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.chathamnc.org

February 1, 2021

Mr. Andrew Ross
Conservancy Real Estate Group
4201 Taylor Hall Place
Chapel Hill, Nc 27517

Project Name:	The Conservancy
Location:	Old US 1, Chatham County
Subject Feature(s):	Thirty (30) stream segments, fifty-eight (58) wetlands, two (2) ponds
Date of Determination:	November 19, 2020

Explanation: The site visit was completed on November 19, 2020 by Drew Blake with Chatham County Watershed Protection and Sean Clark of Sage Ecological Services, Inc. (Sage), on twenty-seven (27) properties which are located both inside and outside of the Jordan Lake watershed. Sage personnel completed a previous site visit which resulted in the identification of eight (8) potential ephemeral stream segments, fourteen (14) intermittent streams segments, eight (8) perennial stream segments, and fifty-eight (58) potential wetlands, and two (2) jurisdictional ponds. Sage submitted a request to Chatham County to complete a formal review to determine if those features would be subject to riparian buffers according to Section 304 of the Chatham County Watershed Protection Ordinance. All points of origin and stream type transitions were reviewed and agreed to in the field. All stream and wetland denotations referenced below are based on Figure 3 – Wetland Sketch Map dated January 2021, completed by Sage. Additionally, all features are identified in corresponding tables describing the feature and subject watershed.

James Lastinger of the US Army Corps of Engineers completed a previous review of the property and confirmed all findings.

Required Buffers

The required buffers described below are based on Figure 3 provided by Sage. All ephemeral stream segments will require a 30-ft buffer from the top of bank landward on both sides of the stream. All intermittent stream segments will require a 50-ft buffer from the top of bank landward on both sides of the stream. All perennial stream segments will require a 100-ft buffer from the top of bank landward on both sides of the stream.

Ponds P-S1 and P-H2 will require a 50-ft buffer surrounding the pond from the top of the pond dam or maximum discharge pipe elevation. These ponds were determined perennial water bodies in accordance with Section 109 of the Chatham County Watershed Protection Ordinance as they are fed by or have direct discharges into an intermittent or perennial stream. The remaining ponds are not subject to riparian buffers. Pond P-S3 is within a natural drainageway; however, it is not fed by nor directly discharges into an intermittent or perennial stream. Stream S-M5 is within the same drainageway; however, it loses its defined channel and becomes a wetland prior to entering the pond.

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All wetland boundaries flagged in the field by Sage were confirmed by the US Army Corps of Engineers (USACE). A 50-ft buffer will be required beginning at the flagged boundary and proceeding landward from all 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 for all impacts to surface water features within the Jordan Lake Watershed. Impacts to riparian buffers associated with surface water features outside of the Jordan Lake Watershed are subject to Section 304 (F), (G), (H) and (I). Section 304 (I) applies to projects that wish to undertake allowable activities under Section 304 (F)(5). 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, provided by Sage
Figure 2 – NRCS Soil Survey Map, provided by Sage
Figure 3 – Wetland Sketch Map, provided by Sage
Buffer Spreadsheets, provided by Sage
NCDWQ Stream Identification Forms
Wetland Determination Forms
Chatham County Riparian Buffer Application
Authorized Agent Form
Authorization to Enter Property Form

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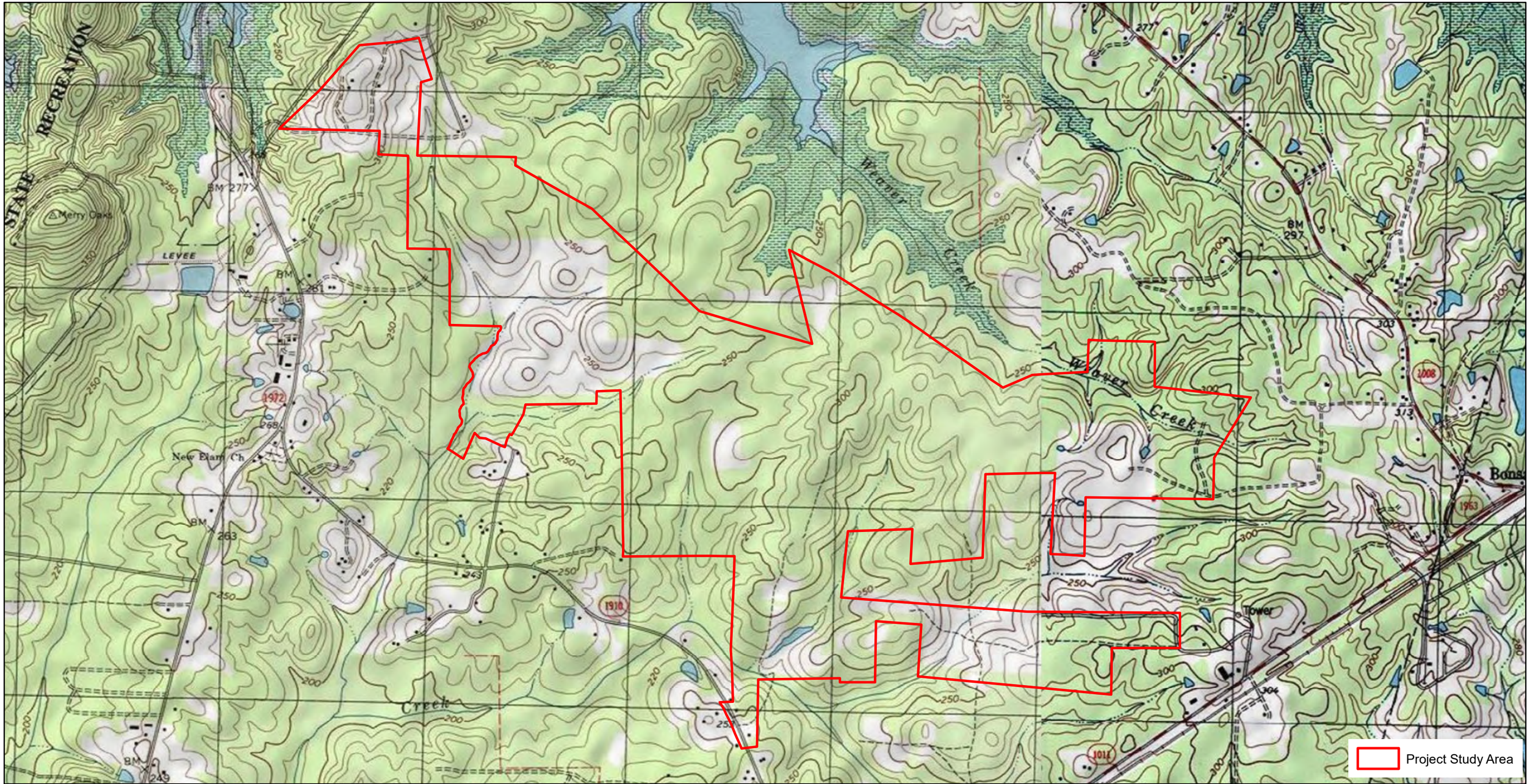
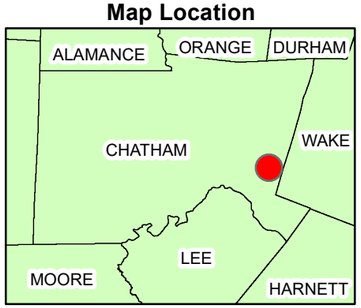
cc: Sean Clark, Sage Ecological Services, Inc.
Kim Hamlin, Sage Ecological Services, Inc.
Rachael Thorn, Chatham County Watershed Protection Director
Kimberly Tyson, Planner II, Chatham County Subdivision Administrator
Angela Birchett, Planner II, Chatham County Zoning Administrator
Jason Sullivan, Chatham County Planning Director



