

Appendix B – Wetland Delineation Correspondence

***Still waiting on Jurisdictional determination letters from the USACE upon their receipt and approval,

DRAFT

DRAFT



Biohabitats
SOUTHEAST BIOREGION
Incorporated

8218 Creedmoor Road, Suite 201
Raleigh, NC 27613
tel 919-518-0311
fax 919-518-0313
www.biohabitats.com

MEMORANDUM

Date: 2-17-09

To: Andy Williams (USACE),
Ian McMillan (NCDWQ),

From: Lee Mallonee, Kevin Nunnery (Biohabitats)

**RE: Summary of Field Determination for Wetland and Stream Delineation -
Carolina North**

The notes below for each wetland and stream reflect our recollection of the Regulatory agency(ies) calls made in the field during our site visits over the past month. We are uncertain as to the calls made on streams 3 and 4. Please let us know your determination. After your review the information below, let us know if there are inaccuracies. We will use the final document going forward to determine impact totals for the Individual Permit.

Please contact either of us with comments or concerns.

Thanks a lot.

Streams

Stream number	Review Agency	Determination	
1	DWQ	I	
	COE	NI	
2	DWQ	E	
	COE	NS	
3	DWQ	I	
	COE	I	
4	DWQ	I	
	COE	NI	
5	DWQ	ISOLATED	
	COE	ISOLATED	
6	DWQ	NS	

	COE	NS	
7	DWQ	E	
	COE	NS	
8	DWQ	I	
	COE	NI	
9	DWQ	E	
	COE	NS	
10	DWQ	NS	
	COE	NS	
11	DWQ	NS	
	COE	NS	
12	DWQ	I w/portion isolated	
	COE	NI w/portion isolated	
12A	DWQ	I	
	COE	I	
13	DWQ	E	
	COE	E	
14	DWQ	P & I	
	COE	P & I & NI	2:1 & 1:1 & none
15	DWQ	NS	
	COE	NS	
16	DWQ	P & I & E	2:1 & 2:1 & none
	COE	P & I & E	2:1 & 1:1 & none
16A	DWQ	I	
	COE	I	1:1
17	DWQ	I	
	COE	NI	
18	DWQ	P	
	COE	P	2:1
19	DWQ	I	
	COE	I	1:1
20	DWQ	P	
	COE	P	2:1
21	DWQ	I	
	COE	I	1:1

Wetlands

Wetland letter	Review Agency	Determination	Mitigation ratio
A	DWQ		
	COE	PFO & PEM	2:1 & 1:1
B	DWQ		
	COE	PFO	1:1
C	DWQ		
	COE	PFO and PSS	2:1
D	DWQ		

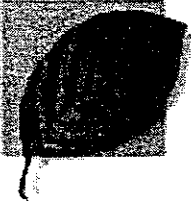
	COE	PFO	2:1
E	DWQ		
	COE	PFO	2:1
F	DWQ		
	COE	PFO	2:1
G	DWQ		
	COE	PFO	2:1
H	DWQ		
	COE	PFO	2:1
I	DWQ		
	COE	OPEN WATER	NONE
	COE	PEM	1:1
J	DWQ	PFO	2:1
	COE		
K	DWQ		
	COE	PFO	2:1
L	DWQ		
	COE	PFO	2:1
M	DWQ		
	COE	NOT WETLAND	
N	DWQ		
	COE	PFO	2:1
O	DWQ	PFO	2:1
	COE	ISOLATED	
P	DWQ		
	COE	PFO	2:1
Q	DWQ		
	COE	PFO	2:1
R	DWQ		
	COE	PFO	2:1
S	DWQ		
	COE	PFO	2:1
T	DWQ		
	COE	PFO	2:1
U	DWQ		
	COE	PFO	1:1
V	DWQ	PFO	2:1
	COE	ISOLATED	
W	DWQ		
	COE	NOT WETLAND	
X	DWQ		
	COE	PFO	1:1
XA	DWQ		
	COE	PFO	1:1
XB	DWQ		

	COE	PFO	1:1
Y	DWQ		
	COE	PSS	1:1
Z	DWQ		
	COE	PSS	1:1
AA	DWQ		
	COE	PSS	1:1
AB	DWQ		
	COE	PFO	1:1

Legend:

- E ephemeral stream
- I intermittent stream
- NI not important stream
- NS not a stream
- P perennial steam
- PEM Palustrine emergent wetland
- PFO Palustrine forested wetland
- PSS Palustrine scrub shrub wetland

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September 8, 2009

Mr. Andy Williams
U S Army Corps of Engineers
Raleigh Regulatory field Office
3331 Heritage Trade Drive, Suite 105
Wake Forest, North Carolina

Subject: Jurisdictional Determination for 750 acres at The University of North Carolina at Chapel Hill's Carolina North Project in Orange County

Dear Andy:

Enclosed you will find 1 copy of the 1"=200' scale Wetland and Stream Delineation Map, dated September 3, 2009. This map shows all the areas reviewed by you during our field visits. Also enclosed is one set of 11 x 17 drawings of the September 3, 2009 map. This mapping distinguishes between those wetlands and streams located by Stewart Engineering and those located with hand held GPS by Biohabitats staff.

