CHATHAM COUNTY
NORTH CAROLINA

WATERSHED PROTECTION DEPARTMENT

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

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

November 7, 2024

UPDATED CONFIRMATION

Bold Construction
50051 Governors Dr. A
Chapel Hill, NC 27517

Project Name:	Hamlet's Reserve (Parcels: 1795, 68866, 61669, 2102)
Location:	Hamlets Chapel Road
Project Number:	WP-24-573
Subject Features:	One (1) ephemeral segment, four (4) intermittent segments, four (4) perennial segments, fifteen (15) potential wetlands, beaver impoundment, and a mapped floodplain

This report is an update to a confirmation report issued by our office on January 28, 2021. That review confirmed the presence of four (4) intermittent segments, four (4) perennial segments, thirteen (13) wetlands, beaver impoundment, and a mapped floodplain. This updated review adds the following features: one (1) ephemeral segment, and two (2) potential wetlands based on a review of parcels 1900, 1913, 2100 and 2102.

Explanation:
The original site visit was completed on January 22, 2021, by Kim Hamlin of Sage Ecological Services (Sage), and Drew Blake of the Chatham County Watershed Protection Department, on Chatham County Parcel #s 1795, 68866, 61669 that are located inside the Jordan Lake watershed. The 2021 site visit confirmed the presence of confirmed the presence of four (4) intermittent segments, four (4) perennial segments, thirteen (13) wetlands, beaver impoundment, and a mapped floodplain. The proposed project has expanded since the original review and now includes Parcel 2102. A second onsite review was completed by Sage in October 2022, which included Parcel 2102 as well as parcels 1900, 1913, and 2100. Bold Construction submitted a request for Chatham County to complete an updated review of the project 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
The Chatham County Watershed Protection confirms the additional ephemeral stream and two (2) wetlands located by Sage in the most recent field review.

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
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

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Carolina Floodplain Mapping Program, NC Division of Emergency Management, whichever is the greater horizontal distance.

Section 304(D)(2) – Intermittent Streams
The riparian buffer shall be fifty (50') feet landward, measured horizontally on a line perpendicular from the 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 S&EC 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.

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.

Beaver Impoundments
The beaver impoundment along Wilkinson Creek will receive a 50-ft buffer based on NC DWR Buffer Interpretation/Clarification Memorandum #2007-005. This requires a 50-ft buffer on beaver impoundments as they are considered open water. The buffer will surround the beaver impoundment and is measured based on the ground elevation of the beaver dam. If multiple beaver dams are present the buffer will change according to each dam elevation. All buffers on beaver impoundments extend to the full length of the required buffer, as described above, or to the mapped floodplain boundary, whichever is the greater distance from the top of bank or wetland boundary.

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.

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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.

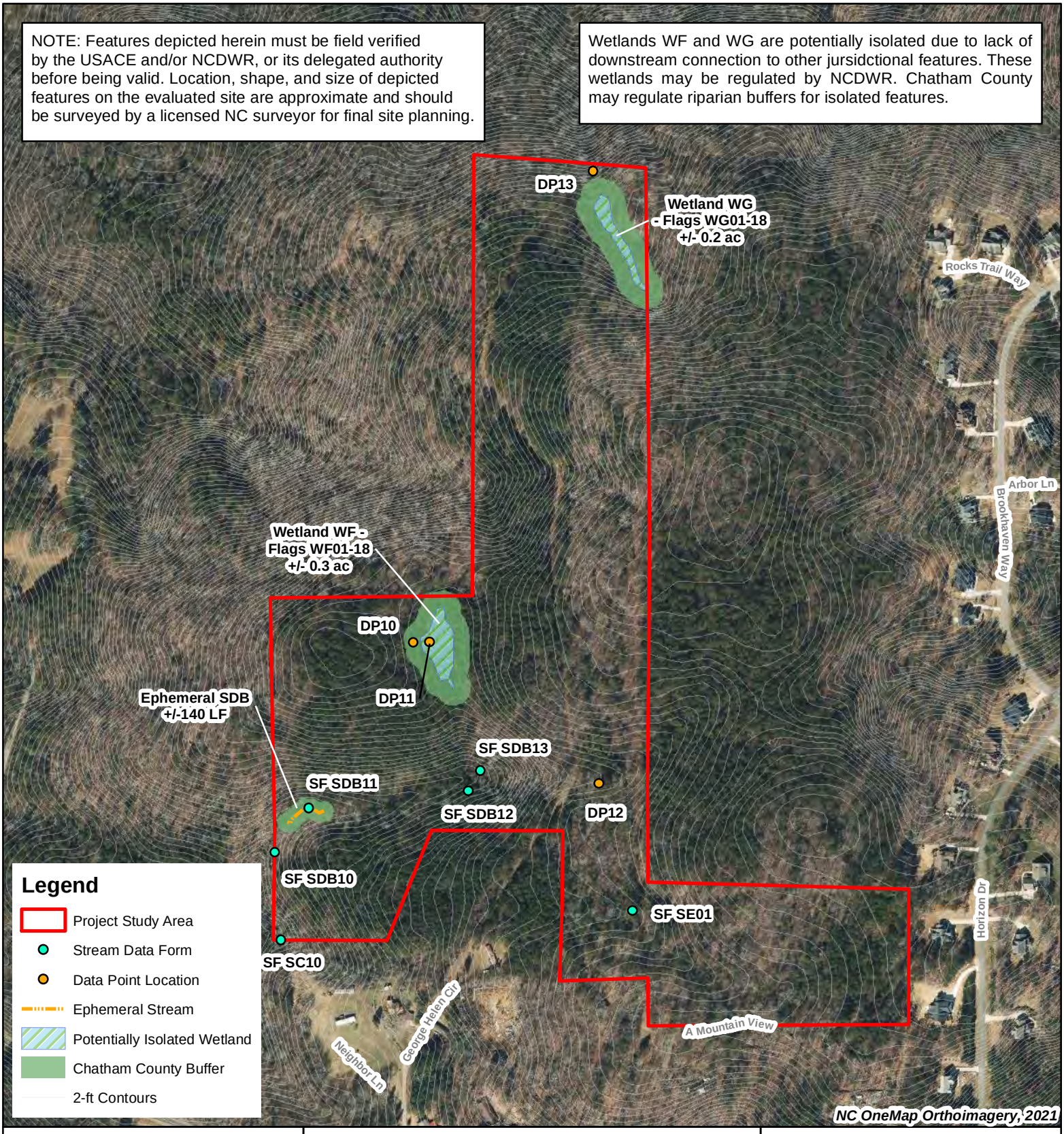
Respectfully,

Drew Blake

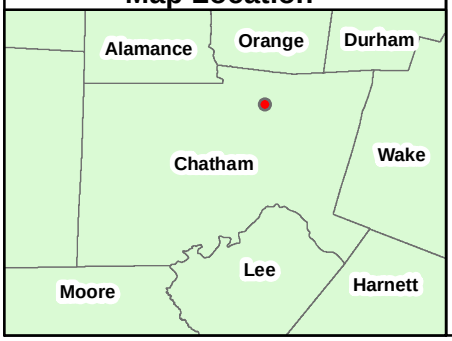
Drew Blake
Assistant Director, CESSWI
Chatham County Watershed Protection Department

Enclosures:
Wetland Sketch Map dated October 25, 2022, completed by Sage
Wetland Sketch Map dated January 21, 2021, completed by Sage
NC DWQ – Stream Determination forms v. 4.11 – Completed by Sage
USACE Wetland Determination Data Sheets – Completed by Sage
Major Subdivision Riparian Buffer Application
Authorized Agent Form
Authorization to Enter Property Form
January 28, 2021 Riparian Buffer Determination Report

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
Joesph Myers, Environmental Specialist, NCDEQ - Division of Water Resources
Kristina Morales, Environmental Specialist, NCDEQ – Division of Water Resources



Map Location



Wetland and Stream Sketch Map

Hamlet's Chapel Road
Sage Project #2020.005

Prepared by: K. Hamlin

October 25, 2022

N

1 inch = 400 feet

0 400 800 Feet

Figure 3

Sage Ecological Services, Inc.
Office: 919-335-6757
Cell: 919-559-1537

NOTE: Location, shape and size of depicted features on the evaluated site are approximate and should be surveyed by a licensed NC surveyor for final site planning.

All Features must be confirmed by Chatham County and the USACE.

