

WATERSHED PROTECTION DEPARTMENT

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

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July 20, 2021

Robert Turnbull Terracon 2401 Brentwood Road, Suite 1 Raleigh, NC 27604	07
Project Name:	Ridge Crest (Parcels 1798)
Chatham County Watershed Project #:	<u>WP-21-244</u>
Location:	<u>Manns Chapel Road & Hamlets Chapel Road, Chatham</u> <u>County (Parcel# 1798)</u>
Subject Feature(s):	Four (4) ephemeral stream segments, four (4) perennial stream segments, one (1) potential wetland, and one (1) mapped floodplain
Date of	<u>June 23, 2021</u>

Determination:

Explanation:

The site visit was completed on June 23, 2021 by Drew Blake with the Chatham County Watershed Protection Department, and Robert Turnbull of Terracon, on a property identified as Chatham County Parcel # 1798 that is located inside of the Jordan Lake watershed. Terracon personnel completed a previous site visit which resulted in the identification of four (4) ephemeral stream segments, four (4) perennial stream segments, and one (1) potential wetland on the property. Terracon 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. The wetland boundaries flagged in the field by Terracon have been reviewed and confirmed by the US Army Corps of Engineers (USACE).

Required Riparian Buffers:

The required riparian buffers described below are based on the surface water features identified on Exhibit 3: Potential Wetlands and Waters, completed by Terracon. Streams S2, S3, S5, and S6 were identified as ephemeral streams and will therefore require a 30-ft buffer from the top of bank landward on both sides of the features. Streams S1, S4, S7 (Wilkinson Creek) and S7a were identified as perennial streams and will therefore require a 100-ft buffer from the top of bank landward on both sides. The start point for Stream S4 was relocated to the nearest property line to the north. A FEMA mapped floodplain is located along Wilkinson Creek and stream S6. The

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riparian buffers in this portion of the streams S6, S7 and S7a will extend to the 100-ft from the top of bank or to the mapped floodplain limits, whichever is more restrictive.

A 50-ft buffer will be required beginning at the flagged boundary and proceeding landward of any flagged wetlands determined jurisdictional by the USACE. Any wetlands determined to be non-jurisdictional by the USACE will receive a 50-ft buffer from the flagged boundary as observed during the site visit. Please provide a copy of the USACE determination once completed.

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: Wetland Sketch Map – completed by Terracon Figure 2: USGS Topographic Map – Completed by Terracon Figure 3: NRCS Soil Survey – Completed by Terracon Terracon Stream ID Forms Terracon Wetland Determination Forms

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Major Subdivision Riparian Buffer Application Authorized Agent Form Authorization to Enter Property Form

 cc: Chad Abbott, Principal Engineer, C3 Design Ricky Spoon, Lovin' Spoonful, LLC
 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







Date: 01/18/21	Project/Site: 70217006	Latitude: 35.8089
Evaluator: EC	County: Chatham County, NC	Longitude: -79.1512
Total Points:41.5Stream is at least intermittent 41.5 if \geq 19 or perennial if \geq 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other SEB e.g. Quad Name:

A. Geomorphology (Subtotal =23.5	Absent	Weak	Moderate	Strong
1 ^{a.} Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
 In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence 	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	N	o = 0	Yes	= 3
^a artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = <u>11</u>)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	N	o = 0	Yes	= 3
C. Biology (Subtotal = _7)			•	
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75;	OBL = 1.5 Other = (
*perennial streams may also be identified using other methods	. See p. 35 of manua	al.		
Notes:				

Date: 01/22/21	Project/Site: 70217006	Latitude: 35.8086
Evaluator: EC	County: Chatham County, NC	Longitude: -79.1511
Total Points: Stream is at least intermittent 15 if \ge 19 or perennial if \ge 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other SEG e.g. Quad Name:

A. Geomorphology (Subtotal = <u>6.5</u>)	Absent	Weak	Moderate	Strong
1 ^{a.} Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	N	<mark>o = 0</mark>	Yes	= 3
^a artificial ditches are not rated; see discussions in manual			·	
B. Hydrology (Subtotal = <u>5.5</u>)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	N	o = 0	Yes	= 3
C. Biology (Subtotal = <u>3</u>)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75;	OBL = 1.5 Other = (
*perennial streams may also be identified using other methods.	See p. 35 of manu	al.		
Notes:				