Map Location



USGS Topo Map

Chatham County Assemblage - Sage Project # 2020.041

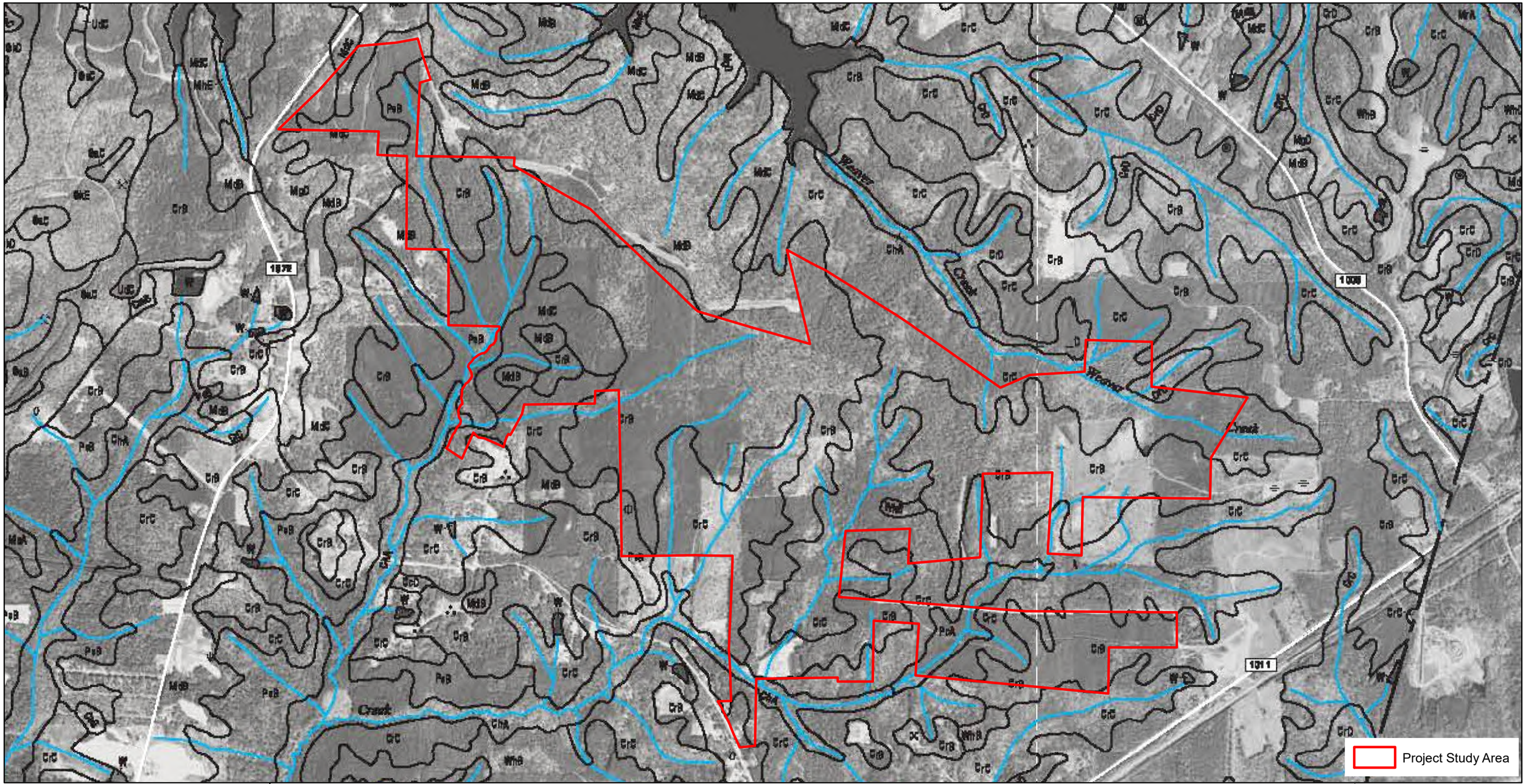
USGS Topography, December 2013 - Merry Oaks and New Hill, NC Quadrangle
Map Prepared by: Philip Beach on October 9, 2020

0 0.5 1 Miles

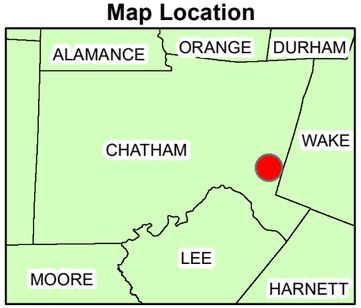
N

Figure 1

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



Map Location



NRCS Soils Map

Chatham County Assemblage - Sage Project # 2020.041

Chatham County, NC Soil Survey 1960
Soil Sheets 11 and 12;
Map Prepared by: Philip Beach on October 9, 2020

0 0.5 1 Miles

N

Figure 2

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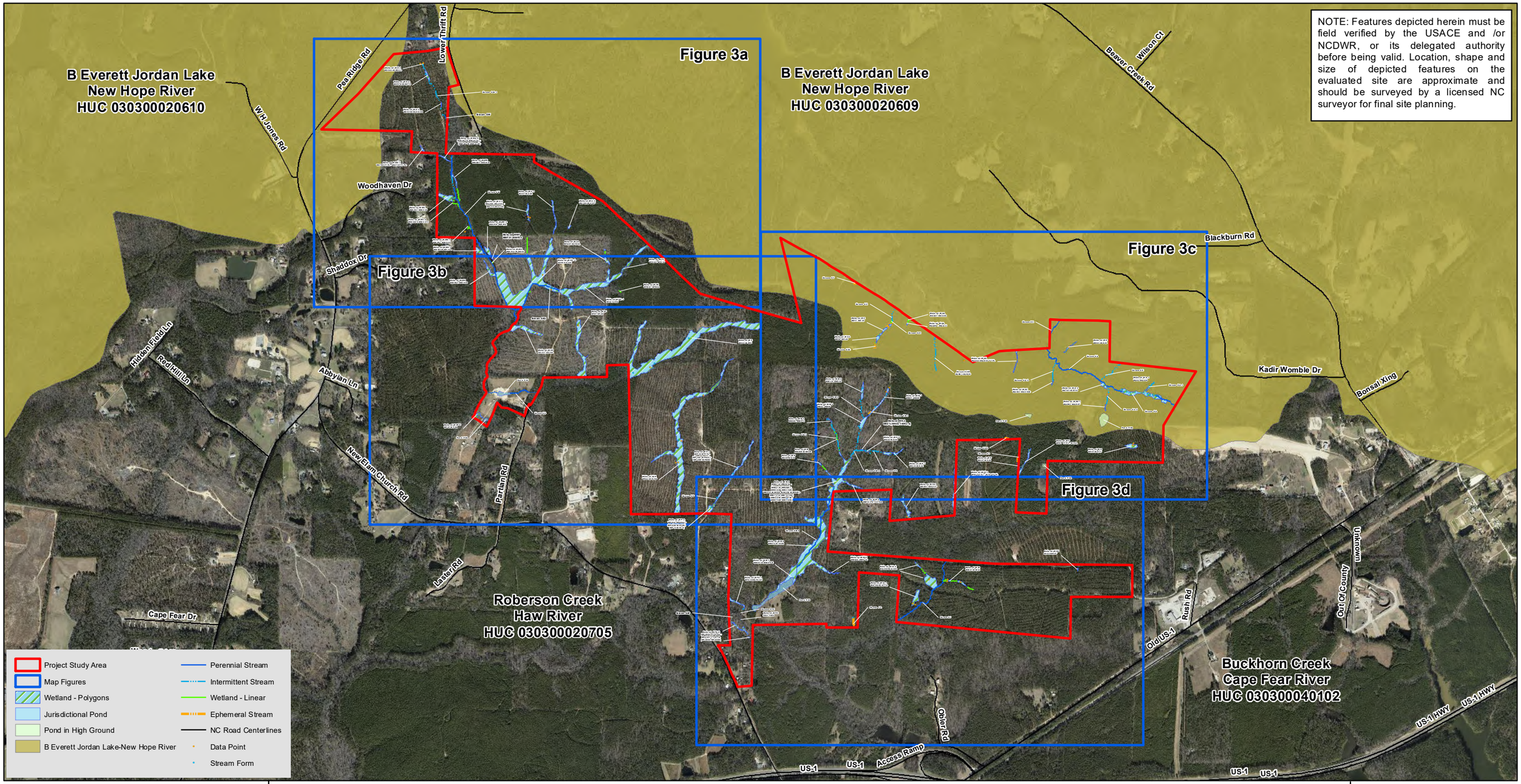
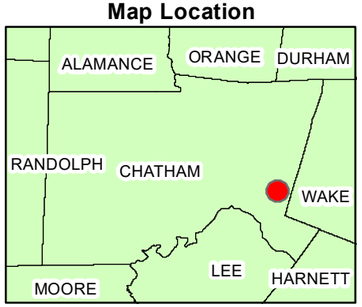
Cell: 919-559-1537



Map Location



Map Figure Index

Stream and Wetland Sketch

Chatham County Assemblage - Sage Project # 2020.041

Map Prepared by: Philip Beach on October 9, 2020

0 0.5 1 Miles

N

Figure 3

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

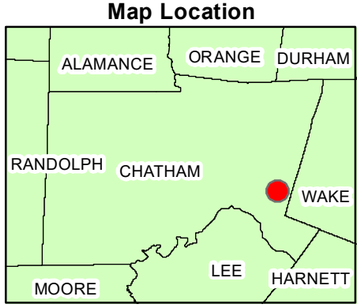
NOTE: Features depicted herein must be field verified by the USACE and /or NCDWR, or its delegated authority before being valid. Location, shape and size of depicted features on the evaluated site are approximate and should be surveyed by a licensed NC surveyor for final site planning.

Pea Ridge Rd
W H Jones Rd
Lower Thrift Rd
Woodhaven Dr
Shaddox Dr

Wetland WG-1 WDG01-WDG03
Wetland WG-2 WDG10-WDG15
Stream SW-1
Wetland WG-3 WDG100-WDG106
Stream SW
Wetland WWA-2 (WWA01A-WWA11A) - (WWA01B-WWA11B)
Wetland WWA-1 WA700 TTPL - WA716 TT PL
Wetland WWB WWB01-WWB25
Stream SW
Wetland WU-1 WU01-WU28
Wetland WU-3 (WU300-WU319) - (WU113-WU118)
Wetland WU-2 WU100-WU107
Wetland WWC WWC01-WWC26
Wetland WWC-4 WWC200-WWC211
Wetland WWD-1 WWD01-WWD03
Wetland WWF WWF01-WWF05
Wetland WTA WTA01-WTA20
Wetland WWE-1 WWE01WWE18
Wetland WWG WWG01-WWG03
Wetland WXG-2 XG56-XG128
Wetland WXG-1 XG01-XG52
Wetland WTC WTC01-WTC34
Wetland WWE-2 WWE19-WWE32
Stream SXG
Wetland WWH WWH01-WWH06
Wetland WTB WTB01-WTB04

Project Study Area
Wetland - Polygons
Jurisdictional Pond
Pond in High Ground
B Everett Jordan Lake-New Hope River
Perennial Stream
Intermittent Stream
Ephemeral Stream
Wetland - Linear
NC Road Centerlines
Data Point
Stream Form

