/Wild Pig	<i>Sus Scrofa.</i>	<i>Exotic.</i> Considered a direct and aggressive competitor with native wildlife and destroyer of natural plant communities of the state.
<b>Opossum</b>		
Virginia Opossum	<i>Didelphis virginiana</i>	North America's only marsupial. Lives in a wide-variety of habitats including deciduous forest, open woods and farmland. It tends to prefer wet areas like marshes, swamps and stream and river bottoms.
<b>Armadillo</b>		
Armadillo, Common Long-Nosed Armadillo, Nine- Banded Armadillo	<i>Dasypus novemcinctus</i>	Not known in Georgia until the 1950s, it has expanded its range and now occurs as far north as Athens in the upper Piedmont. They generally avoid or are scarce in very wet or very dry habitats. Habitat suitability likely depends more on the characteristics of the substrate or soils, rather than vegetation type due to the armadillo's feeding and burrowing behavior.



Appendix D:  
Lower Ogeechee Trails Project Environmental  
Review

Completed by Joe Burnam, Natural Resources Biologist  
Georgia Department of Natural Resources  
Wildlife Resources Division



Lower Ogeechee Trails Project  
Environmental Review

Georgia Recreational Trails Program  
Applicant: Chatham County, Georgia

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CHRIS CLARK  
COMMISSIONER

DAN FORSTER  
DIRECTOR

Lower Ogeechee Trails Project  
Narrative Description  
March 23, 2010

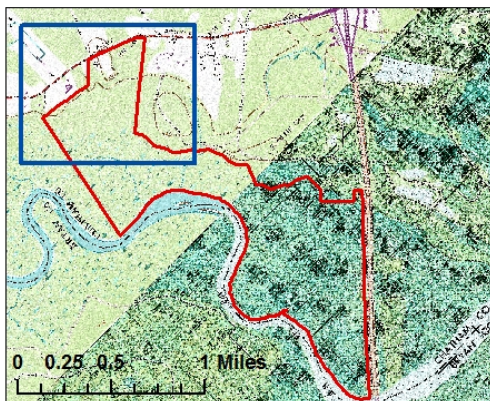
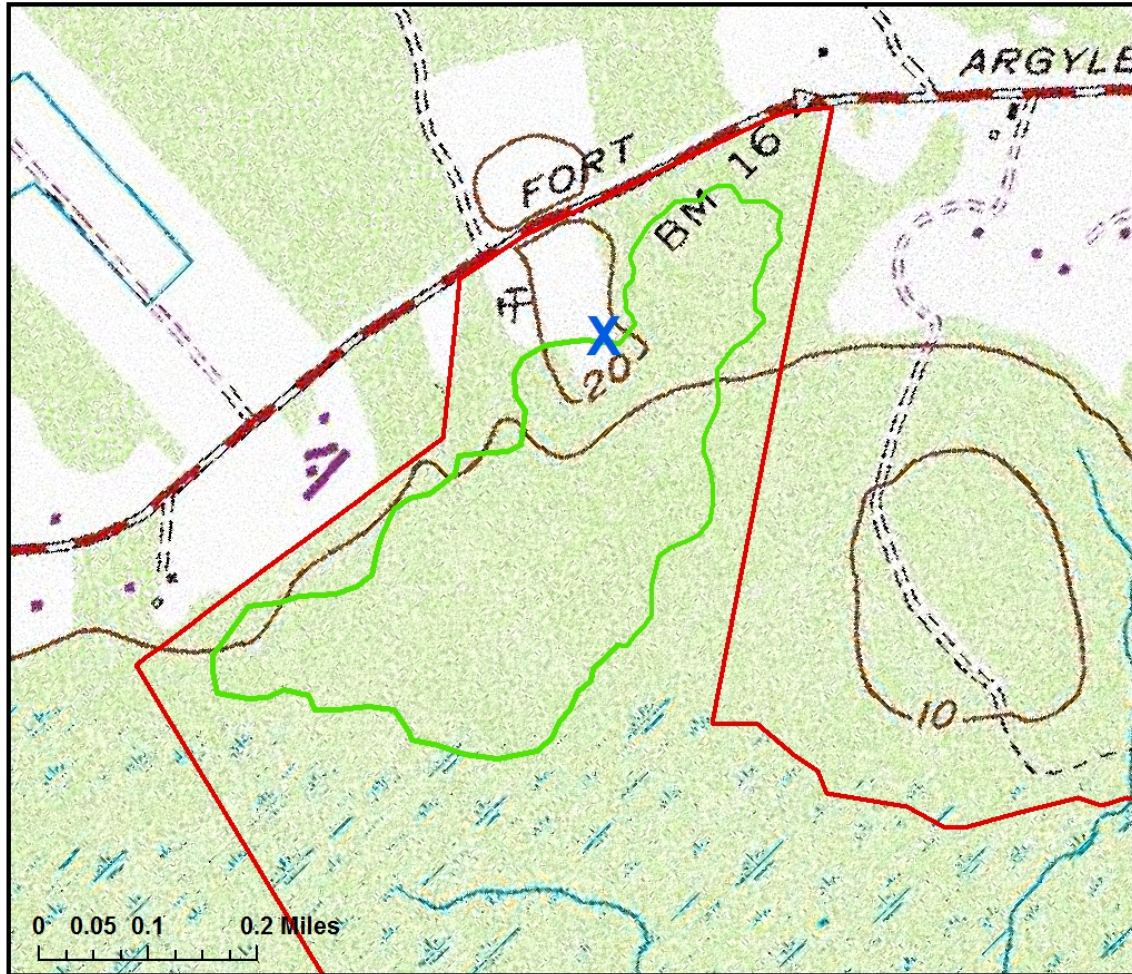
The Lower Ogeechee Trails Project (LOTP) will create 2 miles of trail to be used for hiking, biking, fitness, and interpretive uses along the Ogeechee River in Chatham County, Georgia. The LOTP will consist of a 6 to 8 foot wide earthen trail approximately 2 miles in length, located and constructed so as to minimize environmental disturbance and avoid sensitive areas. Grant funds will also be used for interpretive signage (one placed at the trailhead and two at points of interest), two benches, one picnic area, and a drinking fountain. Timber boardwalks will be constructed in low-lying areas less than 4 feet in elevation (approximately 50 feet of boardwalk estimated) and no bridges or culverts are expected. Donated in-kind services will provide trail design assistance.

