

#### WATERSHED PROTECTION DEPARTMENT

P.O. Box 548 Pittsboro, NC 27312 PHONE: (919) 545-8394

Phone: (919) 548-6715 • E-mail: drew.blake@chathamcountync.gov

February 14, 2024

Mr. Dan McCauley Hart & Hickman, PC 3921 Sunset Ridge Road Raleigh, NC 27607

Project Name: Parcel # 17357

Location: <u>739 Hatley Road</u>

Project Number <u>WP-24-7</u>

Subject Features: Eleven (11) ephemeral segment, ten (10) intermittent segments, six (6)

perennial, and twenty-two (22) potential wetlands

Dear Mr. McCauley,

## Explanation:

The site visit was completed on February 5, 2024, by Matt Hugo of Hart & Hickman, PC and Drew Blake of Chatham County Watershed Protection Department, on a property identified as Chatham County Parcel # 17357 that is located within the Jordan Lake watershed. Hart & Hickman personnel completed a previous site visit September 2023, and identified fifty-eight (58) surface waters within the review area that are potentially subject to riparian buffers through the Chatham County Watershed Protection Ordinance. Hart & Hickman submitted a request for Chatham County to complete a formal review to determine if the features would be subject to riparian buffers according to Section 304 of the Chatham County Watershed Protection Ordinance.

## Summary of Findings

During the site visit, Chatham County staff determined SCS, SCT, SCU, SCV, and SCY did not meet the definition of an ephemeral stream as defined in Section 109 of the Chatham County Watershed Protection Ordinance. Following the site visit, Hart & Hickman reassessed several features, on February 9, 2024, that were originally identified as ephemeral that exhibited characteristics similar to those determined to be non-ephemeral by Chatham County staff. These features were not field reviewed by Chatham County staff during the buffer review site visit due to the similar characteristics. Based on a review of the updated stream forms Chatham County agrees that SCH, SCI, SCI, and SCK do not meet the definition of an ephemeral stream.

## Required Buffers Required

The required riparian buffers provided below are in accordance with Section 304(D) of the Chatham County Watershed Protection Ordinance.

# Section 304 (D)(1) - Perennial Streams

The riparian buffer shall be one hundred (100') feet landward, measured horizontally on a line perpendicular from top of bank; this distance shall be measured on all sides of perennial streams, or shall be the full horizontal extent of the Area of Special Flood Hazard as most recently mapped by the North Carolina Floodplain Mapping Program, NC Division of Emergency Management, whichever is the greater horizontal distance.

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Section 304(D)(2) – Intermittent Streams

The riparian buffer shall be fifty (50') feet landward, measured horizontally on a line perpendicular from top of bank; this distance shall be measured on all sides of intermittent streams.

Section 304(D)(3) – Ephemeral Streams

The riparian buffer shall be thirty (30') feet landward, measured horizontally on a line perpendicular from top of bank; this distance shall be measured on all sides along all ephemeral streams.

Section 304(D)(4) – Jurisdictional and Non-Jurisdictional Wetlands

The riparian buffer shall be fifty (50') feet landward, measured horizontally on a line perpendicular from the delineated boundary, surrounding all features classified as wetlands and linear wetlands. The potential wetlands identified by Hart & Hickman have not been confirmed by the US Army Corps of Engineers. Once the USACE confirmation is received the 50-ft riparian buffers will be required from the flagged confirmed wetland boundaries.

### Impacts to Riparian Buffers:

Impacts to the riparian buffers may require a Riparian Buffer Authorization depending on the size and scope of the impacts. Please refer to Section 304 (J)(3) of the Chatham County Watershed Protection Ordinance to determine if your impacts will require a Riparian Buffer Authorization. If you determine that a Riparian Buffer Authorization is required, please contact Drew Blake to receive the required application and submittal instructions.

This on-site determination shall expire five (5) years from the date of this letter. Landowners or affected parties that dispute a determination made by Chatham County, on parcels outside of the Jordan Lake watershed, may submit a request for appeal in writing to the Watershed Review Board. A request for a determination by the Watershed Review Board shall be made in accordance with Section 304 of the Chatham County Watershed Protection Ordinance. Landowners or affected parties that dispute a determination made by Chatham County, on parcels inside the Jordan Lake watershed, shall submit a request for appeal in writing to NC DWR, 401 & Buffer Permitting Unit, 1650 Mail Service Center, Raleigh, NC 27669-1650 attention of the Director of the NC Division of Water Quality.

Should this project result in any direct impacts to surface water features (i.e., crossing and/or filling streams or wetlands) additional reviews may be necessary. Additionally, a Section 404/401 Permit may be required. Any inquiries regarding Section 404/401 permitting should be directed to the Division of Water Resources (Central Office) at (919)-807-6364 and the US Army Corp of Engineers (Raleigh Regulatory Field Office) at (919)-554-4884.

Respectfully,

Drew Blake

Assistant Director, CESSWI

Drew Blake

Chatham County Watershed Protection Department



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Enclosures:

Revised Riparian Buffer Review Application – Completed by Hart & Hickman September 2023 Stream ID Forms – Completed by Hart & Hickman September 2023 Wetland Data Form – Completed by Hart & Hickman Major Subdivision Riparian Buffer Application Authorized Agent Form Authorization to Enter Property Form

cc: Taylor Burton, Sr. Watershed Specialist, Chatham County Watershed Protection Department Phillip Cox, Sr. Watershed Specialist, Chatham County Watershed Protection Department Justin Hasenfus, Erosion Control Program Manager, Chatham County Watershed Protection Dept Rachael Thorn, Director, Chatham County Watershed Protection Department Kimberly Tyson, Planner II/Subdivision Administrator, Chatham County Planning Department Angela Plummer, Planner II/Zoning Administrator, Chatham County Planning Department Jason Sullivan, Director, Chatham County Planning Department Rachel Capito, Regulatory Project Manager, US Army Corps of Engineers, Raleigh Field Office Zachary Thomas, Environmental Program Consultant, NCDEQ - Division of Water Resources

# Sent Via Email

February 13, 2024

Chatham County Office Planning Department 80-A East Street Pittsboro, North Carolina 27312

Attn: Mr. Drew Blake

Re: Revised Riparian Buffer Review Application

**Proposed Development** 

739 Hatley Road

Pittsboro, North Carolina, 27312

H&H Job No. EPK-001

Dear Drew:

Please find the enclosed revised Riparian Buffer Review Application documents for the above site located in Pittsboro, NC. An updated Preliminary Wetland Stream Delineation Map, Riparian Buffer Feature Spreadsheet, Surface Water Identification forms, and photographs are attached in PDF format.

Hart & Hickman, PC conducted a preliminary stream and wetland survey at the site on September 12-15, 2023 and conducted a site visit with the Chatham County Watershed Protection Department on February 5, 2024. During the site visit, features SCS, SCT, SCU, SCV, and SCY were determined to be non-ephemeral. Following the site visit, H&H noted several features that were originally identified as ephemeral, exhibited characteristics similar to those determined to be non-ephemeral. These features were not field reviewed during the buffer review site visit.

In order to further evaluate these features, H&H conducted a follow up site visit on February 9, 2024. Based on the conditions of these features, and to ensure consistency with the on-site determination, we feel SCH, SCI, SCJ, and SCK should be considered non-ephemeral. Attached is a photo log which depicts photos of features SCS-SCV (determined by Chatham County to be non-ephemeral) as compared to features SCH-SCK (believed to be non-ephemeral). Additionally, updated NCDWQ stream forms conducted on features SCH-SCK are attached.



Please contact us should you have questions or require additional information.

Sincerely,

Hart and Hickman, PC

Dan McCauley, PWS

Sr. Project Environmental Scientist

Matt Hugo Staff Scientist

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Attachments

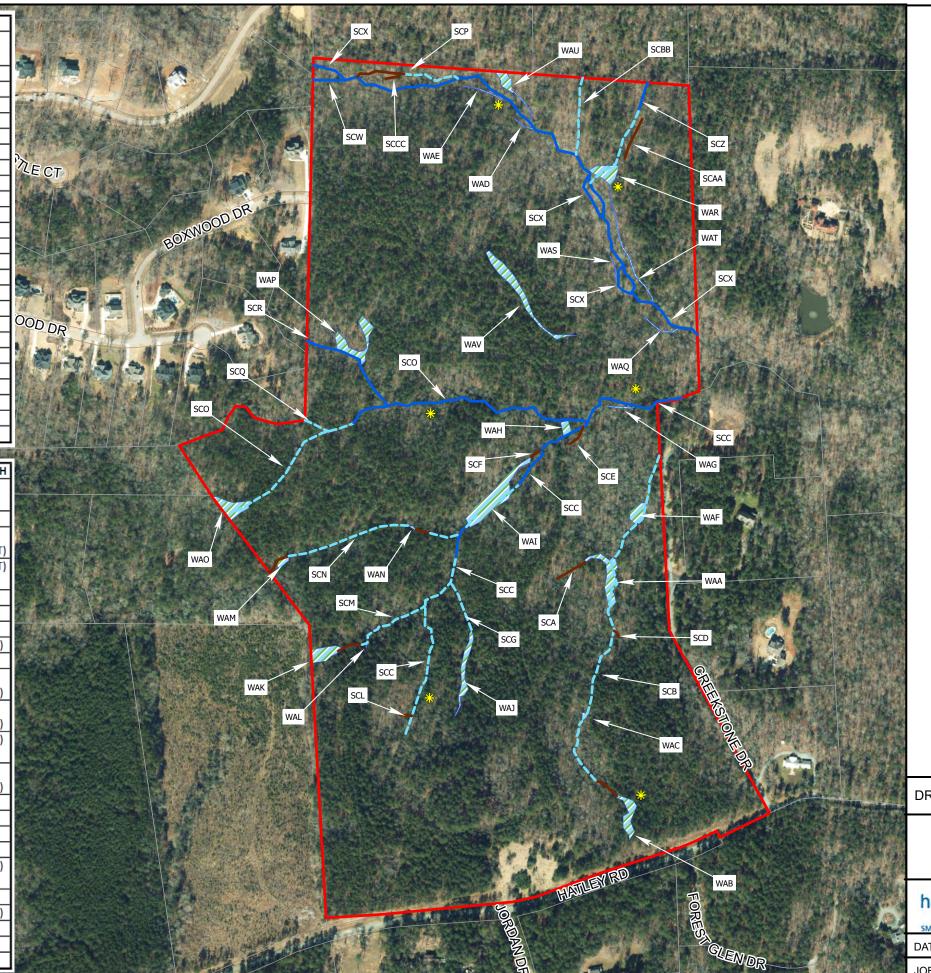


POTENTIAL JURISDICTIONAL WETLAND AREA					
METIAND AREA ID	APPROXIMATE				
WETLAND AREA ID	AREA(SQ-FT)				
WETLAND AREA "A" (WAA)	8850				
WETLAND AREA "B" (WAB)	5964				
WETLAND AREA "C" (WAC)	543				
WETLAND AREA "D" (WAD)	318				
WETLAND AREA "E" (WAE)	659				
WETLAND AREA "F" (WAF)	3832				
WETLAND AREA "G" (WAG)	624				
WETLAND AREA "H" (WAH)	1956				
WETLAND AREA "I" (WAI)	16195				
WETLAND AREA "J" (WAJ)	5767				
WETLAND AREA "K" (WAK)	5922				
WETLAND AREA "L" (WAL)	60				
WETLAND AREA "M" (WAM)	1400				
WETLAND AREA "N" (WAN)	182				
WETLAND AREA "O" (WAO)	7072				
WETLAND AREA "P" (WAP)	9403				
WETLAND AREA "Q" (WAQ)	696				
WETLAND AREA "R" (WAR)	5949				
WETLAND AREA "S" (WAS)	334				
WETLAND AREA "T" (WAT)	2233				
WETLAND AREA "U" (WAU)	3890				
WETLAND AREA "V" (WAV)	11054				
WETLAND TOTAL (NON-AJD)	69963				
WETLAND TOTAL (ALL)	92903				

POTENTIAL JURISDICTIONAL STREAM CHANNEL LENGTH					
CTDEANA CHANNEL ID	APPROXIMATE				
STREAM CHANNEL ID	LENGTH (LF)				
STREAM CHANNEL "A" (SCA)	136 (EPHEMERAL)				
STREAM CHANNEL "B" (SCB)	112 (EPHEMERAL)				
STREAM CHANNEL B (SCB)	1478 (INTERMITTENT)				
STREAM CHANNEL "C" (SCC)	1005 (INTERMITTENT)				
STREAM CHANNEL C (SCC)	1035 (PERENNIAL)				
STREAM CHANNEL "D" (SCD)	32 (EPHEMERAL)				
STREAM CHANNEL "E" (SCE)	93 (EPHEMERAL)				
STREAM CHANNEL "F" (SCF)	47 (EPHEMERAL)				
STREAM CHANNEL "G" (SCG)	215 (INTERMITTENT)				
STREAM CHANNEL "L" (SCL)	49 (EPHEMERAL)				
STREAM CHANNEL "M" (SCM)	107 (EPHEMERAL)				
STREAM CHANNEL IVI (SCIVI)	332 (INTERMITTENT)				
STREAM CHANNEL "N" (SCN)	173 (EPHEMERAL)				
STREAM CHANNEL IV (SCIV)	645 (INTERMITTENT)				
STREAM CHANNEL "O" (SCO)	638 (INTERMITTENT)				
STREAM CHAINNEL O (SCO)	1073 (PERENNIAL)				
STREAM CHANNEL "P" (SCP)	204 (EPHEMERAL)				
STREAM CHANNEL P (SCP)	239 (INTERMITTENT)				
STREAM CHANNEL "Q" (SCQ)	82 (INTERMITTENT)				
STREAM CHANNEL "R" (SCR)	465 (PERENNIAL)				
STREAM CHANNEL "W" (SCW)	134 (PERENNIAL)				
STREAM CHANNEL "X" (SCX)	2679 (PERENNIAL)				
STREAM CHANNEL "Z" (SCZ)	374 (INTERMITTENT)				
STREAM CHAMMEL Z (SCZ)	125 (PERENNIAL)				
STREAM CHANNEL "AA" (SCAA)	181 (EPHEMERAL)				
STREAM CHANNEL "BB" (SCBB)	323 (INTERMITTENT)				
STREAM CHANNEL "CC" (SCCC)	67 (EPHEMERAL)				
STREAM TOTAL (INT+PER)	9829				

12043

STREAM TOTAL (ALL)



### LEGEND

SITE PROPERTY BOUNDARY

——— PARCEL BOUNDARY LINE

H&H IDENTIFIED POTENTIALLY JURISDICTIONAL PERENNIAL STREAM

H&H IDENTIFIED POTENTIALLY JURISDICTIONAL INTERMITTENT STREAM

— H&H IDENTIFIED EPHEMERAL STREAM

H&H IDENTIFIED POTENTIALLY JURISDICTIONAL WETLAND

TEST PITS

#### **NOTES**

- 1. SC STREAM CHANNEL LF - LINEAR FEET WA - WETLAND AREA
- 2. DELINEATION COMPLETED BY H&H ON SEPTEMBER 12-15, 2023.
- 3. LOCATIONS OF POTENTIAL STREAM AND WETLAND FEATURES ARE BASED ON FIELD GPS DATA AND ARE APPROXIMATE. POTENTIAL STREAM AND WETLAND BOUNDARIES HAVE NOT BEEN FULLY DELINEATED OR SURVEYED.
- 4. PLEASE NOTE THAT EPHEMERAL STREAM CHANNELS ARE NOT TYPICALLY REGULATED BY THE US ARMY CORPS OF ENGINEERS OR NC DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES
- 5. PARCEL DATA OBTAINED FROM NC ONEMAP, 2023. AERIAL IMAGERY OBTAINED FROM ESRI, 2021





DRAFT PRELIMINARY WETLAND DELINEATION MAP

UNDEVELOPED LAND 739 HATLEY ROAD PITTSBORO, NORTH CAROLINA



3921 Sunset Ridge Suite 301 Raleigh, North Carolina 27607 919-847-4241 (p) 919-847-4261 (f) License # C-1269 / # C-245 Geology

DATE: 2-7-2024 REVISION NO: 0

JOB NO. EPK-001 FIGURE NO: 2

# 739 HATLEY ROAD

# Surface Water & Riparian Buffer Spreadsheet

Completed By: Dan McCauley, PWS

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Feature ID	Feature Type	Stream/Wetland Data Form ID	Stream Length or Wetland Acres	Latitude	Longitude	Buffer Required	Buffer Jurisdiction (Jordan, County + Jordan)
SCA	Ephemeral	SCA	136	35.752770	-79.073799	30' (Ephemeral)	County
SCB	Ephemeral	SCB	112	35.750493	-79.073348	30' (Ephemeral)	County
SCB	Intermittent	SCB	1478	35.750467	-79.0730017	50' (Intermittent)	County
SCC	Intermittent	SCC	1005	35.7528218	-79.075235	50' (Intermittent)	County
SCC	Perennial	SCC	1035	35.7548479	-79.0731399	100' (Perennial)	County
SCD	Ephemeral	SCD	32	35.751840	-79.073393	30' (Ephemeral)	County
SCE	Ephemeral	SCE	93	35.754900	-79.072969	30' (Ephemeral)	County
SCF	Ephemeral	SCF	47	35.754966	-79.073447	30' (Ephemeral)	County
SCG	Intermittent	SCG	215	35.7525696	-79.0750802	50' (Intermittent)	County
SCL	Ephemeral	SCL	49	35.751576	-79.076397	30' (Ephemeral)	County
SCM	Ephemeral	SCM	107	35.752726	-79.077056	30' (Ephemeral)	County
SCM	Intermittent	SCM	332	35.7521212	-79.0766273	50' (Intermittent)	County
SCN	Ephemeral	SCN	173	35.752938	-79.076081	30' (Ephemeral)	County
SCN	Intermittent	SCN	645	35.7530198	-79.0776999	50' (Intermittent)	County
SCO	Intermittent	SCO	638	35.7542776	-79.0774147	50' (Intermittent)	County
SCO	Perennial	SCO	1073	35.7549058	-79.0749056	100' (Perennial)	County
SCP	Ephemeral	SCP	204	35.758693	-79.076000	30' (Ephemeral)	County
SCP	Intermittent	SCP	239	35.7586523	-79.0764583	50' (Intermittent)	County
SCQ	Intermittent	SCQ	82	35.7528218	-79.075235	50' (Intermittent)	County
SCR	Perennial	SCR	465	35.7551856	-79.0766273	100' (Perennial)	County
SCW	Perennial	SCW	134	35.7585815	-79.0769318	100' (Perennial)	County
SCX	Perennial	SCX	2679	35.7560573	-79.0726285	100' (Perennial)	County
SCZ	Intermittent	SCZ	374	35.7580788	-79.0727045	50' (Intermittent)	County
SCZ	Perennial	SCZ	125	35.7584873	-79.0725162	100' (Perennial)	County
SCAA	Ephemeral	SCAA	181	35.758100	-79.073655	30' (Ephemeral)	County
SCBB	Intermittent	SCBB	323	35.7584972	-79.0734311	50' (Intermittent)	County

SCCC	Ephemeral	SCCC	67	35.758693	-79.076000	30' (Ephemeral)	County
WAA	Jurisdictional Wetland	TP-2	0.203	35.75276910	-79.0730286	50' Jurisdictional Wetland	County
WAB	Non- Jurisdictional Wetland	TP-1	0.137	35.75010930	-79.0727536	50' (Non- Jurisdictional Wetland)	County
WAC	Jurisdictional Wetland	TP-2	0.012	35.75130800	-79.073378	50' Jurisdictional Wetland	County
WAD	Jurisdictional Wetland	TP-5	0.007	35.75807210	-79.0742414	50' Jurisdictional Wetland	County
WAE	Jurisdictional Wetland	TP-5	0.015	35.75848460	-79.0748497	50' Jurisdictional Wetland	County
WAF	Jurisdictional Wetland	TP-2	0.088	35.75360140	-79.0726007	50' Jurisdictional Wetland	County
WAG	Jurisdictional Wetland	TP-5	0.014	35.75482720	-79.0728122	50' Jurisdictional Wetland	County
WAH	Jurisdictional Wetland	TP-3	0.045	35.75457900	-79.0736537	50' Jurisdictional Wetland	County
WAI	Jurisdictional Wetland	TP-3	0.372	35.75377800	-79.0746739	50' Jurisdictional Wetland	County
WAJ	Jurisdictional Wetland	TP-3	0.132	35.75191040	-79.075054	50' Jurisdictional Wetland	County
WAK	Non- Jurisdictional Wetland	TP-1	0.136	35.75201080	-79.0770258	50' (Non- Jurisdictional Wetland)	County
WAL	Jurisdictional Wetland	TP-4	0.001	35.75211280	-79.0764414	50' Jurisdictional Wetland	County
WAM	Jurisdictional Wetland	TP-5	0.032	35.75306480	-79.0776035	50' Jurisdictional Wetland	County
WAN	Jurisdictional Wetland	TP-3	0.004	35.75346610	-79.075788	50' Jurisdictional Wetland	County
WAO	Jurisdictional Wetland	TP-4	0.162	35.75366770	-79.0783834	50' Jurisdictional Wetland	County

WAP	Jurisdictional Wetland	TP-1	0.216	35.75549180	-79.0766472	50' Jurisdictional Wetland	County
WAQ	Jurisdictional Wetland	TP-5	0.016	35.75223630	-79.0722363	50' Jurisdictional Wetland	County
WAR	Jurisdictional Wetland	TP-5	0.137	35.75752660	-79.0730485	50' Jurisdictional Wetland	County
WAS	Jurisdictional Wetland	TP-5	0.008	35.75646590	-79.0729618	50' Jurisdictional Wetland	County
WAT	Jurisdictional Wetland	TP-5	0.051	35.75630730	-79.0726265	50' Jurisdictional Wetland	County
WAU	Jurisdictional Wetland	TP-5	0.089	35.75853570	-79.0744445	50' Jurisdictional Wetland	County
WAV	Non- Jurisdictional Wetland	TP-1	0.254	35.75616660	-79.074302	50' (Non- Jurisdictional Wetland)	County