Map Location



Stream and Wetland Sketch Map

Chatham County Assemblage - Sage Project # 2020.041

Map Prepared by: Philip Beach on October 9, 2020

0 0.25 0.5 Miles

N

Figure 3a

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

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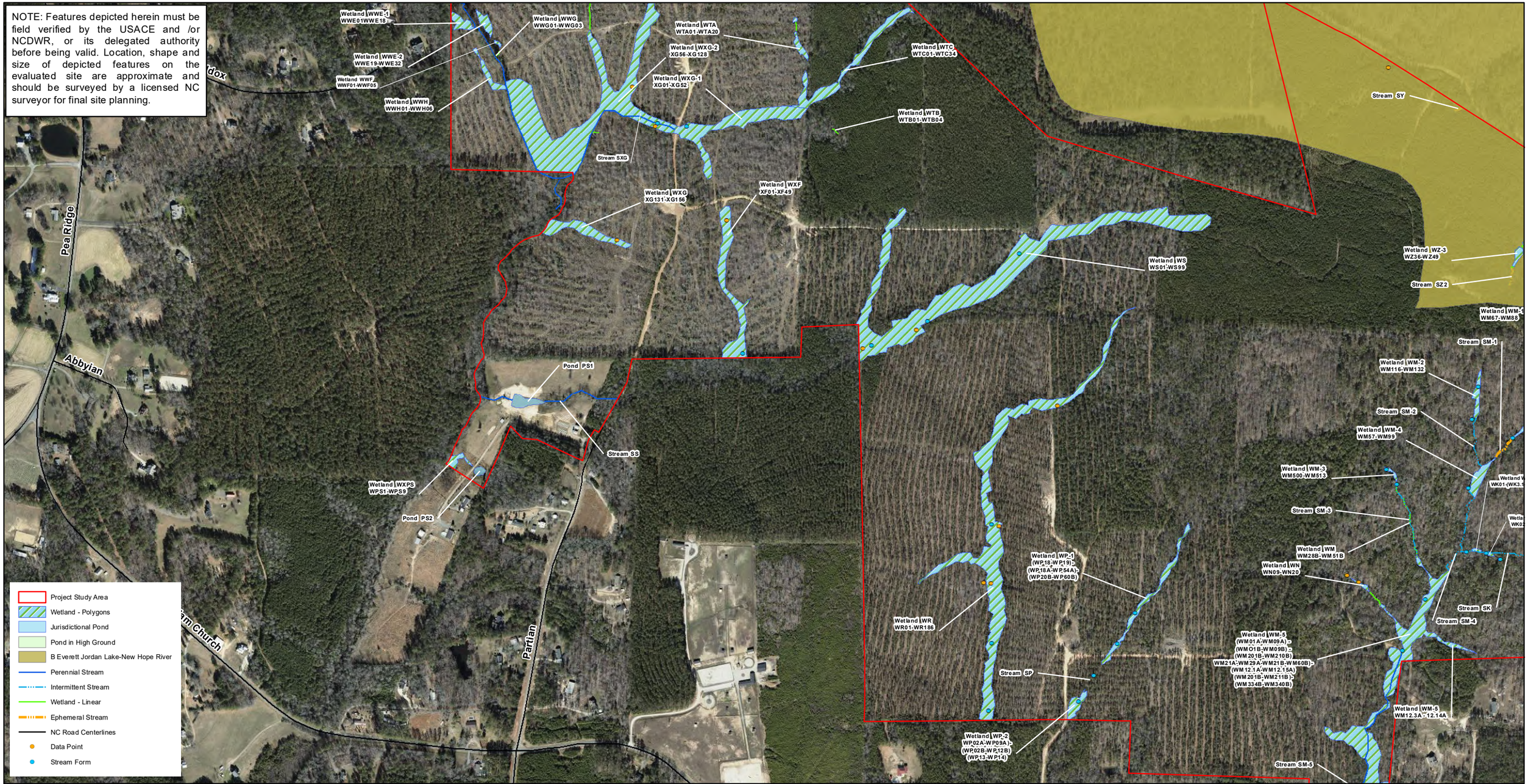
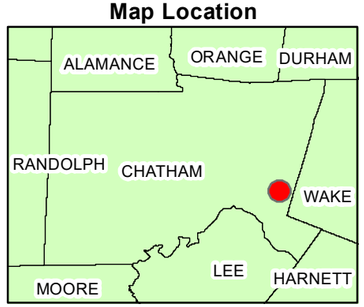


Map Location



Stream and Wetland Sketch Map

Chatham County Assemblage - Sage Project # 2020.041

Map Prepared by: Philip Beach on October 9, 2020

N

0 0.25 0.5 Miles

Figure 3b

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

NOTE: Features depicted herein must be field verified by the USACE and /or NCDWR, or its delegated authority before being valid. 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.

Blackburn Rd

Kadir Womble Dr

Stream SY
Wetland WA A WA A01-WAA06
Stream SZ
Stream SZ1
Wetland WZ WZ17-WZ35
Wetland WZ-3 WZ36-WZ49
Wetland WA A WA A06 - WAA11
Stream SZ2
Wetland WS WS01-WS99
Stream SAB SAB01-SAB26
Wetland WA G WA G01-WAG33 TT PL
Stream SC
Wetland WD WD01-WD23
Stream SA
Stream SE
Wetland WA-1 WA01-WA229
Stream SA-1
Stream SA-3
Wetland WA C WA C01-WAC506
Wetland WA-2 WA101-WA110
Wetland WA D-1 WA D01-WAD07
Stream SA-2
Stream SA
Pond PH1
Pond PH2
Wetland WM-2 WM116-WM132
Stream SM-2
Wetland WM-1 WM67-WM88
Wetland WM-4 WM57-WM99
Stream SM-1
Wetland WM-3 WM500-WM513
Wetland WP-1 (WP18-WP19) - (WP18A-WP54A) - (WP20B-WP60B)
Stream SM-3
Wetland WK-3 WK01 - (WK3.1-WK3.4)
Wetland WK-2 WK02-WK05
Wetland WM WM28B-WM51B
Wetland WN WN09-WN20
Stream SP
Stream SM-4
Stream SK
Wetland WK-1 WK10-WK44
Wetland WM-5 WM12.3A - 12.14A
Wetland WM-5 (WM01A-WM09A) - (WM01B-WM09B) - (WM201B-WM210B) WM21A-WM29A-WM21B-WM60B) - (WM12.1A-WM12.15A) (WM201B-WM211B) - (WM334B-WM340B)
Wetland WP-2 WP02A-WP09A) - (WP02B-WP12B) (WP13-WP14)
Wetland WGZ WGZ01-WGZ37
Stream SHG
Stream H1
Wetland WH WH01-WH05
Wetland WIO-1 WI01 TT PL - WI21 TT PL
Wetland WF WF01 TT PL - WF32
Wetland WG WG01-WG17
Pond PH3

Project Study Area
Wetland - Polygons
Jurisdictional Pond
Pond in High Ground
B Everett Jordan Lake-New Hope River
Perennial Stream
Intermittent Stream
Wetland - Linear
Ephemeral Stream
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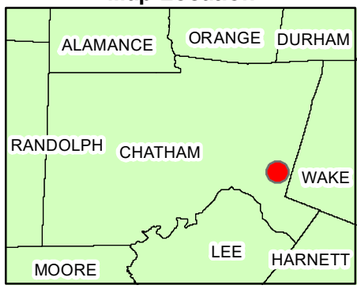

Stream and Wetland Sketch Map

Chatham County Assemblage - Sage Project # 2020.041

Map Prepared by: Philip Beach on October 9, 2020

0 0.25 0.5 Miles

N

Figure 3c

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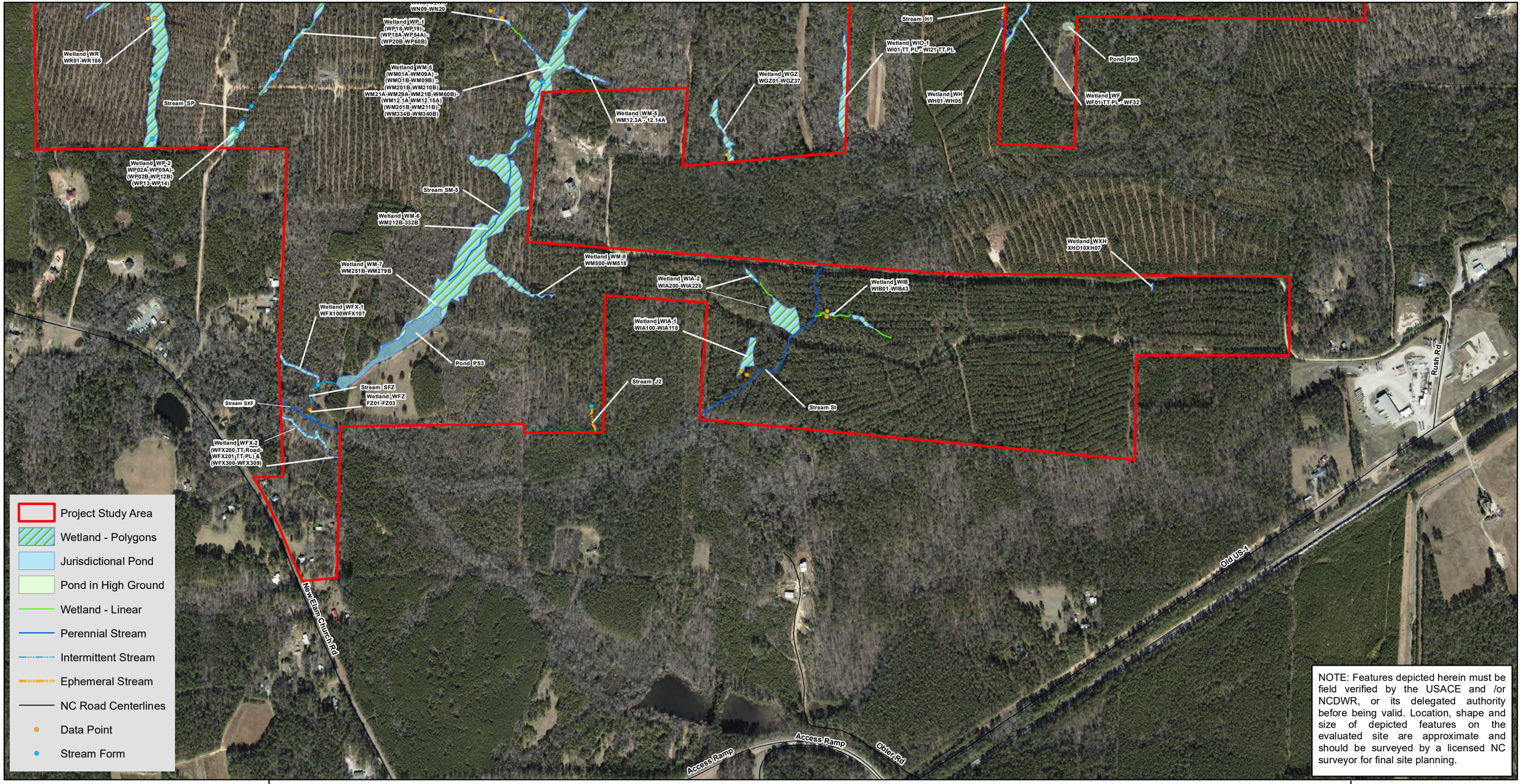
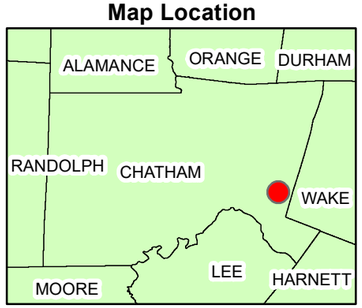
Cell: 919-559-1537



