



File

ORM ID Number: SAW-2007-02758-010

From Date: _____ To Date: _____

Combined with: SAW- _____

Converted from: SAW- _____

Related to: SAW- _____

Remarks:

Garvey, Kimberly L

From: Garvey, Kimberly L
Sent: Wednesday, September 19, 2007 4:27 PM
To: 'mpages@brunsco.net'
Subject: Somerset Landing PUD submittal - COE comments

I will be unable to attend the meeting on 10/10, but wanted to provide my comments. I will comment separately for each project unless you request otherwise. Thanks for involving us in this.

The subject property has been reviewed and verified by this office for waters and wetlands of the United States. This project has been assigned Department of the Army # SAW-2007-2758. A permit may be required for this project. We recommend that the applicant conduct a pre-application meeting with this office to confirm permit requirements prior to finalizing the PUD plan. We also recommend that all remaining waters and wetlands on site, including those on lots, be put into permanent preservation through one of the models available on our website at:

<http://www.saw.usace.army.mil/wetlands/Mitigation/preservation.html>

Thank you for the opportunity to comment. I look forward to continued coordination between our offices.

Kimberly Garvey
Regulatory Specialist
US Army Corps of Engineers
CE-SAW-RG-L
Post Office Box 1890
Wilmington, North Carolina 28402-1890
Phone: (910) 251-4482
Fax: (910) 251-4025
Email: kimberly.l.garvey@saw02.usace.army.mil
<http://www.saw.usace.army.mil/WETLANDS/>



Brunswick County Planning Department
P.O. Box 249
75 Courthouse Drive N.E., Bldg I
Bolivia, NC 28422

Memo

Date: September 12, 2007

To: Iris McCombs, NC DOT
Rodney Scruggs, BEMC
Scott Dutton, ATMC
Rick Manriquez, Bell South
Luis Castillo, Progress Energy
Michael Loyack, Brunswick County Planning Board
Jeff Phillips, County Engineering
Jan Clemmons, County GIS
Randy Thompson, County EOC & EMS
George Page, County Parks and Recreation
David Stanley, County Environmental Health
Steve Miley, County Board of Education
Mamie Caison, Soil & Water Conservation
Stephanie Lewis, County Operation Services (Solid Waste)
John Winter, Town of St. James Representative

RECEIVED

SFP 19 2007
REGULATORY
WILM.FLD.OFC.

From: Marc Pages, Planner I

RE: TRC Schedule for the October 10, 2007 Meeting

Please find below the schedule for the Wednesday, October 10, 2007 TRC meeting. The meeting will begin at 9:45 in the Emergency Services Building, Bldg C, at the County Government Complex. Please have any comments you have prepared by then. If you have any questions, please feel free to contact me at mpages@brunscoco.net or 910-253-2056.

9:45 Staff Review - SE-170 US 74 Tract East
10:00 Meet with the applicant

10:15 Staff Review - SE-171 Somerset Landing
10:30 Meet with the applicant

10:45 Staff Review - SS-250 The Preserve at Sunset Beach
11:00 Meet with the applicant

U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT

File
Copy

Action Id. SAW-2007-2758

County: Brunswick

U.S.G.S. Quad: Shallotte

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner/Agent: Landcraft
Address: c/o Michael Johnson
7034 Cayman Court
Wilmington, NC 28405
Telephone No.:

Property description:
Size (acres) 104.98 Nearest Town Seaside
Nearest Waterway UT to Shallotte River River Basin Lumber
USGS HUC 03040207 Coordinates N 33.9290 W 78.4949
Location description The property is bounded on the north by Saw Pit Swamp, to the west by NC Highway 904, and MAS Properties, LLC land on the east, near Seaside, Brunswick County, North Carolina. Parcel ID number is 22700016. This is for Somerset Landing subdivision.

Indicate Which of the Following Apply:

A. Preliminary Determination

- Based on preliminary information, there may be wetlands on the above described property. We strongly suggest you have this property inspected to determine the extent of Department of the Army (DA) jurisdiction. To be considered final, a jurisdictional determination must be verified by the Corps. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331).

B. Approved Determination

- There are Navigable Waters of the United States within the above described property subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are wetlands on the above described property subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
 - We strongly suggest you have the wetlands on your property delineated. Due to the size of your property and/or our present workload, the Corps may not be able to accomplish this wetland delineation in a timely manner. For a more timely delineation, you may wish to obtain a consultant. To be considered final, any delineation must be verified by the Corps.
 - The wetland on your property have been delineated and the delineation has been verified by the Corps. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.
 - The wetlands have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on 8/24/2007. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
 - There are no waters of the U.S., to include wetlands, present on the above described property which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

Action ID: SAW-2007-2758

The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in Wilmington, NC, at (910) 395-3900 to determine their requirements.

Placement of dredged or fill material within waters of the US and/or wetlands without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). If you have any questions regarding this determination and/or the Corps regulatory program, please contact Ms. Kimberly Garvey at (910) 251-4482.

C. Basis For Determination

The site exhibits wetland criteria as described in the 1987 Wetland Delineation Manual and water bodies that have ordinary high water marks. Wetlands are adjacent and abutting unnamed tributaries to the Shallotte River, a Traditionally Navigable Water.

D. Remarks

E. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)

This correspondence constitutes an approved jurisdictional determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

District Engineer, Wilmington Regulatory Division
Attn: Ms. Kimberly Garvey, Project Manager
Wilmington Regulatory Field Office
PO Box 1890
Wilmington, North Carolina 28402-1890

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the District Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by 24 October 2007.

****It is not necessary to submit an RFA form to the District Office if you do not object to the determination in this correspondence.****

Corps Regulatory Official: 

Date 24 August 2007

Expiration Date 24 August 2012

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the attached customer Satisfaction Survey or visit <http://www.saw.usace.army.mil/WETLANDS/index.html> to complete the survey online.

Copy furnished:

ECS Carolinas, LLP, 7211 Ogden Business Park, Suite 201, Wilmington, NC 28411
Joanne Steenhuis, NCDENR-DWQ, 127 Cardinal Drive, Wilmington, NC 28405



US Army Corps
of Engineers
Wilmington District

Date: 24 August 2007

ATTENTION PROPERTY OWNER
New Guidance on Jurisdictional Determinations

On June 5, 2007, the U.S. Army Corps of Engineers (COE) implemented a new method for performing jurisdictional determinations (JD) pursuant to the Clean Water Act (CWA). This new process is a result of the recent Supreme Court decisions (*United States v. Rapanos* and *United States v. Carabell*) and now requires the COE to conduct extensive reviews when determining if certain waterbodies, including wetlands have a significant nexus (connection) to Traditional Navigable Waters.

Since this Office has reviewed and verbally approved a jurisdictional determination for your property prior to June 5, 2007, we have finalized this JD using the previous process. However, if you, as the property owner, are interested in having your property evaluated under the new guidance or have any questions regarding this matter, please contact Ms. Kimberly Garvey at (910) 251-4482.

A handwritten signature in black ink that reads "S. Kenneth Jolly".

S. Kenneth Jolly
Chief, Regulatory Division

**NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND
REQUEST FOR APPEAL**

Applicant: Landcraft (c/o Michael Johnson)

File Number: SAW-2007-2758

Date: 24 August 2007

Attached is:

See Section below

<input type="checkbox"/> INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
<input type="checkbox"/> PROFFERED PERMIT (Standard Permit or Letter of permission)	B
<input type="checkbox"/> PERMIT DENIAL	C
<input checked="" type="checkbox"/> APPROVED JURISDICTIONAL DETERMINATION	D
<input type="checkbox"/> PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <http://www.usace.army.mil/inet/functions/cw/cecwo/reg> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:
District Engineer, Wilmington Regulatory Division
Attn: Ms. Kimberly Garvey, Project Manager
Wilmington Regulatory Field Office
PO Box 1890
Wilmington, North Carolina 28402-1890

If you only have questions regarding the appeal process you may also contact:
Mr. Mike Bell, Administrative Appeal Review Officer
CESAD-ET-CO-R
U.S. Army Corps of Engineers, South Atlantic Division
60 Forsyth Street, Room 9M15
Atlanta, Georgia 30303-8801

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

<hr/> Signature of appellant or agent.	Date:	Telephone number:
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For appeals on Initial Proffered Permits and approved Jurisdictional Determinations send this form to:

District Engineer, Wilmington Regulatory Division, Attn: Ms. Kimberly Garvey, Project Manager, Wilmington Regulatory Field Office, PO Box 1890, Wilmington, North Carolina 28402-1890

For Permit denials and Proffered Permits send this form to:

Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Mr. Mike Bell, Administrative Appeal Officer, CESAD-ET-CO-R, 60 Forsyth Street, Room 9M15, Atlanta, Georgia 30303-8801

JURISDICTIONAL DETERMINATION

Revised 8/13/04

U.S. Army Corps of Engineers

DISTRICT OFFICE: Wilmington
FILE NUMBER: SAW-2007-2758

PROJECT LOCATION INFORMATION:

State: NC
County: Brunswick
Center coordinates of site (latitude/longitude): N 33.9290 W 78.4949
Approximate size of area (parcel) reviewed, including uplands: 104.98 acres.
Name of nearest waterway: UT to Shallotte River
Name of watershed: Lumber

JURISDICTIONAL DETERMINATION

Completed: Desktop determination Date:
Site visit(s) Date(s): 5/23/07

Jurisdictional Determination (JD):

- Preliminary JD - Based on available information, there appear to be (or) there appear to be no "waters of the United States" and/or "navigable waters of the United States" on the project site. A preliminary JD is not appealable (Reference 33 CFR part 331).
- Approved JD - An approved JD is an appealable action (Reference 33 CFR part 331).
Check all that apply:
- There are "navigable waters of the United States" (as defined by 33 CFR part 329 and associated guidance) within the reviewed area. Approximate size of jurisdictional area:
- There are "waters of the United States" (as defined by 33 CFR part 328 and associated guidance) within the reviewed area. Approximate size of jurisdictional area: 48.6 acres.
- There are "isolated, non-navigable, intra-state waters or wetlands" within the reviewed area.
 Decision supported by SWANCC/Migratory Bird Rule Information Sheet for Determination of No Jurisdiction.

BASIS OF JURISDICTIONAL DETERMINATION:

- A. Waters defined under 33 CFR part 329 as "navigable waters of the United States":**
- The presence of waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
- B. Waters defined under 33 CFR part 328.3(a) as "waters of the United States":**
- (1) The presence of waters, which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
- (2) The presence of interstate waters including interstate wetlands¹.
- (3) The presence of other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate commerce including any such waters (check all that apply):
- (i) which are or could be used by interstate or foreign travelers for recreational or other purposes.
- (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- (iii) which are or could be used for industrial purposes by industries in interstate commerce.
- (4) Impoundments of waters otherwise defined as waters of the US.
- (5) The presence of a tributary to a water identified in (1) - (4) above.
- (6) The presence of territorial seas.
- (7) The presence of wetlands adjacent² to other waters of the US, except for those wetlands adjacent to other wetlands.

Rationale for the Basis of Jurisdictional Determination (applies to any boxes checked above). *If the jurisdictional water or wetland is not itself a navigable water of the United States, describe connection(s) to the downstream navigable waters. If B(1) or B(3) is used as the Basis of Jurisdiction, document navigability and/or interstate commerce connection (i.e., discuss site conditions, including why the waterbody is navigable and/or how the destruction of the waterbody could affect interstate or foreign commerce). If B(2, 4, 5 or 6) is used as the Basis of Jurisdiction, document the rationale used to make the determination. If B(7) is used as the Basis of Jurisdiction, document the rationale used to make adjacency determination:* The site exhibits wetland criteria as described in the 1987 Wetland Delineation Manual and water bodies that have ordinary high water marks. Wetlands are adjacent and abutting unnamed tributaries to the Shallotte River, a Traditionally Navigable Water.

Lateral Extent of Jurisdiction: (Reference: 33 CFR parts 328 and 329)

- Ordinary High Water Mark indicated by:
- clear, natural line impressed on the bank
 - the presence of litter and debris
 - changes in the character of soil
 - destruction of terrestrial vegetation
 - shelving
 - other:
- High Tide Line indicated by:
- oil or scum line along shore objects
 - fine shell or debris deposits (foreshore)
 - physical markings/characteristics
 - tidal gages
 - other:
- Mean High Water Mark indicated by:
- survey to available datum; physical markings; vegetation lines/changes in vegetation types.
- Wetland boundaries, as shown on the attached wetland delineation map and/or in a delineation report prepared by: Land Management Group, Inc.