The project area is located along the northern bank of the Ogeechee River, in the Ogeechee floodplain. Ft. Stewart (280,000 acres) is located immediately south of the project area, and is renowned as a conservation leader in the region. The historic Savannah-Ogeechee Canal (active 1825-1890) is located one mile northwest and contains nature trails and a museum on 194 protected acres. The confluence of the Ogeechee and Canoochee Rivers is adjacent to the southern end of the property, within view of I-95. Both rivers are classified as high-priority streams and provide habitat for the endangered shortnose sturgeon (*Acipenser brevirostrum*) and manatee (*Trichechus manatus*), both of which are documented in the river near the project area. A historical record (1973) documents the federally threatened flatwoods salamander (*Ambystoma cingulatum*) on or near the property, but no recent records exist. The ecological characteristics of the project area are representative of soils and vegetation adjacent to blackwater streams in the lower coastal plain.


Trail design and construction will consider the ecological impacts of visitor use and will avoid isolated depressional wetlands, sensitive hydric plant communities, and other environmentally sensitive areas. When possible, trails will be located to take advantage of natural lanes and high ground, and will seek to limit impact by minimizing the removal of large trees. Because of the project area's river frontage, protecting the parcel and limiting soil disturbance further contributes to improved water quality in the lower Ogeechee watershed.