Wetland WD
WD01-WD05

Wetland WC
WC01-WC24

Stream B

Wetland WB-1
WB01-WB52
WB62-WB91

Wetland WB-6
WB100-WB106

Wetland WB-5
WB300-WB301

Wetland WB-4
WB200-WB203

SF2

SF3

Wetland WB-2
WB52-WB61

Marginal Wetland/
Stream WB-3

DP1

DP2

Stream A
SDB01 Start Stream

Stream A
SDB02 Stop Stream

Stream A
SD01 Start Stream

Stream C
SC01 Start Stream

Wetland WA-1
WA01-WA08
WDA01-WDA08

SF1

Wetland WA-2
WDA100-WDA108

Wetland WA-3
WDA200-WDA201

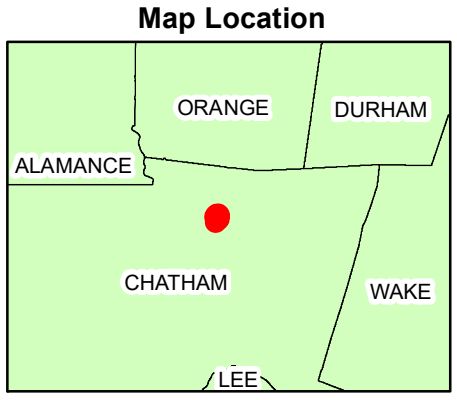
Stream SDA
SDA01 Start Stream

Legend

- Project Study Area
- Stream Form
- Marginal Stream/ Marginal Wetland- Jurisdictional Waters of the U.S.; Subject to 50-Foot Chatham County Buffers
- Intermittent Stream - Jurisdictional Waters of the U.S.; Subject to 50-Foot Chatham County Buffers
- Perennial Stream - Jurisdictional Waters of the US; Subject to 100-Foot Chatham County Buffers
- Wetlands - Jurisdictional Waters of the U.S.; Subject to 50-Foot Chatham County Buffers

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Map Location



Wetland Sketch Map

Hamlets Chapel Road Project
Sage Project # 2020.005

Revised January 21, 2021

N

0 150 300 Feet

Figure 3

Drawn By:
David Gainey

Sage Ecological Services, Inc.
Office: 919-335-6757
Cell: 919-559-1537

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hamlets Chapel Road Property City/County: Pittsboro/Chatham Sampling Date: 10/12/22

Applicant/Owner: TBM Partners State: NC Sampling Point: DP-10

Investigator(s): Darnell, Hamlin Section, Township, Range: Bynum

Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0.5

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.8013 Long: -79.1384 Datum: NAD83

Soil Map Unit Name: Wedowee Sandy Loam 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	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Normal Conditions per Antecedent Precipitation Tool

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP-10

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Liriodendron tulipifera*	30	Yes	FACU
2. *Acer rubrum*	10	Yes	FAC
3. *Pinus taeda*	5	No	FAC
4. *Quercus phellos*	5	No	FAC
5.			
6.			
7.			
	50	=Total Cover	
50% of total cover: 25		20% of total cover:	10
Sapling/Shrub Stratum (Plot size: 15)			
1. *Acer rubrum*	30	Yes	FAC
2. *Liquidambar styraciflua*	10	Yes	FAC
3. *Vaccinium corymbosum*	10	Yes	FACW
4. *Carpinus caroliniana*	5	No	FAC
5. *Ilex opaca*	5	No	FACU
6.			
7.			
8.			
9.			
	60	=Total Cover	
50% of total cover: 30		20% of total cover:	12
Herb Stratum (Plot size: 5)			
1. *Smilax rotundifolia*	5	Yes	FAC
2. *Vitis rotundifolia*	5	Yes	FAC
3. *Carex sp.*	5	Yes	
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15	=Total Cover	
50% of total cover: 8		20% of total cover:	3
Woody Vine Stratum (Plot size: 15)			
1. *Vitis rotundifolia*	10	Yes	FAC
2. *Smilax rotundifolia*	15	Yes	FAC
3.			
4.			
5.			
	25	=Total Cover	
50% of total cover: 13		20% of total cover:	5

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 10 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	100	x 3 =	300
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	145 (A)		460 (B)

Prevalence Index = B/A = 3.17

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL

Sampling Point: DP-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/3	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 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)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hamlets Chapel Road Property City/County: Pittsboro/Chatham Sampling Date: 10/12/22

Applicant/Owner: TBM Partners State: NC Sampling Point: DP-11

Investigator(s): Darnell, Hamlin Section, Township, Range: Bynum

Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0.1

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.8025 Long: -79.1402 Datum: NAD83

Soil Map Unit Name: Wedowee Sandy Loam 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	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Normal Conditions per Antecedent Precipitation Tool

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ True Aquatic Plants (B14)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- X Sparsely Vegetated Concave Surface (B8)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP-11

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus phellos*	40	Yes	FAC
2. *Pinus taeda*	5	No	FAC
3.			
4.			
5.			
6.			
7.			
	45 =Total Cover		
50% of total cover: 23	20% of total cover: 9		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Pinus taeda*	5	Yes	FAC
2. *Acer rubrum*	5	Yes	FAC
3. *Quercus alba*	2	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	12 =Total Cover		
50% of total cover: 6	20% of total cover: 3		
Herb Stratum (Plot size: 5)			
1. *Juncus effusus*	5	Yes	FACW
2. *Carex sp.*	2	Yes	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	7 =Total Cover		
50% of total cover: 4	20% of total cover: 2		
Woody Vine Stratum (Plot size: 15)			
1. *Smilax rotundifolia*	5	Yes	FAC
2.			
3.			
4.			
5.			
	5 =Total Cover		
50% of total cover: 3	20% of total cover: 1		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	60	x 3 =	180
FACU species	2	x 4 =	8
UPL species	0	x 5 =	0
Column Totals:	67 (A)		198 (B)

Prevalence Index = B/A = 2.96

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL

Sampling Point: DP-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 6/1	95	10YR 6/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
6-12	10YR 6/1	90	10YR 6/6	10	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 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)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hamlets Chapel Road Property City/County: Pittsboro/Chatham Sampling Date: 10/12/22

Applicant/Owner: TBM Partners State: NC Sampling Point: DP-12

Investigator(s): Darnell, Hamlin Section, Township, Range: Pittsboro

Landform (hillside, terrace, etc.): Drainage Local relief (concave, convex, none): Concave Slope (%): 0-4

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.8013 Long: -79.1384 Datum: NAD83

Soil Map Unit Name: Wedowee Sandy Loam 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 ____	No X	**Is the Sampled Area**
Hydric Soil Present?	Yes ____	No X	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Sampling Point: DP-12

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	10	No	FAC
2. *Acer rubrum*	15	Yes	FAC
3. *Liquidambar styraciflua*	10	No	FAC
4. *Quercus rubra*	10	No	FACU
5. *Quercus alba*	20	Yes	FACU
6.			
7.			
	65	=Total Cover	
50% of total cover: 33		20% of total cover:	13
Sapling/Shrub Stratum (Plot size: 15)			
1. *Quercus phellos*	15	Yes	FAC
2. *Liquidambar styraciflua*	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	25	=Total Cover	
50% of total cover: 13		20% of total cover:	5
Herb Stratum (Plot size: 5)			
1. *Lonicera japonica*	5	No	FACU
2. *Wisteria sinensis*	60	Yes	UPL
3. *Parthenocissus quinquefolia*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	70	=Total Cover	
50% of total cover: 35		20% of total cover:	14
Woody Vine Stratum (Plot size: 15)			
1. *Wisteria sinensis*	80	Yes	UPL
2. *Smilax rotundifolia*	10	No	FAC
3. *Toxicodendron radicans*	5	No	FAC
4. *Lonicera japonica*	2	No	FACU
5.			
	97	=Total Cover	
50% of total cover: 49		20% of total cover:	20

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	75	x 3 =	225
FACU species	42	x 4 =	168
UPL species	140	x 5 =	700
Column Totals:	257 (A)		1093 (B)

Prevalence Index = B/A = 4.25

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

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

SOIL

Sampling Point: DP-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 5/4	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 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)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region

See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hamlets Chapel Road Property City/County: Pittsboro/Chatham Sampling Date: 10/12/22

Applicant/Owner: TBM Partners State: NC Sampling Point: DP-13

Investigator(s): Darnell, Hamlin Section, Township, Range: Pittsboro

Landform (hillside, terrace, etc.): Drainage Local relief (concave, convex, none): Concave Slope (%): 0-4

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.8065 Long: -79.1385 Datum: NAD83

Soil Map Unit Name: Wedowee Sandy Loam 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 ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP-13