Basis For Not Asserting Jurisdiction:

- The reviewed area consists entirely of uplands.
- Unable to confirm the presence of waters in 33 CFR part 328(a)(1, 2, or 4-7).
- Headquarters declined to approve jurisdiction on the basis of 33 CFR part 328.3(a)(3).
- The Corps has made a case-specific determination that the following waters present on the site are not Waters of the United States:
- Waste treatment systems, including treatment ponds or lagoons, pursuant to 33 CFR part 328.3.
 - Artificially irrigated areas, which would revert to upland if the irrigation ceased.
 - Artificial lakes and ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
 - Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons.
 - Water-filled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States found at 33 CFR 328.3(a).
 - Isolated, intrastate wetland with no nexus to interstate commerce. Line B was determined to be isolated.
 - Prior converted cropland, as determined by the Natural Resources Conservation Service. Explain rationale:
 - Non-tidal drainage or irrigation ditches excavated on dry land. Explain rationale:
 - Other (explain):

DATA REVIEWED FOR JURISDICTIONAL DETERMINATION (mark all that apply):

- Maps, plans, plots or plat submitted by or on behalf of the applicant.
- Data sheets prepared/submitted by or on behalf of the applicant.
- This office concurs with the delineation report prepared by (company): ECS Carolinas, LLP
- This office does not concur with the delineation report, dated _____, prepared by (company): _____
- Data sheets prepared by the Corps.
- Corps' navigable waters' studies:
- U.S. Geological Survey Hydrologic Atlas:
- U.S. Geological Survey 7.5 Minute Topographic maps: Shallotte
- U.S. Geological Survey 7.5 Minute Historic quadrangles:
- U.S. Geological Survey 15 Minute Historic quadrangles:
- USDA Natural Resources Conservation Service Soil Survey: Brunswick
- National wetlands inventory maps:
- State/Local wetland inventory maps:
- FEMA/FIRM maps (Map Name & Date): _____
- 100-year Floodplain Elevation is: _____ (NGVD)
- Aerial Photographs (Name & Date): _____
- Other photographs (Date): _____
- Advanced Identification Wetland maps:
- Site visit/determination conducted on: _____
- Applicable/supporting case law: _____
- Other information (please specify): _____

¹Wetlands are identified and delineated using the methods and criteria established in the Corps Wetland Delineation Manual (87 Manual) (i.e., occurrence of hydrophytic vegetation, hydric soils and wetland hydrology).

²The term "adjacent" means bordering, contiguous, or neighboring. Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes, and the like are also adjacent.



BRUNSWICK COUNTY, NORTH CAROLINA
 I, MARTIN S. STOUTON, P.L.S. 2727,
 CERTIFY THAT THIS PLAN WAS DRAWN UNDER MY
 SUPERVISION FROM AN ACTUAL SURVEY MADE
 UNDER MY SUPERVISION FROM INFORMATION
 SHOWN IN DEED BOOKS AND (DEED) MAPS
 REFERENCED ON THIS PLAN, THAT LINES NOT
 ACTUALLY SURVEYED APPEAR AS DASHED LINES
 AND WERE PLOTTED FROM INFORMATION AS NOTED
 ON THE PLAN, THAT THE BASIS OF PRECISION AS
 CALCULATED BY LETTERS AND FIGURES WAS
 GREATER THAN 1/10000, THAT THE AREA IS
 COMPUTED BY COORDINATE METHOD, THAT THIS PLAN WAS
 PREPARED IN ACCORDANCE WITH G.S. 41-10 AS AMENDED
 BY DEED MAP ACTING, SURVEYING, REGISTRATION
 NUMBER, AND SEAL, THIS THE _____ DAY OF _____
 A.D.

MARTIN S. STOUTON
 PROFESSIONAL LAND SURVEYOR

STATE OF NORTH CAROLINA
 COUNTY OF _____

_____, REVIEW OFFICE OF _____
 COUNTY, CERTIFY TO THE BEST OF MY
 KNOWLEDGE AND BELIEF THE MAP/PLAN TO WHICH
 THIS CERTIFICATION IS ATTACHED MEETS THE
 STATUTORY REQUIREMENTS FOR RECORDING.

REVIEW OFFICE: _____
 DATE: _____

THIS SURVEY IS OF AN EXISTING PARCEL OR PARCELS
 OF LAND AND DOES NOT CREATE A NEW STREET OR
 CHANGE AN EXISTING STREET.

MARTIN S. STOUTON
 PROFESSIONAL LAND SURVEYOR

THIS CERTIFICATE THAT THIS COPY OF THIS PLAN
 IDENTIFIED AS WELAND AND WELANDS ALL AREAS
 OF WELANDS AND WELANDS REMAINS PURSUANT TO
 SECTION 214 OF THE CLEAR WATER ACT AS REPEALED
 BY THE PROVISIONS OF THIS DATE, WELANDS TABLE
 IS A CORRECT COPY OF THE ORIGINAL RECORDING
 THIS INFORMATION MAY BE RELIED ON FOR A PERIOD
 NOT TO EXCEED ONE YEAR FROM THE DATE THIS
 CERTIFICATION AND WELANDS TABLE IS
 SUBMITTED TO THE SURVEYING REGISTRY

MARTIN S. STOUTON
 PROFESSIONAL LAND SURVEYOR
 DATE: 8/24/07

SAW - 2007-2758
 expires 8/24/2012
RECEIVED
AUG 24 2007
REGULATORY
WILM.FLD.OFC.

LEGEND
 BF BORN BEAR FOUND
 BS BORN BEAR SET
 B/W BORN OF WET

REFERENCES:
 1) DEED BK. 1341, PAGE 638

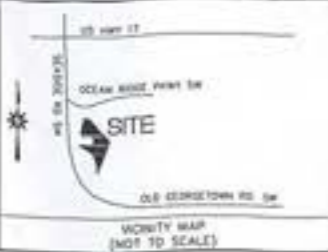
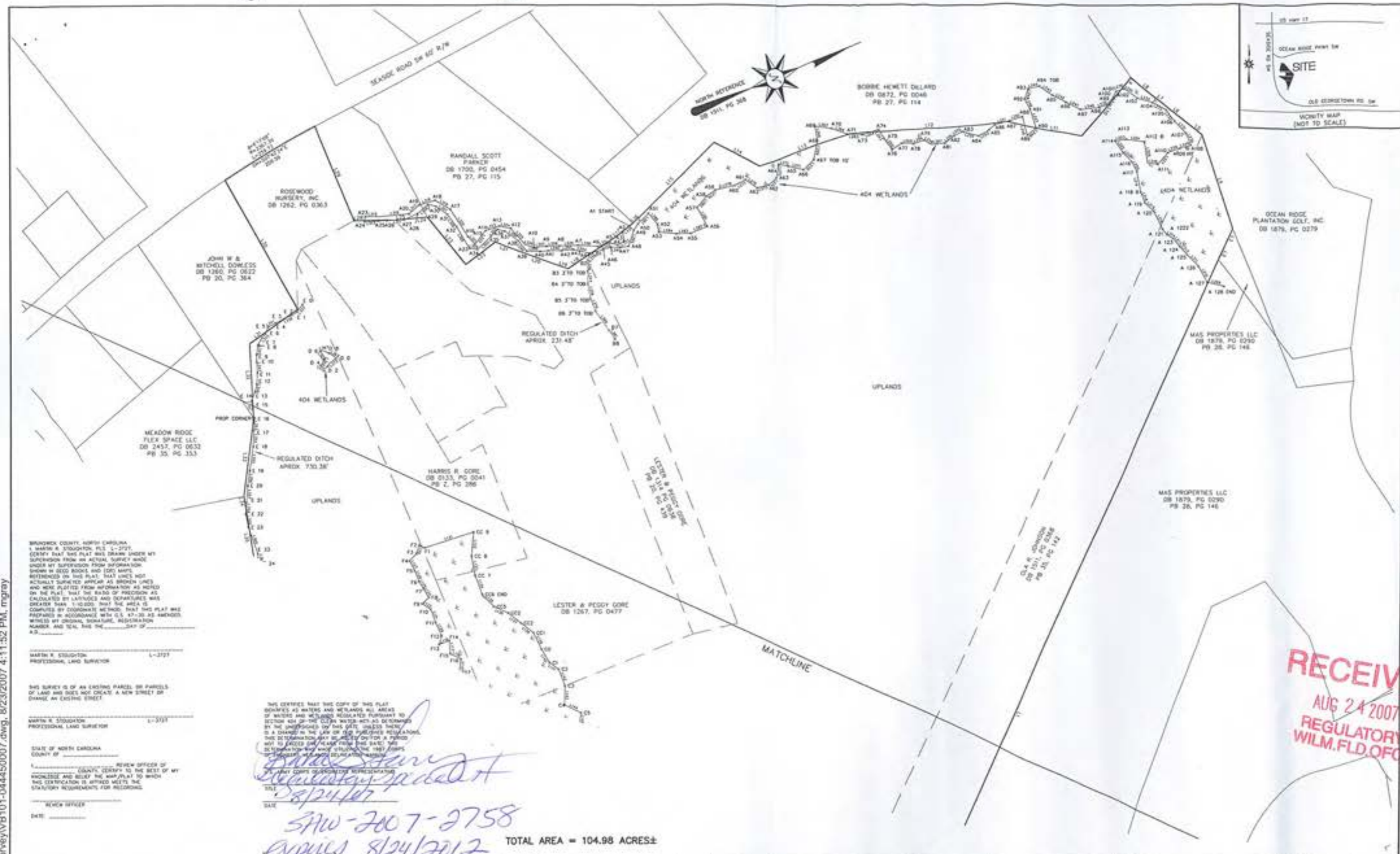
NOTES:
 1) ALL DISTANCES SHOWN ARE PROBABLY HORIZONTAL, UNLESS
 OTHERWISE NOTED.
 2) ALL DISTANCES ARE IN FEET UNLESS OTHERWISE NOTED.
 3) BORN BEARS HAVE BEEN SET AT MOST PROPERTY CORNERS.
 4) THIS PROPERTY IS IN FLOOD ZONE 3 AS SHOWN ON FEMA
 FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER
 2700000000A, DATED JUNE 2, 2004.
 5) TOTAL AREA OF SIX WELANDS IS 1289.06 SQ. FT. OR 47.31 ACRES.
 TOTAL AREA OF UPLANDS IS 2,577.89 SQ. FT. OR 0.5747 ACRES.
 6) TAX ID NUMBER: 2770004

LINE	DIRECTION	LENGTH
101	N 82°21'40" W	1427.58
102	N 42°24'20" W	26.75
103	N 42°24'20" W	26.75
104	N 82°21'40" W	1427.58
105	S 82°21'40" W	1427.58
106	S 42°24'20" W	26.75
107	S 42°24'20" W	26.75
108	S 82°21'40" W	1427.58
109	N 82°21'40" W	1427.58
110	N 42°24'20" W	26.75
111	N 42°24'20" W	26.75
112	N 82°21'40" W	1427.58
113	S 82°21'40" W	1427.58
114	S 42°24'20" W	26.75
115	S 42°24'20" W	26.75
116	S 82°21'40" W	1427.58
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120	N 82°21'40" W	1427.58
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122	S 42°24'20" W	26.75
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124	S 82°21'40" W	1427.58
125	N 82°21'40" W	1427.58
126	N 42°24'20" W	26.75
127	N 42°24'20" W	26.75
128	N 82°21'40" W	1427.58
129	S 82°21'40" W	1427.58
130	S 42°24'20" W	26.75
131	S 42°24'20" W	26.75
132	S 82°21'40" W	1427.58
133	N 82°21'40" W	1427.58
134	N 42°24'20" W	26.75
135	N 42°24'20" W	26.75
136	N 82°21'40" W	1427.58
137	S 82°21'40" W	1427.58
138	S 42°24'20" W	26.75
139	S 42°24'20" W	26.75
140	S 82°21'40" W	1427.58
141	N 82°21'40" W	1427.58
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146	S 42°24'20" W	26.75
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BRUNSWICK COUNTY, NORTH CAROLINA
 I, MARTIN R. STOUGHTON, PLS. L-3727,
 CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY
 SUPERVISION FROM AN ACTUAL SURVEY MADE
 UNDER MY SUPERVISION FROM INFORMATION
 SHOWN IN DEED BOOKS AND [CITY MAPS]
 REFERENCED ON THIS PLAT, THAT LINES NOT
 ACTUALLY SURVEYED APPEAR AS DOTTED LINES
 AND WERE PLOTTED FROM INFORMATION AS NOTED
 ON THE PLAT. THAT THE BASIS OF PRECISION AS
 CALCULATED BY LATITUDES AND DEPARTURES WAS
 GREATER THAN 1:10,000. THAT THE AREA IS
 COMPUTED BY COORDINATE METHOD. THAT THIS PLAT WAS
 PREPARED IN ACCORDANCE WITH G.S. 47-30. AS WITNESSED
 WITHIN MY ORIGINAL SIGNATURE, REGISTRATION
 NUMBER, AND SEAL, THIS THE 24TH DAY OF
 A.D. _____

MARTIN R. STOUGHTON L-3727
 PROFESSIONAL LAND SURVEYOR

THIS SURVEY IS OF AN EXISTING PARCEL OR PARCELS
 OF LAND AND DOES NOT CREATE A NEW STREET OR
 CHANGE AN EXISTING STREET

MARTIN R. STOUGHTON L-3727
 PROFESSIONAL LAND SURVEYOR

STATE OF NORTH CAROLINA
 COUNTY OF _____
 I, _____ REVIEW OFFICER OF
 COUNTY CERTIFY TO THE BEST OF MY
 KNOWLEDGE AND BELIEF THE MAP/PLAT TO WHICH
 THIS CERTIFICATION IS AFFIXED MEETS THE
 STATUTORY REQUIREMENTS FOR RECORDING.

