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@chathamcountync.gov ● Website: www.chathamcountync.gov

May 7, 2021

Ms. Alyssa Ricci
WithersRavenel
115 Mackenan Dr.
Cary, NC 27511

Project Name:	McBane Subdivision Conservation Area (Parcel 85448)
Location:	Old Graham Road, Chatham County
Subject Features:	Six (6) ephemeral segments, three (3) intermittent segments, five (5) wetlands
Date of Determination:	May 3, 2021

Explanation:
The site visit was completed on May 3, 2021 by Drew Blake with the Chatham County Watershed Protection Department on a property identified as Chatham County Parcel# 85448 that is located inside of the Jordan Lake watershed. WithersRavenel personnel completed a previous site visit which resulted in the identification of six (6) ephemeral segments, three (3) intermittent segments, and five (5) wetlands on the property. WithersRavenel 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 Buffer Determination Exhibit with Buffers, completed by WithersRavenel. The ephemeral stream segments will require a 30-ft buffer from the top of bank landward. The intermittent stream segments will require a 50-ft buffer from the top of bank landward on both sides of the features.

The wetland boundaries flagged in the field by WithersRavenel have been reviewed and confirmed by the US Army Corps of Engineers (USACE). A 50-ft buffer will be required beginning at the flagged boundary and proceeding landward of any flagged wetlands determined jurisdictional by the USACE.

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

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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.

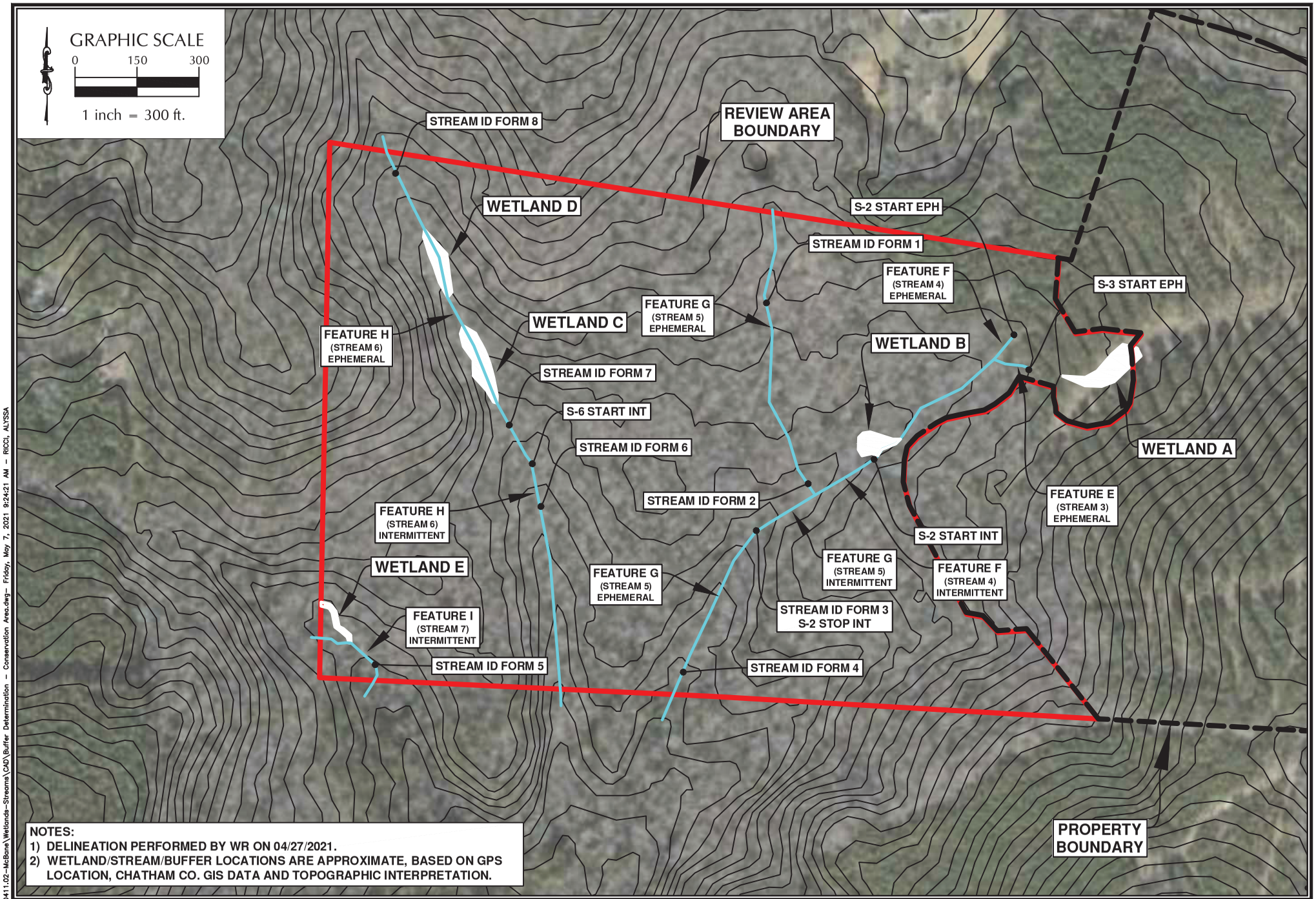
Respectfully,

Drew Blake

Drew Blake
Senior Watershed Specialist, CESSWI

Enclosures:
Exhibit 1: Buffer Determination Exhibit – completed by WithersRavenel
Exhibit 2: Buffer Determination Exhibit with Buffers – completed by WithersRavenel
NRCS Soil Survey Map – Completed by WithersRavenel
USGS Topographic Map – Completed by Withers Ravenel
NC DWQ Stream Identification Forms – Completed by WithersRavenel
Wetland Determination Data Forms – Completed by WithersRavenel
Major Subdivision Riparian Buffer Review 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
Jason Sullivan, Director, Chatham County Planning Department



NOTES:
1) DELINEATION PERFORMED BY WR ON 04/27/2021.
2) WETLAND/STREAM/BUFFER LOCATIONS ARE APPROXIMATE, BASED ON GPS LOCATION, CHATHAM CO. GIS DATA AND TOPOGRAPHIC INTERPRETATION.