<b>Date</b> : 2/9/2024- SCH	Project/Site: 739	9 Hatley Rd	Latitude: 35.7509229 N Longitude: 79.0760213 W		
Evaluator: MRH - H&H	County: Chathan	n			
<b>Total Points:</b> 8 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		nation (circle one) rmittent Perennial	Other e.g. Quad Name	e: Farrington, NC	
A. Geomorphology (Subtotal = 3.5)	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	(1)	2	3	
2. Sinuosity of channel along thalweg	0	(1)	2	3	
3. In-channel structure: ex. riffle-pool, step-pool,	0	1	2	3	
ripple-pool sequence					
Particle size of stream substrate	0	1)	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	(.5)	1	1.5	
11. Second or greater order channel	No =0 Yes = 3				
a artificial ditches are not rated; see discussions in manual					
B. Hydrology (Subtotal = 1.5)					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	(0)	1	2	3	
14. Leaf litter	1.5	1	0.5	0	
15. Sediment on plants or debris	0	(.)	1	1.5	
16. Organic debris lines or piles	0	0.5	(1)	1.5	
17. Soil-based evidence of high water table?	No	=(0)		5 = 3	
C. Biology (Subtotal = 3 )	L				
18. Fibrous roots in streambed	3	2	1	(0)	
19. Rooted upland plants in streambed	(3)	2	1	0	
20. Macrobenthos (note diversity and abundance)	<u> </u>	1	2	3	
21. Aquatic Mollusks	<del>                                     </del>	1	2	3	
22. Fish	<u> </u>	0.5	1	1.5	
23. Crayfish		0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae		0.5	1	1.5	
26. Wetland plants in streambed		FACW = 0.75; OBI	= 1.5 Other =	_	
*perennial streams may also be identified using other method	s. See p. 35 of manual			<u> </u>	
Notes:					
Sketch:					

No = 0	(circle one) (t Perennial e.g. of the e.g.	Quad Name:         Farrington           derate         Strong           2         3           2         3           2         3           2         3           2         3           2         3           2         3           1         1           Yes = 3         3           2         3           2         3           0.5         0           1         1	on, NC  ong  3  3  3  3  3  5  5  5  3
sent W  O  O  O  O  O  O  O  O  O  O  O  O  O	Veak         Mode           1         0           1         0           1         0           1         0           1         0           1         0           0         0           1         0           1         0           1         0           0         0	Quad Name:         Farrington           derate         Strong           2         3           2         3           2         3           2         3           2         3           2         3           2         3           1         1           Yes = 3         3           2         3           2         3           0.5         0           1         1	ong 3 3 3 3 3 3 3 3 3 5 5 5 3 3
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0 0 0	9 9 9	0) 1 0) 0.5 0) 0.5 0) 0.5 0) 0.5 0) 0.5 FACW = 0.75; OBL = 1.5	0) 1 2 3 0) 0.5 1 1. 0) 0.5 1 1. 0) 0.5 1 1. 0) 0.5 1 1. 0) 0.5 1 1. FACW = 0.75; OBL = 1.5 Other = 0

0 No =0	circle one)         Other e.g. Quality           Perennial         Mode           1)         2           1)         2           1)         2           1         2           1         2           1         2           1         2           1         2           1         2           1         2           1         2           1         2           1         2           1         2           1         0.5	Perate         Strong           3         3           3         3           3         3           3         3           3         3           3         3           3         3           4         3           5         3           1         1.5           Yes = 3         3
nt We	Perennial         e.g. Queen           eak         Mode           1)         2           1)         2           1         2           1         2           1         2           1         2           1         2           1         2           1         2           1         2           1         2           1         2           1         0.5	### Strong   Strong
0 No =0	1) 2 1) 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	3 3 3 3 3 3 3 3 3 3 3 3 3 3 1.5 1.5 Yes = 3
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0 0 No =0	1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	3 3 3 3 3 3 3 3 4 3 5 4 5 5 7 4 5 5 5 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6
0 0 0 0 0	1 2 1 2 1 2 1 2 1 2 1 2 0.5 1 0.5 1	3 3 3 3 3 3 3 5 5 7 9 8 9 3 3 5 5 6 9 3 3 5 6 9 3 3 5 6 9 3 5 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
0 0 No =0	1 2 1 2 1 2 1 2 1 2 0.5 1 0.5 1	3 3 3 3 3 1.5 Yes = 3 3 3 3 3 3
0 0 0 0 No =0	1 2 1 2 1 2 0.5 1 0.9 1	3 3 3 3 1.5 1.5 Yes = 3 3 3 3
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00 (0 No = (0)	1 2 0.5 1 1 2 1 2 1 2 1 0.5	3 1.5 1.5 Yes = 3 3 3
No =0	1 2 1 2 1 0.5	1.5 1.5 Yes = 3
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No =0	1 2 1 2 1 0.5	Yes = 3
	1 2 1 0.5	3
6	1 2 1 0.5	3
6	1 2 1 0.5	3
6	1 2 1 0.5	3
6	1 0.5	
(		5   (0)
	1.9	1.5
	1	
No =①		Yes = 3
	2 1	
	2 1	0
,	1 2	3
,	1 2	3
0	0.5 1	1.5
		1.5
FACW	I = 0.75; OBL = 1.5	Other =(0)
manual.		
)   f	C C C C C C C C C C C C C C C C C C C	2 1 1 2 1 2 0.5 1 0.5 1 0.5 1 0.5 1 FACW = 0.75; OBL = 1.5

Date: 2/9/24 - SCK         Project/Site: 739 Hatley Rd         Latitude:35.7510158 N					
valuator: MRH - H&H	County: Chathar	m	<b>Longitude:</b> 79.0760480 W		
otal Points: 6.5 tream is at least intermittent ≥ 19 or perennial if ≥ 30*		nation (circle one) rmittent Perennial	Other e.g. Quad Name:	Farrington, NC	
Geomorphology (Subtotal = 2.5 )	Absent	Weak	Moderate	Strong	
a. Continuity of channel bed and bank	0	1	2	3	
. Sinuosity of channel along thalweg	0	1	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
. Particle size of stream substrate	0	1	2	3	
. Active/relict floodplain	0	1	2	3	
. Depositional bars or benches	0	1	2	3	
. Recent alluvial deposits	0	1	2	3	
. Headcuts	0	1	2	3	
. Grade control	0	0.5	1	1.5	
0. Natural valley	0	(.5)	1	1.5	
Second or greater order channel	No	) <b>=</b> (0)	Yes =	3	
artificial ditches are not rated; see discussions in manual					
s. Hydrology (Subtotal = 1					
2. Presence of Baseflow	0	1	2	3	
3. Iron oxidizing bacteria	0	1	2	3	
4. Leaf litter	1.5	1	0.5	0	
5. Sediment on plants or debris	0	6.9	1	1.5	
6. Organic debris lines or piles	0	(.5)	1	1.5	
7. Soil-based evidence of high water table?	No	) <b>=</b> ()	Yes =	3	
C. Biology (Subtotal = 3)					
8. Fibrous roots in streambed	3	2	1	0	
9. Rooted upland plants in streambed	3	2	1	0	
Macrobenthos (note diversity and abundance)	0	1	2	3	
1. Aquatic Mollusks	0	1	2	3	
2. Fish	0	0.5	1	1.5	
3. Crayfish	0	0.5	1	1.5	
4. Amphibians	0	0.5	1	1.5	
5. Algae	0	0.5	1	1.5	
		FACW = 0.75; OBI	_ = 1.5 Other =0	)	
6. Wetland plants in streambed	Coop 25 of monuo	ıl.			
<ul><li>b. Wetland plants in streambed</li><li>perennial streams may also be identified using other methods</li><li>lotes:</li></ul>	s. See p. 35 oi manua	***			



Photograph 1: Photograph of SCS which was determined to be non-ephemeral in the field (2/5/24).



Photograph 2: Photograph of SCS which was determined to be non-ephemeral in the field (2/5/24).





Photograph 3: Photograph of SCT which was determined to be non-ephemeral in the field (2/5/24).



Photograph 4: Photograph of SCV which was determined to be non-ephemeral in the field (2/5/24).





Photograph 5: Photograph of SCI facing up-gradient.



Photograph 6: Photograph of SCI facing down-gradient.





Photograph 7: Photograph of SCH facing up-gradient.



Photograph 8: Photograph of SCH facing down-gradient. Connection to intermittent stream SCC in background.





Photograph 9: Photograph of SCJ facing up-gradient.



Photograph 10: Photograph of SCJ facing down-gradient.





Photograph 11: Photograph of SCK facing up-gradient.



Photograph 12: Photograph of SCK facing down-gradient.



<b>Date:</b> 9/12/23 - SCA	Project/Site: 73	9 Hatley Rd	Latitude:35.75	<b>Latitude:</b> 35.7529956 N		
Evaluator: MRH - H&H	County: Chathar	n	<b>Longitude:</b> 79.0734957 W			
<b>Total Points:</b> 13.75 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		nation (circle one) rmittent Perennial	Other e.g. Quad Name	: Farrington, NC		
A. Geomorphology (Subtotal = 5	Absent	Weak	Moderate	Strong		
1 <sup>a.</sup> Continuity of channel bed and bank	0	(1)	2	3		
2. Sinuosity of channel along thalweg	0	(1)	2	3		
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3		
Particle size of stream substrate	0	1)	2	3		
5. Active/relict floodplain	0	1	2	3		
6. Depositional bars or benches	0	1	2	3		
7. Recent alluvial deposits	0	1)	2	3		
8. Headcuts	0	1	2	3		
9. Grade control	0	0.5	1	1.5		
10. Natural valley	0	0.5	(1)	1.5		
11. Second or greater order channel	No	<u> </u>	Yes	= 3		
<sup>a</sup> artificial ditches are not rated; see discussions in manual						
B. Hydrology (Subtotal = $\frac{5}{2}$						
12. Presence of Baseflow	0	1	2	3		
13. Iron oxidizing bacteria	(0)	1	2	3		
14. Leaf litter	1.5	1	().5)	0		
15. Sediment on plants or debris	0	0.9	1	1.5		
16. Organic debris lines or piles	0	0.5	(1)	1.5		
17. Soil-based evidence of high water table?	No	0 = 0	Yes	=3		
C. Biology (Subtotal = <u>3.75</u> )	•					
18. Fibrous roots in streambed	3	2	1	0		
19. Rooted upland plants in streambed	3	2	1	0		
20. Macrobenthos (note diversity and abundance)	0	1	2	3		
21. Aquatic Mollusks	0	1	2	3		
22. Fish	0	0.5	1	1.5		
23. Crayfish	0	0.5	1	1.5		
24. Amphibians	0	0.5	1	1.5		
25. Algae	0	0.5	1	1.5		
26. Wetland plants in streambed		FACW = <b>0.75</b> ; OBI	L = 1.5 Other =	0		
*perennial streams may also be identified using other methods	s. See p. 35 of manua	l.				
Notes:						
Notes:  Sketch:						

<b>Date:</b> 9/15/23 - SCAA	Project/Site: 73	39 Hatley Rd	Latitude:35.75	78269 N	
Evaluator: MRH - H&H	County: Chatha	m	<b>Longitude:</b> 79.0727361 W		
<b>Total Points:</b> 13.75 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		ination (circle one) ermittent Perennial	Other e.g. Quad Name	: Farrington, NC	
A. Geomorphology (Subtotal =5.5)	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3	
2. Sinuosity of channel along thalweg	0	(1)	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
4. Particle size of stream substrate	0	1	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1)	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	(.5)	1	1.5	
11. Second or greater order channel	No =0 Yes = 3				
artificial ditches are not rated; see discussions in manual					
B. Hydrology (Subtotal = 5.5 )		I I		1	
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1	2	3	
14. Leaf litter	1.5	1	(.)	0	
15. Sediment on plants or debris	0	0.5	1	1.5	
16. Organic debris lines or piles	0	0.5	①	1.5	
17. Soil-based evidence of high water table?	N	0 = 0	Yes	=3	
C. Biology (Subtotal = $\underline{2.75}$ )					
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1	2	3	
21. Aquatic Mollusks	0	1	2	3	
22. Fish	0	0.5	1	1.5	
23. Crayfish	Ŏ	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae		0.5	1	1.5	
26. Wetland plants in streambed		FACW = 0.75; OB	L = 1.5 Other =(	9)	
*perennial streams may also be identified using other method	ods. See p. 35 of manua	al.			
Notes:					
Sketch:					

<b>Date:</b> 9/12/23 - SCB	Latitude:35.7504	titude:35.7504670 N		
Evaluator: MRH - H&H	County: Chatha	am	Longitude: 79.0730017 W	
Total Points: 13 Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*		ination (circle one) ermittent Perennial	Other e.g. Quad Name:	Farrington, NC
A. Geomorphology (Subtotal = 8	Absent	Weak	Moderate	Strong
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	(1)	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	(1)	2	3
3. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	(1)	1.5
11. Second or greater order channel	N	lo <b>=</b> 0	Yes = 3	
artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = 2 )				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	<u> </u>	1	2	3
14. Leaf litter	1.5	1	().5)	0
15. Sediment on plants or debris	0	(.)	1	1.5
16. Organic debris lines or piles	0	0.5	(1)	1.5
17. Soil-based evidence of high water table?	N	0 =(0)	Yes =	: 3
C. Biology (Subtotal = 3)	<u> </u>			
18. Fibrous roots in streambed	3	2	1	0)
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	<del>ŏ</del>	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	(0)	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75; OB	L = 1.5 Other =0	)
*perennial streams may also be identified using other meth	nods. See p. 35 of manu	al.		
Notes:				
Sketch:				

<b>Date:</b> 9/12/23 - SCB	Project/Site: 73	39 Hatley Rd	Latitude:35.75	09046 N		
Evaluator: MRH - H&H	County: Chatha	County: Chatham		<b>Longitude:</b> 79.0734419 W		
<b>Total Points:</b> 20.75 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		ination (circle one) ermittent Perennial	Other e.g. Quad Name: Farrington, NC			
A. Geomorphology (Subtotal = 10 )	Absent	Weak	Moderate	Strong		
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	(2)	3		
Sinuosity of channel along thalweg	0	1	(2)	3		
3. In-channel structure: ex. riffle-pool, step-pool,	-	_		-		
ripple-pool sequence	0	①	2	3		
4. Particle size of stream substrate	0	(1)	2	3		
5. Active/relict floodplain	0	1	2	3		
6. Depositional bars or benches	0	(1)	2	3		
7. Recent alluvial deposits	0	1	2	3		
8. Headcuts	0	1	2	3		
9. Grade control	(0)	0.5	1	1.5		
10. Natural valley	0	0.5	(1)	1.5		
11. Second or greater order channel	N	o <b>=</b> (0)	Yes = 3			
a artificial ditches are not rated; see discussions in manual						
B. Hydrology (Subtotal = 5						
12. Presence of Baseflow	0	1	2	3		
13. Iron oxidizing bacteria	(0)	1	2	3		
14. Leaf litter	1.5	1	6.9	0		
15. Sediment on plants or debris	0	(2.5)	1	1.5		
16. Organic debris lines or piles	0	0.5	(1)	1.5		
17. Soil-based evidence of high water table?	N	0 = 0	Yes	=(3)		
C. Biology (Subtotal = 5.75)	•	•				
18. Fibrous roots in streambed	3	2	1	0		
19. Rooted upland plants in streambed	3	2	1	0		
20. Macrobenthos (note diversity and abundance)	(0)	1	2	3		
21. Aquatic Mollusks	(0)	1	2	3		
22. Fish	(0)	0.5	1	1.5		
23. Crayfish	0	0.5	1	1.5		
24. Amphibians	(0)	0.5	1	1.5		
25. Algae	<u> </u>	0.5	1	1.5		
26. Wetland plants in streambed		FACW = 0.75, OBI	L = 1.5 Other =	0		
*perennial streams may also be identified using other method	ds. See p. 35 of manua					
· · · · · · · · · · · · · · · · · · ·	•					
Notes:						

<b>Date:</b> 9/15/23 - SCBB	Project/Site: 73	39 Hatley Rd	Latitude:35.758	34972 N	
Evaluator: MRH - H&H	County: Chatham		<b>Longitude:</b> 79.0734311 W		
<b>Total Points:</b> 25.5 Stream is at least intermittent if ≥ 19 or perennial if ≥ $30^*$		nation (circle one) ermittent Perennial	Other e.g. Quad Name: Farrington, No		
A. Geomorphology (Subtotal =13)	Absent	Weak	Moderate	Strong	
1 <sup>a</sup> Continuity of channel bed and bank	0	1	2	(3)	
2. Sinuosity of channel along thalweg	0	(1)	2	3	
3. In-channel structure: ex. riffle-pool, step-pool,	0	1	2	3	
ripple-pool sequence	-	_			
4. Particle size of stream substrate	0	1		3	
5. Active/relict floodplain	0	(1)	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
B. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	0.5	1)	1.5	
11. Second or greater order channel	No	o =(0)	Yes = 3		
artificial ditches are not rated; see discussions in manual					
B. Hydrology (Subtotal = 6.5 )					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1	2	3	
14. Leaf litter	(.5)	1	0.5	0	
15. Sediment on plants or debris	0	0.5	(1)	1.5	
16. Organic debris lines or piles	0	0.5	(1)	1.5	
17. Soil-based evidence of high water table?	No	O = 0	Yes =(3)		
C. Biology (Subtotal =6)	- 1	•			
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	(1)	2	3	
21. Aquatic Mollusks	(0)	1	2	3	
22. Fish	(0)	0.5	1	1.5	
23. Crayfish	(0)	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae	Ŏ	0.5	1	1.5	
26. Wetland plants in streambed		FACW = 0.75; OB	L = 1.5 Other =		
*perennial streams may also be identified using other method	ds. See p. 35 of manua	· · · · · · · · · · · · · · · · · · ·			
Notes:	·				

<b>Date:</b> 9/12/23 - SCC	Project/Site: 739 Hatley Rd  County: Chatham  Stream Determination (circle one) Ephemeral Intermittent Perennial		Latitude:35.752	28218 N	
Evaluator: MRH - H&H			Longitude: 79.0752350 W  Other e.g. Quad Name: Farrington, NC		
<b>Total Points:</b> 26.75 Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*					
A. Geomorphology (Subtotal = 16)	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	(2)	3	
2. Sinuosity of channel along thalweg	0	1	(2)	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1)	2	3	
4. Particle size of stream substrate	0	1	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	0.5	1)	1.5	
11. Second or greater order channel			=3		
<sup>a</sup> artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = $\frac{5.5}{}$ )				Т	
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1	2	3	
14. Leaf litter	1.5	1	0.5	0	
15. Sediment on plants or debris	0	0.5	1	1.5	
16. Organic debris lines or piles	0	0.5	1	1.5	
17. Soil-based evidence of high water table?	No	0 = 0	Yes =(3)		
C. Biology (Subtotal = <u>5.25</u> )				_	
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1)	2	3	
21. Aquatic Mollusks	0	1	2	3	
22. Fish	0	0.5	1	1.5	
23. Crayfish	0	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae	0	0.5	1	1.5	
26. Wetland plants in streambed		FACW = 0.75, OBI	L = 1.5 Other = 0	)	
*perennial streams may also be identified using other meth	ods. See p. 35 of manua	I.			
Notes:					

Date: 9/12/23 - SCC	Project/Site: 739 Hatley Rd	<b>Latitude:</b> 35.7548479 N
Evaluator: MRH - H&H	County: Chatham	<b>Longitude:</b> 79.0731399 W
<b>Total Points:</b> $33.75$ Stream is at least intermittent if $\geq 19$ or perennial if $\geq 30^*$	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other e.g. Quad Name: Farrington, NC

Absent	Weak	Moderate	Strong
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	①	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	<b>(</b> 0.5)	1	1.5
0	0.5	1	(.5)
No	0 = 0	Yes:	<del>-</del> 3
0	1	2	3
0	1	2	3
1.5	1	0.5	0
0	0.5	1	1.5
0	0.5	1	1.5
No	0 = 0	Yes:	<del>3</del>
3	2	1	0
3	2	1	0
0	1)	2	3
0	1	2	3
0	0.9	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
(0)	0.5	1	1.5
	FACW = 0.75	OBL = 1.5 Other = 0	1
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           1.5         1         0.5           0         0.5         1           0         0.5         1           0         0.5         1           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         0.5         1           0         0.5

Sketch:

Notes:

Date: 9/12/23 - SCCC	Project/Site: 73	9 Hatley Rd	Latitude:35.75	86657 N	
Evaluator: MRH - H&H	County: Chatham		<b>Longitude:</b> 79.0763096 W		
Total Points: 13 Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial		Other e.g. Quad Name: Farrington, No		
A. Geomorphology (Subtotal = 8	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3	
2. Sinuosity of channel along thalweg	0	1)	2	3	
3. In-channel structure: ex. riffle-pool, step-pool,	0	1	2	3	
ripple-pool sequence		•			
4. Particle size of stream substrate	0	1	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
3. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	0.5	1	1.5	
11. Second or greater order channel	No	) =(0)	Yes = 3		
artificial ditches are not rated; see discussions in manual					
B. Hydrology (Subtotal = $\frac{2}{}$ )		1		T	
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1	2	3	
14. Leaf litter	1.5	1	(.9	0	
15. Sediment on plants or debris	0	0.3	1	1.5	
16. Organic debris lines or piles	0	0.5	1	1.5	
17. Soil-based evidence of high water table?	No	)=(0)	Yes	= 3	
C. Biology (Subtotal = <u>3</u> )					
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1	2	3	
21. Aquatic Mollusks	0	1	2	3	
22. Fish	0	0.5	1	1.5	
23. Crayfish	0	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae	0	0.5	1	1.5	
		FACW = 0.75; OBI	_ = 1.5 Other <b>=(</b> (	<u>)                                    </u>	
26. Wetland plants in streambed					
26. Wetland plants in streambed *perennial streams may also be identified using other methods	. See p. 35 of manua	<u>l.</u>			