REC'D OFFICER _____
 DATE _____

THIS CERTIFIES THAT THE COPY OF THIS PLAT
 SHOWING 404 WETLANDS AND WETLANDS ALL AREAS
 OF WETLANDS AND WETLANDS REGULATED PURSUANT TO
 SECTION 404 OF THE CLEAN WATER ACT AS DETERMINED
 BY THE UNDERSIGNED ON THIS DATE, UNLESS THERE IS
 A CHANGE IN THE LAW OR THE UNDERSIGNED'S
 TIME OF INFORMATION MAY BE ALTERED ON-THE-SPOT OR
 BY THE UNDERSIGNED'S OFFICE. THIS CERTIFICATION
 IS VALID FOR THE YEAR 2012.

Martin R. Stoughton
 8/24/07

SAW-2007-2758
 expires 8/24/2012
 TOTAL AREA = 104.98 ACRES±



LEGEND
 MW WITH BEARS FOUND
 MY WITH PINE FOUND
 MS WITH REDBARK OAK
 RW WITH-OF-WAY

NOTES
 1) ALL DISTANCES SHOWN ARE GROUND HORIZONTAL UNLESS
 OTHERWISE NOTED
 2) ALL DISTANCES ARE IN FEET UNLESS OTHERWISE NOTED
 3) WITH BEARS HAVE BEEN SET AT MOST PROPERTY CORNERS
 4) THIS PROPERTY IS IN FLOOD ZONE 2 AS SHOWN ON FEMA
 FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER
 370905000A DATED JUNE 1, 2006
 5) TOTAL AREA OF 404 WETLANDS IS 208,896 S.F. OR 4.73 ACRES±
 107% AREA OF UPLANDS IS 2,311,997 S.F. OR 53.25 ACRES±
 6) TAX ID NUMBER 22100016

DATE	REVISION	INITIAL

MCKIM & CREED
 2987 Box Hwy 17 East
 ROLFA, NORTH CAROLINA 28422
 Phone: (910)253-6622, Fax: (910)253-6634
 Website: http://www.mckimcreed.com

WETLAND SURVEY
 OF
556 HARRIS TRAIL
 FOR
LANDCRAFT MANAGEMENT, LLC
 1712 Eastwood Road-Suite 218
 Wilmington, NC 28403
 DATE: JUNE 12, 2007 SCALE: 1" = 100'
 SHILOTTIE TOWNSHIP BRUNSWICK COUNTY NORTH CAROLINA

PROJECT # : 0445-0007
 PROJ. SYR# : M01
 DRAWN BY : CSB
 FIELD SK. :
 COMP. FILE :
 SHEET # : 3 OF 3
 DWG # : BR01-0445-0007

RECEIVED
 AUG 24 2007
 REGULATORY
 WILM.FLD.OFC.

*104.98 total
 parcel
 acreage*

5/23/07

~~Give Clifton - Coastal Environmentals
V Garvey / J Hooten - COE~~

~~checked I, J, K, L
jurisdictional due to
adjacency and across
road, obvious connections
to larger systems~~

~~none isolated, all called
jurisdictional~~

~~see map in file~~

5/23/07

Harris
Trail

Daniel Post - ECS
V Garvey / J Hooten - COE

Perimeter ditch in on
S Property boundary
add isolated pond to map

wetlands D, E out
b/c no soils

Flag peccosin wetland
adjacent to golf course

Parcel Information

Find Adjoining Parcels

Find parcels that are within 1 FEET of this parcel.

(A value of 1 finds adjoining parcels.)

This data was last updated on August 1, 2007. [Click here](#) to create print page with map and tax information.

Parcel Information

Parcel Number	22700016	Sale Price	\$0.00
Account Number	63228620	Plat Book & Page	B: P:
Owner Name	JOHNSON OLA R ETALS	Legal Description	
Owner Mailing Address	%RICHARD LANDIS STALLINGS	Acreage	93.72
Owner Mailing Address 2	564 HARRIS TRL SW	Deed Recorded Date	M:10/18/2001
City	OCEAN ISLE BEACH	Parcel Address	552 HARRIS TRL
State	NC		
Zip Code	28469		
Deed Book & Page	B:1511 P:0368		

[Top of Page](#) [Close Parcel Information Window](#)

Property Record Card

Land Value	\$1,799,420.00	Deferred Value	\$41,950.00
Building Value	\$450.00	Total Taxable Value	\$1,805,550.00
Other Value	\$5,680.00		

[Top of Page](#) [Close Parcel Information Window](#)

Building Information

Heated Square Feet	932	Exterior Wall Type	
Year Built	1952	Neighborhood Number	6009
Number of Bedrooms	3 BEDROOMS	Municipality	
Number of Full Baths		Fire Tax District	GRISSET / LONGW
Story Height		Township	SHALLOTTE
Exterior Wall Type	WOOD ON SHEAT OR P		

[Top of Page](#) [Close Parcel Information Window](#)

Date/Time Stamp August 24, 2007 11:26:48 am	The data effective date is: August 1, 2007	This map is prepared for the inventory of real property found within this jurisdiction, and is compiled from recorded deeds, plats and other public records and data. Users of this map are hereby notified that the aforementioned public primary information sources should be consulted for verification of the information contained on this map. The County assumes no legal responsibility for the information contained on this map.
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AgentName

Scott A. Stover

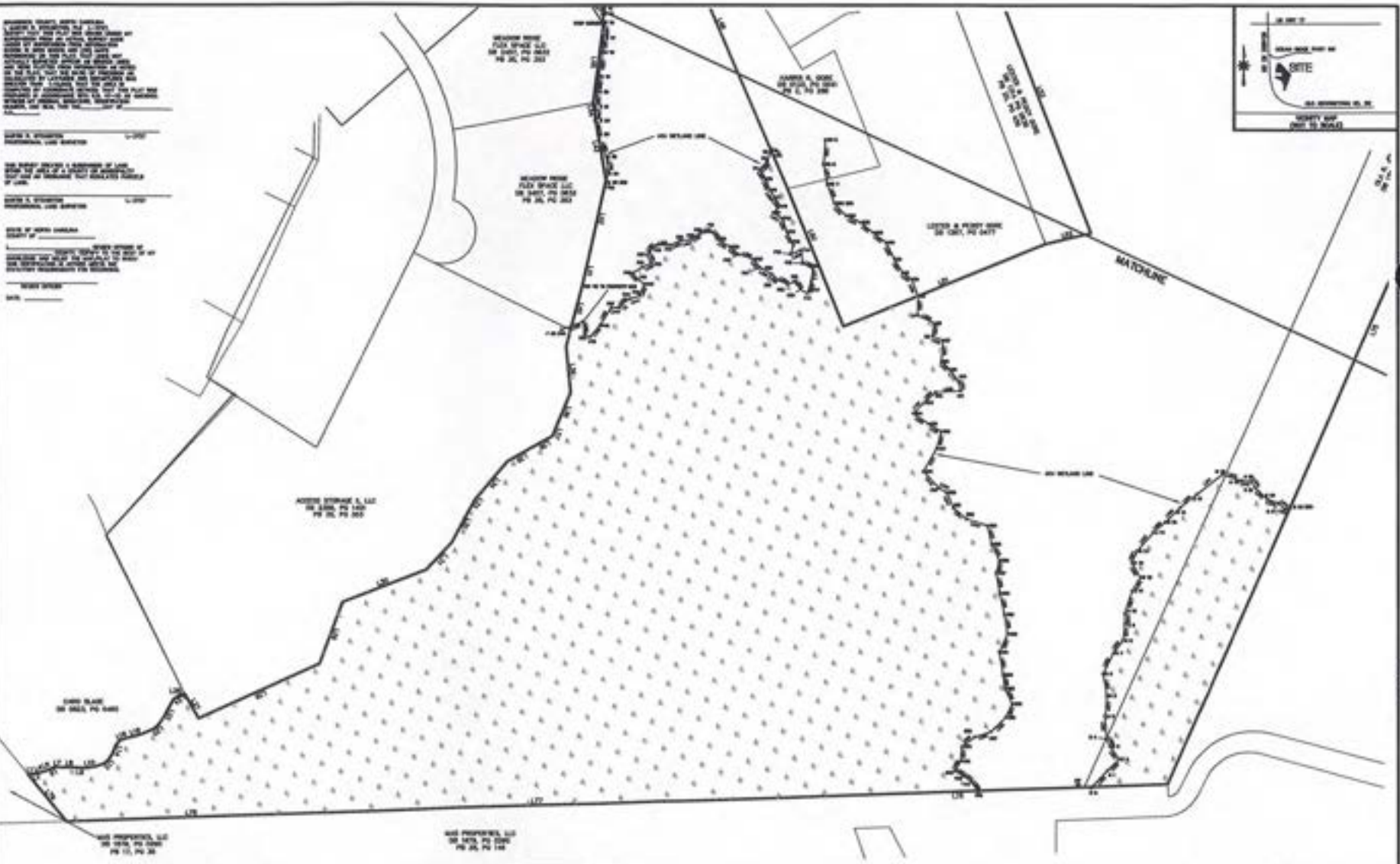
Businesses that Scott A. Stover Represents ...

Entity Name	Type	Status
Avalon Subdivision, LLC	LLC	Current-Active
Back Creek Farms Subdivision, LLC	LLC	Current-Active
Bridgefield, LLC	LLC	Current-Active
Brookmere Phase II, LLC	LLC	Current-Active
Burton Run, LLC	LLC	Current-Active
CANTERFIELD, LLC	LLC	Current-Active
Chandler Oaks, LLC	LLC	Current-Active
CURTIS POND, LLC	LLC	Current-Active
Eagle Creek Subdivision, LLC	LLC	Current-Active
Eagles Trace, LLC	LLC	Current-Active
Edgefield Subdivision, LLC	LLC	Current-Active
Fiddler's Glenn, LLC	LLC	Current-Active
Fountain Grove, LLC.	LLC	Current-Active
Glen Village, LLC	LLC	Current-Active
GLENHAVEN, LLC	LLC	Current-Active
Hattie Meadows, LLC	LLC	Current-Active
HOUSTON HILLS, LLC	LLC	Current-Active
LandCraft Funding, LLC	LLC	Current-Active
Landcraft Insurance Funding, LLC	LLC	Current-Active
Landcraft Management, LLC	LLC	Current-Active
Landcraft Properties, Inc.	BUS	Current-Active
Langston Subdivision, LLC	LLC	Current-Active
LCP Holding I, LLC	LLC	Current-Active
Lela Court, LLC	LLC	Current-Active
Magnolia Springs Subdivision, LLC	LLC	Current-Active
MEADOWBROOK VILLAGE, LLC	LLC	Current-Active
NEWELL CROSSING, LLC	LLC	Current-Active
North Oaks Village, LLC	LLC	Current-Active
Old Towne, LLC	LLC	Current-Active
PILOT'S RIDGE, LLC	LLC	Current-Active
Pinebrook, LLC	LLC	Current-Active
Prosperity Church Road, LLC	LLC	Current-Active
Ravenswood, LLC	LLC	Current-Active
River Chase Subdivision, LLC	LLC	Current-Active
Rocky River Village, LLC	LLC	Current-Active
Rosedale Subdivision, LLC	LLC	Current-Active
Saddlebrook Subdivision, LLC.	LLC	Current-Active

Stoney Creek Subdivision, LLC	LLC	Current-Active
SULLIVAN'S TRACE, LLC	LLC	Current-Active
The Rapids at Belmeade, LLC	LLC	Current-Active
Villages of Wesley Chapel, LLC	LLC	Current-Active
Vineyard Glen, LLC	LLC	Current-Active
WINBORNE SUBDIVISION, LLC	LLC	Current-Active

1. THIS PLAN IS A PRELIMINARY PLAN AND IS NOT TO BE USED FOR CONSTRUCTION OR AS EVIDENCE OF TITLE. IT IS THE PROPERTY OF MFKIM & CREED, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF MFKIM & CREED, INC.