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	5	No	FAC
2. *Acer rubrum*	20	Yes	FAC
3. *Liquidambar styraciflua*	10	No	FAC
4. *Quercus rubra*	15	Yes	FACU
5. *Quercus alba*	20	Yes	FACU
6.			
7.			
	70	=Total Cover	
50% of total cover: 35	20% of total cover:	14	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Quercus phellos*	15	Yes	FAC
2. *Liquidambar styraciflua*	10	Yes	FAC
3. *Carya tomentosa*	15	Yes	UPL
4.			
5.			
6.			
7.			
8.			
9.			
	40	=Total Cover	
50% of total cover: 20	20% of total cover:	8	
Herb Stratum (Plot size: 5)			
1. *Lonicera japonica*	5	No	FACU
2. *Wisteria sinensis*	60	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	65	=Total Cover	
50% of total cover: 33	20% of total cover:	13	
Woody Vine Stratum (Plot size: 15)			
1. *Wisteria sinensis*	2	No	UPL
2. *Smilax rotundifolia*	10	Yes	FAC
3. *Toxicodendron radicans*	2	No	FAC
4. *Lonicera japonica*	2	No	FACU
5.			
	16	=Total Cover	
50% of total cover: 8	20% of total cover:	4	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	72	x 3 =	216
FACU species	42	x 4 =	168
UPL species	77	x 5 =	385
Column Totals:	191 (A)		769 (B)

Prevalence Index = B/A = 4.03

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

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

SOIL

Sampling Point: DP-13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/4	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 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)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

SFSC10

NC DWQ Stream Identification Form Version 4.11

Date: 10/12/2022		**Project/Site:** Hamlets Chapel Assemblage		**Latitude:** 35.8000	
Evaluator:	K. Hamlin, C. Darnell	**County:**	Chatham	**Longitude:** -79.1417	
Total Points: Stream is at least intermittent if ≥19 or perennial if ≥30	5.5	**Stream Determination:** Ephemeral		**Other:** *e.g. Quad Name*:	Bynum, NC 1:24K

A. Geomorphology (Subtotal = 5)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	0
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple- pool sequence	0	1	2	3	1
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	0
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	0.5
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No = 0		Yes = 3		0

[a] artificial ditches are not rated; see discussions in manual.

B. Hydrology (Subtotal = 0.5)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	0
16. Organic debris lines or piles	0	0.5	1	1.5	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		0

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

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

Notes:		
	Bank Height (feet)	0-0.5
	Bankfull Width (feet)	3
	Water Depth (inches)	0

Sketch:

SFSD01

NC DWQ Stream Identification Form Version 4.11

Date: 10/12/2022		**Project/Site:** Hamlets Chapel Assemblage		**Latitude:** 35.8084	
Evaluator:	K. Hamlin, C. Darnell	**County:**	Chatham	**Longitude:** -79.1398	
Total Points: Stream is at least intermittent if ≥19 or perennial if ≥30	28.5	**Stream Determination:** Intermittent		**Other:** *e.g. Quad Name*:	Bynum, NC 1:24K

A. Geomorphology (Subtotal = 16)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	2
3. In-Channel structure: ex. riffle-pool, step-pool, ripple- pool sequence	0	1	2	3	1
4. Particle size of stream substrate	0	1	2	3	2
5. Active/relic floodplain	0	1	2	3	3
6. Depositional bars or benches	0	1	2	3	2
7. Recent alluvial deposits	0	1	2	3	2
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	0
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No = 0		Yes = 3		0

[a] artificial ditches are not rated; see discussions in manual.

B. Hydrology (Subtotal = 8.5)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	3
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 4)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	1
19. Rooted upland plants in streambed	3	2	1	0	3
20. Macrobenthos (note diversity and abundance)	0	1	2	3	0
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FACW=0.75; OBL=1.5 Other=0				0

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

Notes:		
	Bank Height (feet)	1
	Bankfull Width (feet)	5
	Water Depth (inches)	2

Sketch:

SFSDB10

NC DWQ Stream Identification Form Version 4.11

Date: 10/12/2022		**Project/Site:** Hamlets Chapel Assemblage		**Latitude:** 35.35.8008	
Evaluator:	K. Hamlin, C. Darnell	**County:**	Chatham	**Longitude:** -79.1418	
Total Points: Stream is at least intermittent if ≥19 or perennial if ≥30	7	**Stream Determination:** Ephemeral		**Other:** *e.g. Quad Name:*	Bynum, NC 1:24K

A. Geomorphology (Subtotal = 7)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	2
2. Sinuosity of channel along thalweg	0	1	2	3	0
3. In-Channel structure: ex. riffle-pool, step-pool, ripple- pool sequence	0	1	2	3	1
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	0
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No = 0		Yes = 3		0

[a] artificial ditches are not rated; see discussions in manual.

B. Hydrology (Subtotal = 0)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	0
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No = 0		Yes = 3		0

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

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

Notes:		
	Bank Height (feet)	0.5
	Bankfull Width (feet)	4
	Water Depth (inches)	0

Sketch:

SFSDB11

NC DWQ Stream Identification Form Version 4.11

Date: 10/12/2022		**Project/Site:** Hamlets Chapel Assemblage		**Latitude:** 35.8011	
Evaluator:	K. Hamlin, C. Darnell	**County:**	Chatham	**Longitude:** -79.1414	
Total Points: Stream is at least intermittent if ≥19 or perennial if ≥30	10	**Stream Determination:** Ephemeral		**Other:** *e.g. Quad Name*:	Bynum, NC 1:24K

A. Geomorphology (Subtotal = 5.5)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	2
2. Sinuosity of channel along thalweg	0	1	2	3	2
3. In-Channel structure: ex. riffle-pool, step-pool, ripple- pool sequence	0	1	2	3	0
4. Particle size of stream substrate	0	1	2	3	0
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	0
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	0
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No = 0		Yes = 3		0

[a] artificial ditches are not rated; see discussions in manual.

B. Hydrology (Subtotal = 3.5)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	0.5
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

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

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

Notes:		
	Bank Height (feet)	0.25
	Bankfull Width (feet)	4
	Water Depth (inches)	0

Sketch:

SFSDB12

NC DWQ Stream Identification Form Version 4.11

Date: 10/12/2022		**Project/Site:** Hamlets Chapel Assemblage		**Latitude:** 35.8013	
Evaluator:	K. Hamlin, C. Darnell	**County:**	Chatham	**Longitude:** -79.1398	
Total Points: Stream is at least intermittent if ≥19 or perennial if ≥30	8.5	**Stream Determination:** Ephemeral		**Other:** *e.g. Quad Name*:	Bynum, NC 1:24K

A. Geomorphology (Subtotal = 5.5)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	2
3. In-Channel structure: ex. riffle-pool, step-pool, ripple- pool sequence	0	1	2	3	0
4. Particle size of stream substrate	0	1	2	3	0
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	0
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	0
10. Natural valley	0	0.5	1	1.5	0.5
11. Second or greater order channel	No = 0		Yes = 3		0

[a] artificial ditches are not rated; see discussions in manual.

B. Hydrology (Subtotal = 3)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	0
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

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

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

Notes:		
	Bank Height (feet)	1
	Bankfull Width (feet)	5
	Water Depth (inches)	0

Sketch:

SFSDB13

NC DWQ Stream Identification Form Version 4.11

Date: 10/12/2022		**Project/Site:** Hamlets Chapel Assemblage		**Latitude:** 35.8015	
Evaluator:	K. Hamlin, C. Darnell	**County:**	Chatham	**Longitude:** -79.1398	
Total Points: Stream is at least intermittent if ≥19 or perennial if ≥30	9	**Stream Determination:** Ephemeral		**Other:** *e.g. Quad Name*:	Bynum, NC 1:24K

A. Geomorphology (Subtotal = 4)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	2
2. Sinuosity of channel along thalweg	0	1	2	3	0
3. In-Channel structure: ex. riffle-pool, step-pool, ripple- pool sequence	0	1	2	3	0
4. Particle size of stream substrate	0	1	2	3	0
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	0
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	0
10. Natural valley	0	0.5	1	1.5	0
11. Second or greater order channel	No = 0		Yes = 3		0

[a] artificial ditches are not rated; see discussions in manual.

B. Hydrology (Subtotal = 3)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	0
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

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

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

Notes:		
	Bank Height (feet)	0-2
	Bankfull Width (feet)	5
	Water Depth (inches)	0

Sketch:

SFSE01

NC DWQ Stream Identification Form Version 4.11

Date: 10/12/2022		**Project/Site:** Hamlets Chapel Assemblage		**Latitude:** 35.8003	
Evaluator:	K. Hamlin, C. Darnell	**County:**	Chatham	**Longitude:** -79.1381	
Total Points: Stream is at least intermittent if ≥19 or perennial if ≥30	7	**Stream Determination:** Ephemeral		**Other:** *e.g. Quad Name*:	Bynum, NC 1:24K

A. Geomorphology (Subtotal = 4)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple- pool sequence	0	1	2	3	0
4. Particle size of stream substrate	0	1	2	3	0
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	0
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	0
10. Natural valley	0	0.5	1	1.5	0
11. Second or greater order channel	No = 0		Yes = 3		0

[a] artificial ditches are not rated; see discussions in manual.