Map Location



Stream and Wetland Sketch Map

Chatham County Assemblage - Sage Project # 2020.041

Map Prepared by: Philip Beach on October 9, 2020

0 0.25 0.5 Miles

N

Figure 3d

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

Streams

Stream Name	Latitude	Longitude	Approximate Length on Site (linear feet)	Flow Regime	Stream Form	Buffer Jurisdiction
H1	35.6603°N	78.9993°W	129	Ephemeral		County
SA	35.6627°N	78.9899°W	3,069	Intermittent / Perennial	SA01, SA03, SA02, & SA04	County + Jordan
SA-1	35.6639°N	78.9912°W	148	Intermittent	SA02	County + Jordan
SA-2	35.6628°N	78.9940°W	339	Intermittent		County + Jordan
SA-3	35.6640°N	78.9973°W	328	Intermittent	SAC	County + Jordan
SAB	35.6661°N	79.0044°W	667	Intermittent		County + Jordan
SC	35.6663°N	78.9974°W	316	Perennial		County + Jordan
SE	35.6640°N	78.9945°W	539	Intermittent	SE2-01	County + Jordan
SHG	35.6612°N	79.0002°W	78	Ephemeral		County
SY	35.6522°N	79.0067°W	2,131	Ephemeral		County + Jordan
SI	35.6687°N	79.0093°W	64	Perennial		County
SK	35.6605°N	79.0091°W	494	Intermittent	K1, K2, & K3	County
SM-1	35.6623°N	79.0083°W	169	Ephemeral	M1.2 & M1.3	County
SM-2	35.6630°N	79.0088°W	1,015	Intermittent	M2.1 & M2.2	County
SM-3	35.6605°N	79.0101°W	540	Intermittent	M3.1 & M3.2	County
SFZ	35.6605°N	79.0101°W	211	Intermittent		County
J2	35.6522°N	79.0160°W	97	Ephemeral	J2	County
SM-4 & SM-5	35.6579°N	79.0109°W	1,720	Ephemeral / Intermittent / Perennial	M1.4, M1.5, & M1.6	County
SP	35.6579°N	79.0178°W	216	Intermittent	P1, P2, P3, & P4	County
SS	35.6634°N	79.0283°W	767	Perennial		County
SW & SW-1	35.6710°N	79.0321°W	5,271	Ephemeral / Intermittent / Perennial	DG1, DG2, DG3, DG4, DG5, DG6, & W1	County
SZ	35.6658°N	79.0080°W	292	Ephemeral / Intermittent		County + Jordan
SXG	35.6682°N	79.0288°W	1,083	Perennial	XFG1 & XFG2	County
SXF	35.6520°N	79.0160°W	605	Perennial		County

Wetlands

Latitude	Longitude	Total Approximate Size on Site (acres)	Data Form	Buffer Jurisdiction
35.6633°N	78.9919°W	1.22	DP WA1	County + Jordan
35.6638°N	78.9942°W	0.149	DP WA1 & DP WA2	County + Jordan
35.6668°N	79.0060°W	0.024	DP WM1 & DP WM2	County + Jordan
35.6639°N	78.9973°W	0.028	DP WD1	County + Jordan
35.6627°N	78.9941°W	0.023	DP WAD1	County + Jordan
35.6650°N	78.9995°W	0.106	DP WM1 & DP WM2	County + Jordan
35.6656°N	78.9963°W	0.092	DP WD1	County + Jordan
35.6600°N	78.9990°W	0.281	DP WD1	County
35.6531°N	79.0163°W	0.179	DP FZ1 & DP FZ2	County
35.6513°N	79.0155°W	0.236	DP FZ1 & DP FZ2	County
35.6522°N	79.0161°W	0.001	DP FZ1 & DP FZ2	County
35.6608°N	78.9925°W	0.272	DP WG1 & DP WG2	County
35.6795°N	78.0351°W	0.001	DP WDG1 & DP WDG2	County
35.6790°N	79.0349°W	0.113	DP WWA1 & DP WWA2	County
35.6776°N	79.0341°W	0.018	DP WWA1 & DP WWA2	County
35.6578°N	79.0061°W	0.366	DP WIB1	County
35.6598°N	78.9993°W	0.014	DP WIB1	County
35.6533°N	79.0055°W	0.351	DP WIA1 & DP WIA2	County
35.6549°N	79.0054°W	0.877	DP WIB1 & DP WIB2	County
35.6542°N	79.0035°W	0.152	DP WIB1 & DP WIB2	County
35.6585°N	79.0032°W	0.649	DP WGZ1	County
35.6604°N	79.0072°W	0.245	DP WN1 & DP WN2	County
35.6605°N	79.0085°W	0.046	DP WN1 & DP WN2	County
35.6605°N	79.0087°W	0.025	DP WN1 & DP WN2	County
35.6631°N	79.0074°W	0.248	DP WM1 & DP WM2	County
35.6634°N	79.0087°W	0.216	DP WM1 & DP WM2	County
35.6620°N	79.0107°W	0.041	DP WN1 & DP WN2	County
35.6619°N	79.0087°W	0.308	DP WM2	County
35.6590°N	79.0103°W	2.033	DPWR2 & DPWR3	County
35.6558°N	79.0118°W	5.488	DP WA1 & DP WA2	County
35.6599°N	79.0114°W	0.052	DP WN1 & DP WN2	County
35.6597°N	79.0163°W	0.604	DP WR1	County
35.6577°N	79.0179°W	0.261	DPWR2 & DPWR3	County

35.6609°N	79.0195°W	5.493	Stream Forms: R1, R2, & R3 WL Data Forms: DP WR1, WR2, & WR3	County
35.6657°N	79.0197°W	7.791	Stream Forms: S1, S2, & S3 WL Data Forms: DP WS	County
35.6704°N	79.0243°W	0.154	DP XG1	County
35.6683°N	79.0233°W	0.004	DP XG1	County
35.6696°N	79.0231°W	1.072	DP XG1	County
35.6721°N	79.0273°W	0.209	DP WU1 & DP WU2	County
35.6715°N	79.0264°W	0.039	DP WU1 & DP WU2	County
35.6723°N	79.0289°W	0.173	DP WU1 & DP WU2	County
35.6753°N	79.0352°W	0.08	DP WM1	County
35.6749°N	79.0339°W	0.108	DP WR1	County
35.6739°N	79.0333°W	0.139	DP WR1	County
35.6730°N	79.0338°W	0.451	DP WR1	County
35.6723°N	79.0328°W	0.018	DP WDG2	County
35.6714°N	79.0324°W	0.015	DP WWD1 & DP WDG2	County
35.6704°N	79.0318°W	0.233	DP WR1	County
35.6704°N	79.0313°W	0.204	DP WR1	County
35.6700°N	79.0310°W	0.021	DP WR1	County
35.6697°N	79.0310°W	0.003	DP WR1	County
35.6694°N	79.0312°W	0.226	DP WR1	County
35.6654°N	79.0257°W	1.493	Stream Forms: XF1 WL Data Forms: DP XF1	County
35.6665°N	79.0291°W	0.759	DP XG1 & DP XG2	County
35.6684°N	79.0256°W	8.608	DP XG3	County
35.6547°N	78.9958°W	0.016	DP WU1	County
35.6622°N	79.0319°W	0.158	DP WM2	County
35.6664°N	79.0075°W	0.23	DP WM1 & DP WM2	County + Jordan
35.6695°N	79.0108°W	N/A	DP 10A	County
35.6650°N	79.0026°W	N/A	DP 10B	County

Ponds

Pond Name	Latitude	Longitude	Approximate Size on Site (acres)	Buffer Jurisdiction
PS1	35.6633°N	79.0304°W	0.27	County
PS2	35.6620°N	79.0314°W	0.082	County
PS3	35.6538°N	79.0136°W	1.169	County
PH1	35.6623°N	78.9987°W	0.157	County + Jordan
PH2	35.6620°N	78.9942°W	0.674	County + Jordan
PH3	35.6598°N	78.9978°W	0.111	County

NC DWQ Stream Identification Form Version 4.11

DG1

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6795
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0351
Total Points: 11.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 8)	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	0
5. Active/relic floodplain	0	1	2	3	2
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	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 = 1.5)	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	0.5
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		0

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)	0-0.25
Bankfull Width (feet)	3
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

DG2

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6792
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0351
Total Points: 21.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 11)	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	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	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	2
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 = 6.5)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0.5
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 = 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)	1-2
Bankfull Width (feet)	2-4
Water Depth (inches)	2
Channel Substrate	Silt, Sand, Cobble
Velocity:	Slow
Clarity:	Slightly Turbid

Sketch:

NC DWQ Stream Identification Form Version 4.11

DG3

Date: 10/06/2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6787
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0349
Total Points: 11.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *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	1
5. Active/relic floodplain	0	1	2	3	2
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	0
9. Grade controls	0	0.5	1	1.5	0.5
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 = 5)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
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	0.5
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:

Within a wetland.