McBANE SUBDIVISION - CONSERVATION AREA

PITTSBORO CHATHAM COUNTY NORTH CAROLINA

BUFFER DETERMINATION EXHIBIT

WithersRavenel
Engineers | Planners | Surveyors

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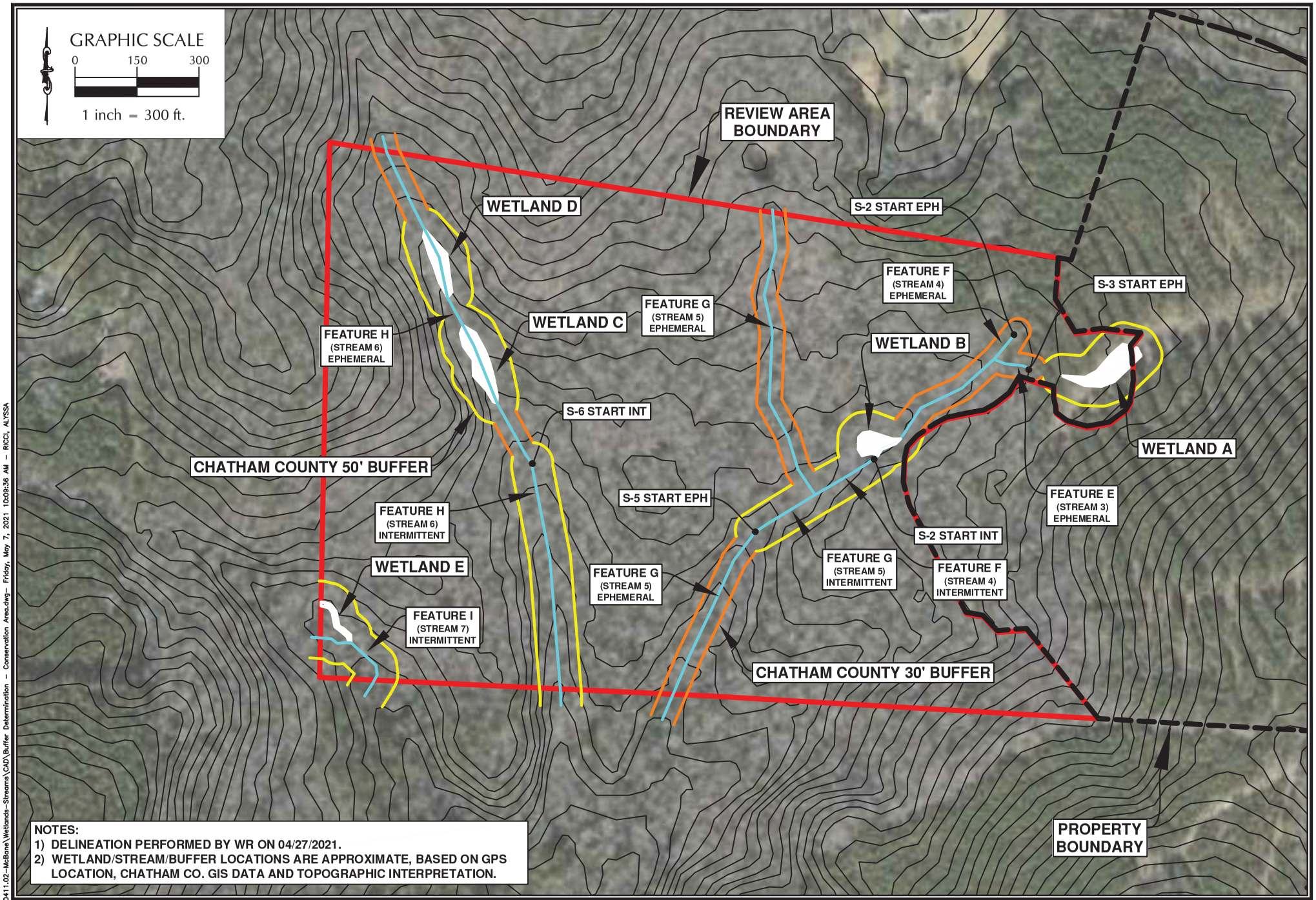