Date: 01/22/21	Project/Site: 70217006	Latitude: 35.8086
Evaluator: EC	County: Chatham County, NC	Longitude: -79.1514
Total Points: Stream is at least intermittent 17.5 if \ge 19 or perennial if \ge 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other SEF e.g. Quad Name:

A. Geomorphology (Subtotal =7.5)	Absent	Weak	Moderate	Strong
1 ^{a.} Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
 In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence 	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	N	<mark>o = 0</mark>	Yes	= 3
^a artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = <u>6</u>)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	N	o = 0	Yes =	<mark>= 3</mark>
C. Biology (Subtotal = _4)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75; (OBL = 1.5 Other = 0	
*perennial streams may also be identified using other methods.	See p. 35 of manua	al.		
Notes:				

Date: 01/18/21	Project/Site: 70217006	Latitude: 35.8083
Evaluator: EC	County: Chatham County, NC	Longitude: -79.1519
Total Points: Stream is at least intermittent 32.5 if \ge 19 or perennial if \ge 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other SEE e.g. Quad Name:

A. Geomorphology (Subtotal =15.5	Absent	Weak	Moderate	Strong
1 ^a Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
 In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence 	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	N	o = 0	Yes	= 3
^a artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = <u>11</u>)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	N	o = 0	Yes	= 3
C. Biology (Subtotal = _6)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	26. Wetland plants in streambed FACW = 0.75; OBL = 1.5 Other = 0			
*perennial streams may also be identified using other methods. S	See p. 35 of manua	al.		
Notes:				

Date: 01/18/21	Project/Site: 70217006	Latitude: 35.8052
Evaluator: EC	County: Chatham County, NC	Longitude: -79.1534
Total Points: Stream is at least intermittent 16 if \ge 19 or perennial if \ge 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other SED e.g. Quad Name:

A. Geomorphology (Subtotal = <u>6.5</u>)	Absent	Weak	Moderate	Strong
1 ^{a.} Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
 In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence 	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel		o = 0	Yes :	= 3
^a artificial ditches are not rated; see discussions in manual				
B. Hydrology (Subtotal = <u>5.5</u>)				
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	N	o = 0	Yes =	= 3
C. Biology (Subtotal = _4)				
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed		FACW = 0.75; 0	0BL = 1.5 Other = 0	
*perennial streams may also be identified using other methods.	See p. 35 of manua	al.		
Notes:				

Date: 01/18/21	Project/Site: 70217006	Latitude: 35.8053
Evaluator: EC	County: Chatham County, NC	Longitude: -79.1533
Total Points: Stream is at least intermittent 16.5 if \ge 19 or perennial if \ge 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other SEC e.g. Quad Name:

A. Geomorphology (Subtotal =6.5)	Absent	Weak	Moderate	Strong		
1 ^a Continuity of channel bed and bank	0	1	2	3		
2. Sinuosity of channel along thalweg	0	<mark>_1</mark>	2	3		
 In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence 	0	1	2	3		
4. Particle size of stream substrate	0	1	2	3		
5. Active/relict floodplain	0	1	2	3		
6. Depositional bars or benches	0	1	2	3		
7. Recent alluvial deposits	0	1	2	3		
8. Headcuts	0	1	2	3		
9. Grade control	0	0.5	1	1.5		
10. Natural valley	0	0.5	1	1.5		
11. Second or greater order channel	11. Second or greater order channel No = 0 Yes = 3					
^a artificial ditches are not rated; see discussions in manual						
B. Hydrology (Subtotal = <u>6.5</u>)	<u>.</u>	1	1			
12. Presence of Baseflow	0	1	2	3		
13. Iron oxidizing bacteria	0	1	2	3		
14. Leaf litter	1.5	1	0.5	0		
15. Sediment on plants or debris	0	0.5	1	1.5		
16. Organic debris lines or piles	0	0.5	1	1.5		
17. Soil-based evidence of high water table?	ed evidence of high water table? No = 0 Yes = 3					
C. Biology (Subtotal = <u>3.5</u>)						
18. Fibrous roots in streambed	3	2	1	0		
19. Rooted upland plants in streambed	3	2	1	0		
20. Macrobenthos (note diversity and abundance)	0	1	2	3		
21. Aquatic Mollusks	0	1	2	3		
22. Fish	0	0.5	1	1.5		
23. Crayfish	0	0.5	1	1.5		
24. Amphibians	0	0.5	1	1.5		
25. Algae	0	0.5	1	1.5		
26. Wetland plants in streambed		FACW = 0.75; 0	OBL = 1.5 Other = C			
*perennial streams may also be identified using other methods.	See p. 35 of manua	al.				
Notes:						
<u> </u>						