<b>Date:</b> 9/12/23 - SCD	Project/Site: 73	39 Hatley Rd	<b>Latitude:</b> 35.7522120 N		
Evaluator: MRH - H&H	County: Chatham		<b>Longitude:</b> 79.0728843 W		
Total Points: 13.5 Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*	Stream Determine	ination (circle one) ermittent Perennial	Other e.g. Quad Name: Farrington, N		
A. Geomorphology (Subtotal = 6.5	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2)	3	
2. Sinuosity of channel along thalweg	0	1	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
4. Particle size of stream substrate	0	1	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	(.5)	1	1.5	
11. Second or greater order channel	No =0		Yes = 3		
<sup>a</sup> artificial ditches are not rated; see discussions in manual  B. Hydrology (Subtotal = <u>5</u> )					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	(0)	1	2	3	
14. Leaf litter	1.5	1	(.5)	0	
15. Sediment on plants or debris	0	<b>(.5</b> )	1	1.5	
16. Organic debris lines or piles	0	0.5	(1)	1.5	
17. Soil-based evidence of high water table?	No	o = 0	Yes	=3	
C. Biology (Subtotal = 2 )		_			
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1	2	3	
21. Aquatic Mollusks	0	1	2	3	
22. Fish	0	0.5	1	1.5	
23. Crayfish	0	0.5	1	1.5	
24. Amphibians	0)	0.5	1	1.5	

0.5

FACW = 0.75; OBL = 1.5 Other = (0)

1.5

\*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

25. Algae

26. Wetland plants in streambed

Sketch:

E         Project/Site: 739 Hatley Rd         Latitude:35.7544852 N           - H&H         County: Chatham         Longitude: 79.0734563 W		1852 N		
		<b>Longitude:</b> 79.0734563 W		
Stream Determination (circle one) Ephemeral Intermittent Perennial		Other e.g. Quad Name: Farringtor		
Absent	Weak	Moderate	Strong	
			3	
<del></del>		1	3	
0	1	2	3	
0	(1)	2	3	
0	1	2	3	
0	1	2	3	
0	1	2	3	
0	1)	2	3	
0	0.5	1	1.5	
0	0.5		1.5	
No =0 Yes = 3				
	1			
	1	2	3	
0	1	2	3	
1.5	1	(.5)	0	
0		1	1.5	
0			1.5	
No	$\mathbf{p} = 0$	Yes =	<u>(3)</u>	
<del></del>				
			0	
			3	
			3 1.5	
			1.5	
			1.5	
			1.5	
+				
. See p. 35 of manual		2 - 1.0 - 01.101 - 0	/	
	Stream Determine   Ephemeral   Interest   Interest	Stream Determination (circle one)   Ephemeral Intermittent   Perennial	Stream Determination (circle one)         Other e.g. Quad Name:           Absent         Weak         Moderate           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         0.5         1           0         0.5         1           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2           0         1         2	

<b>Date:</b> 9/12/23 - SCF			Latitude:35.754	13027 N	
Evaluator: MRH - H&H			Longitude: 79.0740655 W  Other e.g. Quad Name: Farrington, NC		
<b>Total Points:</b> 13.75 Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*					
A. Geomorphology (Subtotal = 5	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	(1)	2	3	
2. Sinuosity of channel along thalweg	0	(1)	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
4. Particle size of stream substrate	0	1	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
B. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	0.5	<u> </u>	1.5	
11. Second or greater order channel	No	) <b>=</b> (0)	Yes = 3		
artificial ditches are not rated; see discussions in manual					
B. Hydrology (Subtotal = 5		1		T	
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1	2	3	
14. Leaf litter	1.5	1	(.5)	0	
15. Sediment on plants or debris	0	0.9	1	1.5	
16. Organic debris lines or piles	0	0.5	1)	1.5	
17. Soil-based evidence of high water table?	No = 0		Yes =(3)		
C. Biology (Subtotal = <u>3.75</u> )					
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1	2	3	
21. Aquatic Mollusks	0	1	2	3	
22. Fish	0	0.5	1	1.5	
23. Crayfish	0	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
DE AL	0	0.5	1	1.5	
25. Algae	i	FACW - 67A ORI	_ = 1.5 Other = 0	)	
26. Wetland plants in streambed					
•	See p. 35 of manua				

Sketch:

<b>Date:</b> 9/12/23 - SCG	Project/Site: 73	39 Hatley Rd	Latitude:35.75	25696 N	
Evaluator: MRH - H&H	County: Chathai	County: Chatham		<b>Longitude:</b> 79.0750802 W	
<b>Total Points:</b> 23.75 Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*		nation (circle one) ermittent Perennial	Other e.g. Quad Name: Farrington, No		
A. Geomorphology (Subtotal = <sup>13.5</sup> )	Absent	Weak	Moderate	Strong	
1 <sup>a</sup> Continuity of channel bed and bank	0	1	2	(3)	
2. Sinuosity of channel along thalweg	0	1	2	3	
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1)	2	3	
4. Particle size of stream substrate	0	1	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	0	2	3	
7. Recent alluvial deposits	0	1	2)	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.3	1	1.5	
10. Natural valley	0	0.5	1)	1.5	
11. Second or greater order channel	No	No =0 Yes = 3		= 3	
B. Hydrology (Subtotal = 5.5)  12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1	2	3	
14. Leaf litter	1.5	1)	0.5	0	
15. Sediment on plants or debris	0	0.5	(1)	1.5	
16. Organic debris lines or piles	0	(0.5)	1	1.5	
17. Soil-based evidence of high water table?	No	o = 0	Yes =(3)		
C. Biology (Subtotal =4.75)	<u> </u>	•			
18. Fibrous roots in streambed	3	2	1		
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1)	2	3	
21. Aquatic Mollusks	0	1	2	3	
22. Fish	0	0.5	1	1.5	
23. Crayfish	0	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae	0	0.5	1	1.5	
OC Matland plants in atreams and		FACW = 0.75, OBI	_ = 1.5 Other =	0	
26. Wetland plants in streambed					

<b>Date:</b> 9/12/23 - SCH	Project/Site: 73	39 Hatley Rd	Latitude:35.7509	9229 N	
Evaluator: MRH - H&H	County: Chatham		<b>Longitude:</b> 79.0760213 W		
<b>Total Points:</b> 11 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial		Other e.g. Quad Name:	Farrington, NC	
A. Geomorphology (Subtotal = 6	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3	
2. Sinuosity of channel along thalweg	0	(1)	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
4. Particle size of stream substrate	0	1)	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	0.5	(1)	1.5	
11. Second or greater order channel	N	Yes =	3		
artificial ditches are not rated; see discussions in manual	•				
B. Hydrology (Subtotal = 2 )					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	<del>                                     </del>	1	2	3	
14. Leaf litter	1.5	1	(.5)	0	
15. Sediment on plants or debris	0	(.)	1	1.5	
16. Organic debris lines or piles	0	0.5	(1)	1.5	
17. Soil-based evidence of high water table?	N	0 =(0)	Yes =		
C. Biology (Subtotal = $\frac{3}{2}$ )					
18. Fibrous roots in streambed	3	2	1	0)	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1	2	3	
21. Aquatic Mollusks	<u> </u>	1	2	3	
22. Fish	<del> </del>	0.5	1	1.5	
23. Crayfish		0.5	1	1.5	
24. Amphibians	<u> </u>	0.5	1	1.5	
25. Algae	0	0.5	1	1.5	
26. Wetland plants in streambed		FACW = 0.75; OBI	L = 1.5 Other = $0$	)	
*perennial streams may also be identified using other methods.	See p. 35 of manua				
Notes:	•				
Notes:  Sketch:					

ect/Site: /3	39 Hatley Rd	Latitude:35.7509229 N		
County: Chatham		<b>Longitude:</b> 79.0759599 W		
Stream Determination (circle one) Ephemeral Intermittent Perennial		Other e.g. Quad Name:	Farrington, NC	
Absent	Weak	Moderate	Strong	
0	1	2	3	
0	1)	2	3	
0	1	2	3	
0	1)	2	3	
0	1	2	3	
0	1	2	3	
0	1	2	3	
0	1	2	3	
0	0.5	1	1.5	
0	0.5	1)	1.5	
No	0 =0	Yes = 3		
0	1	2	3	
<u>(0)</u>	1	2	3	
1.5	1	().5)	0	
0	(2.5)	1	1.5	
0	0.5	(1)	1.5	
No	o <b>=(0)</b>	Yes =	3	
3	2	1	0)	
3	2	1	0	
0	1	2	3	
<u>(i)</u>	1	2	3	
<u></u>	0.5	1	1.5	
0	0.5	1	1.5	
0	0.5	1	1.5	
0	0.5	1	1.5	
	FACW = 0.75; OBI	_ = 1.5 Other = 0	)	
. 35 of manua				

<b>Date:</b> 9/12/23 - SCJ	Project/Site: 739 Hatley Rd		<b>Latitude:</b> 35.7510403 N	
Evaluator: MRH - H&H	County: Chatham		<b>Longitude:</b> 79.0760091 W	
<b>Total Points:</b> 11 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		ination (circle one) ermittent Perennial	Other e.g. Quad Name: Farrington, NC	
A. Geomorphology (Subtotal = 6	Absent	Weak	Moderate	Strong
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3
Sinuosity of channel along thalweg	0	(1)	2	3
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
Particle size of stream substrate	0	(1)	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	Ő	1	2	3
7. Recent alluvial deposits		1	2	3
8. Headcuts	<u> </u>	1	2	3
9. Grade control	<u> </u>	0.5	1	1.5
10. Natural valley	0	0.5	(1)	1.5
11. Second or greater order channel	No =(0) Yes		= 3	
a artificial ditches are not rated; see discussions in manual	- 1			
B. Hydrology (Subtotal = $\frac{2}{2}$ )				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	(0)	1	2	3
14. Leaf litter	1.5	1	(.5)	0
15. Sediment on plants or debris	0	0.9	1	1.5
16. Organic debris lines or piles	0	0.5	1)	1.5
17. Soil-based evidence of high water table?	No =0 Yes = 3			= 3
C. Biology (Subtotal = 3				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75; OB	L = 1.5 Other =(	0)
*perennial streams may also be identified using other methods	s. See p. 35 of manua	al.		
Notes:				
Sketch:				

<b>Date:</b> 9/12/23 - SCK	Project/Site: 7	Project/Site: 739 Hatley Rd		<b>Latitude:</b> 35.7510158 N	
Evaluator: MRH - H&H	County: Chatham		<b>Longitude:</b> 79.0760480 W		
<b>Total Points:</b> 11 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		ination (circle one) ermittent Perennial	Other e.g. Quad Name: Farrington, NC		
A. Geomorphology (Subtotal = 6 )	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	<u> </u>	
Sinuosity of channel along thalweg	0	(1)	2	3	
3. In-channel structure: ex. riffle-pool, step-pool,					
ripple-pool sequence	0	1	2	3	
Particle size of stream substrate	0	1)	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
8. Headcuts	(0)	1	2	3	
9. Grade control	(0)	0.5	1	1.5	
10. Natural valley	0	0.5	(1)	1.5	
11. Second or greater order channel	N	No =(0)		Yes = 3	
a artificial ditches are not rated; see discussions in manual					
B. Hydrology (Subtotal = 2)					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	<u> </u>	1	2	3	
14. Leaf litter	1.5	1	<u>2</u> (.5)	0	
15. Sediment on plants or debris	0	6.9	1	1.5	
16. Organic debris lines or piles	0	0.5	<u>(1)</u>	1.5	
17. Soil-based evidence of high water table?		No =(0)		Yes = 3	
C. Biology (Subtotal = _3)					
18. Fibrous roots in streambed	3	2	1	(0)	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)		1	2	3	
21. Aquatic Mollusks		1	2	3	
22. Fish		0.5	1	1.5	
23. Crayfish		0.5	1	1.5	
24. Amphibians		0.5	1	1.5	
25. Algae		0.5	1	1.5	
26. Wetland plants in streambed		FACW = 0.75; OB			
*perennial streams may also be identified using other me	thods See n 35 of manu		L = 1.5 Other = 0	)	
Notes:	anodo. Oco p. oo oi mand	ui.			
Notes.					
Sketch:					

<b>Date:</b> 9/12/23 - SCF	Project/Site: 739 Hatley Rd  County: Chatham		<b>Latitude:</b> 35.7543027 N	
Evaluator: MRH - H&H			<b>Longitude:</b> 79.0740655 W	
Total Points: 13 Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*		ination (circle one) ermittent Perennial	Other e.g. Quad Name: Farrington, NC	
A. Geomorphology (Subtotal = 8 )	Absent	Weak	Moderate	Strong
1 <sup>a</sup> Continuity of channel bed and bank	0	1	2	(3)
2. Sinuosity of channel along thalweg	0	(1)	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	(1)	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	(1)	2	3
B. Headcuts	0	(1)	2	3
9. Grade control	(0)	0.5	1	1.5
10. Natural valley	0	0.5	(1)	1.5
11. Second or greater order channel	No =(0) Yes = 3			= 3
a artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = 2 )				T -
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.9	1	1.5
16. Organic debris lines or piles	0	0.9	1	1.5
17. Soil-based evidence of high water table?	No €0		Yes = 3	
C. Biology (Subtotal = <u>3</u> )				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	Ŏ	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75; OB	L = 1.5 Other € 0	
*perennial streams may also be identified using other meth	nods. See p. 35 of manua	al.		
Notes:				

Chatham   Chat	cle one) Other e.g. Quad	de: 79.0766273 W  A Name: Farrington, NC  Strong  3 3 3 3 3 1.5 1.5 Yes = 3 3 0 1.5 1.5
nt Weak  1 1 1 1 1 1 1 1 1 1 1 1 1 1 0.5 No = 0	e.g. Quad   k   Modera     2     2     2     2     2     2     1     1     2     2     2     2     3     4     5     6     7     7     7     8     9     1	te Strong  3 3 3 3 3 3 3 1.5 1.5 Yes = 3
1 (1) (1) (1) (1) (1) (1) (1) (1	2 2 2 2 2 2 2 2 2 1 1 1	3 3 3 3 3 3 3 3 3 1.5 1.5 Yes = 3
1 1 1 1 1 0.5 No = 0 1 1 1 0.5 0.5 0.5	2 2 2 2 2 2 2 1 1 1 2 2 2 2 1 1	3 3 3 3 3 3 1.5 1.5 Yes = 3
1 1 1 1 1 0.5 No = 0 1 1 1 0.5 0.5 0.5	2 2 2 2 2 2 2 1 1 1 2 2 2 2 1 1	3 3 3 3 3 1.5 1.5 Yes = 3
1 1 1 0.5 0.5 No =0	2 2 2 2 2 1 1 1	3 3 3 3 1.5 1.5 Yes = 3 3 0 1.5
1 1 0.5 0.5 No =0	2 2 2 2 1 1 1 2 2 0.9	3 3 3 1.5 1.5 Yes = 3 3 0 1.5
1 0.5 0.5 No =0	2 2 2 1 1 1 2 2 0.3	3 3 1.5 1.5 Yes = 3
1 0.5 No =0 1 1 1 0.5 0.5	2 2 1 1 1 2 2 2 0.9	3 3 1.5 1.5 Yes = 3
1 0.5 No =0 1 1 1 0.5 0.5	2 1 1 1 2 2 2 0.9	3 1.5 1.5 Yes = 3 3 3 0 1.5
0.5 No =0 1 1 1 0.5 0.5	2 2 2 0.3	1.5 1.5 Yes = 3
No =0  1 1 1 0.5 0.5 0.5	2 2 0.3	1.5 Yes = 3 3 3 0 1.5
No =0 1 1 1 0.5 0.5	2 2 0.3	Yes = 3  3 3 0 1.5
1 1 1 0.5 0.5	2 (.5)	3 3 0 1.5
1 1 0.5 0.5	2 (.5)	3 0 1.5
1 1 0.5 0.5	2 (.5)	3 0 1.5
1 1 0.5 0.5	2 (.5)	3 0 1.5
1 0.5 0.5	1	0 1.5
0.5 0.5	1	1.5
0.5		
	1	1.5
No = 0		
		Yes =(3)
2	1	0
2	1	0
1	2	3
1	2	3
0.5	1	1.5
0.5	1	1.5
0.5	1	1.5
0.5	1	1.5
FACW = 0	0.75; OBL = 1.5 Ot	ther =0
manual.		
) ) of	0.5 0.5 0.5 0.5 0.5	0.5 1 0.5 1 0.5 1 0.5 1 0.5 1 FACW = 0.75; OBL = 1.5 O

<b>Date:</b> 9/12/23 - SCM	Project/Site: 73	9 Hatley Rd	Latitude:35.75	23168 N	
Evaluator: MRH - H&H	County: Chathar	n	Congitude: 79.0762488 W  Other e.g. Quad Name: Farrington, NC		
<b>Total Points:</b> 24 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		nation (circle one) rmittent Perennial			
A. Geomorphology (Subtotal =12.5)	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3	
Sinuosity of channel along thalweg	0	1	2	3	
3. In-channel structure: ex. riffle-pool, step-pool,	0	1	2	3	
ripple-pool sequence				_	
Particle size of stream substrate	0	(1)	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	0	2	3	
7. Recent alluvial deposits	0	1	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.3	1	1.5	
10. Natural valley	0	0.5	1)	1.5	
11. Second or greater order channel	No	No =0		= 3	
<sup>a</sup> artificial ditches are not rated; see discussions in manual					
B. Hydrology (Subtotal = $_{\underline{5.5}}$ )					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1	2	3	
14. Leaf litter	1.5	1)	0.5	0	
15. Sediment on plants or debris	0	0.5	(1)	1.5	
16. Organic debris lines or piles	0	(0.5)	1	1.5	
17. Soil-based evidence of high water table?		0 = 0	Yes		
C. Biology (Subtotal = 6)					
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	<u>.</u> 1	0	
20. Macrobenthos (note diversity and abundance)	0	1	2	3	
21. Aquatic Mollusks	Ö	1	2	3	
22. Fish		0.5	1	1.5	
23. Crayfish		0.5	1	1.5	
24. Amphibians		0.5	1	1.5	
25. Algae	0	0.5	<u>'</u> 1	1.5	
26. Wetland plants in streambed		FACW = 0.75; OBI	•		
*perennial streams may also be identified using other method	ds Soon 35 of manua		1.5 Other 4	9	
Notes:	us. See p. 33 oi manua				

<b>Date:</b> 9/13/23 - SCN	Project/Site: 73	39 Hatley Rd	Latitude:35.7530	)198 N
Evaluator: MRH - H&H	County: Chatha	m	<b>Longitude:</b> 79.0776999 W	
<b>Total Points:</b> 14.75 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		ination (circle one) ermittent Perennial	Other e.g. Quad Name:	Farrington, NC
A. Geomorphology (Subtotal =5.5)	Absent	Weak	Moderate	Strong
1 <sup>a</sup> Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1)	2	3
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	(.5)	1	1.5
11. Second or greater order channel	No	o <b>=</b> ①	Yes =	: 3
artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = <u>5.5</u> )				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	(0)	1	2	3
14. Leaf litter	1.5	1	().9	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	(1)	1.5
17. Soil-based evidence of high water table?	No	0 = 0	Yes =	3
C. Biology (Subtotal = 3.75)		·		
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	_	FACW =0.75; OBI	L = 1.5 Other = 0	
*perennial streams may also be identified using other methods	s. See p. 35 of manua	al.		
Notes:				
Sketch:				

: 9/12/23 - SCN			34879 N
County: Chathar	m	Longitude: 79.	0760290 W
Stream Determi Ephemeral (Inte	nation (circle one)	Other e.g. Quad Name: Farrington,	
Absent	Weak	Moderate	Strong
0	1	2	3
0	(1)	2	3
0	1	2	3
0	(1)	2	3
0	1	2	3
0	1	2	3
0	<u>(1)</u>	2	3
0	(1)	2	3
0	0.3	1	1.5
0	0.5	1)	1.5
No	o =0	Yes	= 3
0	1	2	3
	1	2	3
1.5	1)	0.5	0
0			1.5
0	(0.5)	1	1.5
No		Yes	=(3)
1	<u> </u>		
3	(2)	1	0
3	2	1	0
0	(1)	2	3
(0)	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	0.5	1	1.5
	FACW = 0.75; OBI	L = 1.5 Other =	<u> </u>
. See p. 35 of manua	il.		_
. • • • • • · · · · · · · · · · · · · ·			
	No.	Stream Determination (circle one)   Ephemeral Intermittent   Perennial	Stream Determination (circle one)

ject/Site: 739 l	Hatley Rd	<b>Latitude:</b> 35.7542	2776 N
unty: Chatham		<b>Longitude:</b> 79.0774147 W	
	ation (circle one) nittent Perennial	Other e.g. Quad Name:	Farrington, NC
Absent	Weak	Moderate	Strong
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	1	2	3
0	0.3	1	1.5
0	0.5	1	1.5
No =	<u>.</u>	Yes =	3
0	1	2	3
0	1	2	3
1.5	1	0.5	0
0	0.5	(1)	1.5
0	(0.5)	1	1.5
No =	= 0	Yes =	3
	·		
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = 0.75; OBI	_ = 1.5 Other =0	)
p. 35 of manual.			