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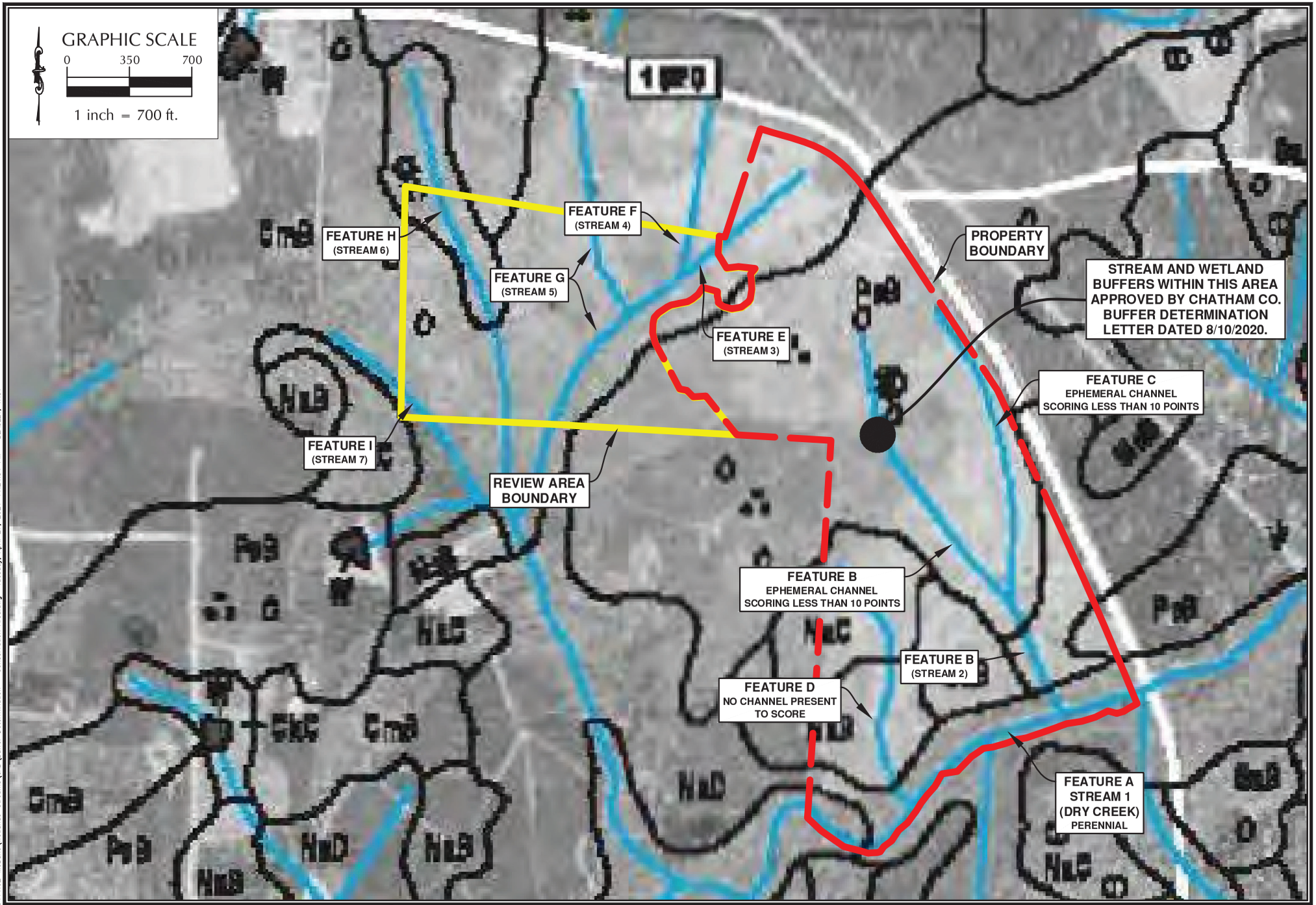
McBANE SUBDIVISION - CONSERVATION AREA

PITTSBORO CHATHAM COUNTY NORTH CAROLINA

BUFFER DETERMINATION EXHIBIT WITH BUFFERS

WithersRavenel
Engineers | Planners | Surveyors



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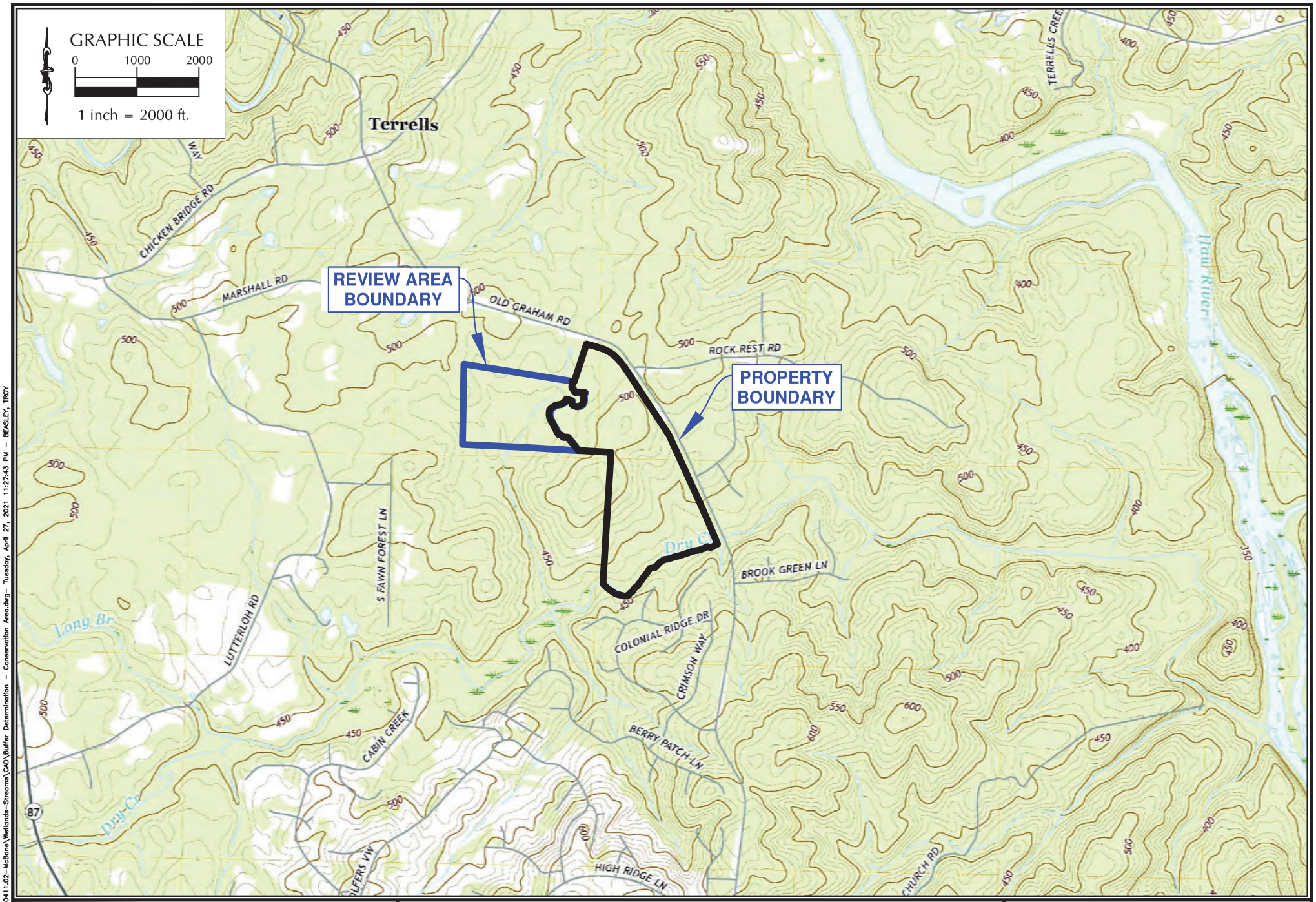
McBANE SUBDIVISION - CONSERVATION AREA