B. Hydrology (Subtotal = 3)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	0
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

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

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

Notes:		
	Bank Height (feet)	1.5
	Bankfull Width (feet)	4
	Water Depth (inches)	0

Sketch:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hamlet's Chapel Road City/County: Chatham Sampling Date: 2/28/2023
Applicant/Owner: Coffey Grounds, LLC State: NC Sampling Point: DP WK1
Investigator(s): K. Hamlin Section, Township, Range:
Landform (hillside, terrace, etc.): seep/drainage Local relief (concave, convex, none): concave Slope (%): 0.1
Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.8013 Long: -79.1396 Datum: NAD83
Soil Map Unit Name: Wedowee sandy loam NWI classification: PEM
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	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Normal Conditions per Antecedent Precipitation Tool

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- X Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ True Aquatic Plants (B14)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- X Sparsely Vegetated Concave Surface (B8)
- X Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 2
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants. Sampling Point: DP WK1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 30')			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size: 5')			
1. *Smilax rotundifolia*	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5 =Total Cover		
50% of total cover: 3	20% of total cover:	1	
Woody Vine Stratum (Plot size: 15')			
1. *Smilax rotundifolia*	3	No	FAC
2.			
3.			
4.			
5.			
	3 =Total Cover		
50% of total cover: 2	20% of total cover:	1	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	8	x 3 =	24
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	8 (A)		24 (B)

Prevalence Index = B/A = 3.00

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL

Sampling Point: DP WK1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 4/2	85	7.5YR 5/8	15	C	PL	Loamy/Clayey	Prominent redox concentrations
2-12	2.5Y 6/2	85	7.5YR 5/8	15	C	PL	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 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)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

County of Chatham, NC

November 7, 2024

WP-24-573

On-site Riparian Buffer Review

Status: Active

Submitted On: 11/6/2024

Primary Location

0 VACANT
, North Carolina 00000

Owner

Hamlets Reserve LLC
127 ARAYA LANE CHAPEL HILL, NC 27516-4990, 27516

Applicant

Bold Construction
919-929-6288
sheen@boldnc.com
50051 Governors Dr
A
Chapel Hill, NC 27517

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?*

No

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*

10/12/2022

Has USACE on-site review been scheduled or completed

Completed

Date USACE was completed*

11/10/2022

Brief Summary of USACE Findings*

1 Ephemeral stream

Parcel Information

Parcel Number (s)*

2102

Watershed District

Is the property within the Jordan Lake Watershed*

Yes

Property Owner Name*

Hamlets Reserve LLC

Location of Tract (address if applicable)*

114 Hamlets Chapel

Driving Directions from Pittsboro*

N on 15-501, L on Hamlets Chapel R on George Helen

Subdivision Name (if applicable)

Please describe access issues (provide gate codes, or information for scheduling site visit)*

None

Applicants Information

Are you the Landowner or an Agent*

Agent

Full Name*

Sheen Hosseinpour

Primary Phone Number*

919 929 6288

Primary Email*

sheen@boldnc.com

Mailing Address*

50051 Governors Dr Suite A

City/State*

Chapel Hill, NC

Zip Code*

27517

How would you like to receive the completed review letter?

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

☐

I would like the completed Riparian Buffer Review mailed to me

☐

I would like the completed Riparian Buffer Review e-mailed 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*

Sheen Hosseinpour

New Field*

11/06/2024

Attachments

Signed Right to Enter Property Form REQUIRED
Ham Res Prop Entry Auth Signed.pdf
Uploaded by Bold Construction on Nov 6, 2024 at 1:34 PM

Signed Owner's Agent Designation Form
Ham Res Auth Agt Signed.pdf
Uploaded by Bold Construction on Nov 6, 2024 at 1:34 PM

Consultant Findings Report REQUIRED
Hamlets Chapel Addendum Report 11-10-2022.pdf
Uploaded by Bold Construction on Nov 6, 2024 at 1:34 PM

Consultants Findings Map REQUIRED
HamRes Findings Map.pdf
Uploaded by Bold Construction on Nov 6, 2024 at 1:35 PM

NCDWQ Stream Identification Forms & Wetland Data Forms REQUIRED
NC DWQ Stream Identification Form Version 4point11.pdf
Uploaded by Bold Construction on Nov 6, 2024 at 1:37 PM

NRCS Map REQUIRED
NRCS Map Parcel 2102 Hamlets Reserve.pdf
Uploaded by Bold Construction on Nov 6, 2024 at 1:38 PM

USGS Topographic Map REQUIRED
USGS Map Parcel 2102 Hamlets Reserve.pdf
Uploaded by Bold Construction on Nov 6, 2024 at 1:38 PM

History

Date	Activity
11/7/2024, 11:50:30 AM	Drew Blake approved approval step Watershed Intake Approval on Record WP-24-573
11/7/2024, 11:48:38 AM	Drew Blake reactivated approval step Watershed Intake Approval on Record WP-24-573
11/7/2024, 11:48:26 AM	OpenGov system altered payment step Major Subdivision Riparian Buffer Review Fee, changed status from Inactive to Active on Record WP-24-573
11/7/2024, 11:48:25 AM	Drew Blake approved approval step Watershed Intake Approval on Record WP-24-573
11/6/2024, 1:39:05 PM	OpenGov system changed the deadline to Nov 8, 2024 on approval step Watershed Intake Approval on Record WP-24-573
11/6/2024, 1:39:04 PM	OpenGov system assigned approval step Watershed Intake Approval from to Hollie Squires on Record WP-24-573
11/6/2024, 1:39:04 PM	OpenGov system altered approval step Watershed Intake Approval, changed status from Inactive to Active on Record WP-24-573
11/6/2024, 1:39:03 PM	Bold Construction submitted Record WP-24-573
11/6/2024, 1:38:56 PM	Bold Construction added file USGS Map Parcel 2102 Hamlets Reserve.pdf

Date	Activity
11/6/2024, 1:38:52 PM	Bold Construction added file NRCS Map Parcel 2102 Hamlets Reserve.pdf
11/6/2024, 1:38:43 PM	Bold Construction removed file NC DWQ Stream Identification Form Version 4point11.pdf
11/6/2024, 1:38:42 PM	Bold Construction added file NC DWQ Stream Identification Form Version 4point11.pdf
11/6/2024, 1:37:41 PM	Bold Construction added file NC DWQ Stream Identification Form Version 4point11.pdf
11/6/2024, 1:35:52 PM	Bold Construction added file HamRes Findings Map.pdf
11/6/2024, 1:34:57 PM	Bold Construction added file Hamlets Chapel Addendum Report 11-10-2022.pdf
11/6/2024, 1:34:37 PM	Bold Construction added file Ham Res Auth Agt Signed.pdf
11/6/2024, 1:34:33 PM	Bold Construction added file Ham Res Prop Entry Auth Signed.pdf
11/4/2024, 1:38:01 PM	Bold Construction started a draft Record

Timeline

Label	Activated	Completed	Assignee	Due Date	Status
✔ Watershed Intake Approval	11/6/2024, 1:39:04 PM	11/7/2024, 11:50:30 AM	Hollie Squires	11/7/2024	Completed
$ Major Subdivision Riparian Buffer Review Fee	11/7/2024, 11:48:25 AM	-	Bold Construction	-	Active
✔ Field Review	-	-	-	-	Inactive

Label	Activated	Completed	Assignee	Due Date	Status
Major Subdivision Riparian Buffer Confirmation Report	-	-	-	-	Inactive

CHATHAM COUNTY

AUTHORIZED AGENT FOR FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO. 0002102 PARCEL ID (PIN) 0002102 PARCEL SIZE 9.08 acres

STREET ADDRESS: Off Hamlets Chapel Rd

Pittsboro, NC 27312

Please print:
Property Owner: Hamlets Reserve LLC

Property Owner:

The undersigned owner(s) of the above described property, do hereby authorize

Sheen Hosseinpour (Contractor / Agent), of BOLD Construction Inc (Name of consulting firm if applicable)

to act on my/our behalf and take all actions, I/we could have taken if present, necessary for the processing, issuance and acceptance of reviews, inspections, or permits and any and all standard and special conditions attached to these approvals. The activities authorized include the following (**Check all that apply**):

☑ **Check here for all of the below options.**

☑ Building Permit
☑ Zoning Compliance Permits
☑ Floodplain Determination
☑ Soil Erosion & Sedimentation Control Permit
☑ Permits to install, repair, evaluate, or expand onsite wastewater system(s)
☑ Evaluation/inspection/permitting of a private drinking water well(s).
☑ Riparian Buffer Review pursuant to §304 of the Chatham Co. Watershed Protection Ordinance.
☑ Other:

Property Owner's Address (if different than property above):
127 Arays Ln Chapel Hill, NC 27516

Telephone: 919 929 6288 E-mail: jason@boldnc.com

We hereby certify the above information submitted in this application is true and accurate to the best of our knowledge.