<b>Date:</b> 9/14/23 - SCO	Project/Site: 73	9 Hatley Rd	Latitude:35.754	9058 N	
Evaluator: MRH - H&H	County: Chathan	n	Longitude: 79.0	749056 W	
<b>Total Points:</b> 37.25 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		nation (circle one) rmittent (Perennial	Other e.g. Quad Name:	Farrington, NC	
A. Geomorphology (Subtotal = 19)	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3	
2. Sinuosity of channel along thalweg	0	1	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
Particle size of stream substrate	0	11	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1)	2	3	
7. Recent alluvial deposits	0	1	② ②	3	
8. Headcuts	0	1	2)	3	
9. Grade control	0	0.3	1	1.5	
10. Natural valley	0	0.5	1	(.5)	
11. Second or greater order channel	No = 0 Yes =(3)				
artificial ditches are not rated; see discussions in manual					
B. Hydrology (Subtotal =9.5)					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1)	2	3	
14. Leaf litter	1.5	1	0.5	0	
15. Sediment on plants or debris	0	0.5	1	1.5	
16. Organic debris lines or piles	0	0.5	1	(1.5)	
17. Soil-based evidence of high water table?	No	= 0	Yes =	<u> </u>	
C. Biology (Subtotal = 8.75 )					
18. Fibrous roots in streambed	(3)	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1)	2	3	
21. Aquatic Mollusks	0	11	2	3	
22. Fish	0	0.3	1	1.5	
23. Crayfish	0	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae	0	6.3	1	1.5	
26. Wetland plants in streambed		FACW = 0.75, OB	L = 1.5 Other = 0		
*perennial streams may also be identified using other meth	hods. See p. 35 of manual				
Notes:					
Sketch:					
Choton.					

<b>Date:</b> 9/12/23 - SCP	Project/Site: 73	39 Hatley Rd	Latitude:35.75	586523 N	
Evaluator: MRH - H&H	County: Chatha	ım	<b>Longitude:</b> 79.0764583 W		
<b>Total Points:</b> 13 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		ination (circle one) ermittent Perennial	Other e.g. Quad Name: Farrington, NC		
A. Oarasamhalama (O. La a la	Absort	Week	Madarata	Ctrono	
A. Geomorphology (Subtotal = 8 )	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3	
2. Sinuosity of channel along thalweg	0	0	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
4. Particle size of stream substrate	0	(1)	2	3	
5. Active/relict floodplain	0)	1	2	3	
6. Depositional bars or benches	(0)	1	2	3	
7. Recent alluvial deposits	0	(1)	2	3	
8. Headcuts	0	(1)	2	3	
9. Grade control	(0)	0.5	1	1.5	
10. Natural valley	0	0.5	(1)	1.5	
11. Second or greater order channel	No =0 Yes = 3				
a artificial ditches are not rated; see discussions in manual					
B. Hydrology (Subtotal = 2 )					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	(0)	1	2	3	
14. Leaf litter	1.5	(1)	0.5	0	
15. Sediment on plants or debris	0	0.9	1	1.5	
16. Organic debris lines or piles	0	(.9	1	1.5	
17. Soil-based evidence of high water table?	N	0 €0	Yes	S = 3	
C. Biology (Subtotal = $3$ )					
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1	2	3	
21. Aquatic Mollusks	0	1	2	3	
22. Fish	0	0.5	1	1.5	
23. Crayfish	0	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae	0	0.5	1	1.5	
26. Wetland plants in streambed		FACW = 0.75; OBI	L = 1.5 Other €	0	
*perennial streams may also be identified using other meth	nods. See p. 35 of manua	al.			
Notes:					
·	·	·		·	

Total Points: 25  Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*  A. Geomorphology (Subtotal =)  12.5  A. Geomorphology (Subtotal =)  12.5  12.5  13. Continuity of channel bed and bank 2. Sinuosity of channel along thalweg 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	Absent 0	nation (circle one) rmittent Perennial Weak	Other e.g. Quad Name:	
Stream is at least intermittent if ≥ 19 or perennial if ≥ 30*  A. Geomorphology (Subtotal =)  12.5  A. Continuity of channel bed and bank  2. Sinuosity of channel along thalweg  3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	Absent 0	rmittent Perennial	e.g. Quad Name:	Farrington, NC
A. Geomorphology (Subtotal =)  I <sup>a.</sup> Continuity of channel bed and bank  2. Sinuosity of channel along thalweg  3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	Weak	Moderate	
1a. Continuity of channel bed and bank 2. Sinuosity of channel along thalweg 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence			woderate	Strong
Sinuosity of channel along thalweg     In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	_	1	(2)	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	<u>2</u> 2	3
	0	1	2	3
Particle size of stream substrate	0	1)	2	3
5. Active/relict floodplain	0	(1)	2	3
6. Depositional bars or benches	0	1)	2	3
7. Recent alluvial deposits	0	1	2	3
3. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	(5)
11. Second or greater order channel	No	) =0	Yes =	= 3
artificial ditches are not rated; see discussions in manual				
3. Hydrology (Subtotal = 6.5)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1)	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No	0 = 0	Yes =	<u> </u>
C. Biology (Subtotal =6)				
18. Fibrous roots in streambed	3)	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75; OBI	_ = 1.5 Other =0	)
*perennial streams may also be identified using other methods. \$	See p. 35 of manua	l.		
Notes:				

Absent  0 0 0 0 0 0 0 0 No	weak  1 1 1 1 1 1 1 1 0.5 0.5 0.5 0 = 0	Congitude: 79.00  Other e.g. Quad Name:  Moderate  2 2 2 2 2 2 2 2 1 1 1 Yes =	Strong  3 3 3 3 3 3 1.5 1.5
Absent  0 0 0 0 0 0 0 0 No	Weak	e.g. Quad Name:    Moderate   (2)	Strong  3 3 3 3 3 3 3 1.5 1.5
0 0 0 0 0 0 0	1 1 1 1 1 1 1 0.5 0.5	② ② 2 ② 2 2 2 ② 2 0 1	3 3 3 3 3 3 3 1.5
0 0 0 0 0 0 0	1 1 1 1 1 1 0.5 0.5	2 2 2 2 2 2 2 2 2 1	3 3 3 3 3 3 1.5
0 0 0 0 0 0	1 1 1 1 1 1 0.5 0.5	2 2 2 2 2 (2) (2) 1 (1)	3 3 3 3 3 1.5
0 0 0 0 0 0	1 1 1 1 0.5 0.5	② 2 2 ② ② 1 1	3 3 3 3 3 1.5
0 0 0 0 0 0	1 1 1 0.5 0.5	2 2 2 2 2 1 1	3 3 3 3 1.5
0 0 0 0 0 No	1 1 1 0.5 0.5	2 2 2 1 1	3 3 3 1.5
0 0 0 0	1 1 0.5 0.5	2 2 1 1	3 3 1.5 1.5
0 0 0 0	1 0.5 0.5	1	3 1.5 1.5
0 No	0.5 0.5	1	1.5 1.5
0 No	0.5	1)	1.5
No			
_	0 =0	Yes =	3
0	1	2	3
0	1	2	3
1.5	1	0.5	0
0	0.5	1	1.5
0	0.5	1	1.5
No	0 = 0	Yes =	3
			_
3	2	1	0
3	2	1	0
0	1	2	3
0	1	2	3
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
0	0.5	1	1.5
	FACW = $0.75$ , OBI	L = 1.5 Other = 0	
. 35 of manua	al.		
	3 3 0 0 0 0 0 0	1.5 1 0 0.5 0 0.5 0 0.5 0 0.5 0 0 0.5 0 0 0.5 0	1.5

NC DWQ Stream Identification Forn	1 Version 4.11			
<b>Date:</b> 9/12/23 - SCR	Project/Site: 7	39 Hatley Rd	Latitude:35.75	51856 N
Evaluator: MRH - H&H	County: Chatha	am	Longitude: 79	.0766273 W
<b>Total Points:</b> 35.75 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		ination (circle one ermittent (Perenn		: Farrington, NC
A. Geomorphology (Subtotal = 19	Absent	Weak	Moderate	Strong
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3

A. Geomorphology (Subtotal = 19 )	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2_	3	
2. Sinuosity of channel along thalweg	0	1	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
4. Particle size of stream substrate	0	1	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	0.5	1	(.5)	
11. Second or greater order channel	No	No = 0 Yes =			
<sup>a</sup> artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = 8.5)					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1	2	3	
14. Leaf litter	1.5	1	0.5	0	
15. Sediment on plants or debris	0	0.5	(1)	1.5	
16. Organic debris lines or piles	0	0.5	1	1.5	
17. Soil-based evidence of high water table?	No	0 = 0	Yes	<del>3</del>	
C. Biology (Subtotal = 8.25 )					
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1	2	3	
21. Aquatic Mollusks	0	1	2	3	
22. Fish	0	(0.5)	1	1.5	
23. Crayfish	0	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae	0	0.5	1	1.5	
26. Wetland plants in streambed		FACW = 0.75	OBL = 1.5 Other = 0	)	
*perennial streams may also be identified using other method	ods. See p. 35 of manua	ıl.			
Notes:					

<b>Date:</b> 9/12/23 - SCS	Project/Site: 73	39 Hatley Rd	Rd <b>Latitude:</b> 35.7543488 N		
Evaluator: MRH - H&H	County: Chathai	m	<b>Longitude:</b> 79.0757089 W		
<b>Total Points:</b> 12.25 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		Stream Determination (circle one) Ephemeral Intermittent Perennial		Other e.g. Quad Name: Farrington, NC	
A. Geomorphology (Subtotal = $\frac{7}{}$ )	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	(3)	
Sinuosity of channel along thalweg	0	(1)	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
4. Particle size of stream substrate	0	1)	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1)	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	0.5	(1)	1.5	
11. Second or greater order channel	No	o <b>=</b> 0	Yes	= 3	
<sup>a</sup> artificial ditches are not rated; see discussions in manual  B. Hydrology (Subtotal = 2.5)					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	(0)	1	2	3	
14. Leaf litter	1.5	1	0.5	0	
15. Sediment on plants or debris	0	(.)	1	1.5	
16. Organic debris lines or piles	0	0.5	(1)	1.5	
17. Soil-based evidence of high water table?	No	D=(0)	Yes = 3		
C. Biology (Subtotal = <u>2.75</u> )					
18. Fibrous roots in streambed	3	2	1	0	
19. Rooted upland plants in streambed	3	2	1	0	
20. Macrobenthos (note diversity and abundance)	0	1	2	3	
21. Aquatic Mollusks	0	1	2	3	
22. Fish	0	0.5	1	1.5	
23. Crayfish	0	0.5	1	1.5	
24. Amphibians	0	0.5	1	1.5	
25. Algae	0	0.5	1	1.5	
26. Wetland plants in streambed		FACW = 0.75; OB	L = 1.5 Other = 0	0	

\*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

NC DWQ Stream Identification Form	m Version 4.11				
<b>Date:</b> 9/12/23 - SCT	Project/Site: 73	9 Hatley Rd	Latitude:35.75	46388 N	
Evaluator: MRH - H&H	County: Chathar	County: Chatham Longitude: 79.07		9.0757889 W	
<b>Total Points:</b> 12.25 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		nation (circle one) rmittent Perennial	Other e.g. Quad Name	: Farrington, NC	
A. Geomorphology (Subtotal = <sup>7</sup> )	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3	
2. Sinuosity of channel along thalweg	0	1	2	3	
3. In-channel structure: ex. riffle-pool, step-pool,	0	1	2	3	

A. Geomorphology (Subtotal = $\frac{7}{1}$ )	Absent	Weak	Moderate	Strong
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	(1)	1.5
11. Second or greater order channel	No	o <b>=</b> 0	Yes	= 3
a artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = 2.5)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	<b>(</b> .3)	1	1.5
16. Organic debris lines or piles	0	0.5	(1)	1.5
17. Soil-based evidence of high water table?	No	o =0	Yes	= 3
C. Biology (Subtotal = <u>2.75</u> _)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75;	OBL = 1.5 Other = 0	)
*perennial streams may also be identified using other method	ods. See p. 35 of manua	al.		
Notes:				

NC DWQ Stream Identification For	m Version 4.11			
<b>Date:</b> 9/12/23 - SCU	Project/Site: 73	Project/Site: 739 Hatley Rd		43621 N
Evaluator: MRH - H&H	County: Chatham Longitude: 79.07580			0758030 W
<b>Total Points:</b> 12.25 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		Stream Determination (circle one) Ephemeral Intermittent Perennial		: Farrington, NC
A. Geomorphology (Subtotal = 7	Absent	Weak	Moderate	Strong
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1)	2	3
2 In abandal atmesturas as wiffle need aton need				

A. Geomorphology (Subtotal = 7)	Absent	Weak	Moderate	Strong
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1)	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
Particle size of stream substrate	0	1)	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
B. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1)	1.5
11. Second or greater order channel	No	) <b>=</b> ()	Yes:	= 3
artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = 2.5 )				Ī
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.3	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No =0 Yes = 3			= 3
C. Biology (Subtotal = <u>_2.75</u> )				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
	0	0.5	1	1.5
24. Amphibians				
24. Amphibians 25. Algae	0	0.5	1	1.5

<b>Date:</b> 9/12/23 - SCV	Project/Site: 73	Project/Site: 739 Hatley Rd		Latitude:35.7543550N	
Evaluator: MRH - H&H	County: Chatham		Longitude: 79.0760192 W		
<b>Total Points:</b> 12.25 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*	at least intermittent Enhanceal Intermittent Perennis		Other e.g. Quad Name:	Farrington, NC	
A. Geomorphology (Subtotal = 7	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	(3)	
2. Sinuosity of channel along thalweg	0	(1)	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	
Particle size of stream substrate	0	1)	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.5	1	1.5	
10. Natural valley	0	0.5	1)	1.5	
11. Second or greater order channel	No =0		Yes = 3		
<sup>a</sup> artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = $\frac{2.5}{}$ )					
12. Presence of Baseflow	0	1	2	3	
13. Iron oxidizing bacteria	0	1	2	3	
14. Leaf litter	1.5	1	0.5	0	
15. Sediment on plants or debris	0	(.)	1	1.5	
16. Organic debris lines or piles	0	0.5	(1)	1.5	
17. Soil-based evidence of high water table?	No	0 = 0	Yes	= 3	

C. Biology (Subtotal = <u>2.75</u> _)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75; (	OBL = 1.5 Other =	0

\*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

<b>Date:</b> 9/12/23 - SCW	Project/Site: 739 Hatley Rd	<b>Latitude:</b> 35.7585815 N
Evaluator: MRH - H&H	County: Chatham	<b>Longitude:</b> 79.0769318 W
<b>Total Points:</b> $34.25$ Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other e.g. Quad Name: Farrington, NC
Stream is at least intermittent		

A. Geomorphology (Subtotal = 19 )	Absent	Weak	Moderate	Strong
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	(2)	3
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	(2)	3
8. Headcuts	0	1	2	3
9. Grade control	0	(0.5)	1	1.5
10. Natural valley	0	0.5	1	(.5)
11. Second or greater order channel	N	lo = 0	Yes:	<u>-3</u>
a artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = 10				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	0	2	3
14. Leaf litter	(.5)	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	N	lo = 0	Yes :	<del>3</del>
C. Biology (Subtotal = 5.25)	·			_
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	0	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	(0)	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75	OBL = 1.5 Other = 0	)

\*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

NC DWQ Stream Identification Form	i version 4.11			
<b>Date:</b> 9/12/23 - SCX	Project/Site: 73	39 Hatley Rd	Latitude:35.756	60573 N
Evaluator: MRH - H&H	County: Chathai	m	Longitude: 79.	0726285 W
<b>Total Points:</b> 49.5 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*		ination (circle one ermittent Perenni		: Farrington, NC
A. Geomorphology (Subtotal =24.5)	Absent	Weak	Moderate	Strong
48.0 (* ') (	_	4		

A. Geomorphology (Subtotal = <sup>24.5</sup> )	Absent	Weak	Moderate	Strong
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1)	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	(.5)
11. Second or greater order channel	No	= 0	Yes:	<u>-3</u>
<sup>a</sup> artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = $\frac{11}{100}$ )				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	(1)	2	3
14. Leaf litter	(.5)	1	0.5	0
15. Sediment on plants or debris	0	0.5	(1)	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No	= 0	Yes:	=(3)
			•	
C. Biology (Subtotal = 14 )				
	3	2	1	0
C. Biology (Subtotal = 14 )	3 3	2 2	1 1	0
C. Biology (Subtotal = 14 )  18. Fibrous roots in streambed	3 3 0			
C. Biology (Subtotal = 14 )  18. Fibrous roots in streambed  19. Rooted upland plants in streambed  20. Macrobenthos (note diversity and abundance)	3	2 1 ①	1	0
C. Biology (Subtotal = 14 )  18. Fibrous roots in streambed  19. Rooted upland plants in streambed  20. Macrobenthos (note diversity and abundance)  21. Aquatic Mollusks	0 0	2	1 2	0
C. Biology (Subtotal = 14 )  18. Fibrous roots in streambed  19. Rooted upland plants in streambed  20. Macrobenthos (note diversity and abundance)  21. Aquatic Mollusks  22. Fish	0 0	2 1 ①	1 2 2	3
C. Biology (Subtotal = 14 )  18. Fibrous roots in streambed  19. Rooted upland plants in streambed  20. Macrobenthos (note diversity and abundance)  21. Aquatic Mollusks  22. Fish  23. Crayfish	0 0	2 1 ① 0.9	1 2 2 1	0 3 3 1.5
C. Biology (Subtotal = 14 )  18. Fibrous roots in streambed  19. Rooted upland plants in streambed	3 0 0 0	2 1 (1) 0.9 0.5	1 2 2 1	0 3 3 1.5 1.5

<b>Date:</b> 9/12/23 - SCY			Latitude:35.75	56859 N
Evaluator: MRH - H&H			<b>Longitude:</b> 79.0730656 W	
<b>Total Points:</b> 12.75 Stream is at least intermittent if $\geq$ 19 or perennial if $\geq$ 30*	Stream Determi Ephemeral Inte	nation (circle one) rmittent Perennial	Other e.g. Quad Name	: Farrington, NC
A. Geomorphology (Subtotal = <sup>7</sup>	Absent	Weak	Moderate	Strong
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	(1)	2	3
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
Particle size of stream substrate	0	1)	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1)	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1)	1.5
11. Second or greater order channel	No	) <b>=</b> (0)	Yes	= 3
a artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = $\frac{2}{}$ )		T		
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	(.)	0
15. Sediment on plants or debris	0	6.9	1	1.5
16. Organic debris lines or piles	0	0.5	1)	1.5
17. Soil-based evidence of high water table?	No	<b>→</b>	Yes	= 3
C. Biology (Subtotal = <u>3.75</u> )				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = <b>(0.75</b> ); OBI	_ = 1.5 Other =	0
*perennial streams may also be identified using other method	ods. See p. 35 of manua	ıl.		
Notes:				

<b>Pate:</b> 9/12/23 - SCZ	Project/Site: 73	9 Hatley Rd	Latitude:35.7580	788 N
valuator: MRH - H&H	County: Chathar	n	<b>Longitude:</b> 79.0727045 W	
Total Points: 25 Stream is at least intermittent  i ≥ 19 or perennial if ≥ 30*		nation (circle one) rmittent Perennial	Other e.g. Quad Name:	Farrington, NC
A. Geomorphology (Subtotal =13.5)	Absent	Weak	Moderate	Strong
a. Continuity of channel bed and bank	0	1	② ②	3
. Sinuosity of channel along thalweg	0	1	2	3
. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
. Particle size of stream substrate	0	1	2	3
. Active/relict floodplain	0	1	2	3
. Depositional bars or benches	0	<b>D</b>	2	3
. Recent alluvial deposits	0	1	2	3
. Headcuts	0	1	2	3
. Grade control	0	0.5	1	1.5
0. Natural valley	0	0.5	1	(.5)
Second or greater order channel	No	) =(1)	Yes = 3	
artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = 5.5)		1	т	
2. Presence of Baseflow	0	1	2	3
3. Iron oxidizing bacteria	0	1	2	3
4. Leaf litter	1.5	1	0.5	0
5. Sediment on plants or debris	0	0.5	1	1.5
6. Organic debris lines or piles	0	0.5	1	1.5
7. Soil-based evidence of high water table?	No	0 = 0	Yes =	3)
C. Biology (Subtotal = 6)		T		
8. Fibrous roots in streambed	3	2	1	0
Rooted upland plants in streambed	3	2	1	0
Macrobenthos (note diversity and abundance)	0	1	2	3
1. Aquatic Mollusks	0	1	2	3
2. Fish	0	0.5	1	1.5
3. Crayfish	0	0.5	1	1.5
4. Amphibians	0	0.5	1	1.5
5. Algae		0.5	1	1.5
6. Wetland plants in streambed		FACW = 0.75; OBI	_ = 1.5 Other =(0)	)
*perennial streams may also be identified using other methods	s. See p. 35 of manua	ll.		
lotes:				

<b>Date:</b> 9/12/23 - SCZ	Project/Site: 7	39 Hatley Rd	Latitude:35.758	34873 N	
Evaluator: MRH - H&H	County: Chatha	am	Longitude: 79.	<b>Longitude:</b> 79.0725162 W	
<b>Total Points:</b> $35.25$ Stream is at least intermittent if $\geq 19$ or perennial if $\geq 30^*$		ination (circle one ermittent Perennia		: Farrington, NC	
A. Geomorphology (Subtotal = 19)	Absent	Weak	Moderate	Strong	
1 <sup>a.</sup> Continuity of channel bed and bank	0	1	2	3	
2. Sinuosity of channel along thalweg	0	1	2	3	
In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1)	2	3	
Particle size of stream substrate	0	1	2	3	
5. Active/relict floodplain	0	1	2	3	
6. Depositional bars or benches	0	1	2	3	
7. Recent alluvial deposits	0	1	2	3	
8. Headcuts	0	1	2	3	
9. Grade control	0	0.3	1	1.5	
10. Natural valley	0	0.5	(1)	1.5	

<sup>a</sup> artificial ditches are not rated; see discussions in manual

11. Second or greater order channel

B. Hydrology (Subtotal = $\frac{8.5}{}$ )				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	(1.5)
17. Soil-based evidence of high water table?	N	o = 0	Yes	<del>=</del> 3
C Biology (Subtotal = 8.25				

No = 0

Yes = 3

C. Biology (Subtotal = 8.25				
18. Fibrous roots in streambed	(3)	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.3	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75) (	OBL = 1.5 Other = 0	)