DATE & LOCATION: 1-1-2007
PROJECT: BAYVIEW LANE EXTENSION
SCALE: 1" = 100'
DATE OF FIELD SURVEY: 1-1-2007
DATE OF PLAN PREPARATION: 1-1-2007
BY: MFKIM & CREED, INC.
FOR: BAYVIEW LANE EXTENSION
PROJECT: BAYVIEW LANE EXTENSION
SCALE: 1" = 100'
DATE OF FIELD SURVEY: 1-1-2007
DATE OF PLAN PREPARATION: 1-1-2007
BY: MFKIM & CREED, INC.
FOR: BAYVIEW LANE EXTENSION



DATE: 1-1-2007
BY: MFKIM & CREED, INC.
FOR: BAYVIEW LANE EXTENSION
PROJECT: BAYVIEW LANE EXTENSION
SCALE: 1" = 100'
DATE OF FIELD SURVEY: 1-1-2007
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BY: MFKIM & CREED, INC.
FOR: BAYVIEW LANE EXTENSION



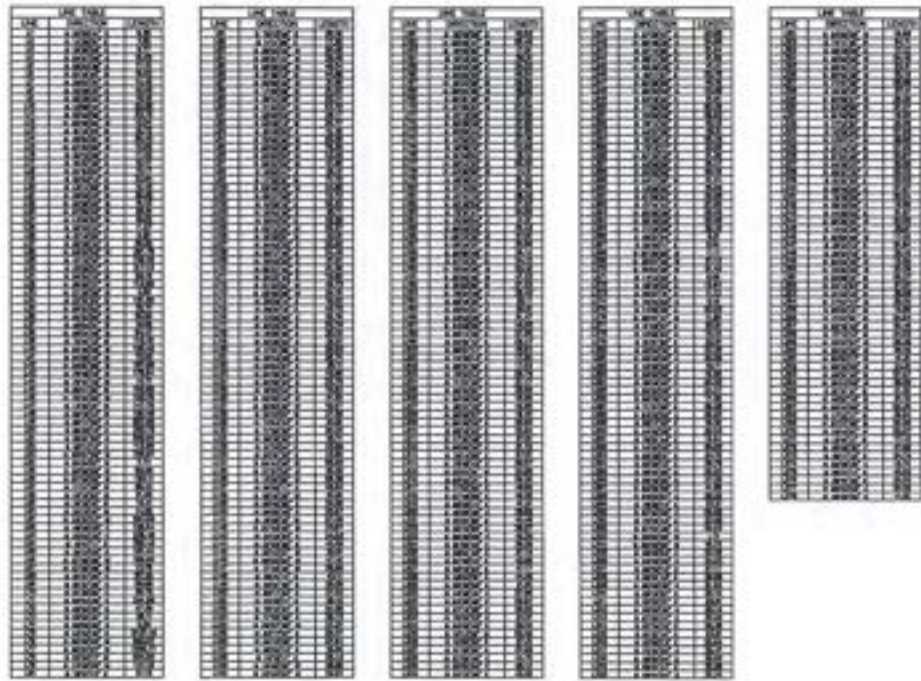
DATE	BY	REVISION	DETAIL

MFKIM & CREED
 207 S. W. 17th St.
 WELLS, NORTH CAROLINA 28683
 Phone: (919) 285-4622 Fax: (919) 285-4624
 Internet Site: <http://www.mfkimandcreed.com>

PRELIMINARY

WELLS ROAD
 600 HAYES TRAIL
 FOR
 LANDCRAFT, INC.
 1700 Commercial Park Drive SW
 Winston-Salem, NC 28602
 DATE: 1-1-2007 SCALE: 1" = 100'
 WELLS ROAD, WELLS COUNTY, NORTH CAROLINA

PROJECT # : 000-000
 DRAWING # : 000
 SHEET # : 1 OF 1
 DATE: 1-1-2007



GENERAL NOTES:
 1. ALL DATA IS TO BE REPORTED TO THE CLIENT IN THE FORM OF A DATA SHEET.
 2. THE CLIENT SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL DATA.
 3. THE CLIENT SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL DATA.
 4. THE CLIENT SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL DATA.
 5. THE CLIENT SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL DATA.

DATE: 1/1/2000
 DRAWN BY: [Name]
 CHECKED BY: [Name]

FOR MORE DETAILS A LISTING OF ALL
 DATA IS ATTACHED TO THE END OF THIS
 REPORT.

DATE: 1/1/2000
 DRAWN BY: [Name]
 CHECKED BY: [Name]

SCALE: 1" = 100'
 NORTH: [Direction]
 ELEVATION: [Value]
 DISTANCE: [Value]

DATE: 1/1/2000
 DRAWN BY: [Name]
 CHECKED BY: [Name]

DATE: 1/1/2000
 DRAWN BY: [Name]
 CHECKED BY: [Name]

1. ALL DATA IS TO BE REPORTED TO THE CLIENT IN THE FORM OF A DATA SHEET.
 2. THE CLIENT SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL DATA.
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 4. THE CLIENT SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL DATA.
 5. THE CLIENT SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL DATA.

DATE	REVISION	BY

MFKIM & CREED
 2607 Oak Ridge Dr. East
 Raleigh, North Carolina 27602
 Phone: (919) 876-4600 Fax: (919) 876-4604
 Internet Site: <http://www.mfkimandcreed.com>

PRELIMINARY

WILSON BRIDGES
 OF
ODD HANDED TRAIL
 THE
LANDCRAFT, INC.
 170 Eastwood Road-Suite 200
 Winston, NC 27392
 8470 AME BL. SUITE 200 WAKE 1/100
 WAKELETTER TOWNSHIP WAKE COUNTY NORTH CAROLINA

PROJECT # : 0404-001
 PLAN # : 00
 SHEET # : 00
 DATE : 1/1/00
 SHEET # 1 OF 3
 PLOT # : 000-0000-000



ECS Carolinas, LLP
Geotechnical • Construction Materials • Environmental

Ms. Kim Garvey
U.S. Army Corps of Engineers
Wilmington Regulatory Field Office
Post Office Box 1890
Wilmington, North Carolina 28402-1890

June 21, 2007
RECEIVED
JUN 25 2007
REGULATORY
WILM.FLD.OFC.

RE: Wetland Jurisdictional Review – Supplemental Information
Approximate 116-Acre Tract of Land
Harris Trail
Shallotte, North Carolina
ECS Carolinas, LLP Project No. 22-12823-A

Dear Ms. Garvey:

Please review the attached revised material included for wetland jurisdictional determination for the above-mentioned property. The subject site consists of approximately 116-acres of land, located adjacent to the east of Highway 904 and Harris Trail in Shallotte, Brunswick County, North Carolina.

Mr. Dan Post of ECS met with you at the site May 16, 2007. The attached Data Forms and survey represent the suggested changes which you wanted based on your site visit.

Our objective is to have a final determination by your office as to the delineated, jurisdictional boundaries of the wetland. Thank you in advance for your assistance with this project. If you have any questions or need additional information please contact Cheryl Moody at (910) 686-9114.

ECS Carolinas, LLP

Lee Ann Jones (AKO)
Lee Ann Jones
Staff Wetland Scientist

Cheryl J. Moody
Cheryl J. Moody, REM, CIE, CMRS
Principal Scientist

Attachments: Data Forms
Survey map

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, North Carolina</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>05-30-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Upland D</u> Transect ID: Plot ID: _____

VEGETATION

<u>Dominant Plant Species</u>	<u>Stratum</u>	<u>Indicator</u>	<u>Dominant Plant Species</u>	<u>Stratum</u>	<u>Indicator</u>
1. <u><i>Ilex opaca</i></u>	<u>Tree</u>	<u>FAC</u>	9. _____	_____	_____
2. <u><i>Pinus taeda</i></u>	<u>Tree</u>	<u>FAC</u>	10. _____	_____	_____
3. <u><i>Pinus palustris</i></u>	<u>Tree</u>	<u>UP</u>	11. _____	_____	_____
4. <u><i>Smilax glauca</i></u>	<u>Shrub</u>	<u>FACU</u>	12. _____	_____	_____
5. <u><i>Myrica cerifera</i></u>	<u>Shrub</u>	<u>FAC+</u>	13. _____	_____	_____
6. <u><i>Liquidambar styraciflua</i></u>	<u>Tree</u>	<u>FAC+</u>	14. _____	_____	_____
7. <u><i>Acer rubrum</i></u>	<u>Tree</u>	<u>FAC</u>	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 20%

Remarks:
 Most of the vegetation observed in the upland area is not considered macrophytes/hydrophytic vegetation. The upland test location is located to the west of Wetland D and is composed of previously cleared land.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe In Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Wetland Hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12" <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input type="checkbox"/> Oxidized Roots Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: This area consists of what appears to be moderately well drained soils in the upland. Surface water was not observed within this area of the site.	

SOILS

Map Unit Name
 (Series and Phase): Mandarin fine sand (Ma) **Drainage Class:** Somewhat poorly-drained soil
 Taxonomy (Subgroup): _____ **Confirm Mapped Type?** Yes ___ No X

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-5		10 YR 6/1	-	-	Fine sand
5-12		10 YR 8/1	-	-	Fine sand

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed On Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: The soil in this location consists of what appear to be somewhat well drained soils in upland.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ___ No <u>X</u>	Is the Sampling Point	Yes ___ No <u>X</u>
Wetland Hydrology Present?	Yes ___ No <u>X</u>	Within a Wetland?	Yes ___ No <u>X</u>
Hydric Soils Present?	Yes ___ No <u>X</u>		

Remarks: This test location, located within the limits of the site appears to support mostly FAC species and no hydric indicators were observed.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, North Carolina</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>05-30-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Wetland D</u> Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Liquidambar styraciflua</u>	<u>Tree</u>	<u>FAC</u>	9. <u>Myrica cerifera</u>	<u>Shrub</u>	<u>FAC+</u>
2. <u>Acer rubrum</u>	<u>Tree</u>	<u>FAC</u>	10. _____	_____	_____
3. <u>Quercus nigra</u>	<u>Tree</u>	<u>FAC</u>	11. _____	_____	_____
4. <u>Quercus michauxii</u>	<u>Tree</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Woodwardia areolata</u>	<u>Herb</u>	<u>OBL</u>	13. _____	_____	_____
6. <u>Ilex opaca</u>	<u>Tree</u>	<u>FAC</u>	14. _____	_____	_____
7. <u>Gordonia lasianthus</u>	<u>Tree</u>	<u>FACW</u>	15. _____	_____	_____
8. <u>Persea borbonia</u>	<u>Tree</u>	<u>FACW</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 85%

Remarks: The vegetation in this wetland is composed mostly of red maple, sweet gum, overcup oak, American holly, water oak, red bay, loblolly bay, pond pine, and fern species. The plant species observed within the limits of the wetland are considered macrophytes/hydrophytic vegetation.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe In Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>8</u> (in.) Depth to Saturated Soil: <u>4</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12" <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input checked="" type="checkbox"/> Oxidized Roots Channels in Upper 12" <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: This wetland area appears to have been moderately drained over time; however, characteristic wetland indicators were apparent at the time of the field reconnaissance.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, NC</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>5-30-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Upland G</u> Transect ID: Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Osmunda regalis</u>	<u>Herb</u>	<u>OBL</u>	9. _____	_____	_____
2. <u>Pinus taeda</u>	<u>Tree</u>	<u>FAC</u>	10. _____	_____	_____
3. <u>Pinus palustris</u>	<u>Tree</u>	<u>FACU+</u>	11. _____	_____	_____
4. <u>Magnolia virginiana</u>	<u>Tree</u>	<u>FACW+</u>	12. _____	_____	_____
5. <u>Liquidambar styraciflua</u>	<u>Tree</u>	<u>FAC+</u>	13. _____	_____	_____
6. <u>Gordonia lasianthus</u>	<u>Tree</u>	<u>FACW</u>	14. _____	_____	_____
7. <u>Smilax laurifolia</u>	<u>Vine</u>	<u>FACW+</u>	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). _____

Remarks:

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input checked="" type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: <u>n/a</u> (in.) Depth to Free Water in Pit: <u>n/a</u> (in.) Depth to Saturated Soil: <u>n/a</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12" <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input type="checkbox"/> Oxidized Roots Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks:	

SOILS

Map Unit Name
 (Series and Phase): _____ Drainage Class: _____
 Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes X No _____

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12		2.5 Y 7/1	-	-	
			-	-	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed On Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ___ No <u>X</u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes ___ No <u>X</u>	Within a Wetland?	Yes ___ No <u>X</u>
Hydric Soils Present?	Yes ___ No <u>X</u>		

Remarks: This test location, located within the limits of the site appears to support mostly FAC species and no hydric indicators were observed.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, NC</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>5-30-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Wetland G</u> Transect ID: Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u><i>Osmunda regalis</i></u>	<u>Herb</u>	<u>OBL</u>	9. _____	_____	_____
2. <u><i>Pinus serotina</i></u>	<u>Tree</u>	<u>FACW+</u>	10. _____	_____	_____
3. <u><i>Lyonia lucida</i></u>	<u>Shrub</u>	<u>FACW</u>	11. _____	_____	_____
4. <u><i>Quercus lyrata</i></u>	<u>Tree</u>	<u>OBL</u>	12. _____	_____	_____
5. <u><i>Magnolia virginiana</i></u>	<u>Tree</u>	<u>FACW+</u>	13. _____	_____	_____
6. <u><i>Gordonia lasianthus</i></u>	<u>Tree</u>	<u>FACW</u>	14. _____	_____	_____
7. _____	_____	-	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-. _____