Date: 01/18/21	Project/Site: 70217006	Latitude: 35.8046
Evaluator: EC	County: Chatham County, NC	Longitude: -79.1530
Total Points:Stream is at least intermittentif \geq 19 or perennial if \geq 30*	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other SEA e.g. Quad Name:

Absent	Weak	Moderate	Strong		
0	1	2	3		
0	1	2	3		
0	1	2	3		
0	1	2	3		
0	1	2	3		
0	1	2	3		
0	1	2	3		
0	1	2	3		
0	0.5	1	1.5		
0	0.5	1	1.5		
. Second or greater order channel No = 0 Yes = 3					
0	1	2	3		
0	1	2	3		
1.5	1	0.5	0		
0	0.5	1	1.5		
0	0.5	1	1.5		
No = 0 (Yes = 3)					
3	2	1	0		
3	2	1	0		
0	1	2	3		
0	1	2	3		
0	0.5	1	1.5		
0	0.5	1	1.5		
0	0.5	1	1.5		
0	0.5	1	1.5		
	FACW = 0.75;	OBL = 1.5 Other = ()		
See p. 35 of manua	al.				
	Absent 0 3 3 0	Absent Weak 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0.5 0 0.5 0 1 0 1 1.5 1 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 1 0 1 0 1 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 0 0.5 <t< td=""><td>Absent Weak Moderate 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 1 2 1.5 1 0.5 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5 1 0 <t< td=""></t<></td></t<>	Absent Weak Moderate 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 1 2 1.5 1 0.5 0 0.5 1 0 0.5 1 0 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0.5 1 0 <t< td=""></t<>		

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Ridge Crest Property	City/County: Chatham	Sampling Date: 1/11/2021
Applicant/Owner: _ Ricky Spoon Builders, Inc.	State: N	C Sampling Point:W1 wet
Investigator(s): Terracon- Robert Turnbull	Section, Township, Range: <u>NA</u>	
Landform (hillslope, terrace, etc.): Drainage	Local relief (concave, convex, none): <u>Conca</u>	ave Slope (%): <u>4-10</u>
Subregion (LRR or MLRA): LRR P Lat: 35.807	65 Long: <u>-79.15719</u>	Datum: WGS 84
Soil Map Unit Name: Wedowee sandy loam, 6-10% s	slopes NWI	classification: <u>PFO</u>
Are climatic / hydrologic conditions on the site typical for this tim	e of year? Yes 🔽 No (If no, expl	ain in Remarks.)
Are Vegetation, Soil, or Hydrology signif	ficantly disturbed? Are "Normal Circumsta	ances" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology natur	ally 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? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 Yes 🖌 Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2) Hydrogen Sulfide Odor (C1)	✓ Drainage Patterns (B10)
✓ Saturation (A3) Oxidized Rhizospheres on Living I	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc	ils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
_ ✓ Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No <u>✓</u> Depth (inches): <u>NA</u>	
Water Table Present? Yes <u><</u> No Depth (inches): 6	
Saturation Present? Yes <u>V</u> No Depth (inches): <u>surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes Vo No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	