Owner Authorized Signature
Date: 11/04/2024

Agent Authorized Signature
Date: 11/04/2024

CHATHAM COUNTY
NORTH CAROLINA

Watershed Protection Department

P.O. Box 548
Pittsboro, NC 27312

Website: www.chathamnc.org

Authorization to Enter Property Form

Date: 11/4/2024

PARCEL No. (AKPAR) 0002102

I, (print name) Jason Dell, as owner of the property described above, or as a representative of the owner(s) do hereby convey permission to Chatham County staff to enter the property at their convenience to conduct a surface water identification (SWID) necessary to determine whether or not water features on my property are subject to the riparian buffer regulations described in Section 304 of the Chatham County Watershed Protection Ordinance. The SWID will be public record and on file at the Planning and Watershed Protection Departments, and may be requested in the future for review by interested parties.

I understand that stream delineations for the property listed above will be made by County staff only once and that if future subdivisions are proposed within this property boundary, it will require a surface water identification by a private consultant at the property owner's expense.

Hamlets Reserve LLC
(Print Owner's Name)

(Signature of Owner)
(Date) 11/4/24

Sheen Hosseinpour
(Print Authorized Agent Name)

(Signature of Authorized Agent)
(Date) 11/4/24

CHATHAM COUNTY
NORTH CAROLINA

WATERSHED PROTECTION DEPARTMENT

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

Fax: (919) 542-2698 ● E-mail: drew.blake@chathamnc.org ● Website: www.chathamnc.org

January 28, 2021

Ms. Kim Hamlin
Sage Ecological Services, Inc.
3707 Swift Drive
Raleigh, NC 27605

Project Name:	Hamlet's Ridge (Parcel's 61669, 68866, 1795)
Location:	Hamlets Chapel Road, Chatham County
Subject Features:	Four (4) intermittent segments, four (4) perennial segments, thirteen (13) wetlands, beaver impoundment, mapped floodplain
Date of Determination:	January 22, 2021

Explanation:
The site visit was completed on January 22, 2021 by Drew Blake with the Chatham County Watershed Protection Department and Kim Hamlin of Sage Ecological Services, Inc. (Sage), on properties identified as Chatham County Parcel #'s 61669, 68866, 1795 that are located inside of the Jordan Lake watershed. Sage personnel completed a previous site visit which resulted in the identification of four (4) intermittent segments, four (4) perennial segments, and thirteen (13) potential wetlands on the property. Sage 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. All points of origin, stream type transitions, and wetland boundaries were reviewed in the field.

Required Riparian Buffers:
The required riparian buffers described below are based on the surface water features identified on the included on Figure 3: Wetland Sketch Map, completed by Sage. Ephemeral streams will require a 30-ft buffer from the top of bank landwards on both sides of the features. The intermittent streams will require a 50-ft buffer from the top of bank landward on both sides of the feature. The perennial streams will require a 100-ft buffer from the top of bank landward on both sides of the feature. Wilkinson Creek will receive a 100-ft buffer on those portions that are located within the property. All buffers for features that are within the mapped floodplain boundary will extend to the full length of the required buffer or to the mapped floodplain boundary, whichever is the greater distance from the top of bank or wetland boundary.

The beaver impoundment along Wilkinson Creek will receive a 50-ft buffer based on NC DWR Buffer Interpretation/Clarification Memorandum #2007-005. This requires a 50-ft buffer on beaver impoundments as they are considered open water. The buffer will surround the beaver impoundment and is measured based on the ground elevation of the beaver dam. If multiple beaver dams are present the buffer will change according to each dam elevation. All buffers beaver impoundment will extend to the full length of the required buffer, as described above, or to the mapped floodplain boundary, whichever is the greater distance from the top of bank or wetland boundary.

CHATHAM COUNTY
NORTH CAROLINA

WATERSHED PROTECTION DEPARTMENT

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

Fax: (919) 542-2698 ● E-mail: drew.blake@chathamnc.org ● Website: www.chathamnc.org

The wetland boundaries flagged in the field by Sage must be reviewed and confirmed by the US Army Corps of Engineers (USACE). A 50-ft buffer will be required beginning at the flagged boundaries and proceeding landward of any flagged wetlands determined jurisdictional by the USACE. Any wetlands determined non-jurisdictional by the USACE will receive a 50-ft buffer based on the flagged boundary in the field.

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.

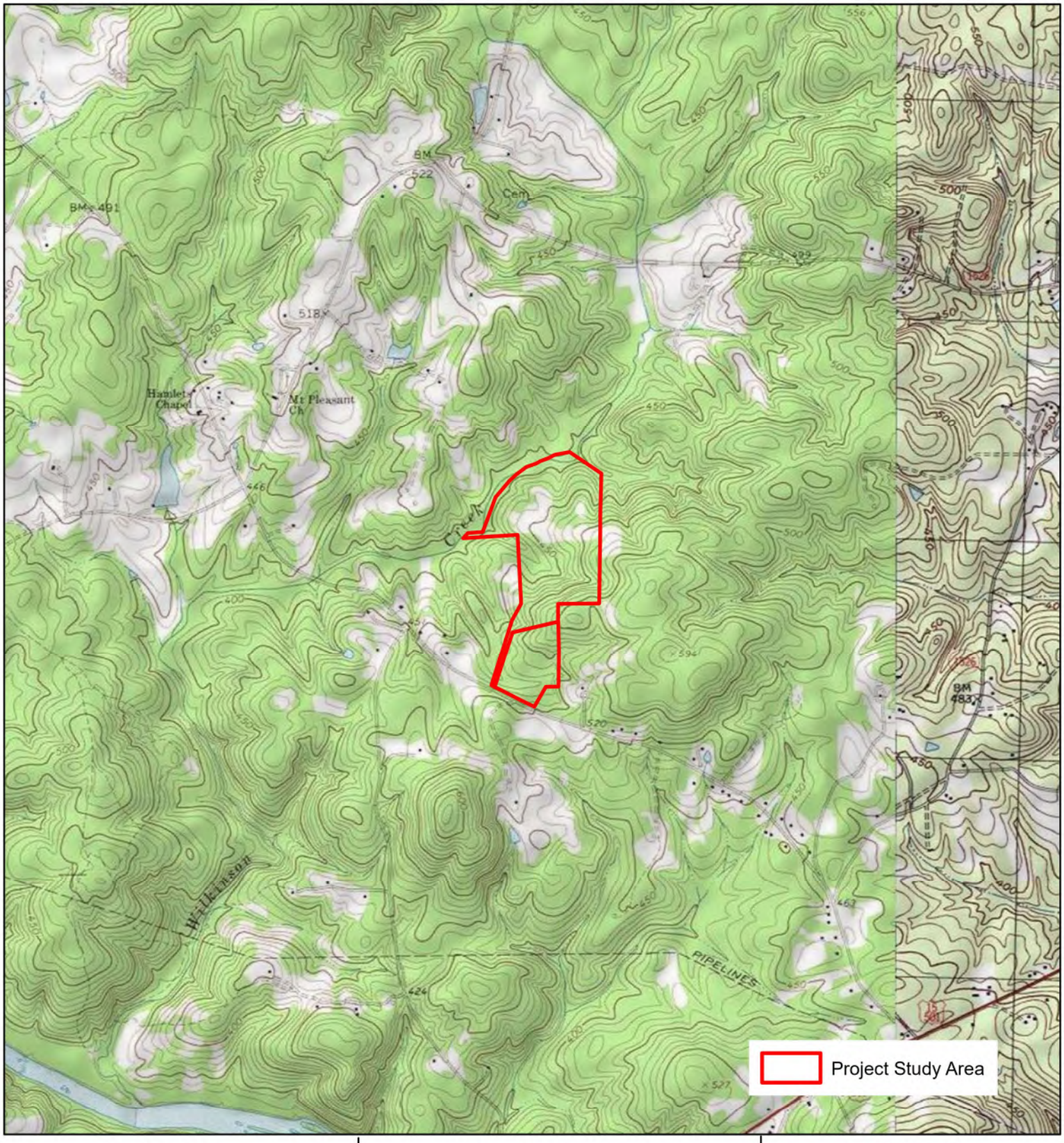
Respectfully,

Drew Blake

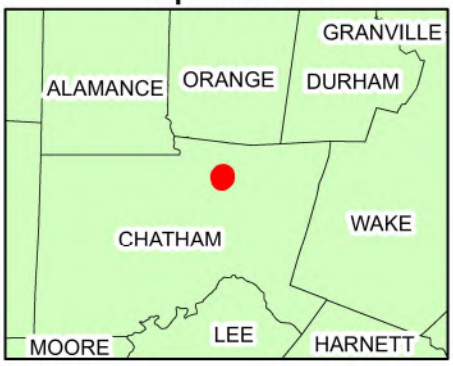
Drew Blake
Senior Watershed Specialist, CESSWI