PITTSBORO CHATHAM COUNTY NORTH CAROLINA

CHATHAM CO. SOIL SURVEY (2016) - SHEET 4

WithersRavenel
Engineers | Planners | Surveyors



McBANE SUBDIVISION - CONSERVATION AREA

PITTSBORO CHATHAM COUNTY NORTH CAROLINA

USGS QUAD (2019) - BYNUM

WithersRavenel
Engineers | Planners | Surveyors

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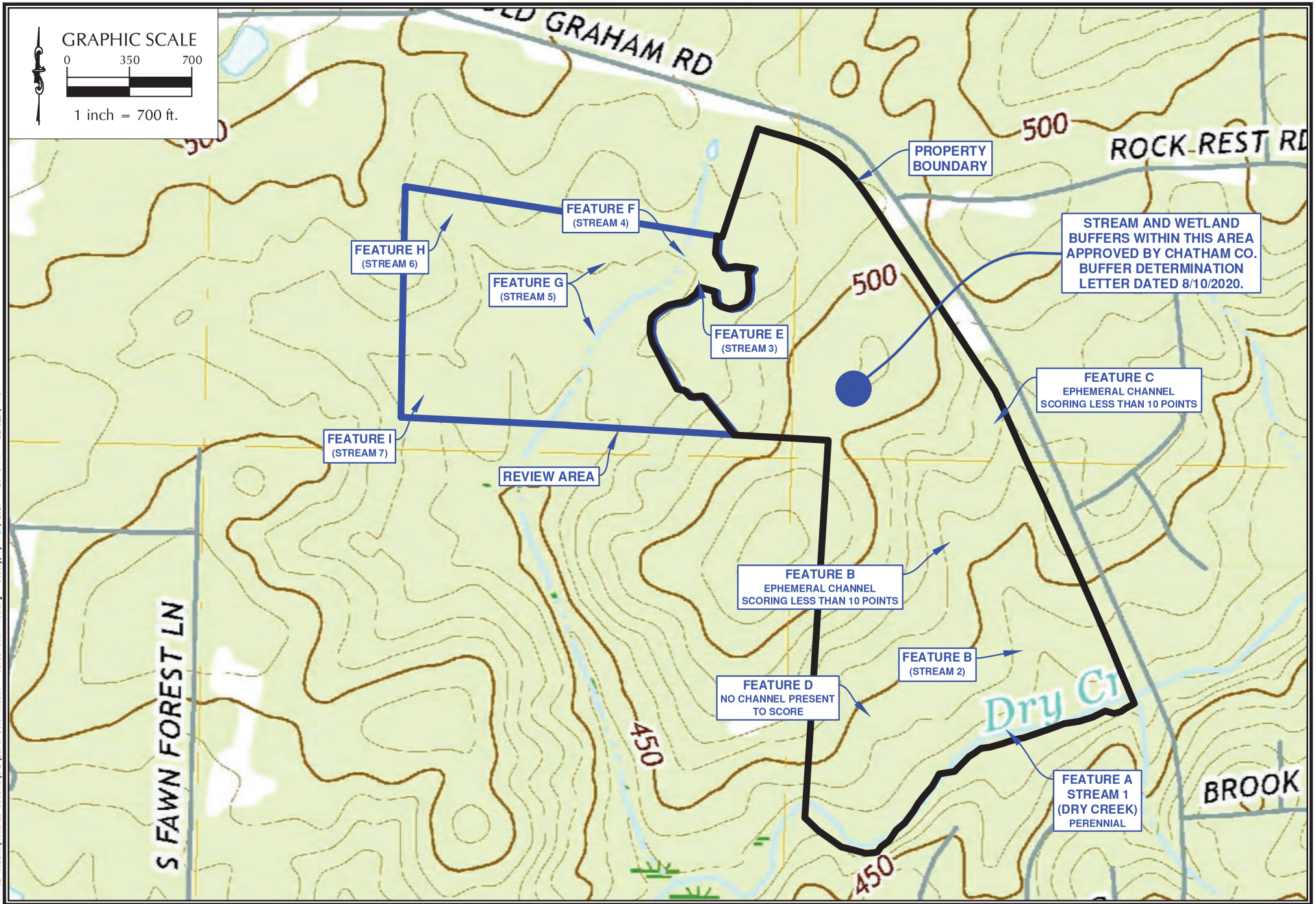

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McBANE SUBDIVISION - CONSERVATION AREA