Remarks:

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input checked="" type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: <u>n/a</u> (in.) Depth to Free Water in Pit: <u>n/a</u> (in.) Depth to Saturated Soil: <u>6</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12" <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input checked="" type="checkbox"/> Oxidized Roots Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input checked="" type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks:	

SOILS

Map Unit Name _____
 (Series and Phase): _____ Drainage Class: _____
 Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes No

Profile Description:

Depth (Inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-8		2.5 Y 2.5/1	-	-	
8-12		2.5 Y 5/1	-	-	

Hydric Soil Indicators:

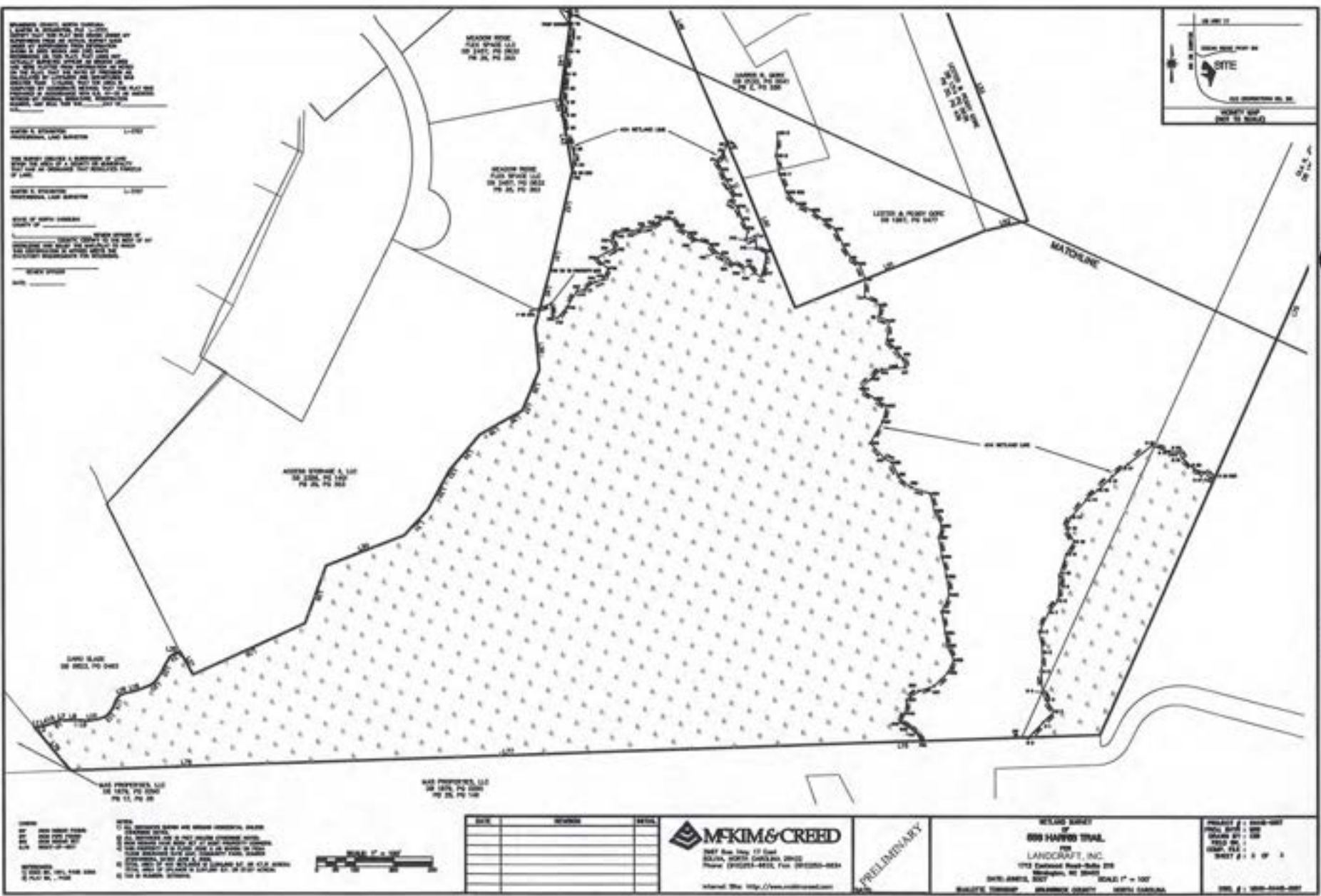
<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed On Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: _____

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampling Point	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soils Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Remarks: _____



1. ALL DIMENSIONS ARE IN FEET AND INCHES.
 2. DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
 3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
 4. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
 5. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
 6. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
 7. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
 8. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
 9. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.
 10. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.

SECTION 1
 SECTION TWO
 SECTION THREE
 SECTION FOUR
 SECTION FIVE
 SECTION SIX
 SECTION SEVEN
 SECTION EIGHT
 SECTION NINE
 SECTION TEN



DATE: 08/11/11
 DRAWN BY: J. L. HARRIS
 CHECKED BY: J. L. HARRIS
 PROJECT NO.: 11-001

1. THIS PLAN IS A PRELIMINARY DESIGN.
 2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE GROUND.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.



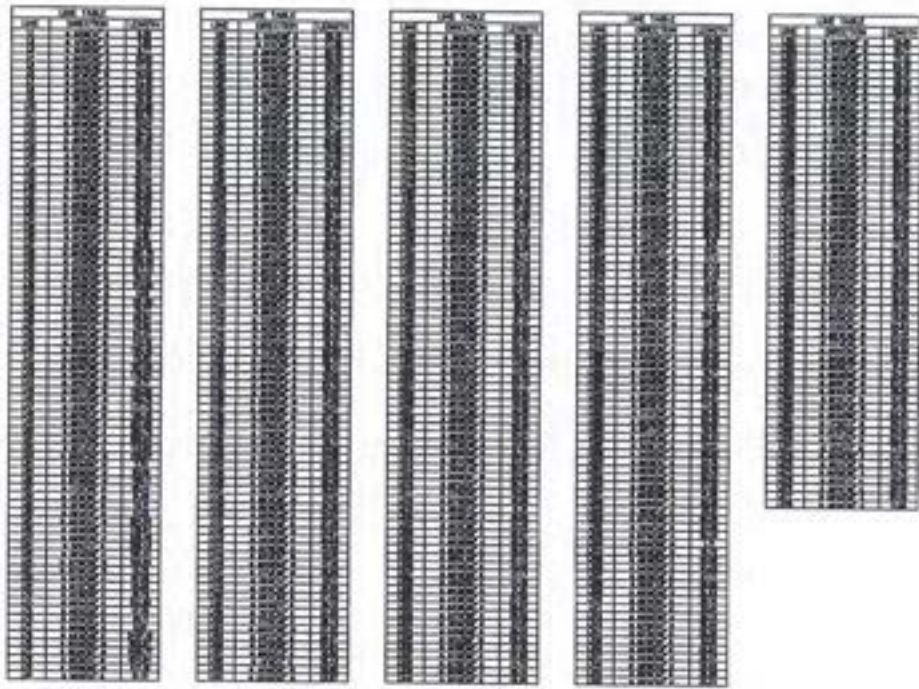
NO.	REVISION	DATE

MFKIM & CREED
 3675 Beechley Dr.
 Raleigh, NC 27612
 Phone: (919) 871-4551 Fax: (919) 871-4552
 Website: <http://www.mfkimandcreed.com>

PRELIMINARY

WELLS SURVEY
 OF
 600 HANCOCK TRAIL
 FOR
 LANDCRAFT, INC.
 1713 Eastwood Road-Ste 210
 Raleigh, NC 27612
 SCALE: 1" = 100'
 SHEET NUMBER: 08-0000-0001 SHEET 2 OF 2

PROJECT: 08-0000-0001
 SHEET: 08-0000-0001
 DATE: 08/11/11
 SHEET 2 OF 2



THESE DATA WERE OBTAINED FROM THE FIELD SURVEY OF THE PROJECT AREA AND ARE SUBJECT TO THE ACCURACY OF THE SURVEYING AND THE QUALITY OF THE DATA. THE DATA ARE NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

DATE: 1/15/10
 DRAWN BY: [Name]
 CHECKED BY: [Name]

THESE DATA WERE OBTAINED FROM THE FIELD SURVEY OF THE PROJECT AREA AND ARE SUBJECT TO THE ACCURACY OF THE SURVEYING AND THE QUALITY OF THE DATA. THE DATA ARE NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

DATE: 1/15/10
 DRAWN BY: [Name]
 CHECKED BY: [Name]

THESE DATA WERE OBTAINED FROM THE FIELD SURVEY OF THE PROJECT AREA AND ARE SUBJECT TO THE ACCURACY OF THE SURVEYING AND THE QUALITY OF THE DATA. THE DATA ARE NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

DATE: 1/15/10
 DRAWN BY: [Name]
 CHECKED BY: [Name]

DATE: 1/15/10
 DRAWN BY: [Name]
 CHECKED BY: [Name]

DATE: 1/15/10
 DRAWN BY: [Name]
 CHECKED BY: [Name]

THESE DATA WERE OBTAINED FROM THE FIELD SURVEY OF THE PROJECT AREA AND ARE SUBJECT TO THE ACCURACY OF THE SURVEYING AND THE QUALITY OF THE DATA. THE DATA ARE NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

DATE	REVISION	BY

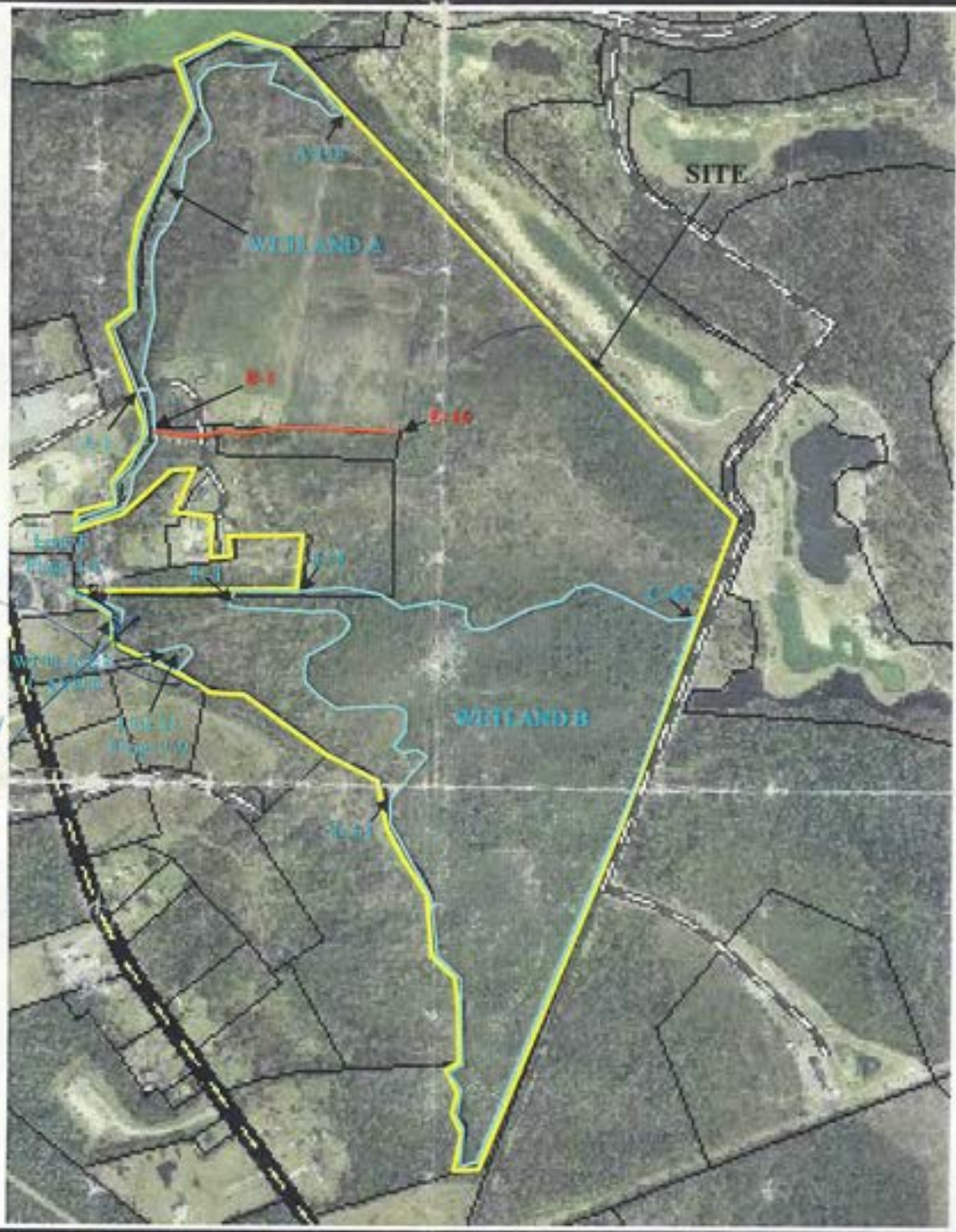
MFKIM & CREED
 2007 New Way Dr. East
 10076 NORTH CANTON DRIVE
 P.O. BOX 10076-10000
 DENVER, CO 80260-1000
 WWW.MFKIMANDCREED.COM

PRELIMINARY

WILLIAM BARNETT
 OF
BOB HANCOCK TRAIL
 FOR
LANDCRAFT, INC.
 1713 Eastwood Road - Suite 210
 Englewood, CO 80150
 303.750.1515
 303.750.1515
 303.750.1515

PROJECT # : 10076-10000
 DRAWN BY : [Name]
 CHECKED BY : [Name]
 DATE : 1/15/10
 SHEET # : 1 OF 3
 10076-10000-001

Wetlands DF E out but ditch is jurisdictional



Approximate Scale: NTS

FIGURE 5: WETLAND LOCATION MAP



Source: USDA Soil Survey of Brunswick County, North Carolina, 1986.