Enclosures:
Figure 1: USGS Topographic Map – Completed by Sage
Figure 2: NRCS Soil Survey – Completed by Sage
Figure 3: Stream and Wetland Sketch Map – Completed by Sage
Sage Stream ID Forms
Sage Wetland Determination Form
Major Subdivision Riparian Buffer Application
Authorized Agent Form
Authorization to Enter Property Form

cc: 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



Map Location



USGS Topo Map

Hamlets Chapel Road
Sage Project # 2020.005

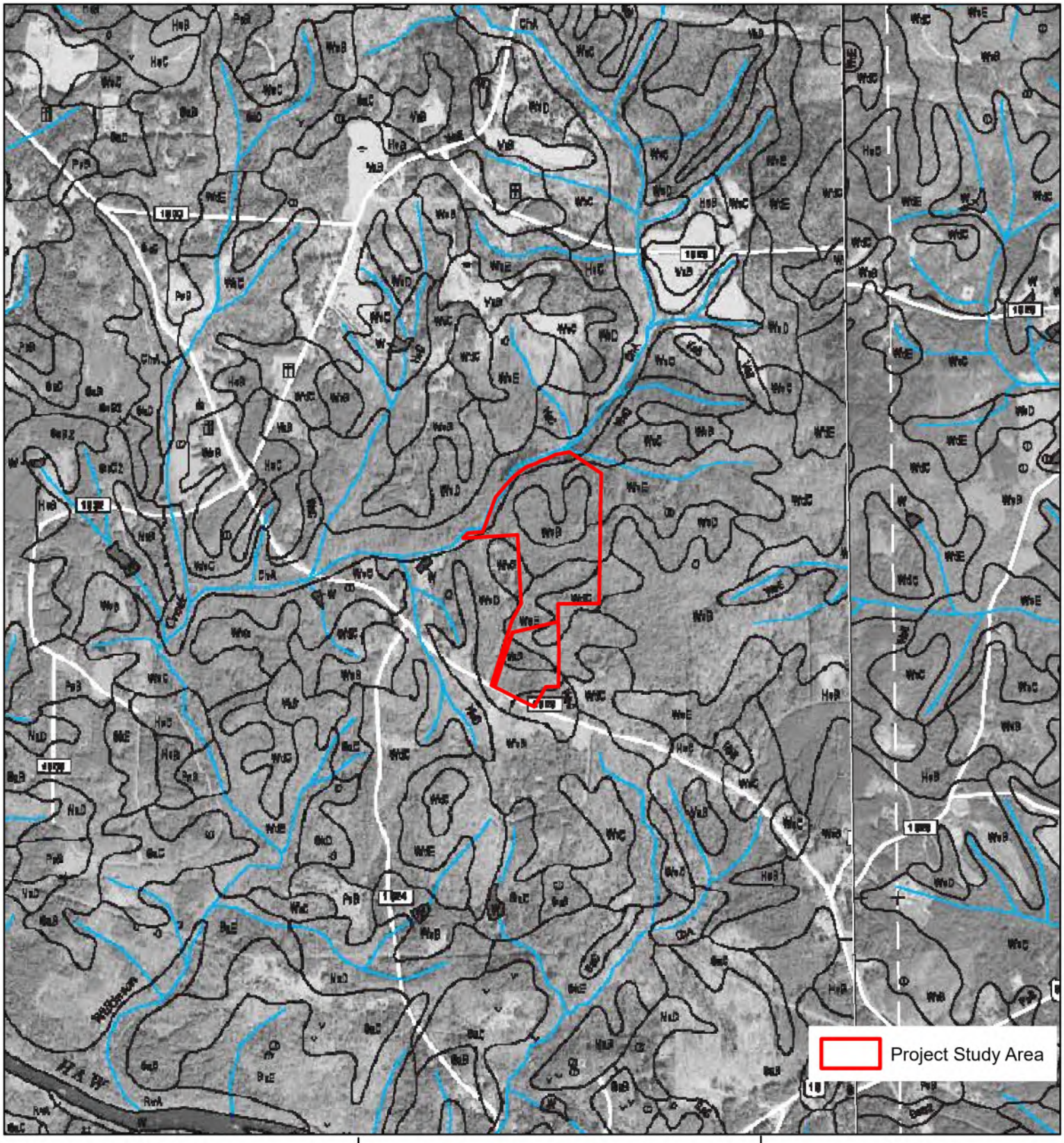
Bynum, NC Quadrangle
December 2013 USGS Topography
September 20, 2020

N

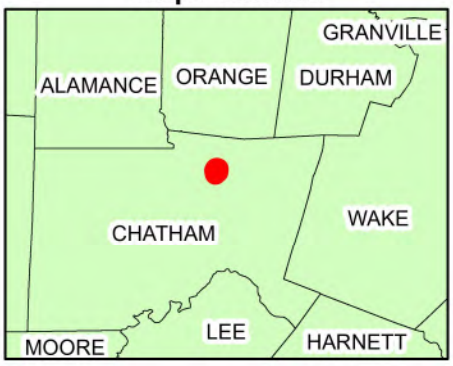
0 800 1,600
Feet

Figure 1

Sage Ecological Services, Inc.
Office: 919-335-6757
Cell: 919-559-1537



Map Location



NRCS Soil Survey Map

Hamlets Chapel Property
Sage Project # 2020.005

Chatham County Soil Survey
Bynum
September 20, 2020

N

0 1,000 2,000
Feet

Figure 2

Sage Ecological Services, Inc.
Office: 919-335-6757
Cell: 919-559-1537

NOTE: Location, shape and size of depicted features on the evaluated site are approximate and should be surveyed by a licensed NC surveyor for final site planning.

All Features must be confirmed by Chatham County and the USACE.

Wetland WD
WD01-WD05

Wetland WC
WC01-WC24

Stream B

Wetland WB-1
WB01-WB52
WB62-WB91

Wetland WB-6
WB100-WB106

Wetland WB-5
WB300-WB306

Wetland WB-4
WB200-WB203

SF2

SF3

Wetland WB-2
WB52-WB61

Marginal Wetland/
Stream WB-3

DP1

DP2

Stream A
SDB01 Start Stream

Stream A
SDB02 Stop Stream

Stream A
SD01 Start Stream

Stream C
SC01 Start Stream

Wetland WA-1
WA01-WA08
WDA01-WDA08

SF1

Wetland WA-2
WDA100-WDA108

Wetland WA-3
WDA200-WDA201

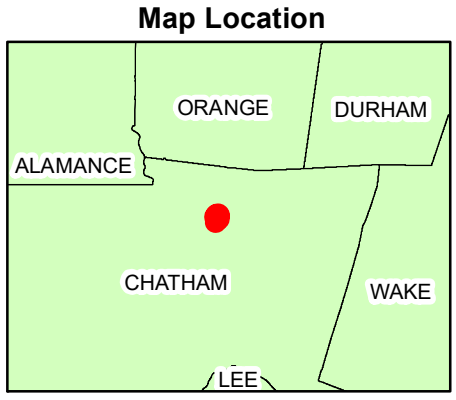
Stream SDA
SDA01 Start Stream

Legend

- Project Study Area
- Stream Form
- Marginal Stream/ Marginal Wetland- Jurisdictional Waters of the U.S.; Subject to 50-Foot Chatham County Buffers
- Intermittent Stream - Jurisdictional Waters of the U.S.; Subject to 50-Foot Chatham County Buffers
- Perennial Stream - Jurisdictional Waters of the US; Subject to 100-Foot Chatham County Buffers
- Wetlands - Jurisdictional Waters of the U.S.; Subject to 50-Foot Chatham County Buffers

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Map Location



Wetland Sketch Map

Hamlets Chapel Road Project
Sage Project # 2020.005

Revised January 21, 2021

N

0 150 300 Feet

Figure 3

Drawn By:
David Gainey

Sage Ecological Services, Inc.
Office: 919-335-6757
Cell: 919-559-1537

NC DWQ Stream Identification Form Version 4.11

SF1

Date: 09/11/2020	**Project/Site:** Hamlets Chapel	**Latitude:** 35.8001
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -79.1448
Total Points: 34.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Perennial	**Other:** Bynum, NC *e.g. Quad Name*:

A. Geomorphology (Subtotal = 16.5)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	2
4. Particle size of stream substrate	0	1	2	3	2
5. Active/relic floodplain	0	1	2	3	2
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	3
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1
10. Natural valley	0	0.5	1	1.5	1.5
11. Second or greater order channel	No = 0		Yes = 3		0

[a] artificial ditches are not rated; see discussions in manual.