PITTSBORO CHATHAM COUNTY NORTH CAROLINA

USGS QUAD (2019) - BYNUM

WithersRavenel
Engineers | Planners | Surveyors

ID FORM 1

NC DWQ Stream Identification Form Version 4.11

Date: 4/27/2021	**Project/Site:** McBane	**Latitude:**
Evaluator: Alyssa Ricci - WithersRavenel	**County:** Chatham County	**Longitude:**
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 10.25	**Stream Determination (circle one)** Ephemeral Intermittent Perennial	**Other** *e.g. Quad Name*:

A. Geomorphology (Subtotal = 2)	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	No = 0		Yes = 3	

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

B. Hydrology (Subtotal = 2.5)				
12. Presence of Baseflow	[0]	1	2	3
13. Iron oxidizing bacteria	[0]	1	2	3
14. Leaf litter	1.5	[1]	0.5	0
15. Sediment on plants or debris	0	[0.5]	1	1.5
16. Organic debris lines or piles	0	0.5	[1]	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 5.75)				
18. Fibrous roots in streambed	3	2	1	[0]
19. Rooted upland plants in streambed	[3]	2	1	0
20. Macrobenthos (note diversity and abundance)	[0]	1	2	3
21. Aquatic Mollusks	[0]	1	2	3
22. Fish	[0]	0.5	1	1.5
23. Crayfish	[0]	0.5	1	1.5
24. Amphibians	0	0.5	[1]	1.5
25. Algae	0	0.5	[1]	1.5
26. Wetland plants in streambed	FACW = 0.75	OBL = 1.5	Other = 0	

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

Notes:

Sketch:

ID FORM 2

NC DWQ Stream Identification Form Version 4.11

Date: 4/27/2021	**Project/Site:** McBane	**Latitude:**
Evaluator: Alyssa Ricci - WithersRavenel	**County:** Chatham County	**Longitude:**
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 10.5	**Stream Determination (circle one)** [Ephemeral] Intermittent Perennial	**Other** *e.g. Quad Name*:

A. Geomorphology (Subtotal = 3.5)	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
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	[1]	2	3
4. Particle size of stream substrate	[0]	1	2	3
5. Active/relict floodplain	[0]	1	2	3
6. Depositional bars or benches	[0]	1	2	3
7. Recent alluvial deposits	[0]	1	2	3
8. Headcuts	[0]	1	2	3
9. Grade control	[0]	0.5	1	1.5
10. Natural valley	0	[0.5]	1	1.5
11. Second or greater order channel	[No = 0]		Yes = 3	

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

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

C. Biology (Subtotal = 5)				
18. Fibrous roots in streambed	3	[2]	1	0
19. Rooted upland plants in streambed	[3]	2	1	0
20. Macrobenthos (note diversity and abundance)	[0]	1	2	3
21. Aquatic Mollusks	[0]	1	2	3
22. Fish	[0]	0.5	1	1.5
23. Crayfish	[0]	0.5	1	1.5
24. Amphibians	[0]	0.5	1	1.5
25. Algae	[0]	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 [Other = 0]			

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

Notes:

Sketch:

ID FORM 3

NC DWQ Stream Identification Form Version 4.11

Date: 4/27/2021	**Project/Site:** McBane	**Latitude:**
Evaluator: Alyssa Ricci - WithersRavenel	**County:** Chatham County	**Longitude:**
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 17.75	**Stream Determination (circle one)** **Ephemeral** Intermittent Perennial	**Other** *e.g. Quad Name*:

A. Geomorphology (Subtotal = 12.5)	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
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	**1**	2	3
4. Particle size of stream substrate	0	1	2	**3**
5. Active/relict floodplain	0	**1**	2	3
6. Depositional bars or benches	**0**	1	2	3
7. Recent alluvial deposits	**0**	1	2	3
8. Headcuts	0	**1**	2	3
9. Grade control	**0**	0.5	1	1.5
10. Natural valley	0	**0.5**	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

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

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

C. Biology (Subtotal = 3.25)				
18. Fibrous roots in streambed	3	2	**1**	0
19. Rooted upland plants in streambed	3	2	**1**	0
20. Macrobenthos (note diversity and abundance)	**0**	1	2	3
21. Aquatic Mollusks	**0**	1	2	3
22. Fish	**0**	0.5	1	1.5
23. Crayfish	**0**	0.5	1	1.5
24. Amphibians	**0**	0.5	1	1.5
25. Algae	0	**0.5**	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			

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

Notes:

Sketch:

ID FORM 4

NC DWQ Stream Identification Form Version 4.11

Date: 4/27/2021	**Project/Site:** McBane	**Latitude:**
Evaluator: Alyssa Ricci - WithersRavenel	**County:** Chatham County	**Longitude:**
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 12.75	**Stream Determination (circle one)** **Ephemeral** Intermittent Perennial	**Other** *e.g. Quad Name*:

A. Geomorphology (Subtotal = 8.5)	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
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	**1**	2	3
4. Particle size of stream substrate	0	**1**	2	3
5. Active/relict floodplain	0	**1**	2	3
6. Depositional bars or benches	**0**	1	2	3
7. Recent alluvial deposits	**0**	1	2	3
8. Headcuts	**0**	1	2	3
9. Grade control	**0**	0.5	1	1.5
10. Natural valley	0	**0.5**	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

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

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

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

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

Notes:

Sketch:

ID FORM 5

NC DWQ Stream Identification Form Version 4.11

Date: 4/27/2021	**Project/Site:** McBane	**Latitude:**
Evaluator: Alyssa Ricci - WithersRavenel	**County:** Chatham County	**Longitude:**
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 24.25	**Stream Determination (circle one)** Ephemeral **Intermittent** Perennial	**Other** *e.g. Quad Name*:

A. Geomorphology (Subtotal = 13)	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	**No = 0**		Yes = 3	

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

B. Hydrology (Subtotal = 4)				
12. Presence of Baseflow	0	**1**	2	3
13. Iron oxidizing bacteria	0	**1**	2	3
14. Leaf litter	1.5	**1**	0.5	0
15. Sediment on plants or debris	0	**0.5**	1	1.5
16. Organic debris lines or piles	0	**0.5**	1	1.5
17. Soil-based evidence of high water table?	**No = 0**		Yes = 3	

C. Biology (Subtotal = 7.25)				
18. Fibrous roots in streambed	3	**2**	1	0
19. Rooted upland plants in streambed	**3**	2	1	0
20. Macrobenthos (note diversity and abundance)	0	**1**	2	3
21. Aquatic Mollusks	**0**	1	2	3
22. Fish	**0**	0.5	1	1.5
23. Crayfish	**0**	0.5	1	1.5
24. Amphibians	0	**0.5**	1	1.5
25. Algae	**0**	0.5	1	1.5
26. Wetland plants in streambed	**FACW = 0.75;** OBL = 1.5 Other = 0			

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

Notes:

Sketch:

ID FORM 6

NC DWQ Stream Identification Form Version 4.11

Date: 4/27/2021	**Project/Site:** McBane	**Latitude:**
Evaluator: Alyssa Ricci - WithersRavenel	**County:** Chatham County	**Longitude:**
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 19.25	**Stream Determination (circle one)** Ephemeral **Intermittent** Perennial	**Other** *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	**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	**No = 0**		Yes = 3	

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

B. Hydrology (Subtotal = 7.5)				
12. Presence of Baseflow	0	**1**	2	3
13. Iron oxidizing bacteria	0	**1**	2	3
14. Leaf litter	1.5	**1**	0.5	0
15. Sediment on plants or debris	0	0.5	**1**	1.5
16. Organic debris lines or piles	0	**0.5**	1	1.5
17. Soil-based evidence of high water table?	No = 0		**Yes = 3**	

C. Biology (Subtotal = 5.25)				
18. Fibrous roots in streambed	3	**2**	1	0
19. Rooted upland plants in streambed	3	2	1	**0**
20. Macrobenthos (note diversity and abundance)	0	**1**	2	3
21. Aquatic Mollusks	**0**	1	2	3
22. Fish	**0**	0.5	1	1.5
23. Crayfish	**0**	0.5	1	1.5
24. Amphibians	0	**0.5**	1	1.5
25. Algae	0	0.5	**1**	1.5
26. Wetland plants in streambed	**FACW = 0.75;** OBL = 1.5 Other = 0			

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

Notes:

Sketch:

ID FORM 7

NC DWQ Stream Identification Form Version 4.11

Date: 4/27/2021	**Project/Site:** McBane	**Latitude:**
Evaluator: Alyssa Ricci - WithersRavenel	**County:** Chatham County	**Longitude:**
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 14	**Stream Determination (circle one)** **Ephemeral** **Intermittent** **Perennial**	**Other** *e.g. Quad Name*:

A. Geomorphology (Subtotal = 5.5)	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
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	**1**	2	3
4. Particle size of stream substrate	**0**	1	2	3
5. Active/relict floodplain	0	**1**	2	3
6. Depositional bars or benches	**0**	1	2	3
7. Recent alluvial deposits	**0**	1	2	3
8. Headcuts	**0**	1	2	3
9. Grade control	**0**	0.5	1	1.5
10. Natural valley	0	**0.5**	1	1.5
11. Second or greater order channel	**No = 0**		Yes = 3	

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

B. Hydrology (Subtotal = 5)				
12. Presence of Baseflow	0	**1**	2	3
13. Iron oxidizing bacteria	0	1	**2**	3
14. Leaf litter	1.5	**1**	0.5	0
15. Sediment on plants or debris	0	**0.5**	1	1.5
16. Organic debris lines or piles	0	**0.5**	1	1.5
17. Soil-based evidence of high water table?	**No = 0**		Yes = 3	

C. Biology (Subtotal = 5)				
18. Fibrous roots in streambed	3	2	**1**	0
19. Rooted upland plants in streambed	3	**2**	1	0
20. Macrobenthos (note diversity and abundance)	**0**	1	2	3
21. Aquatic Mollusks	**0**	1	2	3
22. Fish	**0**	0.5	1	1.5
23. Crayfish	**0**	0.5	1	1.5
24. Amphibians	0	**0.5**	1	1.5
25. Algae	**0**	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 **Other = 0**			

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

Notes:

Sketch:

ID FORM 8

NC DWQ Stream Identification Form Version 4.11

Date: 4/27/2021	**Project/Site:** McBane	**Latitude:**
Evaluator: Alyssa Ricci - WithersRavenel	**County:** Chatham County	**Longitude:**
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 16.5	**Stream Determination (circle one)** **Ephemeral** Intermittent Perennial	**Other** *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
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	**1**	2	3
4. Particle size of stream substrate	0	**1**	2	3
5. Active/relict floodplain	0	**1**	2	3
6. Depositional bars or benches	0	**1**	2	3
7. Recent alluvial deposits	**0**	1	2	3
8. Headcuts	**0**	1	2	3
9. Grade control	**0**	0.5	1	1.5
10. Natural valley	0	**0.5**	1	1.5
11. Second or greater order channel	**No = 0**		Yes = 3	

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

B. Hydrology (Subtotal = 3)				
12. Presence of Baseflow	0	**1**	2	3
13. Iron oxidizing bacteria	**0**	1	2	3
14. Leaf litter	1.5	**1**	0.5	0
15. Sediment on plants or debris	0	**0.5**	1	1.5
16. Organic debris lines or piles	0	**0.5**	1	1.5
17. Soil-based evidence of high water table?	**No = 0**		Yes = 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	FACW = 0.75; OBL = 1.5 **Other = 0**			

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

Notes:

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: McBane Subdivision - Conservation Area City/County: Pittsboro/Chatham County Sampling Date: 04/27/2021

Applicant/Owner: Robert Swain - Swain Land & Timber, LLC State: NC Sampling Point: DP-1

Investigator(s): A. Ricci - WIthersRavenel Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Slope (%): 1%

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.810811ºN Long: -79.223036ºW Datum: NAD83

Soil Map Unit Name: Ckc - Cid silt loam, 6 to 10 percent slopes NWI classification: Headwater Forest

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:
This sampling point is located within Wetland C, near the lat/long specified above. This data form also applies to Wetlands D and E, as conditions were similar.