\*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

## **U.S. Army Corps of Engineers**

## WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: EPK.001 - 739 Hatley Road		City/County: Pittsboro	/ Chatham	Sampling Date:	9/12/15
Applicant/Owner: Epkon Hospitality			State:	NC Sampling Point:	TP-1
Investigator(s): Matt Hugo - H&H		Section, Township, Range	::		
Landform (hillside, terrace, etc.): swale	Lc	cal relief (concave, convex	•	Slope (%):	10
Subregion (LRR or MLRA): LRR P, MLRA	_	•	79.0734419 W	,	NAD 83
Soil Map Unit Name: Georgeville silt loam				ssification: None	147.12 00
·				-	- \
Are climatic / hydrologic conditions on the si				(If no, explain in Remarks	
Are Vegetation, Soil, or Hydr			Circumstances" pi		No
Are Vegetation, Soil, or Hydr	ologynaturally probl	ematic? (If needed, ex	cplain any answers	s in Remarks.)	
SUMMARY OF FINDINGS – Attacl	n site map showing s	sampling point locat	ions, transect	:s, important featu	res, etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area			
Hydric Soil Present?	Yes X No	within a Wetland?	Yes	X No	
Wetland Hydrology Present?	Yes X No		_		
Data point is representative of jurisdictional	wetland areas WAB, WAK	K, WAP, and WAV			
HYDROLOGY					
Wetland Hydrology Indicators:			•	cators (minimum of two r	equired)
Primary Indicators (minimum of one is requ				il Cracks (B6)	.= ->
Surface Water (A1)	True Aquatic Plants	, ,		egetated Concave Surface	ce (B8)
High Water Table (A2)	Hydrogen Sulfide Od			atterns (B10)	
Saturation (A3) Water Marks (B1)	Presence of Reduce	res on Living Roots (C3)		Lines (B16) n Water Table (C2)	
Sediment Deposits (B2)		on in Tilled Soils (C6)	Crayfish Bu		
Drift Deposits (B3)	Thin Muck Surface (			Visible on Aerial Imagery	/ (C9)
Algal Mat or Crust (B4)	Other (Explain in Re			Stressed Plants (D1)	()
Iron Deposits (B5)		,		ic Position (D2)	
Inundation Visible on Aerial Imagery (E	37)		Shallow Aq	juitard (D3)	
X Water-Stained Leaves (B9)			Microtopog	raphic Relief (D4)	
Aquatic Fauna (B13)			FAC-Neutra	al Test (D5)	
Field Observations:					
Surface Water Present? Yes	No X Depth (inch				
Water Table Present? Yes	No X Depth (inch	·			
Saturation Present? Yes X	No Depth (inch	es): 14 Wetland	Hydrology Prese	ent? Yes X	No
(includes capillary fringe)  Describe Recorded Data (stream gauge, m	onitoring well serial photo	nrevious inspections) if a	vailable:	<del> </del>	
Describe Necorded Data (Stream gauge, III	oriitoring well, aeriai priotos	s, previous inspections), ii c	ivaliable.		
Remarks:					

## **VEGETATION (Four Strata)** – Use scientific names of plants.

<b>/EGETATION (Four Strata)</b> – Use scient	ific names	of plants.		Sampling Point: TP-1
=	Absolute	Dominant	Indicator	T
Tree Stratum (Plot size: 30ft radius )	% Cover	Species?	Status	Dominance Test worksheet:
1. Pinus taeda	30	Yes	FAC	Number of Dominant Species
2. Acer rubrum	15	Yes	FAC	That Are OBL, FACW, or FAC:7 (A)
3. Quercus phellos	5	No	FAC	Total Number of Dominant
4. Carya ovalis	5	No	FACU	Species Across All Strata: 10 (B)
5. Liquidambar styraciflua	3	No	FAC	Percent of Dominant Species
6				That Are OBL, FACW, or FAC: 70.0% (A/B)
7				Prevalence Index worksheet:
	58 :	=Total Cover	_	Total % Cover of: Multiply by:
50% of total cover:	29 20%	of total cover:	12	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15ft radius	)			FACW species 0 x 2 = 0
1. Liquidambar styraciflua	3	No	FAC	FAC species 87 x 3 = 261
2. Acer rubrum	5	Yes	FAC	FACU species 26 x 4 = 104
3. Ilex opaca	10	Yes	FACU	UPL species 0 x 5 = 0
4.				Column Totals: 113 (A) 365 (B)
5.				Prevalence Index = $B/A = 3.23$
6.				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
8.				X 2 - Dominance Test is >50%
9.				3 - Prevalence Index is ≤3.01
9.	10	=Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
F00/ of total accord			4	data in Remarks or on a separate sheet)
	9 20%	of total cover:	4	
Herb Stratum (Plot size: 10 ft radius )	•			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Toxicodendron radicans	3	Yes	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
2. Microstegium vimineum	10	Yes	FAC	present, unless disturbed or problematic.
3. Parthenocissus quinquefolia	1	No	FACU	Definitions of Four Vegetation Strata:
4. Botrypus virginianus	1	No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
5. Lonicera japonica	2	No	FACU	more in diameter at breast height (DBH), regardless of
6. Polystichum acrostichoides	3	Yes	FACU	height.
7. Carex sp.	1	No		Sapling/Shrub – Woody plants, excluding vines, less
8. Vitis rotundifolia	2	No	FAC	than 3 in. DBH and greater than or equal to 3.28 ft
9. Senecio hieraciifolius	1	No	FACU	(1 m) tall.
10. Chasmanthium laxum	1	No	FAC	Herb – All herbaceous (non-woody) plants, regardless
11.			_	of size, and woody plants less than 3.28 ft tall.
	25 :	=Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
50% of total cover:		of total cover:	5	height.
Woody Vine Stratum (Plot size: 30 ft radius )				
Lonicera japonica	3	Yes	FACU	
Toxicodendron radicans	5	Yes	FAC	
Smilax rotundifolia	5	Yes	FAC	
		169	FAC	
4				
5				Hydrophytic
		=Total Cover		Vegetation
50% of total cover:	7 20%	of total cover:	3	Present? Yes X No No
Remarks: (Include photo numbers here or on a sep	arate sheet.)			

SOIL Sampling Point: TP-1

Profile Desc Depth	ription: (Describe t Matrix	to the de		<b>iment t</b> k Featur		ator or c	onfirm the absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10YR 3/6	100	(melety		.,,,,		Loamy/Clayey	- Tomane
4-20	10YR 6/2	90	10YR 7/8	10	С	M	Loamy/Clayey	Prominent redox concentrations
		<u> </u>		<u></u>	 	<u> </u>		
	oncentration, D=Depl	etion, RM		1S=Mas	ked San	d Grains.		n: PL=Pore Lining, M=Matrix.
Black His Hydroger Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy R	(A1) ipedon (A2) stic (A3) n Sulfide (A4) Layers (A5) ck (A10) (LRR N) l Below Dark Surface rk Surface (A12) ucky Mineral (S1) leyed Matrix (S4) edox (S5)	e (A11)	Polyvalue Be Thin Dark Su Loamy Muck Loamy Gleye X Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 136 Umbric Surfa	urface (S y Miner ed Matri ttrix (F3) Surface rk Surfa essions ese Ma s)	S9) (MLR cal (F1) (N x (F2) c (F6) ace (F7) (F8) sses (F1:	2A 147, 1 MLRA 13 (2) (LRR I	147, 148) 48) ————————————————————————————————	icators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  Coast Prairie Redox (A16) (MLRA 147, 148)  Piedmont Floodplain Soils (F19) (MLRA 136, 147)  Red Parent Material (F21) (outside MLRA 127, 147, 148)  Very Shallow Dark Surface (F22) Other (Explain in Remarks)
	Matrix (S6) face (S7)		Piedmont Flo					wetland hydrology must be present, unless disturbed or problematic.
Restrictive L	.ayer (if observed):							
Type:								
Depth (in	iches):						Hydric Soil Pres	ent? Yes X No No

#### **U.S. Army Corps of Engineers**

#### WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

City/County: Pittsboro / Chatham Sampling Date: 9/12/15 Project/Site: EPK.001 - 739 Hatley Road Applicant/Owner: **Epkon Hospitality** State: NC Sampling Point: TP-2 Investigator(s): Matt Hugo - H&H Section, Township, Range: Landform (hillside, terrace, etc.): crenulation Local relief (concave, convex, none): concave Slope (%): Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.7509046 N Long: 79.0734419 W Datum: NAD 83 Soil Map Unit Name: Georgeville silt loam - GaC NWI classification: None Are climatic / hydrologic conditions on the site typical for this time of year? No (If no, explain in Remarks.) Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X Nο Is the Sampled Area Hydric Soil Present? Yes X\_ No within a Wetland? Yes X No \_\_\_\_ Wetland Hydrology Present? No Remarks: Data point is representative of jurisdictional wetland areas WAA, WAF, and WAC. **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) High Water Table (A2) Hydrogen Sulfide Odor (C1) X Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) X Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) X Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5) Aquatic Fauna (B13) **Field Observations:** Surface Water Present? No X Depth (inches): X Depth (inches): Water Table Present? No Depth (inches): 8 Saturation Present? Wetland Hydrology Present? Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants. Sampling Point: TP-2 Absolute Dominant Indicator **Dominance Test worksheet:** Tree Stratum (Plot size: 30ft radius ) % Cover Species? Status FAC 1. Pinus taeda 25 Yes **Number of Dominant Species** 2. 5 FAC That Are OBL, FACW, or FAC: Liquidambar styraciflua No (A) 5 FACW 3. Fraxinus pennsylvanica No Total Number of Dominant 4. Ostrya virginiana 3 FACU Species Across All Strata: (B) No 4 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 100.0% (A/B) Prevalence Index worksheet: Multiply b

			38	= I otal Cover		lotal % Co\	/er or:	Mu	itipiy by:	
	50% of total cover:	19	20%	of total cover:	8	OBL species	0	x 1 =	0	
Sa	pling/Shrub Stratum (Plot size: 15ft radius	)	_	•		FACW species	5	x 2 =	10	_
1.	Liquidambar styraciflua		5	Yes	FAC	FAC species	64	x 3 =	192	_
2.	Acer rubrum		2	Yes	FAC	FACU species	9	x 4 =	36	_
3.	Ilex opaca		1	No	FACU	UPL species	0	x 5 =	0	
4.						Column Totals:	78	(A)	238	(B)
5.						Prevaler	nce Index	= B/A =	3.05	
6.						Hydrophytic Veg	etation l	ndicators:		
7.						1 - Rapid Tes	st for Hydr	ophytic Veg	etation	
8.						X 2 - Dominano	e Test is	>50%		
9.						3 - Prevalenc	e Index is	s ≤3.0 <sup>1</sup>		
			8	=Total Cover		4 - Morpholog	gical Adap	otations <sup>1</sup> (Pro	ovide supp	orting
	50% of total cover:	4	20%	of total cover:	2	data in Re	marks or	on a separa	te sheet)	
He	erb Stratum (Plot size: 10 ft radius )		_	•		Problematic I	Hydrophyt	ic Vegetatio	n <sup>1</sup> (Explair	n)
1.	Microstegium vimineum		25	Yes	FAC	<sup>1</sup> Indicators of hyd	ric soil an	d wetland h	vdrology m	nust be
2.	Polystichum acrostichoides		3	No	FACU	present, unless d				
3.	Commelina communis		1	No	FAC	Definitions of Fo	ur Veget	ation Strata	1:	
4.	Carex sp.		1	No		Tree – Woody pla	ants, exclu	uding vines,	3 in. (7.6 c	cm) or
5.						more in diameter		•	,	,
6.						height.				
7.						Sapling/Shrub –	Woodv p	lants, exclud	dina vines.	less
8.						than 3 in. DBH ar				
9.						(1 m) tall.				
10.						Herb – All herbad	eous (no	n-woody) pla	ants, regar	dless
11.						of size, and wood	ly plants le	ess than 3.2	8 ft tall.	
			30	=Total Cover		Woody Vine – Al	l woody v	ines greater	than 3.28	ft in
	50% of total cover:	15	20%	of total cover:	6	height.				
Wo	oody Vine Stratum (Plot size: 30 ft radius	)	_	•						
1.	Lonicera japonica		2	No	FACU					
2.	Toxicodendron radicans		1	No	FAC					
3.					-					
4.										
5.						1				
			3	=Total Cover						
	50% of total cover	2	_	•	1	_	Yes X	No		
4.	50% of total cover:		_	=Total Cover	1	Hydrophytic Vegetation Present?	Yes_X	No _		

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL Sampling Point: TP-2

	ription: (Describe t Matrix	to the de		<b>iment t</b> k Featur		ator or c	onfirm the absence	of indicators.)
Depth (inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-2	10YR 3/6	100	(melety		. , , , ,		Loamy/Clayey	- Tomane
2-20	10YR 6/2	90	2.5YR 5/8	10	С	М	Loamy/Clayey	Prominent redox concentrations
		<u> </u>		<u></u>				
¹Type: C=Co	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	 1S=Mas	ked Sand	d Grains.		n: PL=Pore Lining, M=Matrix. icators for Problematic Hydric Soils <sup>3</sup> :
Histosol Histic Ep Black His Hydroger Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy R	(A1) ipedon (A2)	e (A11)	Polyvalue Be Thin Dark St Loamy Muck Loamy Gleye X Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 136 Umbric Surfa	urface (S y Miner ed Matri ttrix (F3) Surface rk Surfa essions ese Ma s)	S9) (MLR al (F1) (N x (F2) (F6) ace (F7) (F8) sses (F1:	2A 147, 1 MLRA 13 (2) (LRR I	147, 148) 48) ————————————————————————————————	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Red Parent Material (F21) (outside MLRA 127, 147, 148) Very Shallow Dark Surface (F22) Other (Explain in Remarks) licators of hydrophytic vegetation and wetland hydrology must be present,
	face (S7)		Red Parent N					unless disturbed or problematic.
Restrictive L	ayer (if observed):							
Type:								
Depth (in	iches):						Hydric Soil Pres	ent? Yes X No

## **U.S. Army Corps of Engineers**

# WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

Project/Site: EPK.001 - 739 Hatley Road	City/County: P	ittsboro / Chatham	Sampling Date: 9/13/15					
Applicant/Owner: Epkon Hospitality		State: NC	Sampling Point: TP-3					
Investigator(s): Matt Hugo - H&H	Section, Township	, Range:						
Landform (hillside, terrace, etc.): crenulation	Local relief (concave,	convex, none): concave	Slope (%): 10					
Subregion (LRR or MLRA): LRR P, MLRA 136 L	 .at: 35.7509046 N	Long: 79.0734419 W	Datum: NAD 83					
Soil Map Unit Name: Georgeville silt loam - GaC		NWI classifica	tion: None					
Are climatic / hydrologic conditions on the site typica	I for this time of year?	s X No (If no, e	explain in Remarks.)					
Are Vegetation , Soil , or Hydrology	•	Normal Circumstances" present?						
Are Vegetation, Soil, or Hydrology		eded, explain any answers in Re						
SUMMARY OF FINDINGS – Attach site r								
	X         No         Is the Sampled A within a Wetland           X         No         within a Wetland		No					
Remarks:	<del></del>							
HYDROLOGY								
Wetland Hydrology Indicators:		Secondary Indicators	(minimum of two required)					
Primary Indicators (minimum of one is required; che	eck all that apply)	Surface Soil Crac						
	rue Aquatic Plants (B14)		ed Concave Surface (B8)					
High Water Table (A2)								
X Saturation (A3)	xidized Rhizospheres on Living Roots	(C3) Moss Trim Lines (	(B16)					
Water Marks (B1)	resence of Reduced Iron (C4)	Dry-Season Wate	r Table (C2)					
<del></del>	ecent Iron Reduction in Tilled Soils (Co							
<del></del>	nin Muck Surface (C7)		on Aerial Imagery (C9)					
<u> </u>	ther (Explain in Remarks)	Stunted or Stress	, ,					
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)		X Geomorphic Position Shallow Aquitard						
X Water-Stained Leaves (B9)		Microtopographic						
Aquatic Fauna (B13)		FAC-Neutral Test	* *					
Field Observations:			· ,					
Surface Water Present? Yes No	X Depth (inches):							
Water Table Present? Yes No								
Saturation Present? Yes X No	Depth (inches): 8	Vetland Hydrology Present?	Yes X No					
(includes capillary fringe)								
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspection	ons), if available:						
Remarks:								
remarks.								

 VEGETATION (Four Strata) – Use scientific names of plants.
 Sampling Point:
 TP-3

	Absolute	Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30ft radius</u> )	% Cover	Species?	Status	Dominance Test worksheet:
1. Pinus taeda	25	Yes	FAC	Number of Dominant Species
2. Liquidambar styraciflua	5	No	FAC	That Are OBL, FACW, or FAC: 4 (A)
3. Fraxinus pennsylvanica	5	No	FACW	Total Number of Dominant
4. Ostrya virginiana	3	No	FACU	Species Across All Strata: 4 (B)
5.				··
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
7.				Prevalence Index worksheet:
··	38	=Total Cover		Total % Cover of: Multiply by:
FOO/ of total agreem			0	
50% of total cover:	19 20%	of total cover:	8	
Sapling/Shrub Stratum (Plot size: 15ft radius	_)		E40	FACW species 5 x 2 = 10
Liquidambar styraciflua	5	Yes	FAC	FAC species64 x 3 =192
2. Acer rubrum	2	Yes	FAC	FACU species 9 x 4 = 36
3. Ilex opaca	1	No	FACU	UPL species 0 x 5 = 0
4				Column Totals: 78 (A) 238 (B)
5				Prevalence Index = B/A = 3.05
6				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
8.				X 2 - Dominance Test is >50%
9.	-			3 - Prevalence Index is ≤3.0 <sup>1</sup>
-	8	=Total Cover		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:		of total cover:	2	data in Remarks or on a separate sheet)
	4 2076	or total cover.		, ,
Herb Stratum (Plot size: 10 ft radius )	0.5		E40	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Microstegium vimineum	25	Yes	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
Polystichum acrostichoides	3	No	FACU	present, unless disturbed or problematic.
3. Commelina communis	1	No	FAC	Definitions of Four Vegetation Strata:
4. Carex sp.	1	No		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
5.				more in diameter at breast height (DBH), regardless of
6.				height.
7				Sapling/Shrub – Woody plants, excluding vines, less
8.				than 3 in. DBH and greater than or equal to 3.28 ft
9.				(1 m) tall.
10.				<b>Herb</b> – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
···	30	=Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
50% of total cover:		of total cover:	6	height.
Woody Vine Stratum (Plot size: 30 ft radius )	15 2070	or total cover.		
	2	No	FACIL	
1. Lonicera japonica		No No	FACU	
2. Toxicodendron radicans	1	No	FAC	
3				
4				
5				Hydrophytic
	3	=Total Cover		Vegetation
50% of total cover:	2 20%	of total cover:	1	Present? Yes X No No
Remarks: (Include photo numbers here or on a se	parate sheet.)			
rtemane. (morado prioto namboro noro or en a do	parato orioot.)			

SOIL Sampling Point: TP-3

	ription: (Describe t Matrix	to the de		<b>iment t</b> k Featur		ator or c	onfirm the absence	of indicators.)
Depth (inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-2	10YR 3/6	100	(melety		. , , , ,		Loamy/Clayey	- Tomane
2-20	10YR 6/2	90	2.5YR 5/8	10	С	М	Loamy/Clayey	Prominent redox concentrations
		<u> </u>		<u></u>				
¹Type: C=Co	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	 1S=Mas	ked Sand	d Grains.		n: PL=Pore Lining, M=Matrix. icators for Problematic Hydric Soils <sup>3</sup> :
Histosol Histic Ep Black His Hydroger Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy R	(A1) ipedon (A2)	e (A11)	Polyvalue Be Thin Dark St Loamy Muck Loamy Gleye X Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 136 Umbric Surfa	urface (S y Miner ed Matri ttrix (F3) Surface rk Surfa essions ese Ma s)	S9) (MLR al (F1) (N x (F2) (F6) ace (F7) (F8) sses (F1:	2A 147, 1 MLRA 13 (2) (LRR I	147, 148) 48) ————————————————————————————————	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Red Parent Material (F21) (outside MLRA 127, 147, 148) Very Shallow Dark Surface (F22) Other (Explain in Remarks) licators of hydrophytic vegetation and wetland hydrology must be present,
	face (S7)		Red Parent N					unless disturbed or problematic.
Restrictive L	ayer (if observed):							
Type:								
Depth (in	iches):						Hydric Soil Pres	ent? Yes X No

#### **U.S. Army Corps of Engineers**

#### WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

City/County: Pittsboro / Chatham Sampling Date: 9/13/15 Project/Site: EPK.001 - 739 Hatley Road Applicant/Owner: **Epkon Hospitality** State: NC Sampling Point: TP-4 Investigator(s): Matt Hugo - H&H Section, Township, Range: Landform (hillside, terrace, etc.): crenulation Local relief (concave, convex, none): concave Slope (%): Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.7509046 N Long: 79.0734419 W Datum: NAD 83 Soil Map Unit Name: Nanford-Badin complex - NaD NWI classification: None Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X Nο Is the Sampled Area Yes X No Hydric Soil Present? within a Wetland? Yes X No \_\_\_\_ Wetland Hydrology Present? No Remarks: Data point is representative of jurisdictional wetland areas WAK, WAL, WAO, and WAP. **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Presence of Reduced Iron (C4) Water Marks (B1) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) X Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) X Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5) Aquatic Fauna (B13) **Field Observations:** No X Depth (inches): Surface Water Present? No X Depth (inches): Water Table Present? No X Depth (inches): Wetland Hydrology Present? Saturation Present? Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: TP-4

	Absolut	e Dominant	Indicator	
<u>Tree Stratum</u> (Plot size: <u>30ft radius</u> )	% Cove	er Species?	Status	Dominance Test worksheet:
1. Acer rubrum	5	Yes	FAC	Number of Dominant Species
Liquidambar styraciflua	15	Yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
3. Fraxinus pennsylvanica	5	Yes	FACW	Total Number of Dominant
4. Pinus taeda	5	Yes	FAC	Species Across All Strata: 8 (B)
5. Carya ovalis	5	Yes	FACU	Percent of Dominant Species
6.		_		That Are OBL, FACW, or FAC: 87.5% (A/B)
7				Prevalence Index worksheet:
	35	=Total Cover		Total % Cover of: Multiply by:
50% of total cover:	18 20	 0% of total cover:	7	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15ft radius	)			FACW species 8 x 2 = 16
1. Liquidambar styraciflua	5	Yes	FAC	FAC species 59 x 3 = 177
2. Acer rubrum	5	Yes	FAC	FACU species 12 x 4 = 48
3.				UPL species 0 x 5 = 0
4.				Column Totals: 79 (A) 241 (B)
5.	-			Prevalence Index = B/A = 3.05
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8.				X 2 - Dominance Test is >50%
	-			
9		- <del></del>		3 - Prevalence Index is ≤3.0 <sup>1</sup>
	10	=Total Cover	_	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
50% of total cover:	5 20	0% of total cover:	2	·
Herb Stratum (Plot size: 10 ft radius )				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Microstegium vimineum	20	Yes	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be
2. Polystichum acrostichoides	5	No	FACU	present, unless disturbed or problematic.
3. Lobelia cardinalis	3	No	FACW	Definitions of Four Vegetation Strata:
4. Carex sp.	1	No		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
5. Toxicodendron radicans	3	No	FAC	more in diameter at breast height (DBH), regardless of
6.		_		height.
7				Sapling/Shrub – Woody plants, excluding vines, less
8				than 3 in. DBH and greater than or equal to 3.28 ft
9.				(1 m) tall.
10.	-			Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
	32	=Total Cover		Woody Vine – All woody vines greater than 3.28 ft in
50% of total cover:	16 20	— 0% of total cover:	7	height.
Woody Vine Stratum (Plot size: 30 ft radius )				
1. Lonicera japonica	2	No	FACU	
Toxicodendron radicans	1	No	FAC	
3.				
4.				
5.				
J		-Total Cayor		Hydrophytic
500/ of total account	3	=Total Cover	4	Vegetation No. 2012
50% of total cover:	2 20	0% of total cover:	1	Present? Yes X No No
Remarks: (Include photo numbers here or on a sep	parate shee	t.)		