Wetland Services
 Approximate 116-Acre Tract
 Harris Trail
 Shallotte, North Carolina



ECS Project No. 22-12823-A
 March 2007

RECEIVED
MAR 23 2007
REGULATORY
WILM. FED. OFC.



33.9290
78.4949

WETLAND JURISDICTIONAL REVIEW
APPROXIMATELY 116-ACRE TRACT OF LAND
HARRIS TRAIL
SHALLOTTE, BRUNSWICK COUNTY, NORTH CAROLINA

RECEIVED
MAR 23 2007
REGULATORY
W.L.M. F.L.D. OFC

Wetland Jurisdictional Review
Approximate 116-Acre Tract of Land
Harris Trail
Shalotte, Brunswick County, North Carolina

CLIENT

Mr. Michael Johnson
7034 Cayman Court
Wilmington, North Carolina 28405

SUBMITTED BY

ECS Carolinas, LLP
7211 Ogden Business Park, Suite 201
Wilmington, North Carolina

PROJECT No. 22-12823-A

March 21, 2007



ECS Carolinas, LLP

Geotechnical • Construction Materials • Environmental

March 21, 2007

Ms. Kim Garvey
U.S. Army Corps of Engineers
Wilmington Regulatory Field Office
Post Office Box 1890
Wilmington, North Carolina 28402-1890

RE: Wetland Jurisdictional Review
Approximate 120-Acre Tract of Land
Harris Trail
Shallotte, North Carolina
ECS Carolinas, LLP Project No. 22-12823-A

Dear Ms. Garvey:

Please review the attached material included for wetland jurisdictional determination for the above-mentioned property. The subject site consists of approximately 116-acres of land, located adjacent to the east of Highway 904 and Harris Trail in Shallotte, Brunswick County North Carolina. According to the Brunswick County's, online GIS program (Spatial Data Explorer) the site is currently owned by Ola Johnson, and Mr. and Mrs. Lester Gore and further identified as Brunswick County Tax Parcel Numbers 22700016, 22700017, and 2270001704. The northern limits of the site are bound by the Saw Pit Swamp, which is a tributary of the Shallotte River. As shown online at the U.S. Environmental Protection Agency's (EPA), *EnviroMapper* website, the site is located in the Carolina Coastal Sampit Watershed (HUC Code 03040207).

During March of 2007 ECS Carolinas, LLP (ECS) delineated wetland areas located within the limits of the 116-acre site. The delineated wetland areas are located along the northwestern limits of the site and in the southern portion of the site. A field sketch of the onsite delineated wetlands are labeled on Figure 5 as "Wetlands A, B, C and D". The northerly located delineated wetland is composed of portions of the Saw Pit Swamp. The boundaries of the site were not surveyed at the time of the field reconnaissance, so portions of the delineation may be offsite. A manmade ditch was also delineated in the west-central portion of the site because it drains directly into Wetland A, as shown on Figure 5. Wetland B was delineated in the southern limits of the site. This wetland shows typical characteristics of a pocosin wetland and the soils of this wetland were composed of murville mucky fine sand. The vegetation observed within this wetland was mostly composed of loblolly bay (*Gordonia lasianthus*), water oak (*Quercus nigra*), swamp chestnut oak (*Quercus michauxii*), American holly (*Ilex opaca*), pond pine (*Pinus serotina*), red bay (*Persea borbonia*), willow species, and fern species.

A forested upland area was located to the west of Wetland B; however, two wetlands (Wetland C and D) were delineated along the west-central boundary of the site. Manmade ditches run adjacent to most of the eastern and southwestern limits of the site. These ditches were not delineated because they appeared to be offsite.

The delineations were performed based upon the hydrology of the wetland, hydric characteristics of the soil and hydrophytic vegetation, as described in the 1987, U.S. Corps of Engineers, Wetland Delineation Manual. ECS also performed two Routine Wetland Delineation Data Form test plots (copies enclosed) to verify the difference between the wetland and upland areas located at the site.

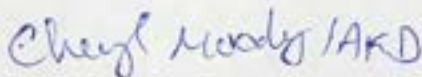
As requested by the client, Mr. Michael Johnson of LandCraft, we are enclosing the following materials for the scheduled jurisdictional review of the wetland boundaries that were delineated within the limits of the 116-acre tract of land:

- Copies of the Routine Wetland Delineation Data Forms;
- Property owner's signed letter of authorization for allowed site visits;
- Driving directions and map to the site;
- Map showing the location of the site (**Figure 1**), an aerial photograph of the site (**Figure 2**), a USGS Quad map with site boundaries depicted and the coordinates for the center of the site shown in deci-degrees (**Figure 3**), the Brunswick County Soil Survey map with the site depicted (**Figure 4**), field sketch of the wetland delineation (**Figure 5**); and
- Applicant/Address.
Mr. Michael Johnson
LandCraft
7034 Cayman Court
Wilmington, North Carolina 28405

Our objective is to have a final determination by your office as to the delineated, jurisdictional boundaries of the wetland. Thank you in advance for your assistance with this project. If you have any questions or need additional information please contact me at (910) 686-9114.

ECS Carolinas, LLP


Anna V. Carr
Project Wetland Scientist


Cheryl J. Moody, REM, CIE, CMRS
Principal Scientist

WETLAND JURISDICTIONAL REVIEW
APPROXIMATE 116-ACRE TRACT OF LAND
HARRIS TRAIL
SHALLOTTE, BRUNSWICK COUNTY, NORTH CAROLINA

ECS PROJECT NO. 22-12823-A

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DATA FORMS
ROUTINE WETLAND DETERMINATION

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, North Carolina</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>02-27-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Wetland A (Flags 1-118)</u> Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Liquidambar styraciflua</u>	<u>Tree</u>	<u>FAC</u>	9. <u>Woodwardia areolata</u>	<u>Herb</u>	<u>OBL</u>
2. <u>Acer rubrum</u>	<u>Tree</u>	<u>FAC</u>	10. _____	_____	_____
3. <u>Quercus nigra</u>	<u>Tree</u>	<u>FAC</u>	11. _____	_____	_____
4. <u>Quercus michauxii</u>	<u>Tree</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Quercus laurifolia</u>	<u>Tree</u>	<u>FACW</u>	13. _____	_____	_____
6. <u>Ilex opaca</u>	<u>Tree</u>	<u>FAC</u>	14. _____	_____	_____
7. <u>Quercus lyrata</u>	<u>Tree</u>	<u>OBL</u>	15. _____	_____	_____
8. <u>Arundinaria tecta</u>	<u>Herb</u>	<u>FACW</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 90%

Remarks: The vegetation in this wetland is composed mostly of red maple, sweet gum, overcup oak, American holly, water oak, swamp chestnut oak, willows, ferns, and switch cane. The plant species that were observed within the limits and along the banks of this wetland are considered macrophytes/hydrophytic vegetation.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>2</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12" <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input type="checkbox"/> Oxidized Roots Channels in Upper 12" <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: This wetland area is shown in the USDA Soil Survey of Brunswick County as a wetland (Saw Pit Swamp). Hydrology was apparent at the time of the site visit.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approx. 70-Acre site, U.S. Highway 17, Shallotte, North Carolina</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>02-13-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Upland A</u> Transect ID: Plot ID: _____

VEGETATION

<u>Dominant Plant Species</u>	<u>Stratum</u>	<u>Indicator</u>	<u>Dominant Plant Species</u>	<u>Stratum</u>	<u>Indicator</u>
1. <u>Ilex opaca</u>	<u>Tree</u>	<u>FAC</u>	9. _____	_____	_____
2. <u>Pinus taeda</u>	<u>Tree</u>	<u>FAC</u>	10. _____	_____	_____
3. <u>Pinus palustris</u>	<u>Tree</u>	<u>UP</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 10%

Remarks:
 Most of the vegetation observed in the upland area is not considered macrophytes/hydrophytic vegetation. The upland area located to the south of this onsite wetland is composed of developed agricultural land.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12" <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input type="checkbox"/> Oxidized Roots Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: This area consists of well drained soils in the upland and the seasonal high water table is 4 to 6 feet below the surface. At the time of the field reconnaissance surface water was observed within the onsite agricultural fields.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, North Carolina</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>02-27-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Wetland B (Flags 1-45)</u> Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Liquidambar styraciflua</u>	<u>Tree</u>	<u>FAC</u>	9. <u>Woodwardia areolata</u>	<u>Herb</u>	<u>OBL</u>
2. <u>Acer rubrum</u>	<u>Tree</u>	<u>FAC</u>	10. <u>Gordonia lasianthus</u>	<u>Tree</u>	<u>FACW</u>
3. <u>Quercus nigra</u>	<u>Tree</u>	<u>FAC</u>	11. <u>Persea borbonia</u>	<u>Tree</u>	<u>FACW</u>
4. <u>Quercus michauxii</u>	<u>Tree</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Quercus laurifolia</u>	<u>Tree</u>	<u>FACW</u>	13. _____	_____	_____
6. <u>Ilex opaca</u>	<u>Tree</u>	<u>FAC</u>	14. _____	_____	_____
7. <u>Quercus lyrata</u>	<u>Tree</u>	<u>OBL</u>	15. _____	_____	_____
8. <u>Arundinaria tecta</u>	<u>Herb</u>	<u>FACW</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 90%

Remarks: The vegetation in this wetland is composed mostly of red maple, sweet gum, overcup oak, American holly, water oak, swamp chestnut oak, red bay, loblolly bay, pond pine, and fern species. The plant species observed within the limits of the wetland are considered macrophytes/hydrophytic vegetation.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>6</u> (in.) Depth to Saturated Soil: <u>1-2</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12" <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input checked="" type="checkbox"/> Oxidized Roots Channels in Upper 12" <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: This wetland area is shown in the USDA Soil Survey of Brunswick County and on the U.S.G.S. Map as a wetland. This area appears to be a pocosin wetland. Although, the outer limits of this wetland appeared dry and standing water was not observed in these areas, hydrology through this wetland was apparent at the time of the site visit.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, North Carolina</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>02-27-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Upland B</u> Transect ID: Plot ID: _____

VEGETATION

<u>Dominant Plant Species</u>	<u>Stratum</u>	<u>Indicator</u>	<u>Dominant Plant Species</u>	<u>Stratum</u>	<u>Indicator</u>
1. <u><i>Ilex opaca</i></u>	<u>Tree</u>	<u>FAC</u>	9. _____	_____	_____
2. <u><i>Pinus taeda</i></u>	<u>Tree</u>	<u>FAC</u>	10. _____	_____	_____
3. <u><i>Pinus palustris</i></u>	<u>Tree</u>	<u>UP</u>	11. _____	_____	_____
4. <u><i>Smilax glauca</i></u>	<u>Shrub</u>	<u>FACU</u>	12. _____	_____	_____
5. <u><i>Quercus ilicifolia</i></u>	<u>Tree</u>	<u>UP</u>	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 10%

Remarks:
Most of the vegetation observed in the upland area is not considered macrophytes/hydrophytic vegetation. The upland test location is located to the north of Wetland B is composed of previously cleared land.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12" <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input type="checkbox"/> Oxidized Roots Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: This area appears to consist of soils in the upland. Surface water was not observed within this sample location.	