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

Sampling	Point:	W1 wet

, <i>,</i>	Absolute	- Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30ft. radius)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. Pinus taeda	50	Yes	FAC	That Are OBL FACW or FAC 3 (A)
2 Acer rubrum	30	Yes	FAC	
2				Total Number of Dominant
3				Species Across All Strata:4 (B)
4				Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC: 75% (A/B)
6				Dravelance Index werkeheet:
7				Prevalence index worksneet:
	80	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover:40	20% of	total cover:	16	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 30ft. radius)				FACW species0 x 2 =0
1 llex opaca	10	Yes	FACU	FAC species x 3 =0
·· <u>·</u>				FACU species $0 \times 4 = 0$
2				$\frac{1}{1}$
3				
4				
5				Prevalence index = $B/A =$
6				
7				A David Test for Underslatic Venetation
8				1 - Rapid Test for Hydrophytic Vegetation
0				
- J	10	- Tatal Caur		3 - Prevalence Index is ≤3.0 ¹
FOW of total accurate			2 2	4 - Morphological Adaptations ¹ (Provide supporting
	20% 0	total cover.	2	data in Remarks or on a separate sheet)
<u>Herb Stratum</u> (Plot size: <u>30π. radius</u>)				Problematic Hydrophytic Vegetation ¹ (Explain)
1. none present				
2	-			¹ Indiastors of budris sail and watland budralagy must
3				be present unless disturbed or problematic
4.				Definitions of Four Vegetation Strate:
5				Deminions of Four vegetation Strata.
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
/		·		neight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover:0	20% of	total cover:	0	
Woody Vine Stratum (Plot size: 30ft. radius)				Woody vine – All woody vines greater than 3.28 ft in
1 Gelsemium sempervirens	20	Yes	FAC	
1. <u></u>				
2				
3				
4				Hydrophytic
5				Vegetation
	20	= Total Cove	er	Present? Yes V No
50% of total cover: <u>10</u>	20% of	total cover:	4	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe f	to the dept	h needed to docum	ent the	indicator of	or confirm	the absence of indicators.)	
Depth	Matrix		Redox	Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-4	10YR 5/3	100					S	
4-10	10YR 5/2	90	10YR 4/6	10	С	Μ	S	
10-20	10YR 6/2	100					S	
		·						
		<u> </u>						
		<u> </u>						
¹ Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	=Masked	d Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:	,	,				Indicators for Problematic Hydric S	soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	oipedon (A2)		Polyvalue Bel	ow Surfa	ice (S8) (M	LRA 147,	148) Coast Prairie Redox (A16)	
Black His	stic (A3)		Thin Dark Sur	face (S9) (MLRA 1	47, 148)	(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix ((F2)		Piedmont Floodplain Soils (F19)	
Straumed			Depleted Mat	lix (F3) Surface (F	-6)		(MLRA 130, 147) Very Shallow Dark Surface (TE1)	2)
2 cm Mu	Below Dark Surface	(A11)	Depleted Dark	k Surface (i	0) (F7)		Other (Explain in Remarks)	-)
Thick Da	rk Surface (A12)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Redox Depres	ssions (F	8)			
Sandy M	lucky Mineral (S1) (L	.RR N,	Iron-Mangane	se Mass	es (F12) (I	RR N.		
MLRA	147, 148)			5)		,		
Sandy G	leyed Matrix (S4)		Umbric Surfac	ce (F13)	(MLRA 13	6, 122)	³ Indicators of hydrophytic vegetatio	n and
🖌 Sandy R	edox (S5)		Piedmont Floo	odplain S	oils (F19)	(MLRA 14	8) wetland hydrology must be preser	ıt,
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 147	") unless disturbed or problematic.	
Restrictive L	ayer (if observed):							
Туре:								
Depth (inc	ches):						Hydric Soil Present? Yes No	
Remarks:							1	

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Ridge Crest Property	City/County: Chatham	Sampling Date: 1/11/2021
Applicant/Owner: _ Ricky Spoon Builders, Inc.	State: NC	Sampling Point: <u>W1 up</u>
Investigator(s): Terracon- Robert Turnbull	Section, Township, Range: <u>NA</u>	
Landform (hillslope, terrace, etc.): hillslope	Local relief (concave, convex, none): <u>Concave</u>	Slope (%) <u>:</u> 6-10
Subregion (LRR or MLRA): LRR P Lat: 35.8076	5 Long: <u>-79.15719</u>	Datum: WGS 84
Soil Map Unit Name: Wedowee sandy loam, 6-10% s	lopes NWI classif	fication: NA
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes 🖌 No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology signifi	cantly disturbed? Are "Normal Circumstances"	' present? Yes 🗾 No
Are Vegetation, Soil, or Hydrology natura	ally problematic? (If needed, explain any answ	vers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	V V V	Is the Sampled Area within a Wetland?	Yes	No	<u> </u>
Remarks:							

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living F	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Sol	ils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes <u>No</u> Depth (inches): <u>NA</u>	
Water Table Present? Yes No _ ✔ Depth (inches): >20	
Saturation Present? Yes No <u>✓</u> Depth (inches): <u>>20</u> (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	