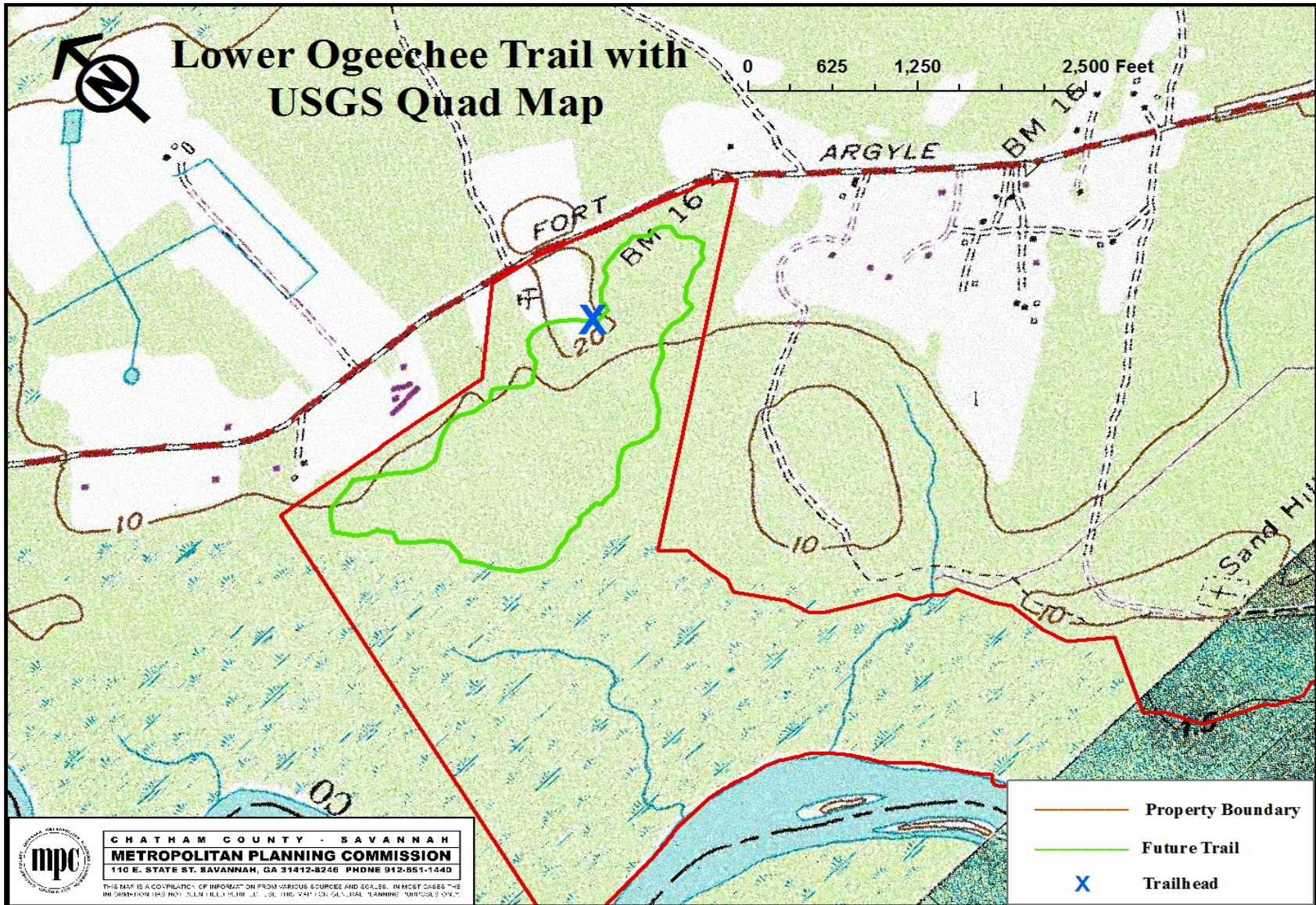
# Lower Ogeechee Trail with USGS Quad Map



- Property Boundary
- Future Trail
- X Trailhead

 CHATHAM COUNTY - SAVANNAH  
**METROPOLITAN PLANNING COMMISSION**  
110 E. STATE ST. SAVANNAH, GA 31412-8246 PHONE 912-651-1440