SOIL Sampling Point: TP-4

	ription: (Describe t Matrix	to the de		<b>iment t</b> k Featur		ator or c	onfirm the absence	of indicators.)	
Depth (inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-2	10YR 3/6	100	(melety		. , , , ,		Loamy/Clayey	- Tomane	
2-20	10YR 6/2	90	2.5YR 5/8	10	С	М	Loamy/Clayey	Prominent redox concentrations	
		<u> </u>		<u></u>		<u> </u>			
¹Type: C=Co	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	 1S=Mas	ked Sand	d Grains.		n: PL=Pore Lining, M=Matrix. icators for Problematic Hydric Soils <sup>3</sup> :	
Histosol Histic Ep Black His Hydroger Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy R	(A1) ipedon (A2)	e (A11)	Polyvalue Be Thin Dark St Loamy Muck Loamy Gleye X Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 136 Umbric Surfa	urface (S y Miner ed Matri ttrix (F3) Surface rk Surfa essions ese Ma s)	S9) (MLR al (F1) (N x (F2) (F6) ace (F7) (F8) sses (F1:	2A 147, 1 MLRA 13 (2) (LRR I	147, 148) 48) ————————————————————————————————	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Red Parent Material (F21) (outside MLRA 127, 147, 148) Very Shallow Dark Surface (F22) Other (Explain in Remarks) licators of hydrophytic vegetation and wetland hydrology must be present,	
	face (S7)		Red Parent N						
Restrictive L	.ayer (if observed):								
Type:									
Depth (in Remarks:	iches):						Hydric Soil Pres	ent? Yes X No	

## **U.S. Army Corps of Engineers**

## WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: EPK.001 - 739 Hatley Road		City/County: Pittsbo	oro / Chatham	Sampling Date:	9/13/15				
Applicant/Owner: Epkon Hospitality			State: N	NC Sampling Point:	TP-5				
Investigator(s): Matt Hugo - H&H		Section, Township, Ran	nge:						
Landform (hillside, terrace, etc.): floodplair	terrace Lo	cal relief (concave, conv		Slope (%):	3				
Subregion (LRR or MLRA): LRR P, MLRA 1		,	g: 79.0734419 W		NAD 83				
Soil Map Unit Name: Nanford-Badin comple				sification: None	14712 00				
·		0 V V			- \				
Are climatic / hydrologic conditions on the sit		·		f no, explain in Remarks					
Are Vegetation, Soil, or Hydro	<del></del>		al Circumstances" pre		No				
Are Vegetation, Soil, or Hydro	ologynaturally probl	ematic? (If needed,	explain any answers	in Remarks.)					
SUMMARY OF FINDINGS-Attach site map showing sampling point locations, transects, important features, etc.									
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area							
Hydric Soil Present?	Yes X No	within a Wetland?	Yes	X No					
Wetland Hydrology Present?	Yes X No								
Remarks:  Data point is representative of jurisdictional	wetland areas WAD, WAE	i, WAS, WAT, and WAQ	. Most occupy relict s	tream meanders.					
HYDROLOGY									
Wetland Hydrology Indicators:	Sand about all that amak A		-	ators (minimum of two r	equired)				
Primary Indicators (minimum of one is requ Surface Water (A1)	True Aquatic Plants	/P14\	Surface Soil	Gracks (Bb) getated Concave Surface	co (B9)				
High Water Table (A2)	Hydrogen Sulfide Oc		Drainage Pa	-	<i>э</i> е (Бо)				
X Saturation (A3)		res on Living Roots (C3)							
Water Marks (B1)	Water Table (C2)								
Sediment Deposits (B2)	Presence of Reduce Recent Iron Reduction	on in Tilled Soils (C6)	Crayfish Bur						
Drift Deposits (B3)	Thin Muck Surface (			isible on Aerial Imagery	/ (C9)				
Algal Mat or Crust (B4)	Other (Explain in Re	marks)	Stunted or S	Stressed Plants (D1)					
Iron Deposits (B5)			X Geomorphic	Position (D2)					
Inundation Visible on Aerial Imagery (B	7)		Shallow Aqu	itard (D3)					
X Water-Stained Leaves (B9)				aphic Relief (D4)					
Aquatic Fauna (B13)			FAC-Neutral	Test (D5)					
Field Observations:									
Surface Water Present? Yes	No X Depth (inch								
Water Table Present? Yes  Saturation Present? Yes X	No X Depth (inches		nd Hydrology Preser	nt? Voc V	No				
(includes capillary fringe)	No Depth (inch	es). O Wella	na nyarology Presei	nt? Yes X	NO				
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos	s. previous inspections).	if available:						
33.	,	.,,							
Remarks:									

**VEGETATION** (Four Strata) – Use scientific names of plants. Sampling Point: TP-5 Absolute Dominant Indicator Tree Stratum (Plot size: 30ft radius ) % Cover Species? Status **Dominance Test worksheet:** 1. Acer rubrum 5 Yes FAC **Number of Dominant Species** 2. Liquidambar styraciflua 15 Yes FAC That Are OBL, FACW, or FAC: (A) 3. Fraxinus pennsylvanica 5 Yes **FACW Total Number of Dominant** 4. Liriodendron tulipifera 5 **FACU** Species Across All Strata: 7 Yes (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 85.7% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: 50% of total cover: 15 **OBL** species 20% of total cover: x 1 = Sapling/Shrub Stratum (Plot size: 15ft radius **FACW** species x 2 =16 Carpinus caroliniana 5 FAC FAC species 54 162 Yes x3 =FAC 12 2. Acer rubrum 5 **FACU** species x 4 = 48 Yes 3. UPL species 0 0 x.5 =4. Column Totals: 74 226 (B) (A) 5. Prevalence Index = B/A = 3.05 **Hydrophytic Vegetation Indicators:** 6. 1 - Rapid Test for Hydrophytic Vegetation 7. 8. X 2 - Dominance Test is >50% 9. 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations<sup>1</sup> (Provide supporting =Total Cover data in Remarks or on a separate sheet) 50% of total cover: 20% of total cover: Herb Stratum (Plot size: 10 ft radius ) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) 1. Microstegium vimineum 20 Yes FAC <sup>1</sup>Indicators of hydric soil and wetland hydrology must be 2. Polystichum acrostichoides 5 No **FACU** present, unless disturbed or problematic. 3 3. Lobelia cardinalis No **FACW Definitions of Four Vegetation Strata:** 4. 1 Carex sp. Nο Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of 5. Toxicodendron radicans 3 No FAC height. 6. 7. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft 8. (1 m) tall. 9. 10. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. 32 =Total Cover Woody Vine - All woody vines greater than 3.28 ft in 50% of total cover: 16 20% of total cover: Woody Vine Stratum (Plot size: 30 ft radius ) Lonicera japonica **FACU** No 2. Toxicodendron radicans FAC No 3. 4. Hydrophytic =Total Cover Vegetation

20% of total cover:

Present?

Remarks: (Include photo numbers here or on a separate sheet.)

50% of total cover:

No

Yes X

SOIL Sampling Point: TP-5

	ription: (Describe t Matrix	to the de		<b>iment t</b> k Featur		ator or c	onfirm the absence	of indicators.)	
Depth (inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-2	10YR 3/6	100	(melety		. , , , ,		Loamy/Clayey	- Tomane	
2-20	10YR 6/2	90	2.5YR 5/8	10	С	М	Loamy/Clayey	Prominent redox concentrations	
		<u> </u>		<u></u>		<u> </u>			
¹Type: C=Co	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	 1S=Mas	ked Sand	d Grains.		n: PL=Pore Lining, M=Matrix. icators for Problematic Hydric Soils <sup>3</sup> :	
Histosol Histic Ep Black His Hydroger Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy R	(A1) ipedon (A2)	e (A11)	Polyvalue Be Thin Dark St Loamy Muck Loamy Gleye X Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 136 Umbric Surfa	urface (S y Miner ed Matri ttrix (F3) Surface rk Surfa essions ese Ma s)	S9) (MLR al (F1) (N x (F2) (F6) ace (F7) (F8) sses (F1:	2A 147, 1 MLRA 13 (2) (LRR I	147, 148) 48) ————————————————————————————————	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Red Parent Material (F21) (outside MLRA 127, 147, 148) Very Shallow Dark Surface (F22) Other (Explain in Remarks) licators of hydrophytic vegetation and wetland hydrology must be present,	
	face (S7)		Red Parent N						
Restrictive L	.ayer (if observed):								
Type:									
Depth (in Remarks:	iches):						Hydric Soil Pres	ent? Yes X No	

## **U.S. Army Corps of Engineers**

# WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

Project/Site: EPK.001 - 739 Hatley Road		City/County: Pittsboro	/ Chatham	Sampling Date: 9/15/15		
Applicant/Owner: Epkon Hospitality			State: NC	Sampling Point: TP-6		
Investigator(s): Matt Hugo - H&H		Section, Township, Range	:			
Landform (hillside, terrace, etc.): floodplai	n terrace Lo	- ocal relief (concave, convex	none): none	Slope (%): 3		
Subregion (LRR or MLRA): LRR P, MLRA		Lona:	79.0734419 W	Datum: NAD 83		
Soil Map Unit Name: Nanford-Badin compl			NWI classifica			
Are climatic / hydrologic conditions on the si		ear? Yes X		-		
, ,				explain in Remarks.)		
Are Vegetation, Soil, or Hydr			Circumstances" present			
Are Vegetation, Soil, or Hydr	ologynaturally prob	lematic? (If needed, ex	cplain any answers in Re	emarks.)		
SUMMARY OF FINDINGS – Attacl	n site map showing	sampling point locat	ons, transects, in	nportant features, etc.		
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area				
Hydric Soil Present?	Yes X No	within a Wetland?	Yes_X	No		
Wetland Hydrology Present?	Yes X No					
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indicators	(minimum of two required)		
Primary Indicators (minimum of one is requ	ired; check all that apply)		Surface Soil Crac	cks (B6)		
Surface Water (A1)	True Aquatic Plants	<u> </u>				
High Water Table (A2)	Hydrogen Sulfide Od					
X Saturation (A3)		eres on Living Roots (C3)	Moss Trim Lines (B16)			
Water Marks (B1) Sediment Deposits (B2)	Presence of Reduce	ion in Tilled Soils (C6)	Dry-Season Water Table (C2) Crayfish Burrows (C8)			
Drift Deposits (B3)	Thin Muck Surface (		Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Re		Stunted or Stressed Plants (D1)			
Iron Deposits (B5)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	X Geomorphic Position (D2)			
Inundation Visible on Aerial Imagery (E	37)		Shallow Aquitard			
X Water-Stained Leaves (B9)			Microtopographic	Relief (D4)		
Aquatic Fauna (B13)			FAC-Neutral Tes	t (D5)		
Field Observations:						
Surface Water Present? Yes	No X Depth (inch					
Water Table Present? Yes	No X Depth (inch					
Saturation Present? Yes X	No Depth (inch	nes): 8 Wetland	Hydrology Present?	Yes <u>X</u> No		
(includes capillary fringe)  Describe Recorded Data (stream gauge, m	vanitaring wall, parial photo	a provious inspections) if s	woilable:			
Describe Recorded Data (stream gauge, m	onitoring well, aerial priotos	s, previous inspections), ii a	valiable.			
Remarks:						

**VEGETATION** (Four Strata) – Use scientific names of plants. Sampling Point: TP-6 Absolute Dominant Indicator Tree Stratum (Plot size: 30ft radius ) % Cover Species? Status **Dominance Test worksheet:** 1. Acer rubrum 5 Yes FAC **Number of Dominant Species** 2. Liquidambar styraciflua 15 Yes FAC That Are OBL, FACW, or FAC: (A) 3. Fraxinus pennsylvanica 5 Yes **FACW Total Number of Dominant** 4. Liriodendron tulipifera 5 **FACU** Species Across All Strata: 7 Yes (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 85.7% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: 50% of total cover: 15 **OBL** species 20% of total cover: x 1 = Sapling/Shrub Stratum (Plot size: 15ft radius **FACW** species x 2 =16 Carpinus caroliniana 5 FAC FAC species 54 162 Yes x3 =FAC 12 2. Acer rubrum 5 **FACU** species x 4 = 48 Yes 3. UPL species 0 0 x.5 =4. Column Totals: 74 226 (B) (A) 5. Prevalence Index = B/A = 3.05 **Hydrophytic Vegetation Indicators:** 6. 1 - Rapid Test for Hydrophytic Vegetation 7. 8. X 2 - Dominance Test is >50% 9. 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations<sup>1</sup> (Provide supporting =Total Cover data in Remarks or on a separate sheet) 50% of total cover: 20% of total cover: Herb Stratum (Plot size: 10 ft radius ) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) 1. Microstegium vimineum 20 Yes FAC <sup>1</sup>Indicators of hydric soil and wetland hydrology must be 2. Polystichum acrostichoides 5 No **FACU** present, unless disturbed or problematic. 3 3. Lobelia cardinalis No **FACW Definitions of Four Vegetation Strata:** 4. 1 Carex sp. Nο Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of 5. Toxicodendron radicans 3 No FAC height. 6. 7. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft 8. (1 m) tall. 9. 10. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. 32 =Total Cover Woody Vine - All woody vines greater than 3.28 ft in 50% of total cover: 16 20% of total cover: Woody Vine Stratum (Plot size: 30 ft radius ) Lonicera japonica **FACU** No 2. Toxicodendron radicans FAC No 3. 4. Hydrophytic =Total Cover Vegetation 50% of total cover: 20% of total cover: Present? Yes X No Remarks: (Include photo numbers here or on a separate sheet.)

	ription: (Describe t Matrix	to the de		<b>iment t</b> k Featur		ator or c	onfirm the absence	of indicators.)
Depth (inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-2	10YR 3/6	100	(melety		. , , , ,		Loamy/Clayey	- Tomane
2-20	10YR 6/2	90	2.5YR 5/8	10	С	М	Loamy/Clayey	Prominent redox concentrations
				<u></u>				
¹Type: C=Co	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	 1S=Mas	ked Sand	d Grains.		n: PL=Pore Lining, M=Matrix. icators for Problematic Hydric Soils <sup>3</sup> :
Histosol Histic Ep Black His Hydroger Stratified 2 cm Mu Depleted Thick Da Sandy M Sandy G Sandy R	(A1) ipedon (A2)	e (A11)	Polyvalue Be Thin Dark St Loamy Muck Loamy Gleye X Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 136 Umbric Surfa	urface (S y Miner ed Matri ttrix (F3) Surface rk Surfa essions ese Ma s)	S9) (MLR al (F1) (N x (F2) (F6) ace (F7) (F8) sses (F1:	2A 147, 1 MLRA 13 (2) (LRR I	147, 148) 48) ————————————————————————————————	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Red Parent Material (F21) (outside MLRA 127, 147, 148) Very Shallow Dark Surface (F22) Other (Explain in Remarks) licators of hydrophytic vegetation and wetland hydrology must be present,
	face (S7)		Red Parent N					unless disturbed or problematic.
Restrictive L	ayer (if observed):							
Type:								
Depth (in	iches):						Hydric Soil Pres	ent? Yes X No

## WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: EPK.001 - 739 Hatley Road		City/County: Pittsbore	o / Chatham	Sampling Date:	9/14/15
Applicant/Owner: Epkon Hospitality		<del></del>	State:	NC Sampling Point:	TP-7
Investigator(s): Matt Hugo - H&H		Section, Township, Rang	e:	<u> </u>	
Landform (hillside, terrace, etc.): hillside	Lo	cal relief (concave, convex	k. none): convex	Slope (%):	5
Subregion (LRR or MLRA): LRR P, MLRA 1	_		79.0734419 W		NAD 83
Soil Map Unit Name: Nanford-Badin comple				ssification: None	10.12.00
					- \
Are climatic / hydrologic conditions on the sit			<del></del>	(If no, explain in Remarks	
Are Vegetation, Soil, or Hydro			Circumstances" pr		No
Are Vegetation, Soil, or Hydro	ologynaturally probl	ematic? (If needed, e	explain any answers	s in Remarks.)	
SUMMARY OF FINDINGS – Attach	site map showing	sampling point locat	tions, transect	s, important featu	es, etc.
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area			
Hydric Soil Present?	Yes No X	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes No X			<u> </u>	
Data point is representative of jurisdictional  HYDROLOGY	TORGING GIOGO WAD, WAL	, mo, wai, allu way.	постообщу тепот с	on sum meanuers.	
Wetland Hydrology Indicators:			Socondary India	cators (minimum of two r	oquirod)
Primary Indicators (minimum of one is requi	red: check all that apply)		-	il Cracks (B6)	<u>equirea)</u>
Surface Water (A1)	True Aquatic Plants	(B14)		egetated Concave Surfa	ce (B8)
High Water Table (A2)	Hydrogen Sulfide Oc			atterns (B10)	( -,
Saturation (A3)	Oxidized Rhizospher	res on Living Roots (C3)	Moss Trim I	Lines (B16)	
Water Marks (B1)	Presence of Reduce	d Iron (C4)	Dry-Season	n Water Table (C2)	
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils (C6)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	Thin Muck Surface (			Visible on Aerial Imagery	/ (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	marks)		Stressed Plants (D1)	
Iron Deposits (B5)	7)			c Position (D2)	
Inundation Visible on Aerial Imagery (B' Water-Stained Leaves (B9)	(1)		Shallow Aqu		
Aquatic Fauna (B13)			FAC-Neutra	raphic Relief (D4)	
Field Observations:		1		1 1001 (20)	
Surface Water Present? Yes	No X Depth (inch	es).			
Water Table Present? Yes	No X Depth (inch				
Saturation Present? Yes	No X Depth (inch		d Hydrology Prese	ent? Yes	No X
(includes capillary fringe)					
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos	s, previous inspections), if	available:		
Remarks:					

**VEGETATION** (Four Strata) – Use scientific names of plants. Sampling Point: TP-7 Absolute Dominant Indicator Tree Stratum (Plot size: 30ft radius ) % Cover Species? Status **Dominance Test worksheet:** 1. Pinus taeda 35 Yes FAC **Number of Dominant Species** 2. Quercus alba 15 Yes **FACU** That Are OBL, FACW, or FAC: (A) 3. Cornus florida 5 No **FACU Total Number of Dominant** 4. Species Across All Strata: 6 (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: 50% of total cover: 20% of total cover: **OBL** species 28 x 1 = Sapling/Shrub Stratum (Plot size: 15ft radius **FACW** species x 2 =0 Ostrya virginiana 5 **FACU FAC** species 39 117 Yes x3 =Quercus alba **FACU** 38 152 2. Yes **FACU** species x 4 = 3. UPL species 0 0 x.5 =4. Column Totals: 77 269 (B) (A) 5. Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** 6. 1 - Rapid Test for Hydrophytic Vegetation 7. 8. 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 9. 4 - Morphological Adaptations<sup>1</sup> (Provide supporting =Total Cover data in Remarks or on a separate sheet) 50% of total cover: 20% of total cover: Herb Stratum (Plot size: 10 ft radius ) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Microstegium vimineum 3 Yes FAC <sup>1</sup>Indicators of hydric soil and wetland hydrology must be 5 2. Polystichum acrostichoides Yes **FACU** present, unless disturbed or problematic. 3. Luzula echinata 1 No **FACU Definitions of Four Vegetation Strata:** 4. Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of 5. height. 6. 7. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft 8. (1 m) tall. 10. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. =Total Cover Woody Vine - All woody vines greater than 3.28 ft in 50% of total cover: 20% of total cover: Woody Vine Stratum (Plot size: 30 ft radius ) **FACU** Lonicera japonica No 2. Toxicodendron radicans FAC No 3. 4. Hydrophytic =Total Cover Vegetation 50% of total cover: 20% of total cover: Present? Yes No X Remarks: (Include photo numbers here or on a separate sheet.)