Bank Height (feet)	0-0.25
Bankfull Width (feet)	2
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

DG4

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6776
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0341
Total Points: 27.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 14)	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	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	2
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 = 8)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	2
14. Leaflitter	1.5	1	0.5	0	1
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 5.5)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	2
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	0.5
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)	4
Water Depth (inches)	2
Channel Substrate	Silt, Sand, Cobble
Velocity:	Slow
Clarity:	Slightly Turbid

Sketch:

NC DWQ Stream Identification Form Version 4.11

DG5

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6771
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0339
Total Points: 10.25 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *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	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	2
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	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 = 2)	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	0.5
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		0

C. Biology (Subtotal = 2.75)	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				0.75

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

Notes:

Soil color is 10YR5/3

Bank Height (feet)	0-0.5
Bankfull Width (feet)	3
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

DG6

Date: 10/06/2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6767
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0337
Total Points: 30.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Perennial	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 13.5)	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	0
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	2
9. Grade controls	0	0.5	1	1.5	0.5
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 = 8)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	2
13. Iron oxidizing bacteria	0	1	2	3	1
14. Leaflitter	1.5	1	0.5	0	1
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 9)	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	1
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	1
24. Amphibians	0	0.5	1	1.5	1
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)	1-2
Bankfull Width (feet)	4
Water Depth (inches)	4
Channel Substrate	Silt, Sand, Cobble
Velocity:	Slow
Clarity:	Clear

Sketch:

NC DWQ Stream Identification Form Version 4.11

J2

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6528
Evaluator: K. Hamlin, P. Beach	**County:** Chatham	**Longitude:** -79.0108
Total Points: 11.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 6.5)	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	1
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 = 2)	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	0.5
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	1
17. Soil-based evidence of high water table?	No = 0		Yes = 3		0

C. Biology (Subtotal = 3)	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	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)	3
Bankfull Width (feet)	4
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

K1

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6605
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0091
Total Points: 20.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 9.5)	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	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	1
5. Active/relic floodplain	0	1	2	3	2
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	1
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 = 5.5)	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	1.5
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 5.5)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	2
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	0.5
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:
This section of the drainage has been ditched in the past probably for agricultural purposes.

Bank Height (feet)	1-2
Bankfull Width (feet)	2
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

K2

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6606
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0089
Total Points: 20.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 9)	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	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	1
6. Depositional bars or benches	0	1	2	3	1
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
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 = 5.5)	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	1
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	1
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 6)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	2
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	0.5
24. Amphibians	0	0.5	1	1.5	0.5
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)	1-2
Bankfull Width (feet)	3
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

K3

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6604
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0074
Total Points: 15 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

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	0
4. Particle size of stream substrate	0	1	2	3	0
5. Active/relic floodplain	0	1	2	3	2
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
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 = 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	1
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 5)	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	1
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:

Drainage pattern in wetland

Bank Height (feet)	0-0.5
Bankfull Width (feet)	1-7
Water Depth (inches)	0
Channel Substrate	Silt, Clay
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

M1.2

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6634
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0072
Total Points: 16 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 8)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	1
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	1
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 = 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	1
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 3)	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	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)	0.5- 1.5
Bankfull Width (feet)	3
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

M1.3

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6624
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0088
Total Points: 12.25 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 3)	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	1
5. Active/relic floodplain	0	1	2	3	1
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	0.5
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 = 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	1
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 4.25)	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	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	0.5
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				0.75

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

Notes:
drainage pattern within wetland area

Bank Height (feet)	0-0.25
Bankfull Width (feet)	2
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

M1.4

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6615
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0088
Total Points: 22 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 12.5)	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	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	1
5. Active/relic floodplain	0	1	2	3	1
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	1
11. Second or greater order channel	No = 0		Yes = 3		3

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

B. Hydrology (Subtotal = 4.5)	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	1
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		3

C. Biology (Subtotal = 5)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	2
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)	2
Bankfull Width (feet)	3-5
Water Depth (inches)	0-18
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

M1.5

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.659
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0101
Total Points: 18.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 10.5)	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	0
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	3
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
10. Natural valley	0	0.5	1	1.5	1.5
11. Second or greater order channel	No = 0		Yes = 3		3

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

B. Hydrology (Subtotal = 6)	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	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	1
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	0
19. Rooted upland plants in streambed	3	2	1	0	2
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:

primary drainage pattern in broad wetland

Bank Height (feet)	0-0.5
Bankfull Width (feet)	1-6
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

M1.6

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6585
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0104
Total Points: 34.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Perennial	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 21.5)	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	3
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	2
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		3

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

B. Hydrology (Subtotal = 7)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
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
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 = 6)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	2
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	0.5
24. Amphibians	0	0.5	1	1.5	0.5
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:
drainage pattern in wetland

Bank Height (feet)	2-3
Bankfull Width (feet)	2-6
Water Depth (inches)	2-24
Channel Substrate	Silt, Sand
Velocity:	Slow
Clarity:	Clear

Sketch:

NC DWQ Stream Identification Form Version 4.11

M2.1

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6599
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0096
Total Points: 12.25 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 2)	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	0
5. Active/relic floodplain	0	1	2	3	1
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	0.5
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 = 4.5)	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	1
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		3

C. Biology (Subtotal = 5.75)	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	1
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				0.75

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

Notes:
drainage pattern within wetland

Bank Height (feet)	0-0.25
Bankfull Width (feet)	1-2
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

M2.2

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6586
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0103
Total Points: 19 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 9)	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	1
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
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 = 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	1
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 5)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	2
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)	1-3
Bankfull Width (feet)	2-3
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

M3.1

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6617
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0089
Total Points: 7.75 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 2)	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	0
5. Active/relic floodplain	0	1	2	3	1
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	0.5
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 = 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 = 2.75)	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	2
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				0.75

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

Notes:

Point taken in wetland with no drainage patterns

Bank Height (feet)	0
Bankfull Width (feet)	2
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

M3.2

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6614
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.009
Total Points: 23 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 9)	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	1
4. Particle size of stream substrate	0	1	2	3	1
5. Active/relic floodplain	0	1	2	3	1
6. Depositional bars or benches	0	1	2	3	1
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	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)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	2
14. Leaflitter	1.5	1	0.5	0	1
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	1
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 6)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	2
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	0.5
24. Amphibians	0	0.5	1	1.5	0.5
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)	1-1.5
Bankfull Width (feet)	1-3
Water Depth (inches)	0-2
Channel Substrate	Silt, Sand
Velocity:	Slow
Clarity:	Clear

Sketch:

NC DWQ Stream Identification Form Version 4.11

P1

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6595
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0164
Total Points: 16.75 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 6)	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	2
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
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 = 6)	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	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	1
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 4.75)	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	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	1
26. Wetland plants in streambed	FACW=0.75; OBL=1.5 Other=0				0.75

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

Notes:
Old farm ditch through wetland

Bank Height (feet)	2
Bankfull Width (feet)	2-3
Water Depth (inches)	0-6
Channel Substrate	Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

P2

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6587
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.017
Total Points: 12.75 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 5)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	1
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	2
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
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 = 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	1.5
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 = 2.75)	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	2
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				0.75

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

Notes:
Drainage within a wetland

Bank Height (feet)	0-0.25
Bankfull Width (feet)	4
Water Depth (inches)	0
Channel Substrate	clay, sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

P3

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6583
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0174
Total Points: 22.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 12.5)	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	1
4. Particle size of stream substrate	0	1	2	3	1
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	1
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	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 = 6)	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	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	1
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:
Taken within an old farm ditch.

Bank Height (feet)	1-2
Bankfull Width (feet)	3-4
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

P4

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6578
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0178
Total Points: 10.75 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 4)	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	0
5. Active/relic floodplain	0	1	2	3	2
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
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 = 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
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 = 3.25)	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	2
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	0.5
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				0.75

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

Notes:
within a wetland beyond the end of the old farm ditch.