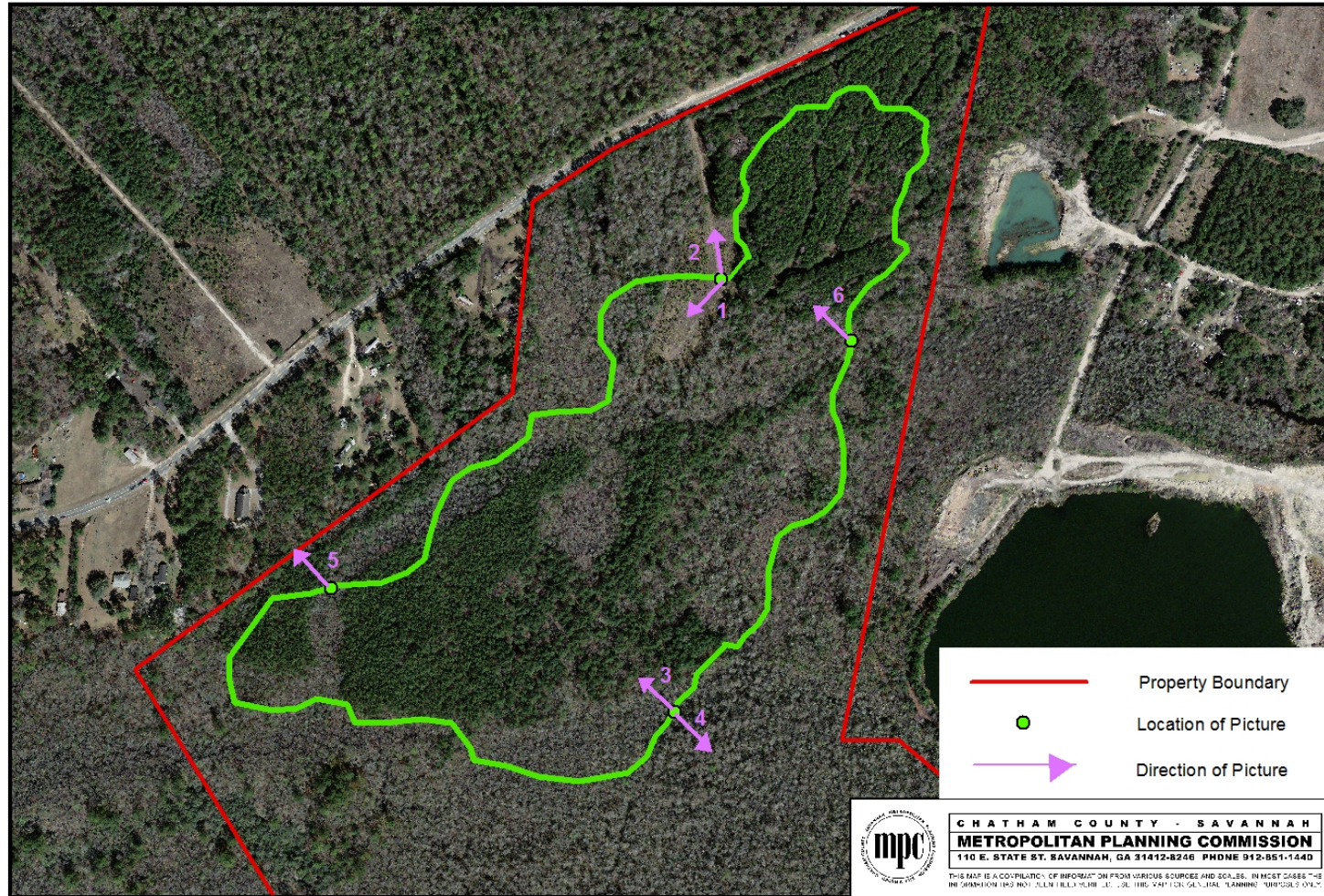
THIS MAP IS A COMPILED OF INFORMATION FROM VARIOUS SOURCES AND SCALES. IN MOST CASES THE INFORMATION HAS NOT BEEN FIELD VERIFIED. USE THIS MAP FOR GENERAL PLANNING PURPOSES ONLY.





## Picture Locations along Lower Ogeechee Trail

0 240 480 960 Feet



The photographs that correspond with the locations shown on this map are found on pages 5-10 of this report. The numbers on the map correspond with the photograph numbers mentioned in the Photo Captions on pages 5-10. The green circles on the map show the location from which the picture was taken and the purple arrows show the direction of view.

## Photographs of Project Site

The location of each photograph is shown on the map on page 4, “Picture Locations along Lower Ogeechee Trail.” The photograph number mentioned in the Photo Caption corresponds with the number on the map.



**Photo 1:** This picture shows a view to the West of the beginning and end of the lower Ogeechee Trail. As the trail is a loop, the beginning and end of the trail share the same location.



**Photo 2:** This picture shows a view to the North-Northwest of the beginning and end of the Lower Ogeechee Trail. As the trail is a loop, the beginning and end of the trail share the same location.





Photo 3: This picture shows a view to the North of the mid-point of the Lower Ogeechee Trail.



**Photo 4:** This picture shows a view to the South of the mid-point of the Lower Ogeechee Trail.



Photo 5: This picture shows a view to the North at a spot a quarter of the way around the Lower Ogeechee Trail.



**Photo 6:** This picture shows a view to the North at a spot a quarter of the way around the Lower Ogeechee Trail.