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)
- X 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)

- X Surface Soil Cracks (B6)
- 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 ____	No X	Depth (inches): 12
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 6

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

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

Remarks:
Wetland hydrology is present at this sampling point.

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: DP-1

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
	5	=Total Cover	
50% of total cover: 3		20% of total cover:	1
Sapling Stratum (Plot size: 15' Radius)			
1. *Liquidambar styraciflua*	5	Yes	FAC
2. *Pinus taeda*	5	Yes	FAC
3.			
4.			
5.			
6.			
	10	=Total Cover	
50% of total cover: 5		20% of total cover:	2
Shrub Stratum (Plot size: 15' Radius)			
1. *Liquidambar styraciflua*	5	Yes	FAC
2. *Pinus taeda*	5	Yes	FAC
3.			
4.			
5.			
6.			
	10	=Total Cover	
50% of total cover: 5		20% of total cover:	2
Herb Stratum (Plot size: 5' Radius)			
1. *Microstegium vimineum*	10	Yes	FAC
2. *Juncus effusus*	10	Yes	FACW
3. *Carex spp*	5	No	FACW
4. *Rosa palustris*	5	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	30	=Total Cover	
50% of total cover: 15		20% of total cover:	6
Woody Vine Stratum (Plot size: 30' Radius)			
1. None			
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: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (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	5	x 1 =	5
FACW species	15	x 2 =	30
FAC species	35	x 3 =	105
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	55 (A)		140 (B)

Prevalence Index = B/A = 2.55

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 Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation is present at this sampling point.

SOIL

Sampling Point: DP-1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/2	70	7.5YR 4/6	30	C	M	Loamy/Clayey	Prominent redox concentrations
8-14	10YR 3/2	60	7.5YR 4/6	40	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)
- X 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:

Hydric soils were present at this sampling point.

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: McBane Subdivision - Conservation Area City/County: Pittsboro/Chatham County Sampling Date: 04/27/2021

Applicant/Owner: Robert Swain - Swain Land & Timber, LLC State: NC Sampling Point: DP-2

Investigator(s): A. Ricci - WIthersRavenel Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none): Slope (%): 1%

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.810811ºN Long: -79.223036ºW Datum: NAD83

Soil Map Unit Name: Ckc - Cid silt loam, 6 to 10 percent slopes NWI classification: Upland

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**
Hydric Soil Present?	Yes	No X	**within a Wetland?** **Yes** **No** X
Wetland Hydrology Present?	Yes	No X	

Remarks:
This sampling point is located within uplands adjacent to Wetland C, near the lat/long specified above. This data form also applies to uplands adjacent to Wetlands D and E, as conditions were similar.

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): 24
Saturation Present? (includes capillary fringe)	Yes	No X	Depth (inches): 24

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

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

Remarks:
Wetland hydrology is not present at this sampling point.

VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point: DP-2

Tree Stratum (Plot size: 30' Radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	30	Yes	FAC
2. *Liquidambar styraciflua*	10	Yes	FAC
3.			
4.			
5.			
6.			
	40	=Total Cover	
50% of total cover: 20		20% of total cover:	8

Sapling Stratum (Plot size: 15' Radius)			
1. *Liquidambar styraciflua*	5	Yes	FAC
2. *Pinus taeda*	10	Yes	FAC
3.			
4.			
5.			
6.			
	15	=Total Cover	
50% of total cover: 8		20% of total cover:	3

Shrub Stratum (Plot size: 15' Radius)			
1. *Liquidambar styraciflua*	5	Yes	FAC
2. *Pinus taeda*	5	Yes	FAC
3. *Ilex opaca*	5	Yes	FACU
4.			
5.			
6.			
	15	=Total Cover	
50% of total cover: 8		20% of total cover:	3

Herb Stratum (Plot size: 5' Radius)			
1. None			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
		=Total Cover	
50% of total cover:		20% of total cover:	

Woody Vine Stratum (Plot size: 30' Radius)			
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: 7 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 87.5% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	70	x 3 =	210
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	75 (A)		230 (B)
Prevalence Index = B/A =			3.07

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 Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

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

Remarks: (Include photo numbers here or on a separate sheet.)
Hydrophytic vegetation is present at this sampling point, however, the Prevalence Index is 3.07

SOIL

Sampling Point: DP-2

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
0-14	10YR 5/4	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:

Hydric soils were not present at this sampling point.