Bank Height (feet)	0-0.25
Bankfull Width (feet)	5
Water Depth (inches)	0
Channel Substrate	Silt, clay
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

R1

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6611
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0198
Total Points: 11 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 3.5)	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	0
5. Active/relic floodplain	0	1	2	3	2
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
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 = 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	1
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 2.5)	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	2
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	0.5
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:
Primary drainage pattern through wetland

Bank Height (feet)	0-0.25
Bankfull Width (feet)	2
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

R2

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6588
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -79.0198
Total Points: 11.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 4.5)	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	0
5. Active/relic floodplain	0	1	2	3	2
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 = 5.5)	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	1
16. Organic debris lines or piles	0	0.5	1	1.5	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 1.5)	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	0.5
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:

drainage pattern through wetland

Bank Height (feet)	0-0.5
Bankfull Width (feet)	3
Water Depth (inches)	0
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

R3

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6576
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -79.0198
Total Points: 8.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 1.5)	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	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	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 = 6)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	3
13. Iron oxidizing bacteria	0	1	2	3	2
14. Leaflitter	1.5	1	0.5	0	1
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 = 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	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	0.5
24. Amphibians	0	0.5	1	1.5	0.5
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
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

S1

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6661
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -79.0191
Total Points: 13.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

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	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	1
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	2
10. Natural valley	0	0.5	1	1.5	2
11. Second or greater order channel	No = 0		Yes = 3		0

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

B. Hydrology (Subtotal = 7)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
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	1
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 1.5)	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	0.5
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)	1
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

S2

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6649
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -79.0211
Total Points: 9.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 4)	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	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	2
10. Natural valley	0	0.5	1	1.5	2
11. Second or greater order channel	No = 0		Yes = 3		0

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

B. Hydrology (Subtotal = 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	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 0.5)	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	0.5
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)	1
Channel Substrate	Silt, Sand
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

S3

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6643
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -79.0227
Total Points: 15 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 6)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	1
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	1
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	2
10. Natural valley	0	0.5	1	1.5	2
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	2
13. Iron oxidizing bacteria	0	1	2	3	0
14. Leaflitter	1.5	1	0.5	0	0.5
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	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 0.5)	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	0.5
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)	0.5-1
Bankfull Width (feet)	3
Water Depth (inches)	2
Channel Substrate	Silt, Sand
Velocity:	Slow
Clarity:	Clear

Sketch:

NC DWQ Stream Identification Form Version 4.11

SA01

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6635
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -78.9931
Total Points: 39 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Perennial	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 23)	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	2
4. Particle size of stream substrate	0	1	2	3	3
5. Active/relic floodplain	0	1	2	3	3
6. Depositional bars or benches	0	1	2	3	1
7. Recent alluvial deposits	0	1	2	3	1
8. Headcuts	0	1	2	3	3
9. Grade controls	0	0.5	1	1.5	0.5
10. Natural valley	0	0.5	1	1.5	1.5
11. Second or greater order channel	No = 0		Yes = 3		3

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

B. Hydrology (Subtotal = 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 = 5.5)	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	0.5
24. Amphibians	0	0.5	1	1.5	1
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)	2
Bankfull Width (feet)	4
Water Depth (inches)	4
Channel Substrate	Silt, Sand, Cobble
Velocity:	Slow
Clarity:	Clear

Sketch:

NC DWQ Stream Identification Form Version 4.11

SA02

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6632
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -78.991
Total Points: 22.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 11.5)	Absent	Weak	Moderate	Strong	SCORE
1[a]. Continuous bed and bank	0	1	2	3	1
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	3
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	0.5
9. Grade controls	0	0.5	1	1.5	0.5
10. Natural valley	0	0.5	1	1.5	1.5
11. Second or greater order channel	No = 0		Yes = 3		3

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

B. Hydrology (Subtotal = 10)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	3
13. Iron oxidizing bacteria	0	1	2	3	2
14. Leaflitter	1.5	1	0.5	0	0
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 = 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	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	1
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:
braided channel

Bank Height (feet)	1
Bankfull Width (feet)	3
Water Depth (inches)	3
Channel Substrate	Silt, Sand
Velocity:	Slow
Clarity:	Clear

Sketch:

NC DWQ Stream Identification Form Version 4.11

SA03

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6628
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -78.9901
Total Points: 31 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Perennial	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 21)	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	3
4. Particle size of stream substrate	0	1	2	3	3
5. Active/relic floodplain	0	1	2	3	3
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	1.5
10. Natural valley	0	0.5	1	1.5	1.5
11. Second or greater order channel	No = 0		Yes = 3		3

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

B. Hydrology (Subtotal = 8)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	2
13. Iron oxidizing bacteria	0	1	2	3	1
14. Leaflitter	1.5	1	0.5	0	1
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	0.5
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	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	0.5
24. Amphibians	0	0.5	1	1.5	0.5
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:
braided channel

Bank Height (feet)	3
Bankfull Width (feet)	6
Water Depth (inches)	6
Channel Substrate	Silt, Sand, Cobble
Velocity:	Fast
Clarity:	Slightly Turbid

Sketch:

NC DWQ Stream Identification Form Version 4.11

SA04

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6632
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -78.9911
Total Points: 45 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Perennial	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 19.5)	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	1
5. Active/relic floodplain	0	1	2	3	3
6. Depositional bars or benches	0	1	2	3	3
7. Recent alluvial deposits	0	1	2	3	0
8. Headcuts	0	1	2	3	1.5
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		3

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

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

C. Biology (Subtotal = 10.5)	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	3
21. Aquatic Mollusks	0	1	2	3	0
22. Fish	0	0.5	1	1.5	1
23. Crayfish	0	0.5	1	1.5	1
24. Amphibians	0	0.5	1	1.5	1.5
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:
braided channel

Bank Height (feet)	3
Bankfull Width (feet)	6
Water Depth (inches)	6
Channel Substrate	Silt, Sand, Cobble
Velocity:	Fast
Clarity:	Slightly Turbid

Sketch:

NC DWQ Stream Identification Form Version 4.11

SAC

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.664
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -78.9973
Total Points: 19.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 9)	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	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	2
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
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 = 6.5)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	0.5
13. Iron oxidizing bacteria	0	1	2	3	3
14. Leaflitter	1.5	1	0.5	0	0.5
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		2

C. Biology (Subtotal = 4)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	2
19. Rooted upland plants in streambed	3	2	1	0	1
20. Macrobenthos (note diversity and abundance)	0	1	2	3	1
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)	3
Water Depth (inches)	4
Channel Substrate	Silt, Sand, Cobble
Velocity:	Slow
Clarity:	Clear

Sketch:

NC DWQ Stream Identification Form Version 4.11

SAD

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6633
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -78.9939
Total Points: 24 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 8.5)	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	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	2
5. Active/relic floodplain	0	1	2	3	1
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	0.5
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 = 9)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	3
14. Leaflitter	1.5	1	0.5	0	1
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 6.5)	Absent	Weak	Moderate	Strong	SCORE
18. Fibrous roots in streambed	3	2	1	0	2
19. Rooted upland plants in streambed	3	2	1	0	3
20. Macrobenthos (note diversity and abundance)	0	1	2	3	1
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	0.5
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)	2
Bankfull Width (feet)	6
Water Depth (inches)	3
Channel Substrate	Silt, Sand, Cobble
Velocity:	Slow
Clarity:	Clear

Sketch:

NC DWQ Stream Identification Form Version 4.11

SE2-01

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6637
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -78.9914
Total Points: 26 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 7.5)	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	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	0
5. Active/relic floodplain	0	1	2	3	0
6. Depositional bars or benches	0	1	2	3	1
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
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 = 8.5)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
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	3
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 = 10)	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	1
22. Fish	0	0.5	1	1.5	1
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)	3
Water Depth (inches)	3
Channel Substrate	Silt, Sand
Velocity:	Slow
Clarity:	Clear

Sketch:

NC DWQ Stream Identification Form Version 4.11

W1

Date: Oct 6, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.675
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0334
Total Points: 22.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Intermittent	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 9)	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	3
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 = 8)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	1
13. Iron oxidizing bacteria	0	1	2	3	2
14. Leaflitter	1.5	1	0.5	0	1
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	0.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3		3

C. Biology (Subtotal = 5.5)	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	0.5
25. Algae	0	0.5	1	1.5	1
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)	4
Water Depth (inches)	0-2
Channel Substrate	Silt, Sand
Velocity:	Slow
Clarity:	Clear

Sketch:

NC DWQ Stream Identification Form Version 4.11

XF1

Date: 10/06/2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6642
Evaluator: S. Clark	**County:** Chatham	**Longitude:** -79.0254
Total Points: 9.25 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 3.5)	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	0
5. Active/relic floodplain	0	1	2	3	2
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
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 = 2.75)	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	2
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				0.75

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

Notes:
Within wetland WXF.

Bank Height (feet)	0
Bankfull Width (feet)	N/A
Water Depth (inches)	0
Channel Substrate	Clay
Velocity:	N/A
Clarity:	N/A

Sketch:

NC DWQ Stream Identification Form Version 4.11

XG1

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6684
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -79.0267
Total Points: 17 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Ephemeral	**Other:** Merry Oaks/NewHil *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	0
5. Active/relic floodplain	0	1	2	3	3
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
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 = 5)	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		3

C. Biology (Subtotal = 6.5)	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	3
20. Macrobenthos (note diversity and abundance)	0	1	2	3	1
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	1
25. Algae	0	0.5	1	1.5	0
26. Wetland plants in streambed	FACW=0.75; OBL=1.5 Other=0				1.5

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

Notes:
no bed or bank - impounded wetland area

Bank Height (feet)	0.5
Bankfull Width (feet)	2
Water Depth (inches)	2
Channel Substrate	Silt, Sand
Velocity:	Slow
Clarity:	Turbid

Sketch:

NC DWQ Stream Identification Form Version 4.11

XG2

Date: Oct 8, 2020	**Project/Site:** The Conservancy - Moncure	**Latitude:** 35.6685
Evaluator: D. Gainey	**County:** Chatham	**Longitude:** -79.0274
Total Points: 38.5 Stream is at least intermittent if ≥19 or perennial if ≥30	**Stream Determination:** Perennial	**Other:** Merry Oaks/NewHil *e.g. Quad Name*:

A. Geomorphology (Subtotal = 22.5)	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	2
4. Particle size of stream substrate	0	1	2	3	0
5. Active/relic floodplain	0	1	2	3	3
6. Depositional bars or benches	0	1	2	3	3
7. Recent alluvial deposits	0	1	2	3	3
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	1.5
11. Second or greater order channel	No = 0		Yes = 3		3

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

B. Hydrology (Subtotal = 11.5)	Absent	Weak	Moderate	Strong	SCORE
12. Presence of Baseflow	0	1	2	3	3
13. Iron oxidizing bacteria	0	1	2	3	2
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 = 4.5)	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	0.5
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 - impounded wetland area