A set of 24" x 36" drawings at a scale of 1"=60' prepared and sealed by the registered land surveyor at Stewart Engineering was sent under separate cover and should have been delivered to your office today. The set shows only those wetlands and streams located by Stewart. We had agreed that Stewart would locate only those wetland and streams which might be impacted by development of the campus. The content in this set is identical to the content on the 1" = 200' Wetland and Stream Delineation Map and the 11 x 17 reductions of the 1" = 200' map.

As we discussed on August 14, you will sign each page of the 24" x 36" set and return them to me. I will make a copy of the signed drawings, make an 11 x 17 reduced set of the signed drawings and return both to you for your files.

After your review of these maps, we would like to receive a Preliminary Jurisdictional Determination for the 750 acres. If you need additional information or clarification, please give me a call.

Sincerely,

Lee Mallonee
Biohabitats, Inc.

c. w/ enc. Ms. Jill Coleman, Facilities Management, UNC

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

Project/Site: Carolina North Applicant/Owner: UNC Investigators: Lee Mallonee, Kevin Nunnery	Project No: 09802.01	Date: 10-Feb-2009 County: Orange State: North Carolina Plot ID: Wet LA 1 WET 7A
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Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation:)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on the reverse side)	Community ID: forested wetland Transect ID: none Field Location: in wetland 100 feet below culvert
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VEGETATION (USFWS Region No. 2)

Dominant Plant Species(Latin/Common)	Stratum	Indicator	Plant Species(Latin/Common)	Stratum	Indicator
<i>Acer rubrum</i> Maple,Red	Canopy	FAC	<i>Eulalia viminea</i> Microstegium,Nepal	Herb	FAC+
<i>Carpinus caroliniana</i> Hornbeam,American	Sh/Sap	FAC	<i>Smilax rotundifolia</i> Greenbrier,Common	Vine	FAC

Percent of Dominant Species that are OBL, FACW or FAC: (excluding FAC-) 4/4 = 100.00%	FAC Neutral: 0/0 = 0.00% Numeric Index: 12/4 = 3.00
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Remarks:

HYDROLOGY

<p><u>NO</u> Recorded Data(Describe in Remarks): <u>N/A</u> Stream, Lake or Tide Gauge <u>N/A</u> Aerial Photographs <u>N/A</u> Other</p> <p><u>YES</u> No Recorded Data</p> <p>Field Observations</p> <p>Depth of Surface Water: N/A (in.) Depth to Free Water in Pit: > 14 (in.) Depth to Saturated Soil: > 14 (in.)</p>	<p>Wetland Hydrology Indicators</p> <p>Primary Indicators</p> <p><u>NO</u> Inundated <u>NO</u> Saturated in Upper 12 Inches <u>NO</u> Water Marks <u>NO</u> Drift Lines <u>NO</u> Sediment Deposits</p> <p><u>YES</u> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p><u>NO</u> Oxidized Root Channels in Upper 12 Inches <u>NO</u> Water-Stained Leaves <u>NO</u> Local Soil Survey Data <u>NO</u> FAC-Neutral Test <u>NO</u> Other (Explain in Remarks)</p>
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Remarks:

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SOILS

Map Unit Name (Series and Phase): Herndon silt loam, 6-10% slopes				Mapped Hydric Inclusion?		
Map Symbol: HrC		Drainage Class: well drained		Field Observations Confirm Mapped Type? Yes <input type="radio"/> No <input checked="" type="radio"/>		
Taxonomy (Subgroup): Typic Hapludults						
Profile Description						
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Color (Munsell Moist)	Mottle Abundance/Contrast		Texture, Concretions, Structure, etc.
0-3	A	10YR4/3	10YR6/6	Few	Faint	Loam
3+	B	2.5Y7/2	7.5YR6/6	Few	Prominent	Clay loam
Hydric Soil Indicators:						
<input type="checkbox"/> NO Histosol <input type="checkbox"/> NO Histic Epipedon <input type="checkbox"/> NO Sulfidic Odor <input type="checkbox"/> NO Aquic Moisture Regime <input type="checkbox"/> NO Reducing Conditions <input checked="" type="checkbox"/> YES Gleyed or Low Chroma Colors			<input type="checkbox"/> NO Concretions <input type="checkbox"/> NO High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> NO Organic Streaking in Sandy Soils <input type="checkbox"/> NO Listed on Local Hydric Soils List <input type="checkbox"/> NO Listed on National Hydric Soils List <input type="checkbox"/> NO Other (Explain in Remarks)			
Remarks:						

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is the Sampling Point within the Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Remarks:	