SOILS

Map Unit Name

(Series and Phase): Leon fine sand (Lo) (according to Soil Survey of Brunswick County)

Drainage Class: Poorly-drained soil Taxonomy (Subgroup): _____

Confirm Mapped Type? Yes _____ No X

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6		10 YR 6/1	-	-	Fine sandy loam
6-12		10 YR 6/3	-	-	Fine sandy loam

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed On Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: The soil in this location consists of what appears to be moderately well drained soils in the upland.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ___ No <u>X</u>	Is the Sampling Point	
Wetland Hydrology Present?	Yes ___ No <u>X</u>	Within a Wetland?	Yes ___ No <u>X</u>
Hydric Soils Present?	Yes ___ No <u>X</u>		

Remarks: This test location, located within the limits of the site appears to support mostly FAC species and no hydric indicators were observed.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, North Carolina</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>03-01-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Wetland C (Flags 1-6)</u> Transect ID: _____ Plot ID: _____

VEGETATION

<u>Dominant Plant Species</u>	<u>Stratum</u>	<u>Indicator</u>	<u>Dominant Plant Species</u>	<u>Stratum</u>	<u>Indicator</u>
1. <u>Liquidambar straciflua</u>	<u>Tree</u>	<u>FAC</u>	9. _____	_____	_____
2. <u>Acer rubrum</u>	<u>Tree</u>	<u>FAC</u>	10. _____	_____	_____
3. <u>Quercus nigra</u>	<u>Tree</u>	<u>FAC</u>	11. _____	_____	_____
4. <u>Myciia cerifera</u>	<u>Shrub</u>	<u>FAC</u>	12. _____	_____	_____
5. <u>Woodwardia areolata</u>	<u>Herb</u>	<u>OBL</u>	13. _____	_____	_____
6. <u>Ilex opaca</u>	<u>Tree</u>	<u>FAC</u>	14. _____	_____	_____
7. <u>Gordonia lasianthus</u>	<u>Tree</u>	<u>FACW</u>	15. _____	_____	_____
8. <u>Persea borbonia</u>	<u>Tree</u>	<u>FACW</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 85%

Remarks: The vegetation in this wetland is composed mostly of sweet gum, red maple, wax myrtle, American holly, water oak, red bay, loblolly bay, pond pine, and fern species. The plant species observed within the limits of the wetland are considered macrophytes/hydrophytic vegetation.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>8</u> (in.) Depth to Saturated Soil: <u>3</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12" <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input checked="" type="checkbox"/> Oxidized Roots Channels in Upper 12" <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: This wetland area appears to have been moderately drained over time; however, characteristic wetland indicators were apparent at the time of the field reconnaissance.	

SOILS

Map Unit Name
 (Series and Phase): Grifton fine sandy loam (Gt) **Drainage Class:** Poorly-drained soil
 Taxonomy (Subgroup): _____ **Confirm Mapped Type?** Yes ___ No X

Profile Description:

Depth (Inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-6		10 YR 4/2	-	-	Fine sandy loam
6-12		10 YR 5/2	-		Fine sandy loam

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input checked="" type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input checked="" type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed On Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: This wetland is located within an area of what appears to be mostly hydric soil. The soils within this area appear to be very poorly drained and in a slight depression area along the western boundary of the site.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <u>X</u> No ___	Is the Sampling Point	
Wetland Hydrology Present?	Yes <u>X</u> No ___	Within a Wetland?	Yes <u>X</u> No ___
Hydric Soils Present?	Yes <u>X</u> No ___		

Remarks: This wetland is considered a wetland area because it was found to support mostly OBL/FAC species of vegetation, is located within an area of hydric soils and hydrologic indicators are present within the limits of the wetland.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, North Carolina</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>03-01-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Upland C</u> Transect ID: Plot ID: _____

VEGETATION

<u>Dominant Plant Species</u>	<u>Stratum</u>	<u>Indicator</u>	<u>Dominant Plant Species</u>	<u>Stratum</u>	<u>Indicator</u>
1. <u><i>Ilex opaca</i></u>	<u>Tree</u>	<u>FAC</u>	9. _____	_____	_____
2. <u><i>Pinus taeda</i></u>	<u>Tree</u>	<u>FAC</u>	10. _____	_____	_____
3. <u><i>Pinus palustris</i></u>	<u>Tree</u>	<u>UP</u>	11. _____	_____	_____
4. <u><i>Smilax glauca</i></u>	<u>Shrub</u>	<u>FACU</u>	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 30%

Remarks:
 Most of the vegetation observed in the upland area is not considered macrophytes/hydrophytic vegetation. The upland test location is located to the north of Wetland C and is composed of previously cleared land.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12" <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input type="checkbox"/> Oxidized Roots Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
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Remarks: This area consists of what appears to be moderately well drained soils in the upland. Surface water was not observed within this area of the site.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, North Carolina</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>03-01-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Wetland D (Flags 1-9)</u> Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Liquidambar styraciflua</u>	<u>Tree</u>	<u>FAC</u>	9. _____	_____	_____
2. <u>Acer rubrum</u>	<u>Tree</u>	<u>FAC</u>	10. _____	_____	_____
3. <u>Quercus nigra</u>	<u>Tree</u>	<u>FAC</u>	11. _____	_____	_____
4. <u>Quercus michauxii</u>	<u>Tree</u>	<u>FACW</u>	12. _____	_____	_____
5. <u>Woodwardia areolata</u>	<u>Herb</u>	<u>OBL</u>	13. _____	_____	_____
6. <u>Ilex opaca</u>	<u>Tree</u>	<u>FAC</u>	14. _____	_____	_____
7. <u>Gordonia lasianthus</u>	<u>Tree</u>	<u>FACW</u>	15. _____	_____	_____
8. <u>Persea borbonia</u>	<u>Tree</u>	<u>FACW</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-. 85%

Remarks: The vegetation in this wetland is composed mostly of red maple, sweet gum, overcup oak, American holly, water oak, red bay, loblolly bay, pond pine, and fern species. The plant species observed within the limits of the wetland are considered macrophytes/hydrophytic vegetation.

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: <u>8</u> (in.) Depth to Saturated Soil: <u>4</u> (in.)	Wetland Hydrology Indicators Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12" <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input checked="" type="checkbox"/> Oxidized Roots Channels in Upper 12" <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Remarks: This wetland area appears to have been moderately drained over time; however, characteristic wetland indicators were apparent at the time of the field reconnaissance.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Determination Manual)

Project / Site: <u>Approximate 116-Acre site, Harris Trail, Shallotte, North Carolina</u> Applicant / Owner: <u>Mr. Michael Johnson, LandCraft</u> Investigator: <u>Anna Carr of ECS Carolinas, LLP, Wilmington, NC</u>	Date: <u>03-01-07</u> County: <u>Brunswick</u> State: <u>NC</u>
Do normal circumstances exist on the site? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Is the site significantly disturbed (Atypical situation)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Is the area a potential problem area? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (explain on reverse if needed)	Community ID: <u>Upland D</u> Transect ID: Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u><i>Ilex opaca</i></u>	<u>Tree</u>	<u>FAC</u>	9. _____	_____	_____
2. <u><i>Pinus taeda</i></u>	<u>Tree</u>	<u>FAC</u>	10. _____	_____	_____
3. <u><i>Pinus palustris</i></u>	<u>Tree</u>	<u>UP</u>	11. _____	_____	_____
4. <u><i>Smilax glauca</i></u>	<u>Shrub</u>	<u>FACU</u>	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW, or FAC excluding FAC-). 20%

Remarks:
 Most of the vegetation observed in the upland area is not considered macrophytes/hydrophytic vegetation. The upland test location is located to the west of Wetland D and is composed of previously cleared land.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12" <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators: <input type="checkbox"/> Oxidized Roots Channels in Upper 12" <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>0</u> (in.) Depth to Free Water in Pit: <u>0</u> (in.) Depth to Saturated Soil: <u>0</u> (in.)	
Remarks: This area consists of what appears to be moderately well drained soils in the upland. Surface water was not observed within this area of the site.	

SOILS

Map Unit Name
 (Series and Phase): Mandarin fine sand (Ma) **Drainage Class:** Somewhat poorly-drained soil
 Taxonomy (Subgroup): _____ **Confirm Mapped Type? Yes** ___ **No** X

Profile Description:

Depth (inches)	Horizon	Matrix Colors (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-5		10 YR 6/1	-	-	Fine sand
5-12		10 YR 8/1	-	-	Fine sand

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed On Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: The soil in this location consists of what appear to be somewhat well drained soils in upland.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes ___ No <u>X</u>	Is the Sampling Point	Yes ___ No <u>X</u>
Wetland Hydrology Present?	Yes ___ No <u>X</u>	Within a Wetland?	Yes ___ No <u>X</u>
Hydric Soils Present?	Yes ___ No <u>X</u>		

Remarks: This test location, located within the limits of the site appears to support mostly FAC species and no hydric indicators were observed.

LETTER OF AUTHORIZATION

03/07/2007 10:46

#289 P. 006/006

From:



ECS Carolinas, LLP
Geotechnical • Construction Materials • Environmental

March 7, 2007

Ms. Kim Garvey, Project Manager
Wilmington Regulatory Field Office
U.S. Army Corps of Engineers
Post Office Box 1829
Wilmington, North Carolina 28402-1890

Reference: Site Access Authorization from Ola Johnson
Approximate 116 - Acre Tract of Land
Harris Trail - Wetland Delineation
Shalotte, Brunswick County North Carolina

Dear Ms. Garvey:

As the property owner, I am hereby authorizing you and/or other employees of the U.S. Army Corps of Engineers (USACE), Wilmington Regulatory Field Office and the North Carolina Department of Environmental and Natural Resources Division of Water Quality (NC DENR DWQ) to enter and inspect the above-referenced project site as necessary. I understand that this site inspection will result in determination of the jurisdictional status of the property's wetlands/surface waters under the USACE/NC DWQ's Section 404/401 Regulatory Program. Please contact me if you need additional information.

Ola Johnson
(Owner Signature)

Ola Johnson
(Print Name)

3/8/07
(Date)

564 Harris Trail SW
Ocean Isle Beach N.C.
28469

910-579-6886
(Phone No.)

(Address)