Bank Height (feet)	1
Bankfull Width (feet)	4
Water Depth (inches)	4
Channel Substrate	Silt, Sand, Cobble
Velocity:	Slow
Clarity:	Slightly Turbid

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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 08/14/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP 10A (UP)

Investigator(s): S. Clark Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6695 Long: -79.0108 Datum: NAD83

Soil Map Unit Name: CrB - Creedmoor-Green Level complex, 2 to 6 percent slopes 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 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 X	No ____	

Remarks:
Per Antecedent Precipitation Tool - Wetter Than Normal conditions
Data point is +/- 500 feet northwest of Stream SY

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)
- 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)
- ___ 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 10A (UP)

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	90	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	90	=Total Cover	
50% of total cover: 45		20% of total cover:	18
Sapling/Shrub Stratum (Plot size: 30')			
1. *Liquidambar styraciflua*	40	Yes	FAC
2. *Vaccinium corymbosum*	20	Yes	FACW
3. *Acer rubrum*	10	No	FAC
4. *Nyssa sylvatica*	10	No	FAC
5. *Ilex opaca*	10	No	FACU
6.			
7.			
8.			
9.			
	90	=Total Cover	
50% of total cover: 45		20% of total cover:	18
Herb Stratum (Plot size: 5')			
1.			
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: 15')			
1. *Vitis rotundifolia*	10	Yes	FAC
2.			
3.			
4.			
5.			
	10	=Total Cover	
50% of total cover: 5		20% of total cover:	2

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 4 (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	20	x 2 =	40
FAC species	160	x 3 =	480
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	190 (A)		560 (B)

Prevalence Index = B/A = 2.95

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 10A (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
0-5	10YR 3/6	100					Loamy/Clayey	
5-9	10YR 4/4	100					Loamy/Clayey	
9-12	10YR 5/4	96	5YR 5/6	4	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)
- ___ 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP 10B (UP)

Investigator(s): S. Clark Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6650 Long: -79.0026 Datum: NAD83

Soil Map Unit Name: CrB - Creedmoor-Green Level complex, 2 to 6 percent slopes 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 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:
Per Antecedent Precipitation Tool - Wetter Than Normal conditions

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)
- 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)
- ___ 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 10B (UP)

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	80	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	80	=Total Cover	
50% of total cover: 40		20% of total cover:	16
Sapling/Shrub Stratum (Plot size: 30')			
1. *Liquidambar styraciflua*	30	Yes	FAC
2. *Acer rubrum*	15	Yes	FAC
3. *Nyssa sylvatica*	5	No	FAC
4. *Ilex opaca*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
	55	=Total Cover	
50% of total cover: 28		20% of total cover:	11
Herb Stratum (Plot size: 5')			
1.			
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: 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: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (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	130	x 3 =	390
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	135 (A)		410 (B)

Prevalence Index = B/A = 3.04

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 10B (UP)

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-5	10YR 3/6	100					Loamy/Clayey	
5-12	10YR 5/6	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP FZ1

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6522 Long: -79.0160 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)
- ____ 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)
- ____ 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** 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 FZ1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Liquidambar styraciflua*	80	Yes	FAC
2. *Acer rubrum*	10	No	FAC
3. *Liriodendron tulipifera*	10	No	FACU
4.			
5.			
6.			
7.			
	100	=Total Cover	
50% of total cover: 50		20% of total cover: 20	

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*	80	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80	=Total Cover	
50% of total cover: 40		20% of total cover: 16	

Woody Vine Stratum (Plot size: 15')			
1. *Lonicera japonica*	5	Yes	FACU
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: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	170	x 3 =	510
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	185 (A)		570 (B)

Prevalence Index = B/A = 3.08

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 FZ1

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 4/2	95	10YR 6/6	5	C	PL	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)
- 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP FZ2

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6522 Long: -79.0159 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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 FZ2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Liquidambar styraciflua*	60	Yes	FAC
2. *Diospyros virginiana*	10	No	FAC
3.			
4.			
5.			
6.			
7.			
	70	=Total Cover	
50% of total cover: 35		20% of total cover: 14	

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.			
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: 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: 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	70	x 3 =	210
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	70 (A)		210 (B)

Prevalence Index = B/A = 3.00

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 FZ2

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
0-3	10YR 4/4	100					Loamy/Clayey	
3-12	10YR 4/3	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/08/2020
Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WA1
Investigator(s): D. Gainey Section, Township, Range: Cape Fear Township
Landform (hillside, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 1
Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6632 Long: -78.9913 Datum: NAD83
Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification: PFO
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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)
- ____ 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)
- ____ 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 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 WA1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	50	Yes	FAC
2. *Fraxinus pennsylvanica*	50	Yes	FACW
3.			
4.			
5.			
6.			
7.			
	100	=Total Cover	
50% of total cover: 50		20% of total cover: 20	

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*	60	Yes	FAC
2. *Woodwardia areolata*	20	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80	=Total Cover	
50% of total cover: 40		20% of total cover: 16	

Woody Vine Stratum (Plot size: 15')			
1. *Smilax rotundifolia*	30	Yes	FAC
2.			
3.			
4.			
5.			
	30	=Total Cover	
50% of total cover: 15		20% of total cover: 6	

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	70	x 2 =	140
FAC species	140	x 3 =	420
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	210 (A)		560 (B)

Prevalence Index = B/A = 2.67

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 WA1

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 %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-1	10YR 5/4	100					Loamy/Clayey	
1-12	10YR 4/2	90	10YR 6/6	10	C	PL	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)
- 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/08/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WAB1

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6660 Long: -79.0043 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification: PFO

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)
- ____ 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 WAB1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus nigra*	10	Yes	FAC
2. *Quercus alba*	20	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	30	=Total Cover	
50% of total cover: 15		20% of total cover: 6	
Sapling/Shrub Stratum (Plot size: 30')			
1. *Ilex opaca*	15	Yes	FACU
2. *Liquidambar styraciflua*	5	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	20	=Total Cover	
50% of total cover: 10		20% of total cover: 4	
Herb Stratum (Plot size: 5')			
1. *Vaccinium arboreum*	20	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	20	=Total Cover	
50% of total cover: 10		20% of total cover: 4	
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: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	55	x 4 =	220
UPL species	0	x 5 =	0
Column Totals:	70 (A)		265 (B)

Prevalence Index = B/A = 3.79

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 WAB1

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 5/4	100					Loamy/Clayey	
6-12	10YR 6/3	90	10YR 6/6	10	C	PL	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WAD1

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6632 Long: -78.9939 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

HYDROLOGY

Wetland Hydrology Indicators:

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

- ____ Surface Water (A1)
- X 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)
- 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)
- ____ 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 X	No ____	Depth (inches): 4
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 WAD1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:		20% of total cover:	
Sapling/Shrub Stratum (Plot size: 30')			
1. *Vaccinium corymbosum*	5	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5 =Total Cover		
50% of total cover:	3	20% of total cover:	1
Herb Stratum (Plot size: 5')			
1. *Microstegium vimineum*	50	Yes	FAC
2. *Woodwardia areolata*	20	Yes	FACW
3. *Osmundastrum cinnamomeum*	5	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	75 =Total Cover		
50% of total cover:	38	20% of total cover:	15
Woody Vine Stratum (Plot size: 15')			
1. *Smilax rotundifolia*	5	Yes	FACU
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: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	50	x 3 =	150
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	85 (A)		230 (B)

Prevalence Index = B/A = 2.71

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 WAD1

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 4/3	95	10YR 6/8	5	C	PL	Loamy/Clayey	Prominent redox concentrations
4-12	10YR 5/2	95	10YR 6/8	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/08/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WD1

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6656 Long: -78.9962 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification: PFO

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)
- ____ 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)
- ____ 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** 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 WD1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus nigra*	40	Yes	FAC
2. *Liquidambar styraciflua*	10	No	FAC
3. *Acer rubrum*	40	Yes	FAC
4.			
5.			
6.			
7.			
	90	=Total Cover	
50% of total cover: 45		20% of total cover:	18

Sapling/Shrub Stratum (Plot size: 30')			
1. *Ilex opaca*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10	=Total Cover	
50% of total cover: 5		20% of total cover:	2

Herb Stratum (Plot size: 5')			
1. *Microstegium vimineum*	20	Yes	FAC
2. *Carex sp.*	40	Yes	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60	=Total Cover	
50% of total cover: 30		20% of total cover:	12

Woody Vine Stratum (Plot size: 15')			
1.			FACU
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: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	110	x 3 =	330
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	120 (A)		370 (B)

Prevalence Index = B/A = 3.08

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.)
Sphagnum moss present

SOIL

Sampling Point: DP WD1

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 5/4	100					Loamy/Clayey	
4-12	10YR 4/2	80	10YR 6/6	20	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: WDG1

Investigator(s): K. Hamlin/P.Beach Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6796 Long: -79.0351 Datum: NAD83

Soil Map Unit Name: CrB—Creedmoor-Green Level complex, 2 to 6 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)
- ___ 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: WDG1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Ulmus alata*	40	Yes	FACU
2. *Acer rubrum*	10	No	FAC
3. *Pinus taeda*	10	No	FAC
4.			
5.			
6.			
7.			
	60	=Total Cover	
50% of total cover: 30		20% of total cover:	12
Sapling/Shrub Stratum (Plot size: 30')			
1. *Ulmus alata*	15	Yes	FACU
2. *Liquidambar styraciflua*	10	Yes	FAC
3. *Ilex opaca*	10	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	35	=Total Cover	
50% of total cover: 18		20% of total cover:	7
Herb Stratum (Plot size: 5')			
1. *Juniperus virginiana*	10	Yes	FACU
2. *Lonicera japonica*	5	Yes	FACU
3. *Polystichum acrostichoides*	5	Yes	FACU
4. *Microstegium vimineum*	5	Yes	FAC
5. *Parthenocissus quinquefolia*	5	Yes	FACU
6. *Ilex opaca*	5	Yes	FACU
7.			
8.			
9.			
10.			
11.			
	35	=Total Cover	
50% of total cover: 18		20% of total cover:	7
Woody Vine Stratum (Plot size: 15')			
1. *Smilax rotundifolia*	10	Yes	FACU
2. *Vitis rotundifolia*	5	Yes	FAC
3. *Toxicodendron radicans*	5	Yes	FAC
4.			
5.			
	20	=Total Cover	
50% of total cover: 10		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: 13 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 30.8% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	45	x 3 =	135
FACU species	105	x 4 =	420
UPL species	0	x 5 =	0
Column Totals:	150 (A)		555 (B)