	ription: (Describe t	to the de				ator or co	onfirm the abs	sence of indi	cators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	k Featur	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Por	narks
0-2	10YR 3/6	100	Color (moist)	70	туре	LOC	Loamy/Clay	/ev	Kei	ildik5
2-20	10YR 5/6	100					Loamy/Clay	/ey		
¹Type: C=Co	ncentration, D=Depl	letion, RM	=Reduced Matrix, N	1S=Mas	ked Sand	Grains.	<sup>2</sup> L(	ocation: PL=I	Pore Lining, I	M=Matrix.
Hydric Soil I	ndicators:							Indicators	for Problem	atic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue Be			-	-	2 cm M	uck (A10) (N	ILRA 147)
Histic Ep	ipedon (A2)		Thin Dark Su	ırface (S	S9) <b>(MLR</b>	A 147, 1	48)	Coast F	Prairie Redox	(A16)
Black His			Loamy Muck			ILRA 130	6)	-	A 147, 148)	
	n Sulfide (A4)		Loamy Gleye						ont Floodplair	n Soils (F19)
	Layers (A5)		Depleted Ma	, ,				-	A 136, 147)	(504)
	ck (A10) <b>(LRR N)</b>	(/////	Redox Dark						rent Material	, ,
	Below Dark Surface	e (A11)	Depleted Da					-		<b>27, 147, 148)</b> Surface (F22)
	rk Surface (A12) ucky Mineral (S1)		Redox Depre			2) <b>/I DD I</b>	J.		Explain in Re	, ,
	leyed Matrix (S4)		MLRA 136		55 <del>6</del> 5 (1 12	2) <b>(L</b> KK I	٧,	Other (	схріант III Ne	illaiks)
	edox (S5)		Umbric Surfa		3) <b>(MLRA</b>	122. 136	6)	<sup>3</sup> Indicators	of hydrophyti	c vegetation and
	Matrix (S6)		Piedmont Flo				-			nust be present,
	face (S7)		Red Parent I				-		disturbed or	
	.ayer (if observed):		_		• / •		<u> </u>			•
Type:										
Depth (in	iches):						Hydric Soil	Present?	Yes	No X
Remarks:										

## WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: EPK.001 - 739 Hatley Road		City/County: Pittsboro	o / Chatham	Sampling Date:	9/12/15
Applicant/Owner: Epkon Hospitality			State:	NC Sampling Point:	TP-8
Investigator(s): Matt Hugo - H&H		Section, Township, Range	<del></del> e:		
Landform (hillside, terrace, etc.): hillside	Lo	cal relief (concave, convex	k. none): convex	Slope (%):	5
Subregion (LRR or MLRA): LRR P, MLRA		•	79.0734419 W	,	NAD 83
Soil Map Unit Name: Nanford-Badin comple				ssification: None	10.00
				-	- \
Are climatic / hydrologic conditions on the sit				(If no, explain in Remarks	
Are Vegetation, Soil, or Hydro			Circumstances" pr		No
Are Vegetation, Soil, or Hydro	ologynaturally probl	ematic? (If needed, e	xplain any answers	s in Remarks.)	
SUMMARY OF FINDINGS – Attach	site map showing	sampling point locat	ions, transect	s, important featu	res, etc.
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area			
Hydric Soil Present?	Yes No X	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes No X		_	<u> </u>	
Data point is representative of jurisdictional  HYDROLOGY	wonand areas WAD, WAL	, TIAO, WAT, and WAQ. I	чозг осоцру топог	oncam meanucis.	
			Socondary India	cators (minimum of two r	roquirod)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is requ	ired: check all that apply)		-	il Cracks (B6)	<u>equirea)</u>
Surface Water (A1)	True Aquatic Plants	(B14)		egetated Concave Surfa	ce (B8)
High Water Table (A2)	Hydrogen Sulfide Oc			atterns (B10)	( -,
Saturation (A3)	Oxidized Rhizospher	res on Living Roots (C3)	Moss Trim	Lines (B16)	
Water Marks (B1)	Presence of Reduce	d Iron (C4)	Dry-Seasor	n Water Table (C2)	
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils (C6)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	Thin Muck Surface (			Visible on Aerial Imagery	/ (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	marks)		Stressed Plants (D1)	
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B	7)		Shallow Aq	ic Position (D2)	
Water-Stained Leaves (B9)	")			raphic Relief (D4)	
Aquatic Fauna (B13)			FAC-Neutra	. , ,	
Field Observations:					
Surface Water Present? Yes	No X Depth (inch	es):			
Water Table Present? Yes	No X Depth (inch				
Saturation Present? Yes	No X Depth (inch	es): Wetland	d Hydrology Prese	ent? Yes	No X
(includes capillary fringe)					
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos	s, previous inspections), if	available:		
Remarks:					

**VEGETATION** (Four Strata) – Use scientific names of plants. Sampling Point: TP-7 Absolute Dominant Indicator Tree Stratum (Plot size: 30ft radius ) % Cover Species? Status **Dominance Test worksheet:** 1. Pinus taeda 35 Yes FAC **Number of Dominant Species** 2. Quercus falcata 15 Yes **FACU** That Are OBL, FACW, or FAC: (A) 3. Cornus florida 5 No **FACU Total Number of Dominant** 4. Species Across All Strata: 6 (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: 50% of total cover: 20% of total cover: **OBL** species 28 x 1 = Sapling/Shrub Stratum (Plot size: 15ft radius **FACW** species x 2 =0 Ostrya virginiana 5 **FACU FAC** species 39 117 Yes x3 =Quercus alba **FACU** 38 152 2. Yes **FACU** species x 4 = 3. UPL species 0 0 x.5 =4. Column Totals: 77 269 (A) (B) 5. Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** 6. 1 - Rapid Test for Hydrophytic Vegetation 7. 8. 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 9. 4 - Morphological Adaptations<sup>1</sup> (Provide supporting =Total Cover data in Remarks or on a separate sheet) 50% of total cover: 20% of total cover: Herb Stratum (Plot size: 10 ft radius ) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Microstegium vimineum 3 Yes FAC <sup>1</sup>Indicators of hydric soil and wetland hydrology must be 5 2. Polystichum acrostichoides Yes **FACU** present, unless disturbed or problematic. 3. Luzula echinata 1 No **FACU Definitions of Four Vegetation Strata:** 4. Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of 5. height. 6. 7. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft 8. (1 m) tall. 10. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. =Total Cover Woody Vine - All woody vines greater than 3.28 ft in 50% of total cover: 20% of total cover: Woody Vine Stratum (Plot size: 30 ft radius ) **FACU** Lonicera japonica No 2. Toxicodendron radicans FAC No 3. 4. Hydrophytic =Total Cover Vegetation 50% of total cover: 20% of total cover: Present? Yes No X Remarks: (Include photo numbers here or on a separate sheet.)

	ription: (Describe	to the de		<b>ıment t</b> x Featuı		ator or co	onfirm the ab	sence of indi	cators.)	
Depth (inches)	Color (moist)	%	Color (moist)	% realui	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<b>1</b>	Ren	narks
0-4	10YR 3/6	100	Odioi (moist)	70	Турс		Loamy/Cla		rtei	nano
4.20										_
4-20	10YR 4/6	100					Loamy/Cla	<u>yey</u>		
<sup>1</sup> Type: C=Co	ncentration, D=Depl	letion, RM	=Reduced Matrix, N	1S=Mas	ked Sand	d Grains.	<sup>2</sup> L	ocation: PL=I	Pore Lining, I	M=Matrix.
Hydric Soil I	ndicators:							Indicators	for Problem	atic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue Be			-	-	2 cm M	uck (A10) (N	ILRA 147)
	ipedon (A2)		Thin Dark Su						Prairie Redox	(A16)
Black His			Loamy Muck			ILRA 130	6)	-	A 147, 148)	
	n Sulfide (A4)		Loamy Gleye							n Soils (F19)
	Layers (A5)		Depleted Ma					-	A 136, 147)	(504)
	ck (A10) <b>(LRR N)</b>	(444)	Redox Dark					rent Material		
	Below Dark Surface	e (A11)	Depleted Da					-		27, 147, 148)
	rk Surface (A12)		Redox Depre			2) <b>/I DD I</b>	vi		Explain in Re	Surface (F22)
	ucky Mineral (S1) leyed Matrix (S4)		Iron-Mangan MLRA 136		5562 (L.17	2) (LKK I	ν,	Other (	Explain in Ke	marks)
	edox (S5)		Umbric Surfa		3) <b>(MI R A</b>	122 136	8)	<sup>3</sup> Indicators	of hydronhyti	c vegetation and
	Matrix (S6)		Piedmont Flo				-			nust be present,
	face (S7)		Red Parent I				-		disturbed or	
	.ayer (if observed):				()					
Type:	,									
Depth (in	iches):						Hydric Soi	il Present?	Yes	No X
Remarks:							<u> </u>			<u> </u>

## WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: EPK.001 - 739 Hatley Road		City/County: Pittsboro	/ Chatham	Sampling Date:	9/13/15
Applicant/Owner: Epkon Hospitality			State: N	NC Sampling Point:	TP-9
Investigator(s): Matt Hugo - H&H		Section, Township, Range			
Landform (hillside, terrace, etc.): hillside	Lo	cal relief (concave, convex,	none): convex	Slope (%):	5
Subregion (LRR or MLRA): LRR P, MLRA		•	79.0734419 W		NAD 83
Soil Map Unit Name: Nanford-Badin comple				sification: None	10.12.00
				-	- \
Are climatic / hydrologic conditions on the sit				f no, explain in Remarks	
Are Vegetation, Soil, or Hydro	·		Circumstances" pre	-	No
Are Vegetation, Soil, or Hydro	ologynaturally probl	ematic? (If needed, ex	plain any answers	in Remarks.)	
SUMMARY OF FINDINGS – Attach	site map showing	sampling point locati	ons, transects	s, important featui	es, etc.
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area			
Hydric Soil Present?	Yes No X	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes No X				
Data point is representative of jurisdictional  HYDROLOGY	TOLIAN GIOGO WAD, WAL	, TOO, TOO, and TOOKS. IV		acam moundors.	
Wetland Hydrology Indicators:			Socondary India	ators (minimum of two r	oquirod)
Primary Indicators (minimum of one is requ	ired: check all that apply)		•	Cracks (B6)	<u>equirea)</u>
Surface Water (A1)	True Aquatic Plants	(B14)		getated Concave Surface	ce (B8)
High Water Table (A2)	Hydrogen Sulfide Oc		Drainage Pa	-	( -)
Saturation (A3)	Oxidized Rhizospher	res on Living Roots (C3)	Moss Trim L	ines (B16)	
Water Marks (B1)	Presence of Reduce	d Iron (C4)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils (C6)	Crayfish Bur	rows (C8)	
Drift Deposits (B3)	Thin Muck Surface (			isible on Aerial Imagery	(C9)
Algal Mat or Crust (B4)	Other (Explain in Re	marks)		Stressed Plants (D1)	
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B	7)		Shallow Aqu	Position (D2)	
Water-Stained Leaves (B9)	")			aphic Relief (D4)	
Aquatic Fauna (B13)			FAC-Neutral	. ,	
Field Observations:					
Surface Water Present? Yes	No X Depth (inch	es):			
Water Table Present? Yes	No X Depth (inch				
Saturation Present? Yes	No X Depth (inch	es): Wetland	Hydrology Preser	nt? Yes	No X
(includes capillary fringe)					
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos	s, previous inspections), if a	vailable:		
Remarks:					

**VEGETATION** (Four Strata) – Use scientific names of plants. Sampling Point: TP-7 Absolute Dominant Indicator Tree Stratum (Plot size: 30ft radius ) % Cover Species? Status **Dominance Test worksheet:** 1. Pinus taeda 35 Yes FAC **Number of Dominant Species** 2. Quercus alba 15 Yes **FACU** That Are OBL, FACW, or FAC: (A) 3. Cornus florida 5 No **FACU Total Number of Dominant** 4. Species Across All Strata: 6 (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: 50% of total cover: 20% of total cover: **OBL** species 28 x 1 = Sapling/Shrub Stratum (Plot size: 15ft radius **FACW** species x 2 =0 Ostrya virginiana 5 **FACU FAC** species 39 117 Yes x3 =Quercus alba **FACU** 38 152 2. Yes **FACU** species x 4 = 3. UPL species 0 0 x.5 =4. Column Totals: 77 269 (B) (A) 5. Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** 6. 1 - Rapid Test for Hydrophytic Vegetation 7. 8. 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 9. 4 - Morphological Adaptations<sup>1</sup> (Provide supporting =Total Cover data in Remarks or on a separate sheet) 50% of total cover: 20% of total cover: Herb Stratum (Plot size: 10 ft radius ) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Microstegium vimineum 3 Yes FAC <sup>1</sup>Indicators of hydric soil and wetland hydrology must be 5 2. Polystichum acrostichoides Yes **FACU** present, unless disturbed or problematic. 3. Luzula echinata 1 No **FACU Definitions of Four Vegetation Strata:** 4. Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of 5. height. 6. 7. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft 8. (1 m) tall. 10. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. =Total Cover Woody Vine - All woody vines greater than 3.28 ft in 50% of total cover: 20% of total cover: Woody Vine Stratum (Plot size: 30 ft radius ) **FACU** Lonicera japonica No 2. Toxicodendron radicans FAC No 3. 4. Hydrophytic =Total Cover Vegetation 50% of total cover: 20% of total cover: Present? Yes No X Remarks: (Include photo numbers here or on a separate sheet.)

	ription: (Describe t	to the de				ator or co	onfirm the abs	sence of indi	cators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	k Featur	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Por	narks
0-2	10YR 3/6	100	Color (moist)	70	туре	LOC	Loamy/Clay	/ev	Kei	ildik5
2-20	10YR 5/6	100					Loamy/Clay	/ey		
¹Type: C=Co	ncentration, D=Depl	letion, RM	=Reduced Matrix, N	1S=Mas	ked Sand	Grains.	<sup>2</sup> L(	ocation: PL=I	Pore Lining, I	M=Matrix.
Hydric Soil I	ndicators:							Indicators	for Problem	atic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue Be			-	-	2 cm M	uck (A10) (N	ILRA 147)
Histic Ep	ipedon (A2)		Thin Dark Su	ırface (S	S9) <b>(MLR</b>	A 147, 1	48)	Coast F	Prairie Redox	(A16)
Black His			Loamy Muck			ILRA 130	6)	-	A 147, 148)	
	n Sulfide (A4)		Loamy Gleye						ont Floodplair	n Soils (F19)
	Layers (A5)		Depleted Ma	, ,				-	A 136, 147)	(504)
	ck (A10) <b>(LRR N)</b>	(/////	Redox Dark						rent Material	, ,
	Below Dark Surface	e (A11)	Depleted Da					-		<b>27, 147, 148)</b> Surface (F22)
	rk Surface (A12) ucky Mineral (S1)		Redox Depre			2) <b>/I DD I</b>	J.		Explain in Re	, ,
	leyed Matrix (S4)		MLRA 136		55 <del>6</del> 5 (1 12	2) <b>(L</b> KK I	٧,	Other (	схріант III Ne	illaiks)
	edox (S5)		Umbric Surfa		3) <b>(MLRA</b>	122. 136	6)	<sup>3</sup> Indicators	of hydrophyti	c vegetation and
	Matrix (S6)		Piedmont Flo				-			nust be present,
	face (S7)		Red Parent I				-		disturbed or	
	.ayer (if observed):		_		• / •		<u> </u>			•
Type:										
Depth (in	iches):						Hydric Soil	Present?	Yes	No X
Remarks:										

## WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: EPK.001 - 739 Hatley Road		City/County: Pittsb	oro / Chatham	Sampling Date:	9/14/15
Applicant/Owner: Epkon Hospitality			State:	NC Sampling Point:	TP-10
Investigator(s): Matt Hugo - H&H		Section, Township, Rai	nge:		
Landform (hillside, terrace, etc.): hillside	Lo	cal relief (concave, conv	vex. none): convex	Slope (%):	5
Subregion (LRR or MLRA): LRR P, MLRA 1		•	ng: 79.0734419 W	Datum:	NAD 83
Soil Map Unit Name: Nanford-Badin comple				assification: None	11/12/00
				·	- \
Are climatic / hydrologic conditions on the site				(If no, explain in Remark	
Are Vegetation, Soil, or Hydro			nal Circumstances" p		. No
Are Vegetation, Soil, or Hydro	logynaturally probl	ematic? (If needed	l, explain any answer	s in Remarks.)	
SUMMARY OF FINDINGS – Attach	site map showing s	sampling point loc	ations, transect	ts, important featu	res, etc.
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area	l		
Hydric Soil Present?	Yes No X	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes No X		-	<del></del>	
Data point is representative of jurisdictional	wetland areas WAD, WAE	, WAS, WAT, and WAC	Most occupy relict	stream meanders.	
HYDROLOGY					
Wetland Hydrology Indicators:			-	icators (minimum of two I	required)
Primary Indicators (minimum of one is required Water (A1)		(P14)		oil Cracks (B6)	co (B9)
Surface Water (A1) High Water Table (A2)	True Aquatic Plants Hydrogen Sulfide Oc			egetated Concave Surfa Patterns (B10)	ce (bo)
Saturation (A3)		es on Living Roots (C3)		Lines (B16)	
Water Marks (B1)	Presence of Reduce	=		n Water Table (C2)	
Sediment Deposits (B2)		on in Tilled Soils (C6)		urrows (C8)	
Drift Deposits (B3)	Thin Muck Surface (			Visible on Aerial Imagery	y (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	marks)	Stunted or	Stressed Plants (D1)	
Iron Deposits (B5)			Geomorphi	ic Position (D2)	
Inundation Visible on Aerial Imagery (B7	7)		Shallow Ac	quitard (D3)	
Water-Stained Leaves (B9)				graphic Relief (D4)	
Aquatic Fauna (B13)		•	FAC-Neutr	al Test (D5)	
Field Observations:		,			
Surface Water Present? Yes Water Table Present? Yes	No X Depth (inch				
Water Table Present? Yes  Saturation Present? Yes	No X Depth (inch		and Hydrology Pres	ent? Yes	No Y
(includes capillary fringe)	No X Deptil (illeli		ind right ology i res	ent: 165	No X
Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos	s, previous inspections),	if available:		
Demonto					
Remarks:					

**VEGETATION** (Four Strata) – Use scientific names of plants. Sampling Point: TP-7 Absolute Dominant Indicator Tree Stratum (Plot size: 30ft radius ) % Cover Species? Status **Dominance Test worksheet:** 1. Pinus taeda 35 Yes FAC **Number of Dominant Species** 2. Quercus alba 15 Yes **FACU** That Are OBL, FACW, or FAC: (A) 3. Cornus florida 5 No **FACU Total Number of Dominant** 4. Species Across All Strata: 6 (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: 50% of total cover: 20% of total cover: **OBL** species 28 x 1 = Sapling/Shrub Stratum (Plot size: 15ft radius **FACW** species x 2 =0 Ostrya virginiana 5 **FACU FAC** species 39 117 Yes x3 =Quercus alba **FACU** 38 152 2. Yes **FACU** species x 4 = 3. UPL species 0 0 x.5 =4. Column Totals: 77 269 (B) (A) 5. Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** 6. 1 - Rapid Test for Hydrophytic Vegetation 7. 8. 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 9. 4 - Morphological Adaptations<sup>1</sup> (Provide supporting =Total Cover data in Remarks or on a separate sheet) 50% of total cover: 20% of total cover: Herb Stratum (Plot size: 10 ft radius ) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Microstegium vimineum 3 Yes FAC <sup>1</sup>Indicators of hydric soil and wetland hydrology must be 5 2. Polystichum acrostichoides Yes **FACU** present, unless disturbed or problematic. 3. Luzula echinata 1 No **FACU Definitions of Four Vegetation Strata:** 4. Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of 5. height. 6. 7. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft 8. (1 m) tall. 10. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. =Total Cover Woody Vine - All woody vines greater than 3.28 ft in 50% of total cover: 20% of total cover: Woody Vine Stratum (Plot size: 30 ft radius ) **FACU** Lonicera japonica No 2. Toxicodendron radicans FAC No 3. 4. Hydrophytic =Total Cover Vegetation 50% of total cover: 20% of total cover: Present? Yes No X Remarks: (Include photo numbers here or on a separate sheet.)

	ription: (Describe t	to the de				ator or co	onfirm the abs	sence of indi	cators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	k Featur	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Por	narks
0-2	10YR 3/6	100	Color (moist)	70	туре	LOC	Loamy/Clay	/ev	Kei	ildik5
2-20	10YR 5/6	100					Loamy/Clay	/ey		
¹Type: C=Co	ncentration, D=Depl	letion, RM	=Reduced Matrix, N	1S=Mas	ked Sand	Grains.	<sup>2</sup> L(	ocation: PL=I	Pore Lining, I	M=Matrix.
Hydric Soil I	ndicators:							Indicators	for Problem	atic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue Be			-	-	2 cm M	uck (A10) (N	ILRA 147)
Histic Ep	ipedon (A2)		Thin Dark Su	ırface (S	S9) <b>(MLR</b>	A 147, 1	48)	Coast F	Prairie Redox	(A16)
Black His			Loamy Muck			ILRA 130	6)	-	A 147, 148)	
	n Sulfide (A4)		Loamy Gleye						ont Floodplair	n Soils (F19)
	Layers (A5)		Depleted Ma	, ,				-	A 136, 147)	(504)
	ck (A10) <b>(LRR N)</b>	(/////	Redox Dark						rent Material	, ,
	Below Dark Surface	e (A11)	Depleted Da					-		<b>27, 147, 148)</b> Surface (F22)
	rk Surface (A12) ucky Mineral (S1)		Redox Depre			2) <b>/I DD I</b>	J.		Explain in Re	, ,
	leyed Matrix (S4)		MLRA 136		55 <del>6</del> 5 (1 12	2) <b>(L</b> KK I	٧,	Other (	схріант III Ne	illaiks)
	edox (S5)		Umbric Surfa		3) <b>(MLRA</b>	122. 136	6)	<sup>3</sup> Indicators	of hydrophyti	c vegetation and
	Matrix (S6)		Piedmont Flo				-			nust be present,
	face (S7)		Red Parent I				-		disturbed or	
	.ayer (if observed):		_		• / •		<u> </u>			•
Type:										
Depth (in	iches):						Hydric Soil	Present?	Yes	No X
Remarks:										

#### WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: EPK.001 - 739 Hatley Road City/County: Pittsboro / Chatham Sampling Date: 9/15/15 Applicant/Owner: **Epkon Hospitality** State: NC Sampling Point: TP-11 Investigator(s): Matt Hugo - H&H Section, Township, Range: Local relief (concave, convex, none): convex Slope (%): 10 Landform (hillside, terrace, etc.): hillside Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.7509046 N Long: 79.0734419 W Datum: NAD 83 Soil Map Unit Name: Georgville silt loam - GaC NWI classification: None Are climatic / hydrologic conditions on the site typical for this time of year?