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

Sampling Point: W1 up

	Absoluto	- Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30ft. radius)	% Cover	Species?	Status	New Angle Persiant Organization
1 Pinus taeda	40	Yes	FAC	Number of Dominant Species $3 \qquad (\Delta)$
2. Fagus grandifolia	30	Ves	FACU	
		 		Total Number of Dominant
3. Quercus rubra	20	res	FACU	Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 42.86% (A/B)
6				
7				Prevalence Index worksheet:
	90	- Total Ca		Total % Cover of: Multiply by:
50% of total cover: 45	20% of		/er . 18	OBL species $0 \times 1 = 0$
	20% 0			FACW species 0 x 2 = 0
Sapling/Shrub Stratum (Plot size: 501. Tadius)	10	Vaa	FACU	$55 \times 2 = 165$
1. Ilex opaca	10	res	FACU	FAC species 65 $x_3 = 260$
2				FACU species $x 4 =0$
3				UPL species $0 \times 5 = 0$
4				Column Totals: <u>120</u> (A) <u>425</u> (B)
			·	
o		·	·	Prevalence Index = B/A =3.5
б			·	Hydrophytic Vegetation Indicators:
7		·		1 - Rapid Test for Hydrophytic Vegetation
8				2 Deminence Test is >50%
9.				
	10	- Total Cov	Ior	3 - Prevalence Index is ≤3.01
50% of total cover: 5	20% of		. 2	4 - Morphological Adaptations ¹ (Provide supporting
	20 /0 01			data in Remarks or on a separate sheet)
Herb Stratum (Plot size: <u>3011. radius</u>)				Problematic Hydrophytic Vegetation ¹ (Explain)
1. none present		. <u> </u>	·	
2				The discovery of the edition of the
3.				he present unless disturbed or problematic
4				
				Definitions of Four Vegetation Strata:
		·	·	Tree – Woody plants excluding vines 3 in (7.6 cm) or
6			·	more in diameter at breast height (DBH), regardless of
7		. <u> </u>	·	height.
8				Sapling/Shrub Weady planta avaluding vince loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
10			·	,
11			·	Herb – All herbaceous (non-woody) plants, regardless
		= Total Cov	/er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0	20% of	total cover	0	Woody vine – All woody vines greater than 3 28 ft in
<u>Woody Vine Stratum</u> (Plot size: <u>30ft. radius</u>)				height.
1. Gelsemium sempervirens	10	Yes	FAC	Ť
2 Lonicera japonica	5	Yes	FACU	
2 Vitis rotundifolia	5	Yes	FAC	
3 <u>, vilo lotarianona</u>		100	17.0	
4		·	·	Hydrophytic
5		. <u> </u>	·	Vegetation
	20	= Total Cov	/er	Present? Yes No V
50% of total cover: <u>10</u>	20% of	total cover	4	
Remarks: (Include photo numbers here or on a separate s	heet.)			
······	,			

		•							,	
Depth (inchos)	<u>Matrix</u>	0/_	<u>Redo</u>	x Features			Toxtur	.	Pomarka	
		100		/0	<u>rype</u>			<u> </u>	I CIIIdi KS	
0-4	1011 4/3	100					3L	·		
4-20	10YR 5/4	100					SL			
¹ Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked Sa	and Gra	iins.	² Location	: PL=Pore Lini	ng, M=Matrix	
Hydric Soil	Indicators:						In	dicators for P	oblematic H	lydric Soils":
Histosol	(A1)		Dark Surface	e (S7)			—	_ 2 cm Muck (A10) (MLRA	147)
Histic E	pipedon (A2)		Polyvalue Be	low Surface	(S8) (M	LRA 147,	148)	_ Coast Prairie	Redox (A16)
Black H	ISTIC (A3)			Ifface (59) (N		47, 148)		(MLRA 14	1, 148) Andrelain Saile	(510)
Hyuruge Stratifio	d Lavers (A5)		Loarny Greye	triv (F3))				000piain 50iis 6 1/7)	s (F19)
0.raulie 2 cm Mi	uck (A10) (I RR N)		Bedox Dark	Surface (F6)				Verv Shallov	/ Dark Surfac	e (TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Da	rk Surface (F	7)		_	Other (Expla	in in Remark	s)
 Thick Da	ark Surface (A12)	()	Redox Depre	essions (F8)	,					/
Sandy M	/lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masses	(F12) (L	.RR N,				
MLR	A 147, 148)		MLRA 13	6)						
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ice (F13) (MI	LRA 130	6, 122)	:	³ Indicators of h	ydrophytic ve	getation and
Sandy F	Redox (S5)		Piedmont Flo	odplain Soils	s (F19) ((MLRA 14	8)	wetland hydro	logy must be	present,
Stripped	l Matrix (S6)		Red Parent N	Material (F21) (MLRA	A 127, 147)	unless disturb	ed or problen	natic.
Restrictive	Layer (if observed):									
Туре:										
Depth (in	ches):						Hydric \$	Soil Present?	Yes	No
Remarks:										