B. Hydrology (Subtotal = 10)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	3
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	1.5
15. Sediment on plants or debris	0	0.5	1	1.5	1.5
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 8)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	3
19. Rooted upland plants in streambed	3	2	1	0	3
20. Macrobenthos (note diversity and abundance)	0	1	2	3	2
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FACW=0.75; OBL=1.5 Other=0				0

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

Notes:		
	Bank Height (feet)	
	Bankfull Width (feet)	
	Water Depth (inches)	
	Channel Substrate	
	Velocity:	
	Clarity:	

Sketch:

NC DWQ Stream Identification Form Version 4.11

SF2

Date: 09/11/2020	**Project/Site:** Hamlets Chapel	**Latitude:** 35.8043
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -79.142
Total Points: 7.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Bynum, NC *e.g. Quad Name*:

A. Geomorphology (Subtotal = 5.5)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	0
2. Sinuosity of channel along thalweg	0	1	2	3	0
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	0
4. Particle size of stream substrate	0	1	2	3	3
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	0
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	0
9. Grade controls	0	0.5	1	1.5	1.5
10. Natural valley	0	0.5	1	1.5	1
11. Second or greater order channel	No = 0		Yes = 3		0

[a] artificial ditches are not rated; see discussions in manual.

B. Hydrology (Subtotal = 2)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	2
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0
15. Sediment on plants or debris	0	0.5	1	1.5	0
16. Organic debris lines or piles	0	0.5	1	1.5	0
17. Soil-based evidence of high water table?	No = 0		Yes = 3		0

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

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

Notes:
No bed or bank

Bank Height (feet)	
Bankfull Width (feet)	
Water Depth (inches)	
Channel Substrate	
Velocity:	
Clarity:	

Sketch:

NC DWQ Stream Identification Form Version 4.11

SF3

Date: 09/11/2020	**Project/Site:** Hamlets Chapel	**Latitude:** 35.8043
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -79.1442
Total Points: 35 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Perennial	**Other:** Bynum, NC *e.g. Quad Name*:

A. Geomorphology (Subtotal = 16)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	3
2. Sinuosity of channel along thalweg	0	1	2	3	1
3. In-Channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3	2
4. Particle size of stream substrate	0	1	2	3	2
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	2
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	1
9. Grade controls	0	0.5	1	1.5	1.5
10. Natural valley	0	0.5	1	1.5	1.5
11. Second or greater order channel	No = 0		Yes = 3		0

[a] artificial ditches are not rated; see discussions in manual.

B. Hydrology (Subtotal = 10.5)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	3
13. Iron oxidizing bacteria	0	1	2	3	1
14. Leaflitter	1.5	1	0.5	0	1.5
15. Sediment on plants or debris	0	0.5	1	1.5	1
16. Organic debris lines or piles	0	0.5	1	1.5	1
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 8.5)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	3
19. Rooted upland plants in streambed	3	2	1	0	3
20. Macrobenthos (note diversity and abundance)	0	1	2	3	2
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	0.5
23. Crayfish	0	0.5	1	1.5	0
24. Amphibians	0	0.5	1	1.5	0
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FACW=0.75; OBL=1.5 Other=0				0

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

Notes:		
	Bank Height (feet)	
	Bankfull Width (feet)	
	Water Depth (inches)	
	Channel Substrate	
	Velocity:	
	Clarity:	

Sketch:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hamlets Chapel Property / Sage Project #2020.005 City/County: Pittsboro / Chatham Sampling Date: 02/03/2020

Applicant/Owner: Coffey Grounds, Inc. State: NC Sampling Point: DP1 WET

Investigator(s): D. Gainey Section, Township, Range:

Landform (hillside, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0.5

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.8037°N Long: 79.1431°W Datum: NAD83

Soil Map Unit Name: We - Wedowee sandy loam NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (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	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Wetter than normal conditions per Antecedent Precipitation Tool

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Sampling Point: DP1 WET

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	20	Yes	FAC
2. *Liquidambar styraciflua*	10	Yes	FAC
3. *Carpinus caroliniana*	10	Yes	FAC
4. *Ilex opaca*	5	No	FACU
5.			
6.			
7.			
	45	=Total Cover	
50% of total cover: 23	20% of total cover: 9		

Sapling/Shrub Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
		=Total Cover	
50% of total cover:	20% of total cover:		

Herb Stratum (Plot size: 5')			
1. *Microstegium vimineum*	40	Yes	FAC
2. *Polystichum acrostichoides*	5	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	45	=Total Cover	
50% of total cover: 23	20% of total cover: 9		

Woody Vine Stratum (Plot size: 15')			
1. *Smilax rotundifolia*	5	Yes	FAC
2.			
3.			
4.			
5.			
	5	=Total Cover	
50% of total cover: 3	20% of total cover: 1		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	85	x 3 =	255
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	95 (A)		295 (B)

Prevalence Index = B/A = 3.11

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

_X_ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

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

SOIL

Sampling Point: DP1 WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	95	10YR 5/8	5	C	PL	Loamy/Clayey	Prominent redox concentrations
6-12	10YR 5/2	95	10YR 5/8	5	C	PL	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 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)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: Hamlets Chapel Property / Sage Project #2020.005 City/County: Pittsboro / Chatham Sampling Date: 02/03/2020

Applicant/Owner: Coffey Grounds, Inc. State: NC Sampling Point: DP2 UP

Investigator(s): D. Gainey Section, Township, Range:

Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0.5

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.8037°N Long: 79.1431°W Datum: NAD83

Soil Map Unit Name: We - Wedowee sandy loam NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No X (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ____ 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 ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
Wetter than normal conditions per Antecedent Precipitation Tool

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Sampling Point: DP2 UP

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Carya alba*	30	Yes	UPL
2. *Liriodendron tulipifera*	20	Yes	FACU
3. *Ulmus americana*	10	No	FACW
4. *Ilex opaca*	5	No	FACU
5.			
6.			
7.			
	65	=Total Cover	
50% of total cover: 33		20% of total cover: 13	

Sapling/Shrub Stratum (Plot size: 30')			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
		=Total Cover	
50% of total cover:		20% of total cover:	

Herb Stratum (Plot size: 5')			
1. *Polystichum acrostichoides*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10	=Total Cover	
50% of total cover: 5		20% of total cover: 2	

Woody Vine Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
50% of total cover:		20% of total cover:	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	35	x 4 =	140
UPL species	30	x 5 =	150
Column Totals:	75 (A)		310 (B)

Prevalence Index = B/A = 4.13

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

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

SOIL

Sampling Point: DP2 UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 5/3	100					Loamy/Clayey	
4-12	10YR 6/4	100					Loamy/Clayey	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 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)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

CHATHAM COUNTY
NORTH CAROLINA

Watershed Protection Department
Website: www.chathamnc.org

Date Received: _____ PL# _____

Riparian Buffer Review Application
Surface Water Identification Request for
Major Subdivisions

Tract Information

Parcel #: 61669 / 68866 / 1795 Watershed District (and name of creek if known): WS-IV PA; Wilkinson Cr.

Property Owner: Coffey Grounds of Chapel Hill

Location/Physical Address of Tract: 1.6 miles west of US-15/US-501 on Hamlet's Chapel Rd.

Driving Directions from Pittsboro: Drive north on US-15/US-501. Turn left on Hamets Chapel Road. Site is on right in 1.6 miles.

Subdivision Name (if applicable): Hamlet's Ridge

Owner's/Agent Contact Information (Agent: Consultant, Real Estate Agent, Surveyor, Other) Circle one

Name: Kim Hamlin - Consultant

Contact Phone Numbers: (h) _____ (w) _____ (c) (919)244-0623

E-mail: khamlin@sageecological.com

Mailing Address: 3707 Swift Drive, Raleigh, NC 27605

Do you wish to be contacted prior to Chatham County staff visiting the property? ☑ Yes ☐ No

How much notice is required prior to arrival onsite? 1 week

How would you like to receive the completed review letter? (Please check one of the following)

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

Please include the following items with this request

☑ Completed consultant findings report including the following:
- ☑ GIS generated or hand drawn sketch of surface water features found onsite (Buffer Plan Sheet)
  No smaller than 1"=60' and paper size 11"x17" or larger
- ☑ NCDWQ Stream Identification Forms, Version 4.11, Wetland Determination Data Form –

Riparian Buffer Review Application
Surface Water Identification Request

Eastern Mountains and Piedmont Region, digital photographs, notes, sketches, etc.