County of Chatham, NC

04/30/2021

WP-21-96

Riparian Buffer Review

Status: Active

Date Created: Apr 28, 2021

Applicant

Alyssa Ricci
aricci@withersravenel.com
115 Mackenan Drive
Cary, North Carolina 27511
9192158619

Location

17 The Glens Dr
Pittsboro, North Carolina 27312

Owner:

SWAIN LAND & TIMBER LLC ETAL
117 EDINBURG SOUTH DR STE 101 CARY , NC 27511-6458

Project Information

Review Type
Major Subdivision

Number of Features Found
3

Date Field Work Was Completed
04/27/2021

Has USACE on-site review been scheduled or completed
Scheduled

Date USACE is scheduled
04/29/2021

Parcel Information

Parcel Number (s)
85448

Watershed District
--

Is the property within the Jordan Lake Watershed
Yes

Property Owner Name

Robert Swain Co/Swain Land & Timber LLC

Location of Tract (address if applicable)
West of intersection of Old Graham Road and Rock Rest Road

Driving Directions from Pittsboro
Take Old Graham Road north to site

Subdivision Name (if applicable)
--

Please describe access issues (provide gate codes, or information for scheduling site visit)
Access from Old Graham Road, no trails or roads through site, vegetation is very thick.

Applicants Information

Are you the Landowner or an Agent
Agent

Full Name
Alyssa Ricci

Primary Phone Number
9192158619

Primary Email
aricci@withersravenel.com

Mailing Address
115 Mackenan Drive

City/State
Cary/NC

Zip Code
27511

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

Name
Alyssa Ricci

New Field
04/28/2021

Attachments

pdf Signed_Right of Entry Form.pdf
Uploaded by Alyssa Ricci on Apr 28, 2021 9:08 PM

pdf SIGNED_Agent Authorization_RS Co-Swain Land & Timber.pdf
Uploaded by Alyssa Ricci on Apr 28, 2021 9:09 PM

pdf Coverletter.pdf
Uploaded by Alyssa Ricci on Apr 28, 2021 9:11 PM

pdf Buffer Determination Exhibits.pdf
Uploaded by Alyssa Ricci on Apr 28, 2021 9:13 PM

pdf Stream ID Forms & Wetland Data forms.pdf
Uploaded by Alyssa Ricci on Apr 28, 2021 9:16 PM

pdf Soil Survey.pdf
Uploaded by Alyssa Ricci on Apr 28, 2021 9:16 PM

pdf USGS Exhibits.pdf
Uploaded by Alyssa Ricci on Apr 28, 2021 9:19 PM

pdf Parcel-Owner Info.pdf
Uploaded by Alyssa Ricci on Apr 28, 2021 9:21 PM

History

Date	Activity
Apr 28 2021 8:37 pm	Alyssa Ricci started a draft of Record WP-21-96
Apr 28 2021 8:53 pm	Alyssa Ricci altered Record WP-21-96, changed ownerStreetName from "EDINBURG SOUTH DR STE 101 " to "117 EDINBURG SOUTH DR STE 101 "
Apr 28 2021 8:53 pm	Alyssa Ricci altered Record WP-21-96, changed ownerStreetNo from "117" to ""
Apr 28 2021 8:53 pm	Alyssa Ricci altered Record WP-21-96, changed ownerUnit from "" to ""
Apr 28 2021 9:21 pm	Alyssa Ricci added attachment Parcel-Owner Info.pdf to Record WP-21-96
Apr 28 2021 9:22 pm	Alyssa Ricci submitted Record WP-21-96
Apr 28 2021 9:22 pm	approval step Intake Approval was assigned to Drew Blake on Record WP-21-96
Apr 30 2021 10:11 am	Drew Blake approved approval step Intake Approval on Record WP-21-96
Apr 30 2021 10:12 am	completed payment step Major Subdivision Riparian Buffer Review Fee on Record WP-21-96
Apr 30 2021 10:12 am	approval step Field Review was assigned to Drew Blake on Record WP-21-96
Apr 30 2021 10:12 am	changed the deadline to May 13, 2021 on approval step Field Review on Record WP-21-96

WithersRavenel
Our People. Your Success.

AUTHORITY FOR APPOINTMENT OF AGENT

The undersigned Owner **Robert Swain Co/Swain Timber & Land, LLC** (Client) does hereby appoint WithersRavenel, Inc. as his, her, or it's agent for the purpose of petitioning the appropriate local, state and federal environmental regulatory agencies (US Army Corps of Engineers, NC Division of Water Quality, NC Division of Coastal Management, local municipalities, etc.) for: a) review and approval of the jurisdictional boundaries of onsite jurisdictional areas (wetlands, surface waters, riparian buffers, etc.) and/or; b) preparation and submittal of appropriate environmental permit applications/requests for the **±160 acre McBane property (AKPAR: 85448), located on the west side of Old Graham Rd, east of the intersection of Old Graham Rd and Buttonwood Dr, in Chatham County, North Carolina.**

The Client does hereby authorize that said agent has the authority to do the following acts on behalf of the owner:

(1) To submit appropriate requests/applications and the required supplemental materials;

(2) To attend meetings to give representation on behalf of the Client.

(3) To authorize access to subject property for the purpose of environmental review by appropriate regulatory agencies.

This authorization shall continue in effect until completion of the contracted task or termination by the Client.

Date: 1/1/2020

Agent's Name, Address & Telephone:

WithersRavenel, Inc.

115 MacKenan Drive

Cary, NC 27511

Tel. (919)-469-3340

Signature of Client:

Robert Swain President
(Name - Print) (Title)

(Signature)

Po Box 5689
Mailing Address

Cary NC 27512
City State Zip

Phone: 919 417 2990

Email: hadley@swainco.com

CHATHAM COUNTY
NORTH CAROLINA

Watershed Protection Department

P.O. Box 548
Pittsboro, NC 27312

Website: www.chathamnc.org

Authorization to Enter Property Form

Date: 04/29/2021

PARCEL No. (AKPAR) 85448

I, (print name) Robert Swain Co/Swain Land & Timber LLC, 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.

(Print Owner's Name)	(Signature of Owner) (Date)
Alyssa Ricci	
(Print Authorized Agent Name)	(Signature of Authorized Agent) (Date)