💮 County of Chatham, NC

WP-21-244

Riparian Buffer Review

Status: Active

Applicant

Robert Turnbull robert.turnbull@terracon.com 2401 Brentwood Road, Suite 107 Raleigh, NC 27604 9196179153 Date Created: Jun 25, 2021

Location

OpenGov

0 VACANT North Carolina 00000

Owner:

Estate of Albert A. Bechtoldt, Jr. 3761 Highway 357 Inman, SC 29349

Project Information

Review Type Major Subdivision

Date Field Work Was Completed 01/11/2021

Has USACE on-site review been scheduled or completed Completed

Date USACE was completed

06/03/2021

Brief Summary of USACE Findings

Applicant/Agent notified of USACE intent to do a desktop review on 6/3/2021. Update to stream S4 discovered during 6/23 field review with Chatham County has been sent to USACE.

Watershed District

WS-IV PA

Parcel Information

Parcel Number (s)

1798

Is the property within the Jordan Lake Watershed $\ensuremath{\mathsf{Yes}}$

Property Owner Name

Peter Griffin

Location of Tract (address if applicable)

Manns Chapel Road

Driving Directions from Pittsboro

Take US 15-501 north, turn left on Moore Mountain Road, turn left on Hamlets Chapel Road, property is in southeast quadrant of the intersection of Hamlets Chapel Road and Manns Chapel Road.

Subdivision Name (if applicable)

Ridge Crest

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

Parking easiest on Manns Chapel Road

Applicants Information

07/08/2021

Number of Features Found

8

7/8/2021

Are you the Landowner or an Agent Agent

Primary Phone Number (919)617-9153

Mailing Address 2401 Brentwood Road, Suite 107

Zip Code 27604

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

 \Box

I would like the completed Riparian Buffer Review mailed to me $\ensuremath{\overline{\mathbf{v}}}$

I would like the completed Riparian Buffer Review e-mailed to me.

Statement of Understanding

Name

Robert Turnbull

New Field 06/25/2021

Attachments

Pdf AuthtoEnter_RidgeCrest.pdf
 Uploaded by Robert Turnbull on Jun 25, 2021 at 3:32 pm
 Pdf AgentAuth_RidgeCrest.pdf
 Uploaded by Robert Turnbull on Jun 25, 2021 at 3:32 pm
 Pdf 130 Manns Chapel Road_Chatham County.pdf
 Uploaded by Robert Turnbull on Jun 25, 2021 at 3:36 pm
 Pdf 130 Manns Chapel Road Wetlands_June2021.pdf
 Uploaded by Robert Turnbull on Jun 25, 2021 at 3:33 pm
 Pdf 130 Manns Chapel Road_Chatham County.pdf
 Uploaded by Robert Turnbull on Jun 25, 2021 at 3:33 pm
 Pdf 130 Manns Chapel Road_Chatham County.pdf
 Uploaded by Robert Turnbull on Jun 3, 2021 at 8:45 am
 Pdf soils.pdf
 Uploaded by Robert Turnbull on Jun 3, 2021 at 8:42 am
 Pdf topo.pdf
 Uploaded by Robert Turnbull on Jun 3, 2021 at 8:43 am