Yes X No (If no, explain in Remarks.) Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_X \_ No \_\_\_\_ Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Yes No X Hydric Soil Present? within a Wetland? Yes No X Wetland Hydrology Present? No Remarks: Data point is representative of jurisdictional wetland areas WAD, WAE, WAS, WAT, and WAQ. Most occupy relict stream meanders. **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5) Aquatic Fauna (B13) **Field Observations:** No X Depth (inches): Surface Water Present? No X Depth (inches): Water Table Present? No X Depth (inches): Wetland Hydrology Present? Saturation Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

**VEGETATION** (Four Strata) – Use scientific names of plants. Sampling Point: TP-7 Absolute Dominant Indicator Tree Stratum (Plot size: 30ft radius ) % Cover Species? Status **Dominance Test worksheet:** 1. Pinus taeda 35 Yes FAC **Number of Dominant Species** 2. Quercus alba 15 Yes **FACU** That Are OBL, FACW, or FAC: (A) 3. Cornus florida 5 No **FACU Total Number of Dominant** 4. Species Across All Strata: 6 (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: 50% of total cover: 20% of total cover: **OBL** species 28 x 1 = Sapling/Shrub Stratum (Plot size: 15ft radius **FACW** species x 2 =0 Ostrya virginiana 5 **FACU FAC** species 39 117 Yes x3 =Quercus alba **FACU** 38 152 2. Yes **FACU** species x 4 = 3. UPL species 0 0 x.5 =4. Column Totals: 77 269 (B) (A) 5. Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** 6. 1 - Rapid Test for Hydrophytic Vegetation 7. 8. 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 9. 4 - Morphological Adaptations<sup>1</sup> (Provide supporting =Total Cover data in Remarks or on a separate sheet) 50% of total cover: 20% of total cover: Herb Stratum (Plot size: 10 ft radius ) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Microstegium vimineum 3 Yes FAC <sup>1</sup>Indicators of hydric soil and wetland hydrology must be 5 2. Polystichum acrostichoides Yes **FACU** present, unless disturbed or problematic. 3. Luzula echinata 1 No **FACU Definitions of Four Vegetation Strata:** 4. Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of 5. height. 6. 7. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft 8. (1 m) tall. 10. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. =Total Cover Woody Vine - All woody vines greater than 3.28 ft in 50% of total cover: 20% of total cover: Woody Vine Stratum (Plot size: 30 ft radius ) **FACU** Lonicera japonica No 2. Toxicodendron radicans FAC No 3. 4. Hydrophytic =Total Cover Vegetation 50% of total cover: 20% of total cover: Present? Yes No X Remarks: (Include photo numbers here or on a separate sheet.)

	ription: (Describe t	to the de				ator or co	onfirm the ab	sence of indi	cators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	k Featur %	res Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Por	narks
0-4	10YR 4/4	100	Color (moist)	70	туре	LOC	Loamy/Cla		Kei	IIdiks
								, ,		
4-20	10YR 5/6	100					Loamy/Cla	yey		
¹Type: C=Co	ncentration, D=Depl	letion, RM	=Reduced Matrix, N	IS=Mas	ked Sand	Grains.	<sup>2</sup> L	ocation: PL=I	Pore Lining, I	M=Matrix.
Hydric Soil I	ndicators:							Indicators	for Problem	atic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue Be			-	-	2 cm M	uck (A10) (N	ILRA 147)
	ipedon (A2)		Thin Dark Su						Prairie Redox	(A16)
Black His			Loamy Muck			ILRA 13	6)	-	A 147, 148)	
	n Sulfide (A4)		Loamy Gleye							n Soils (F19)
	Layers (A5)		Depleted Ma	, ,				-	RA 136, 147)	(F24)
	ck (A10) <b>(LRR N)</b>	. (Δ11)	Redox Dark						rent Material	
	Below Dark Surface rk Surface (A12)	(A11)	Depleted Da					-		27, 147, 148) Surface (E22)
	ucky Mineral (S1)		Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Very Shallow Dark Surface Other (Explain in Remarks							
	leyed Matrix (S4)		MLRA 136			-, <b>(-</b>	-,			
	edox (S5)		Umbric Surfa		3) <b>(MLRA</b>	122, 130	6)	<sup>3</sup> Indicators	of hydrophyti	c vegetation and
	Matrix (S6)	Piedmont Flo				-			nust be present,	
Dark Sur	face (S7)		Red Parent I	Material	(F21) <b>(M</b>	LRA 127	, 147, 148)	unless	disturbed or	problematic.
Restrictive L	.ayer (if observed):									
Type:										
Depth (in	iches):						Hydric Soi	I Present?	Yes	No <u>X</u>
Remarks:										

## WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region See ERDC/EL TR-12-9; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: EPK.001 - 739 Hatley Road		City/County: Pittsbor	o / Chatham	Sampling Date:	9/12/15
Applicant/Owner: Epkon Hospitality			State:	NC Sampling Point:	TP-12
Investigator(s): Matt Hugo - H&H		Section, Township, Rang	 je:		
Landform (hillside, terrace, etc.): hillside	Lo	cal relief (concave, conve	x. none): convex	Slope (%):	5
Subregion (LRR or MLRA): LRR P, MLRA	_		: 79.0734419 W	Datum:	NAD 83
Soil Map Unit Name: Nanford-Badin comple				assification: None	10.10.00
				-	\
Are climatic / hydrologic conditions on the sit		·		(If no, explain in Remark	
Are Vegetation, Soil, or Hydro			Circumstances" p		_ No
Are Vegetation, Soil, or Hydro	ologynaturally probl	ematic? (If needed, e	explain any answer	s in Remarks.)	
SUMMARY OF FINDINGS – Attach	site map showing	sampling point loca	tions, transect	ts, important featu	res, etc.
Hydrophytic Vegetation Present?	Yes No X	Is the Sampled Area			
Hydric Soil Present?	Yes No X	within a Wetland?	Yes	No X	
Wetland Hydrology Present?	Yes No X		<del>-</del>	<u> </u>	
Data point is representative of jurisdictional  HYDROLOGY	menana aleas WAD, WAE	, who, wal, allu waq.	most occupy relict	Sirvain intanucis.	
			Cocondon/ Indi	icators (minimum of two	roquirod\
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is requ	red: check all that annly)		•	oil Cracks (B6)	<u>requirea)</u>
Surface Water (A1)	True Aquatic Plants	(B14)		egetated Concave Surfa	ace (B8)
High Water Table (A2)	Hydrogen Sulfide Oc			Patterns (B10)	( -,
Saturation (A3)		res on Living Roots (C3)		Lines (B16)	
Water Marks (B1)	Presence of Reduce	d Iron (C4)	Dry-Season	n Water Table (C2)	
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils (C6)	Crayfish Bu	urrows (C8)	
Drift Deposits (B3)	Thin Muck Surface (			Visible on Aerial Imager	y (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	marks)		Stressed Plants (D1)	
Iron Deposits (B5)	<b>7</b> \			ic Position (D2)	
Inundation Visible on Aerial Imagery (B Water-Stained Leaves (B9)	7)			quitard (D3) graphic Relief (D4)	
Aquatic Fauna (B13)				ral Test (D5)	
Field Observations:				<u></u>	
Surface Water Present? Yes	No X Depth (inch	es):			
Water Table Present? Yes	No X Depth (inch				
Saturation Present? Yes	No X Depth (inch		d Hydrology Pres	ent? Yes	No X
(includes capillary fringe)					
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos	s, previous inspections), if	available:		
Remarks:			-	-	

**VEGETATION** (Four Strata) – Use scientific names of plants. Sampling Point: TP-7 Absolute Dominant Indicator Tree Stratum (Plot size: 30ft radius ) % Cover Species? Status **Dominance Test worksheet:** 1. Pinus taeda 35 Yes FAC **Number of Dominant Species** 2. Quercus alba 15 Yes **FACU** That Are OBL, FACW, or FAC: (A) 3. Cornus florida 5 No **FACU Total Number of Dominant** 4. Species Across All Strata: 6 (B) 5. Percent of Dominant Species 6. That Are OBL, FACW, or FAC: 33.3% (A/B) Prevalence Index worksheet: =Total Cover Total % Cover of: 50% of total cover: 20% of total cover: **OBL** species 28 x 1 = Sapling/Shrub Stratum (Plot size: 15ft radius **FACW** species x 2 =0 Ostrya virginiana 5 **FACU FAC** species 39 117 Yes x3 =Quercus alba **FACU** 38 152 2. Yes **FACU** species x 4 = 3. UPL species 0 0 x.5 =4. Column Totals: 77 269 (B) (A) 5. Prevalence Index = B/A = **Hydrophytic Vegetation Indicators:** 6. 1 - Rapid Test for Hydrophytic Vegetation 7. 8. 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.01 9. 4 - Morphological Adaptations<sup>1</sup> (Provide supporting =Total Cover data in Remarks or on a separate sheet) 50% of total cover: 20% of total cover: Herb Stratum (Plot size: 10 ft radius ) Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) Microstegium vimineum 3 Yes FAC <sup>1</sup>Indicators of hydric soil and wetland hydrology must be 5 2. Polystichum acrostichoides Yes **FACU** present, unless disturbed or problematic. 3. Luzula echinata 1 No **FACU Definitions of Four Vegetation Strata:** 4. Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of 5. height. 6. 7. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft 8. (1 m) tall. 10. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. =Total Cover Woody Vine - All woody vines greater than 3.28 ft in 50% of total cover: 20% of total cover: Woody Vine Stratum (Plot size: 30 ft radius ) **FACU** Lonicera japonica No 2. Toxicodendron radicans FAC No 3. 4. Hydrophytic =Total Cover Vegetation 50% of total cover: 20% of total cover: Present? Yes No X Remarks: (Include photo numbers here or on a separate sheet.)

	ription: (Describe t	to the de				ator or co	onfirm the abs	sence of indi	cators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	k Featur	Type <sup>1</sup>	Loc <sup>2</sup>	Texture		Por	narks
0-2	10YR 3/6	100	Color (moist)	70	туре	LOC	Loamy/Clay	/ev	Kei	ildik5
2-20	10YR 5/6	100					Loamy/Clay	/ey		
¹Type: C=Co	ncentration, D=Depl	letion, RM	=Reduced Matrix, N	1S=Mas	ked Sand	Grains.	<sup>2</sup> L(	ocation: PL=I	Pore Lining, I	M=Matrix.
Hydric Soil I	ndicators:							Indicators	for Problem	atic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Polyvalue Be			-	-	2 cm M	uck (A10) (N	ILRA 147)
Histic Ep	ipedon (A2)		Thin Dark Su	ırface (S	S9) <b>(MLR</b>	A 147, 1	48)	Coast F	Prairie Redox	(A16)
Black His			Loamy Muck			ILRA 130	6)	-	A 147, 148)	
	n Sulfide (A4)		Loamy Gleye						ont Floodplair	n Soils (F19)
	Layers (A5)		Depleted Ma	, ,				-	A 136, 147)	(504)
	ck (A10) <b>(LRR N)</b>	(/////	Redox Dark						rent Material	, ,
	Below Dark Surface	e (A11)	Depleted Da					-		<b>27, 147, 148)</b> Surface (F22)
	rk Surface (A12) ucky Mineral (S1)		Redox Depre			2) <b>/I DD I</b>	J.		Explain in Re	, ,
	leyed Matrix (S4)		MLRA 136		55 <del>6</del> 5 (1 12	2) <b>(L</b> KK I	٧,	Other (	схріант III Ne	illaiks)
	edox (S5)		Umbric Surfa		3) <b>(MLRA</b>	122. 136	6)	<sup>3</sup> Indicators	of hydrophyti	c vegetation and
	Matrix (S6)		Piedmont Flo				-			nust be present,
	face (S7)		Red Parent I				-		disturbed or	
	.ayer (if observed):		_		• / •		<u> </u>			•
Type:										
Depth (in	iches):						Hydric Soil	Present?	Yes	No X
Remarks:										



2/14/2024

WP-24-7

On-site Riparian Buffer Review

Status: Active

Submitted On: 1/3/2024

**Primary Location** 

739 Hatley Rd

Pittsboro, North Carolina

27312

Owner

CONTENTNEA CREEK

**DEVELOP CO** 

8366 SIX FORKS RD STE 201

RALEIGH, NC 27615-5084

## **Applicant**

Dan McCauley

**J** 704-998-1864

dmccauley@harthickman.com

3921 Sunset Ridge Road,

Ste 301

Raleigh, North Carolina

27607

# **Project Information**

Review Type\*

Major Subdivision

If your project is a Major Subdivision please contact a private consulting firm to complete the surface water determination. For stream determinations the consultant must have successfully completed the NCDWQ/NC State University Surface Waters Classification. For wetland delineations the consultant must demonstrate at least 2 years of experience delineating jurisdictional wetlands in accordance with the Eastern Mountains and Piedmont Regional Supplement to the 1987 US Corps of Engineers Wetland Delineation Manual. Please visit the Watershed Protection Department website for a list of consultants that regularly complete work within Chatham County.

Has this review been completed by an environmental consultant prior to submittal to the county?\*

Number of Features Found\*

58

Yes

Feature is defined as any surface water that is subject to Chatham County Riparian Buffers (streams, wetlands, ponds). Include each stream type transition, with corresponding forms, and individual wetland in your total. Total is total features found before USACE or County site visit.

**Date Field Work Was Completed\*** 

09/15/2023

Has USACE on-site review been scheduled or

completed

\_

# Parcel Information

Parcel Number (s)\*

9772-00-79-6324

**Watershed District** 

WS-IV PA

Is the property within the Jordan Lake

Watershed\*

Yes

Property Owner Name\*

**CONTENTNEA CREEK** 

DEVELOPMENT COMPANY

Location of Tract (address if applicable)\*

739 Hatley Rd, Pittsboro, NC

#### **Driving Directions from Pittsboro\***

Head east toward East St

Exit the traffic circle onto US-64 BUS E/East St

Keep right at the fork, follow signs for Raleigh/US-64 E and merge onto US-64 E

Turn left onto Mt Gilead Church Rd

Turn right onto Hatley Rd

Subdivision Name (if applicable) n/a
Please describe access issues (provide gate codes, or information for scheduling site visit)* n/a

# **Applicants Information**

Are you the Landowner or an Agent* Agent	Full Name*  Dan McCauley
Primary Phone Number* 704-998-1864	Primary Email* dmccauley@harthickman.com
Mailing Address* 3921 Sunset Ridge Rd, Ste 301	City/State* Raleigh, NC
Zip Code* 27607	

How would you like to receive the completed review letter?

I would like to pick up the completed Riparian Buffer	I would like the completed Riparian Buffer Review
Review at the County Office	mailed to me

I would like the completed Riparian Buffer Review emailed to me.



# Statement of Understanding

I have read and understand the regulations of the Watershed Protection Ordinance, Section 304, and I agree to adhere to these associated policies and guidelines.

Name\* New Field\*

Dan McCauley 01/03/2024

### **Attachments**



## Signed Right to Enter Property Form

REQUIRED

12152023 Chatham County Property Owner Signature Form.pdf Uploaded by Dan McCauley on Jan 3, 2024 at 2:13 PM



### Signed Owner's Agent Designation Form

12152023 Chatham County Agent Authorization Form.pdf Uploaded by Dan McCauley on Jan 3, 2024 at 2:13 PM



## **Consultant Findings Report**

REQUIRED

Wetlands Report and Map - 739 Hatley Road.pdf
Uploaded by Dan McCauley on Jan 3, 2024 at 2:18 PM



### **Consultants Findings Map**

REQUIRED

Wetlands and Streams Figure.pdf Uploaded by Dan McCauley on Jan 3, 2024 at 2:19 PM



# NCDWQ Stream Identification Forms & Wetland Data Forms REQUIRED

Data Forms.pdf

Uploaded by Dan McCauley on Jan 3, 2024 at 2:21 PM



## NRCS Map

REQUIRED

Figure A4.pdf

Uploaded by Dan McCauley on Jan 3, 2024 at 2:22 PM



# **USGS Topographic Map**

REQUIRED

Figure 1.pdf

Uploaded by Dan McCauley on Jan 3, 2024 at 2:21 PM



# **Project Inventory Table**

REQUIRED

Project Impact Inventory Table.pdf Uploaded by Dan McCauley on Jan 3, 2024 at 2:25 PM

# History

Date	Activity
1/3/2024, 9:57:53 AM	Dan McCauley started a draft of Record WP-24-7
1/3/2024, 10:52:03 AM	Dan McCauley altered Record WP-24-7, changed ownerEmail from "" to "parekhp@yahoo.com"
1/3/2024, 10:52:03 AM	Dan McCauley altered Record WP-24-7, changed ownerPhoneNo from "" to "919-757-7462"
1/3/2024, 2:26:54 PM	Dan McCauley submitted Record WP-24-7
1/3/2024, 2:26:55 PM	Dan McCauley submitted Record WP-24-7
1/3/2024, 2:26:55 PM	approval step Watershed Intake Approval was assigned to Hollie Squires on Record WP-24-7
1/4/2024, 10:44:20 AM	Taylor Burton assigned approval step Field Review to Drew Blake on Record WP-24-7
1/11/2024, 9:49:47 AM	Drew Blake unassigned approval step Watershed Intake Approval from Hollie Squires on Record WP-24-7
1/11/2024, 9:49:48 AM	Drew Blake assigned approval step Watershed Intake Approval to Drew Blake on Record WP-24-7
1/11/2024, 9:49:51 AM	Drew Blake approved approval step Watershed Intake Approval on Record WP-24-7
1/24/2024, 1:37:49 PM	completed payment step Major Subdivision Riparian Buffer Review Fee on Record WP-24-7
1/24/2024, 1:37:50 PM	changed the deadline to Feb 07, 2024 on approval step Field Review on Record WP-24-7

# Timeline

Label	Activated	Completed	Assignee	Due Date
✓ Watershed Intake Approval	1/3/2024, 2:26:55 PM	1/11/2024, 9:49:51 AM	Drew Blake	-
Major Subdivision Riparian Buffer Review Fee	1/11/2024, 9:49:51 AM	1/24/2024, 1:37:49 PM	Dan McCauley	-
✓ Field Review	1/24/2024, 1:37:49 PM	-	Drew Blake	2/6/2024
Major Subdivision Riparian Buffer Confirmation Report	-	-	-	-

#### LAND & WATER RESOURCES DIVISION

Environmental Quality Department

PHONE: (919) 545-8204



Website: www.chathamnc.org

# **AUTHORIZED AGENT FOR LEGAL REPRESENTATION FORM**

PROPERTY LEGAL	DESCRIPTION:			
LOT NO. 1	_ PARCEL ID (PIN)_	9772 00 79 6324	PARCEL SIZE	130.44 acres
STREET ADDRESS:	739 Hatley Road Pitt	sboro, NC 27312		
Please print: Property Owner: _	PRANAY	PAREKH		
Property Owner: _				
The undersigned, ow	` '	described property,	do hereby authoriz	ze
Dan McCauley, PWS	. 01	Hart & Hick	man, PC	
(Contractor/Agent)	,	(Name of co	man, PC onsulting firm if app	licable)
special conditions att that apply): Building PermitZoning CompliarFloodplain DeterSoil Erosion andPermits to instalEvaluation/inspecXRiparian Buffer I	ached to these appro- nce Permits mination Sedimentation Cont I, repair, evaluate, o ection/permitting of a Review pursuant to §	rol Permit r expand onsite wa a private drinking w 304 of the Chatha t than property abo	s authorized include stewater system(s) vater well(s) m County Watershe ve):	d Protection Ordinance
Owner Telephone:	197577462	Email	ParekhPG	yahoo.com
We hereby certify the our knowledge.	e above information	submitted in this ap	oplication is true and	d accurate to the best of
Owner Authorized Sig	P. Paul		DauMay	
Owner Authorized Sig	gnature	Age	ent Authorized Signa	ature
Date: 12 [15] 2	023	Dat	te:	

Applications can be mailed to: Planning Dept., PO Box 54, Pittsboro, NC 27312 For Questions, please contact: Lynn Richardson at 919-542-8207 Revised 3/2014



Environmental Quality Department

PHONE: (919) 545-8394



Website: www.chathamnc.org

		<b>G</b>
Authoriz	zation to Enter Property	/ Form
PARCEL No. (AKPAR)		
I, (print name) PRANAY	PARELY	, as owner of the property
described above, or as a representa	tive of the owner(s) do hereby conve	ey permission to Chatham County
staff to enter the property at their o	onvenience to conduct a surface wat	er identification (SWID)
necessary to determine whether or	not water features on my property ar	e subject to the riparian buffer
regulations described in Section 304	of the Chatham County Watershed I	Protection Ordinance. The SWID
will be public record and on file at th	ne Planning and Environmental Qualit	ty Departments, and may be
requested in the future for review by	y interested parties.	
I understand that stream delineation	ns for the property listed above will b	e made by County staff only
once and that if future subdivisions	are proposed within this property bo	undary, it will require a surface
water identification by a private con	sultant at the property owner's expe	nse.
PRANAY PAREKH	Fing Plant	12/15/2023
(Print Owner's Name)	(Signature of Owner)	(Date)
Dan McCauley, PWS	Day Mari	10-18-23
(Print Authorized Agent Name)	(Signature of Authorized Agent)	(Date)