DRIVING DIRECTIONS

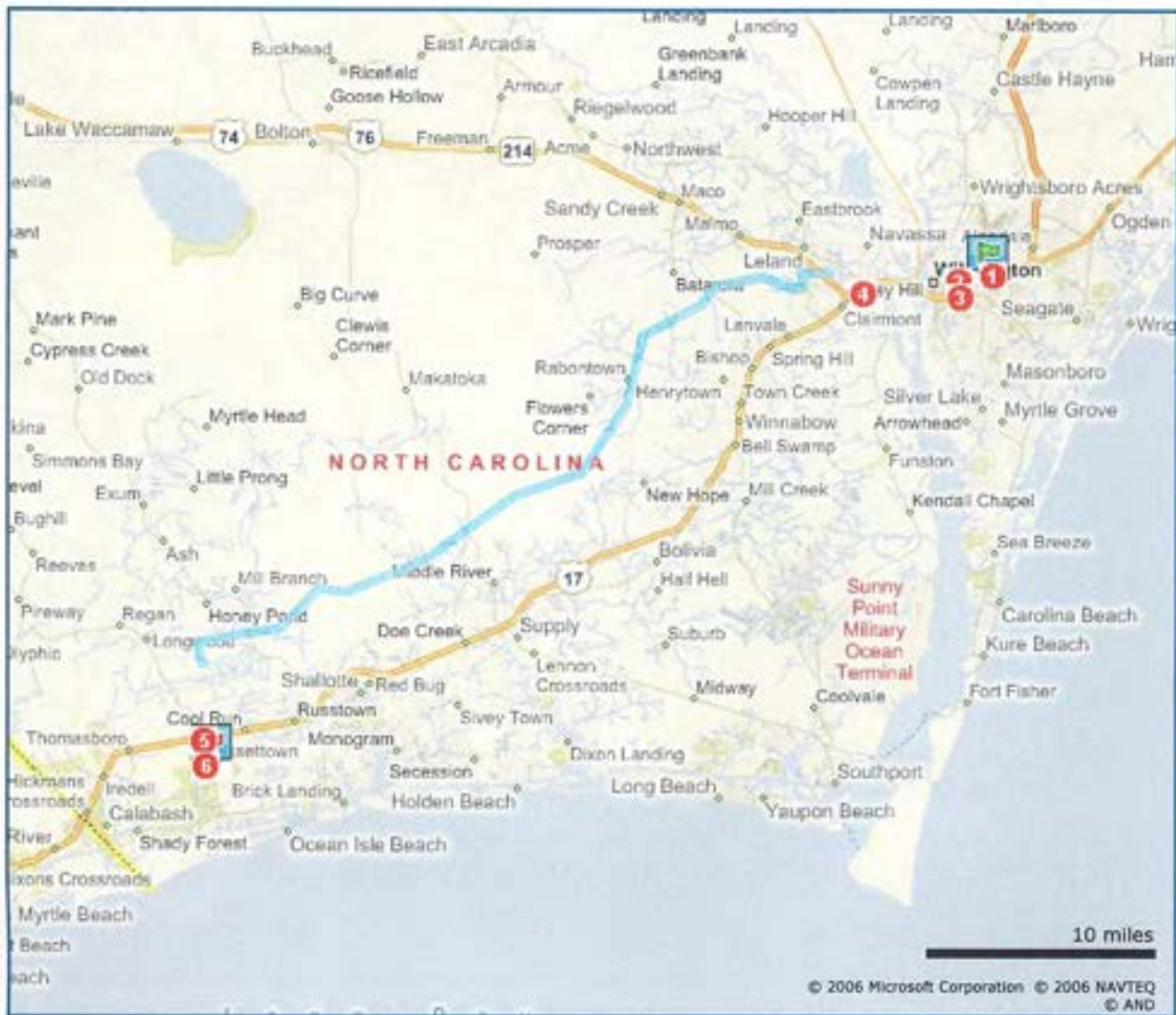


Start: 69 Darlington Avenue,
Wilmington, North Carolina

End: Harris Tr SW, Ocean Isle Beach,
NC 28469, United States

Distance: 45.8 mi

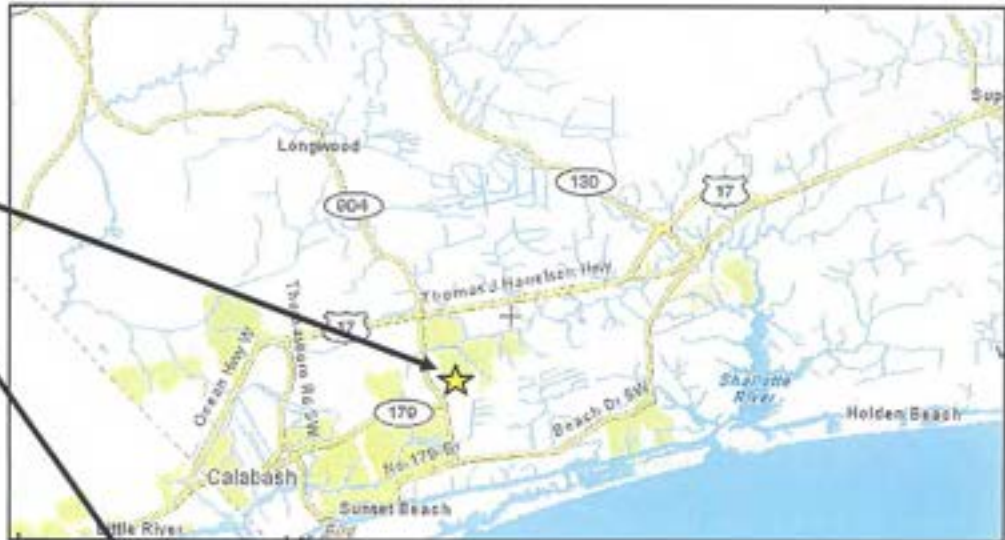
Time: 57 Minutes



Directions	Distance	Detail Map
Start: Depart Darlington Ave (north)	0.2 mi	
1: Turn LEFT (west) onto US-17 / US-74 / Market St	1.5 mi	
2: Turn LEFT (south) to stay on US-17 South / US-74 West / S 16th St	0.7 mi	
3: Turn RIGHT (west) to stay on US-17 West / US-74 / US-76 / Wooster St South	4.5 mi	
4: Take ramp RIGHT to US-17 / Ocean Hwy E / Thomas J Harrelson Hwy South	37.5 mi	
5: Turn LEFT (south) onto SR-904	1.1 mi	
6: Turn LEFT (northeast) onto Harris Trail SW	0.3 mi	
End: Arrive at Harris Tr SW, Ocean Isle Beach, NC 28469, United States		

FIGURES

SITE



Scale: As Shown

FIGURE 1: SITE LOCATION MAP



Source: Yahoo.com, Maps and Driving Directions, (www.maps.yahoo.com), accessed on March 12, 2007.

Wetland Services
Approximate 116-Acre Tract
Harris Trail
Shallotte, North Carolina



ECS Project No. 22-12823-A
March 2007



Approximate Scale: NTS

FIGURE 2: SITE MAP

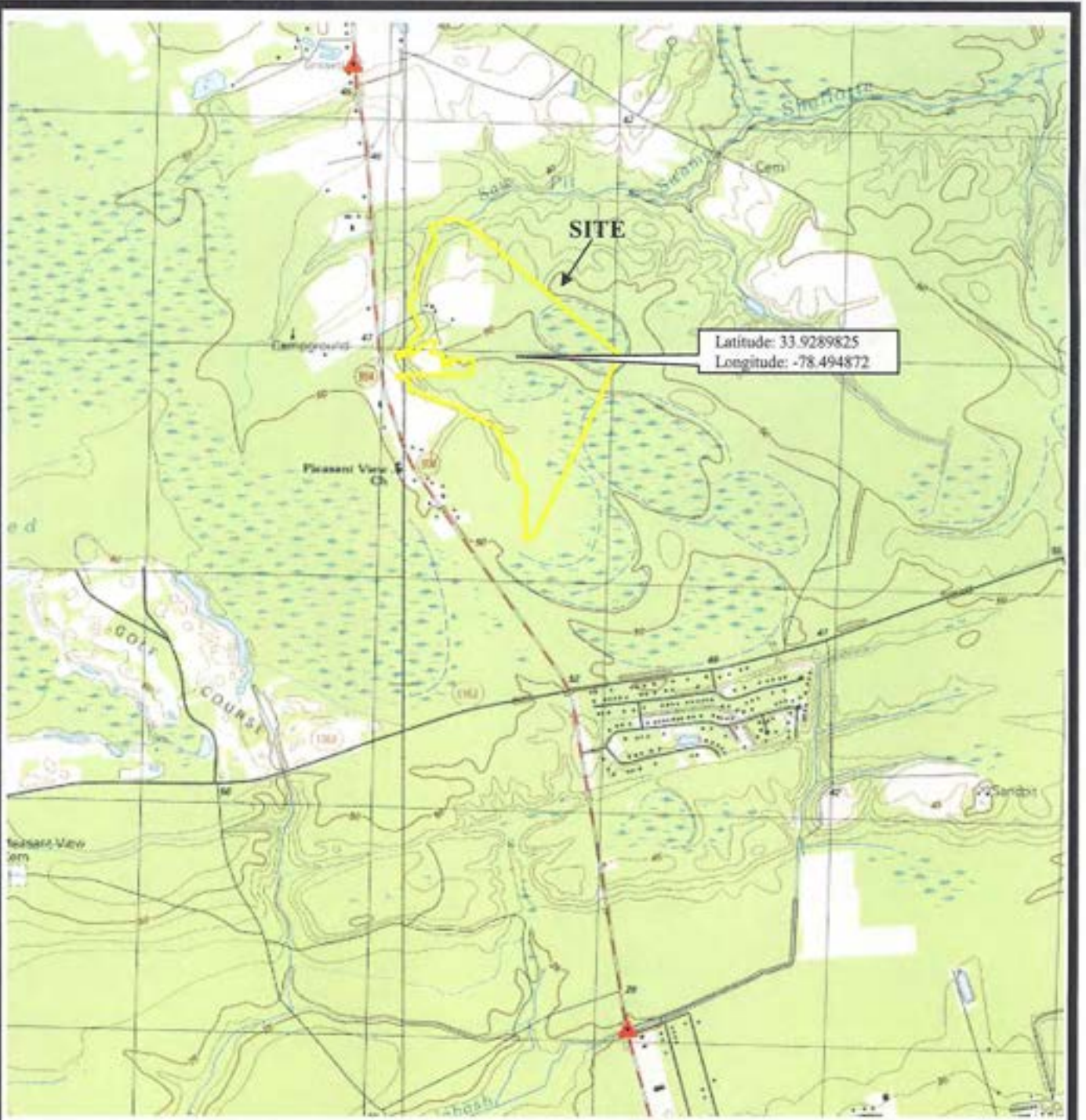
Source: Brunswick County Online GIS <http://gis.brunswick.net/viewer.htm>, accessed on March 13, 2007.



Wetland Services
Approximate 116-Acre Tract
Harris Trail
Shallotte, North Carolina



ECS Project No. 22-12823-A
March 2007



Approximate Scale: 1 in. = 1,200 ft.
 Contour Interval = 5 ft.

FIGURE 3: USGS QUAD MAP

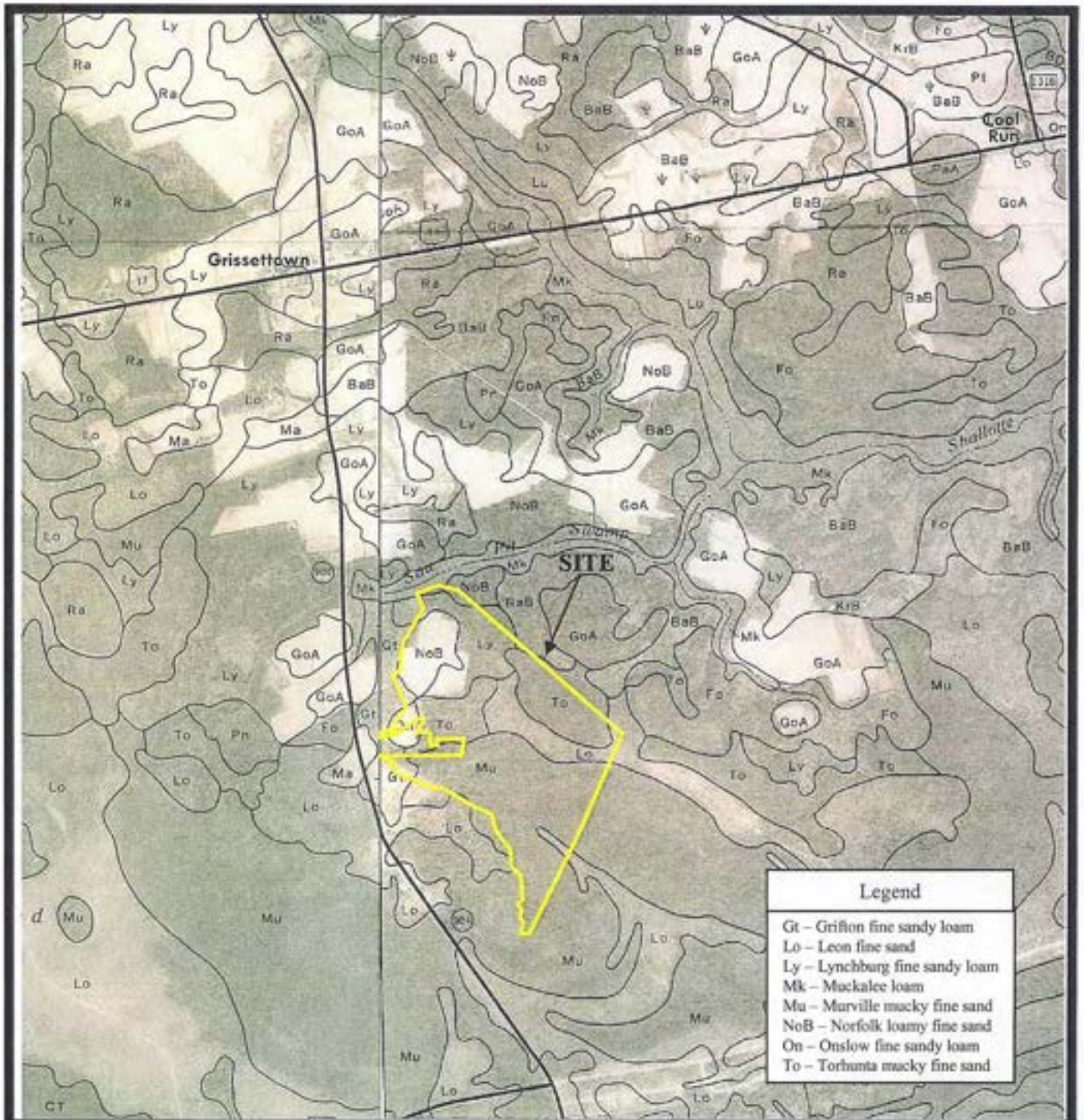
Source: USGS Shalotte and Calabash, North Carolina Quadrangles, 1990.



Wetland Services
 Approximate 116-Acre Tract
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 Shallotte, North Carolina



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 March 2007



Legend	
Gt	Grifton fine sandy loam
Lo	Leon fine sand
Ly	Lynchburg fine sandy loam
Mk	Muckalee loam
Mu	Murville mucky fine sand
NoB	Norfolk loamy fine sand
On	Onslow fine sandy loam
To	Torhunta mucky fine sand

Approximate Scale: NTS

FIGURE 4: SOIL MAP



Source: USDA Soil Survey of Brunswick County, North Carolina, 1986.

Wetland Services
 Approximate 116-Acre Tract
 Harris Trail
 Shallotte, North Carolina



ECS Project No. 22-12823-A
 March 2007