History

Date	Activity
May 4, 2021 at 1:10 pm	Robert Turnbull started a draft of Record WP-21-244
Jun 25, 2021 at 3:23 pm	Robert Turnbull altered Record WP-21-244, changed ownerCity from "Old Greenwich" to "Inman"
Jun 25, 2021 at 3:23 pm	Robert Turnbull altered Record WP-21-244, changed ownerName from "Peter Griffin" to "Estate of Albert A. Bechtoldt, Jr."
Jun 25, 2021 at 3:23 pm	Robert Turnbull altered Record WP-21-244, changed ownerPhoneNo from "646-236-8055" to "864-237-8800"
Jun 25, 2021 at 3:23 pm	Robert Turnbull altered Record WP-21-244, changed ownerPostalCode from "06870" to "29349"
Jun 25, 2021 at 3:23 pm	Robert Turnbull altered Record WP-21-244, changed ownerState from "CT" to "SC"
Jun 25, 2021 at 3:23 pm	Robert Turnbull altered Record WP-21-244, changed ownerStreetName from "2 Tomac Ct." to "3761 Highway 357"
Jun 25, 2021 at 3:36 pm	Robert Turnbull submitted Record WP-21-244
Jun 25, 2021 at 3:36 pm	approval step Intake Approval was assigned to Drew Blake on Record WP-21-244
Jul 6, 2021 at 8:54 am	Drew Blake approved approval step Intake Approval on Record WP-21-244
Jul 6, 2021 at 5:04 pm	completed payment step Major Subdivision Riparian Buffer Review Fee on Record WP-21-244
Jul 6, 2021 at 5:04 pm	changed the deadline to Jul 20, 2021 on approval step Field Review on Record WP-21-244
Jul 6, 2021 at 5:04 pm	approval step Field Review was assigned to Janie Phelps on Record WP-21-244

OpenGov Full Name

Robert Turnbull

Primary Email robert.turnbull@terracon.com

City/State Raleigh, NC

7/8/2021

OpenGov

Date	Activity
Jul 6, 2021 at 5:04 pm	changed the deadline to Jul 20, 2021 on approval step Field Review on Record WP-21-244

Timeline

Label		Status	Activated	Completed	Assignee	Due Date
~	Intake Approval	Complete	Jun 25, 2021 at 3:36 pm	Jul 6, 2021 at 8:54 am	Drew Blake	-
	Major Subdivision Riparian Buffer Review Fee	Paid	Jul 6, 2021 at 8:54 am	Jul 6, 2021 at 5:04 pm	-	-
~	Field Review	Active	Jul 6, 2021 at 5:04 pm	-	Janie Phelps	07/19/2021
Ē	Major Subdivision Riparian Buffer Confirmation Report	Pending	-	-	_	_





CHATHAM COUNTY

AUTHORIZED AGENT FOR FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO	PARCEL ID (PIN) 17	798	PARCEL SIZE 49.41 acres
STREET ADDRESS: <u>1</u>	30 Manns Chapel Road		
Please print: Property Owner: Estate	e of Albert A. Bechtoldt, Jr.		
Property Owner:			
The undersigned owner	(s) of the above described	property, do her	eby authorize
(Contractor / Agent)	, 01((Name of consul	ting firm if applicable)
to act on my/our behalf and acceptance of review these approvals. The act	and take all actions, I/we c ws, inspections, or permit ivities authorized include	could have taken i s and any and all the following (C	if present, necessary for the processing, issuance l standard and special conditions attached to Check all that apply):
Check here for	all of the below options.		
Building Permit Zoning Complia Floodplain Dete Soil Erosion & S Permits to instal Evaluation/inspe V Riparian Buffer Other:	nce Permits rmination Sedimentation Control Per I, repair, evaluate, or expa ection/permitting of a priv Review pursuant to §304	rmit and onsite waster vate drinking wat of the Chatham	water system(s) er well(s). Co. Watershed Protection Ordinance.

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

3761 Highway 357, Inman, SC 29349

4-237-8800

E-mail:

We hereby certify the above information submitted in this application is true and accurate to the best of our <u>knowladge</u> by:

_____James W. Michael, III ______ 9ADFD83E47B6462... Date: ______6/10/2021

Turnbull, Robert T Determined Noted To the Constrained United Determined Noted To the Constrained United Determined Deter

Revised 10/2017

DocuSign Envelope ID: 1893C0BD-0D1A-42EA-AF57-296C943C98C9



Watershed Protection Department

P.O. Box 548 Pittsboro, NC 27312

Website: www.chathamnc.org

Authorization to Enter Property Form

Date:6/3/2021	
PARCEL No. (AKPAR)	
I, (print name)	, 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) ne	cessary 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 interes	ted 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.

Estate of Albert A. Bechtoldt Jr. (Print Owner's Name)

Robert Turnbull

(Print Authorized Agent Name)

DocuSigned by: (Date)

Turnbull, Robert T

(Signature of Authorized Agent) (Date)