☑ NRCS map with property boundary depicted

☑ USGS map with property boundary depicted

☑ Statement of Credentials (Training Certificate for NCDWQ/NC State University Surface Waters Classification course, 2 years of jurisdictional wetland delineation according to the Eastern Mountains and Piedmont Regional Supplement to the 1987 US Corps of Engineers Wetland Delineation Manual)

☑ Signed Right to Enter Property Form

☑ Signed Owner's Agent Designation Form

☑ Fee (make checks payable to Chatham County) **$100 per feature confirmed onsite**

Feature *is defined as any surface water that is subject to Chatham County Riparian Buffers (streams, wetlands, ponds)*

Total Number of Features: 16 Total Paid: $1,600.00

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 herein.

Owner/Agent Signature: DocuSigned by: John Coffey Date: 12/17/2020

CHATHAM COUNTY

AUTHORIZED AGENT FOR FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO. _____ PARCEL ID (PIN) 61669 / 68866 / 1795 PARCEL SIZE 67.53 / 6.497 / 20 acres

STREET ADDRESS: 1.6 miles west of US-15/US-501 on Hamlet's Chapel Road

Please print:
Property Owner: Coffey Grounds of Chapel Hill, Inc. - Mr. John Coffey (61669 / 68866)

Property Owner: Harris, Dan F. & Harris, Walter F. (1795)

The undersigned owner(s) of the above described property, do hereby authorize

Kim Hamlin (Contractor / Agent), of Sage Ecological Services, Inc. (Name of consulting firm if applicable)

to act on my/our behalf and take all actions, I/we could have taken if present, necessary for the processing, issuance and acceptance of reviews, inspections, or permits and any and all standard and special conditions attached to these approvals. The activities authorized include the following (**Check all that apply**):

☑ **Check here for all of the below options.**

☐ Building Permit
☐ Zoning Compliance Permits
☐ Floodplain Determination
☐ Soil Erosion & Sedimentation Control Permit
☐ Permits to install, repair, evaluate, or expand onsite wastewater system(s)
☐ Evaluation/inspection/permitting of a private drinking water well(s).
☑ Riparian Buffer Review pursuant to §304 of the Chatham Co. Watershed Protection Ordinance.
☐ Other: _____

Property Owner's Address (if different than property above):

John Coffey, 1127 Arya Lane, Chapel Hill, NC 27516

Telephone: (919) 923-9444 E-mail: coffeygrounds@att.net

We hereby certify the above information submitted in this application is true and accurate to the best of our knowledge.

DocuSigned by: Dan Harris 11/25/2020
Owner Authorized Signature

Date: ~~11/25/2020~~
DocuSigned by: Patty Harris
DocuSigned by: John Coffey 11/25/2020

Agent Authorized Signature

Date: _____

CHATHAM COUNTY
NORTH CAROLINA

Chatham County Health Department
Leading the Charge to a Healthier Chatham

CHATHAM COUNTY

AUTHORIZED AGENT FOR FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO. _____ PARCEL ID (PIN) 61669 / 68866 / 1795 PARCEL SIZE 67.53 / 6.497 / 20 acres

STREET ADDRESS: 1.6 miles west of US-15/US-501 on Hamlet's Chapel Road

Please print:
Property Owner: Coffey Grounds of Chapel Hill, Inc. - Mr. John Coffey (61669 / 68866)

Property Owner: Harris, Dan F. & Harris, Walter F. (1795)

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Kim Hamlin (Contractor / Agent), of Sage Ecological Services, Inc. (Name of consulting firm if applicable)

to act on my/our behalf and take all actions, I/we could have taken if present, necessary for the processing, issuance and acceptance of reviews, inspections, or permits and any and all standard and special conditions attached to these approvals. The activities authorized include the following (**Check all that apply**):

☑ **Check here for all of the below options.**

☐ Building Permit
☐ Zoning Compliance Permits
☐ Floodplain Determination
☐ Soil Erosion & Sedimentation Control Permit
☐ Permits to install, repair, evaluate, or expand onsite wastewater system(s)
☐ Evaluation/inspection/permitting of a private drinking water well(s).
☑ Riparian Buffer Review pursuant to §304 of the Chatham Co. Watershed Protection Ordinance.
☐ Other: _____

Property Owner's Address (if different than property above): Coffey Grounds of Chapel Hill Inc John W. Coffey, President
John Coffey, 1127 Arya Lane, Chapel Hill, NC 27516 Walter HARRIS, 281 Hillsboro St. PO Box 307
Coffeygrounds@att.net WFHARRIS67@Gmail.com Pittsboro NC

Telephone: 919-942-6677 E-mail: _____

We hereby certify the above information submitted in this application is true and accurate to the best of our knowledge.

X Walter Harris
Owner Authorized Signature

Date: 11-25-2020

X Sam Clark
Agent Authorized Signature

Date: 12-08-2020

X Sandra Harris
11-25-2020

CHATHAM COUNTY
NORTH CAROLINA

Watershed Protection Department

P.O. Box 548
Pittsboro, NC 27312

Website: www.chathamnc.org

Authorization to Enter Property Form

Date: _____

PARCEL No. (AKPAR) 61669 / 68866

I, (print name) John Coffey, as owner of the property described above, or as a representative of the owner(s) do hereby convey permission to Chatham County staff to enter the property at their convenience to conduct a surface water identification (SWID) necessary to determine whether or not water features on my property are subject to the riparian buffer regulations described in Section 304 of the Chatham County Watershed Protection Ordinance. The SWID will be public record and on file at the Planning and Watershed Protection Departments, and may be requested in the future for review by interested parties.

I understand that stream delineations for the property listed above will be made by County staff only once and that if future subdivisions are proposed within this property boundary, it will require a surface water identification by a private consultant at the property owner's expense.

John Coffey
(Print Owner's Name)

DocuSigned by: John Coffey
11/25/2020
(Signature of Owner)
(Date)

Kim Hamlin
(Print Authorized Agent Name)

(Signature of Authorized Agent)
(Date)

CHATHAM COUNTY
NORTH CAROLINA

Watershed Protection Department

P.O. Box 548
Pittsboro, NC 27312

Website: www.chathamnc.org

Authorization to Enter Property Form

Date: _____

PARCEL No. (AKPAR) 1795

I, (print name) Harris, Dan F. & Harris Walter F., as owner of the property described above, or as a representative of the owner(s) do hereby convey permission to Chatham County staff to enter the property at their convenience to conduct a surface water identification (SWID) necessary to determine whether or not water features on my property are subject to the riparian buffer regulations described in Section 304 of the Chatham County Watershed Protection Ordinance. The SWID will be public record and on file at the Planning and Watershed Protection Departments, and may be requested in the future for review by interested parties.

I understand that stream delineations for the property listed above will be made by County staff only once and that if future subdivisions are proposed within this property boundary, it will require a surface water identification by a private consultant at the property owner's expense.

Dan and Patty Harris
(Print Owner's Name)

DocuSigned by: Patty Harris 11/25/2020
DocuSigned by: Dan Harris 11/25/2020
(Signature of Owner)
(Date)

Kim Hamlin
(Print Authorized Agent Name)

(Signature of Authorized Agent)
(Date)

CHATHAM COUNTY
NORTH CAROLINA

Watershed Protection Department

P.O. Box 548
Pittsboro, NC 27312

Website: www.chathamnc.org

Authorization to Enter Property Form

Date: _____

PARCEL No. (AKPAR) 61669 / 68866

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I understand that stream delineations for the property listed above will be made by County staff only once and that if future subdivisions are proposed within this property boundary, it will require a surface water identification by a private consultant at the property owner's expense.

X Coffey Grounds of Chapel Hill, Inc.
John Coffey, President
(Print Owner's Name)

X by: John W. Coffey, President
(Signature of Owner)
(Date)

X Sean Clark
(Print Authorized Agent Name)

X Sean Clark 12-08-2020
(Signature of Authorized Agent)
(Date)

CHATHAM COUNTY
NORTH CAROLINA

Watershed Protection Department

P.O. Box 548
Pittsboro, NC 27312

Website: www.chathamnc.org

Authorization to Enter Property Form

Date: _____

PARCEL No. (AKPAR) 1795

I, (print name) Harris, Dan F. & Harris Walter F., as owner of the property described above, or as a representative of the owner(s) do hereby convey permission to Chatham County staff to enter the property at their convenience to conduct a surface water identification (SWID) necessary to determine whether or not water features on my property are subject to the riparian buffer regulations described in Section 304 of the Chatham County Watershed Protection Ordinance. The SWID will be public record and on file at the Planning and Watershed Protection Departments, and may be requested in the future for review by interested parties.

I understand that stream delineations for the property listed above will be made by County staff only once and that if future subdivisions are proposed within this property boundary, it will require a surface water identification by a private consultant at the property owner's expense.

X WALTER F. HARRIS
(Print Owner's Name)
LINDA HARRIS

X _____ 11-25-2020
(Signature of Owner)
(Date) Linda Harris 11/25/2020

X Sean Clark
(Print Authorized Agent Name)

X _____ 12-08-2020
(Signature of Authorized Agent)
(Date)