Prevalence Index = B/A = 3.70

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: WDG1

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
0-4	7.5YR 5/3	100					Loamy/Clayey	
4-12	7.5YR 4/3	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: WDG2

Investigator(s): K. Hamlin/P.Beach Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6795 Long: -79.0351 Datum: NAD83

Soil Map Unit Name: CrB—Creedmoor-Green Level complex, 2 to 6 percent slopes NWI classification: PFO

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)
- ____ 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)
- ____ 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): 2

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: WDG2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	40	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	40	=Total Cover	
50% of total cover: 20		20% of total cover:	8
Sapling/Shrub Stratum (Plot size: 30')			
1. *Ulmus alata*	15	Yes	FACU
2. *Acer rubrum*	10	Yes	FAC
3. *Liquidambar styraciflua*	10	Yes	FAC
4. *Ilex opaca*	5	No	FACU
5.			
6.			
7.			
8.			
9.			
	40	=Total Cover	
50% of total cover: 20		20% of total cover:	8
Herb Stratum (Plot size: 5')			
1. *Callicarpa dichotoma*	5	Yes	OBL
2. *Gelsemium sempervirens*	2	Yes	FAC
3. *Lonicera japonica*	2	Yes	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	9	=Total Cover	
50% of total cover: 5		20% of total cover:	2
Woody Vine Stratum (Plot size: 15')			
1. *Smilax rotundifolia*	5	Yes	FACU
2. *Vitis rotundifolia*	5	Yes	FAC
3. *Toxicodendron radicans*	5	Yes	FAC
4.			
5.			
	15	=Total Cover	
50% of total cover: 8		20% of total cover:	3

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 70.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	0	x 2 =	0
FAC species	72	x 3 =	216
FACU species	27	x 4 =	108
UPL species	0	x 5 =	0
Column Totals:	104 (A)		329 (B)

Prevalence Index = B/A = 3.16

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: WDG2

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	7.5YR 5/2	95	7.5YR 5/8	5	C	PL	Loamy/Clayey	
6-14	7.5YR 5/3	90	7.5YR 5/8	10	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WG1

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6607 Long: -78.9924 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

HYDROLOGY

Wetland Hydrology Indicators:

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

- ____ Surface Water (A1)
- X 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)
- 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)
- ____ 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)
- ____ 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 X	No ____	Depth (inches): 2
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 WG1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	40	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	40	=Total Cover	
50% of total cover: 20		20% of total cover:	8

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. *Scirpus sp.*	30	Yes	
2. *Osmundastrum cinnamomeum*	40	Yes	FACW
3.			
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.			FACU
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: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	40	x 3 =	120
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		200 (B)

Prevalence Index = B/A = 2.50

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.)
Sphagnum moss present

SOIL

Sampling Point: DP WG1

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 4/4	90	10YR 6/6	10	C	PL	Loamy/Clayey	
4-12	10YR 4/2	90	10YR 6/6	10	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WG2

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6608 Long: -78.9924 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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 WG2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	40	Yes	FAC
2. *Liquidambar styraciflua*	20	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	
50% of total cover: 30		20% of total cover:	12
Sapling/Shrub Stratum (Plot size: 30')			
1. *Ilex opaca*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10	=Total Cover	
50% of total cover: 5		20% of total cover:	2
Herb Stratum (Plot size: 5')			
1. *Carex sp.*	5	Yes	
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.			
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: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (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	60	x 3 =	180
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	70 (A)		220 (B)

Prevalence Index = B/A = 3.14

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 WG2

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
0-3	10YR 4/3	100					Loamy/Clayey	
3-12	10YR 4/4	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:

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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WIA1

Investigator(s): K. Hamlin/P. Beach Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6531 Long: -79.0054 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)

- ____ 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): 2

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 WIA1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	30	Yes	FAC
2. *Ulmus rubra*	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	40	=Total Cover	
50% of total cover: 20		20% of total cover:	8

Sapling/Shrub Stratum (Plot size: 30')			
1. *Acer rubrum*	30	Yes	FAC
2. *Liquidambar styraciflua*	10	No	FAC
3. *Pinus taeda*	20	Yes	FAC
4. *Oxydendrum arboreum*	10	No	UPL
5.			
6.			
7.			
8.			
9.			
	70	=Total Cover	
50% of total cover: 35		20% of total cover:	14

Herb Stratum (Plot size: 5')			
1. *Vitis rotundifolia*	5	Yes	FAC
2. *Boehmeria cylindrica*	5	Yes	FACW
3. *Lonicera japonica*	5	Yes	FACU
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. *Smilax rotundifolia*	5	Yes	FACU
2. *Vitis rotundifolia*	5	Yes	FAC
3. *Lonicera japonica*	2	No	FACU
4.			
5.			
	12	=Total Cover	
50% of total cover: 6		20% of total cover:	3

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 77.8% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	110	x 3 =	330
FACU species	12	x 4 =	48
UPL species	10	x 5 =	50
Column Totals:	137 (A)		438 (B)

Prevalence Index = B/A = 3.20

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 WIA1

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	7.5YR 3/2	100					Loamy/Clayey	
2-12	10YR 5/2	90	7.5YR 5/8	10	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)**
- X 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WIA2

Investigator(s): K. Hamlin/P. Beach Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6531 Long: -79.0052 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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 WIA2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	30	Yes	FAC
2. *Liquidambar styraciflua*	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	40 =Total Cover		
50% of total cover: 20	20% of total cover: 8		

Sapling/Shrub Stratum (Plot size: 30')			
1. *Ulmus alata*	20	Yes	FACU
2. *Liquidambar styraciflua*	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	30 =Total Cover		
50% of total cover: 15	20% of total cover: 6		

Herb Stratum (Plot size: 5')			
1. *Vitis 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*	5	Yes	FACU
2. *Vitis rotundifolia*	5	Yes	FAC
3. *Lonicera japonica*	2	No	FACU
4.			
5.			
	12 =Total Cover		
50% of total cover: 6	20% of total cover: 3		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 71.4% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	27	x 4 =	108
UPL species	0	x 5 =	0
Column Totals:	87 (A)		288 (B)

Prevalence Index = B/A = 3.31

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 WIA2

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	7.5YR 3/3	100					Loamy/Clayey	
2-6	7.5YR 4/3	100					Loamy/Clayey	
6-14	7.5YR 5/3	95	7.5YR 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)
- ___ 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WIB1

Investigator(s): K. Hamlin/ P. Beach Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6542 Long: -79.0047 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification: PFO

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)

- ____ 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)
- ____ 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** 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 WIB1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	30	Yes	FAC
2. *Ulmus rubra*	15	Yes	FAC
3. *Liquidambar styraciflua*	10	No	FAC
4.			
5.			
6.			
7.			
	55 =Total Cover		
50% of total cover: 28	20% of total cover: 11		
Sapling/Shrub Stratum (Plot size: 30')			
1. *Liquidambar styraciflua*	15	Yes	FAC
2. *Acer rubrum*	15	Yes	FAC
3. *Quercus nigra*	10	Yes	FAC
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. *Microstegium vimineum*	5	Yes	FAC
2. *Carex sp.*	5	Yes	
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. *Toxicodendron radicans*	5	Yes	FACU
2. *Smilax rotundifolia*	10	Yes	FAC
3.			
4.			
5.			
	15 =Total Cover		
50% of total cover: 8	20% of total cover: 3		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 77.8% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	110	x 3 =	330
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	115 (A)		350 (B)

Prevalence Index = B/A = 3.04

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 WIB1

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	7.5YR 5/3	90	7.5YR 5/8	10	C	PL	Loamy/Clayey	
2-6	7.5YR 5/2	80	7.5YR 5/6	20	C	PL	Loamy/Clayey	Prominent redox concentrations
6-12	7.5YR 6/1	75	7.5YR 6/8	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:

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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WIB2

Investigator(s): K. Hamlin/ P. Beach Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6541 Long: -79.0028 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)
- ____ 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 WIB2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	40	Yes	FAC
2. *Liquidambar styraciflua*	10	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	50	=Total Cover	
50% of total cover: 25		20% of total cover:	10

Sapling/Shrub Stratum (Plot size: 30')			
1. *Pinus taeda*	40	Yes	FAC
2. *Vaccinium corymbosum*	10	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	50	=Total Cover	
50% of total cover: 25		20% of total cover:	10

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

Woody Vine Stratum (Plot size: 15')			
1. *Smilax rotundifolia*	10	Yes	FACU
2.			
3.			
4.			
5.			
	10	=Total Cover	
50% of total cover: 5		20% of total cover:	2

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 5 (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	92	x 3 =	276
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	112 (A)		336 (B)

Prevalence Index = B/A = 3.00

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 WIB2

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	7.5YR 4/3	100					Loamy/Clayey	
4-8	7.5YR 6/3	90	5YR 3/4	10	C	PL	Loamy/Clayey	Prominent redox concentrations
8-14	7.5YR 4/3	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 9/29/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WM1

Investigator(s): S. Clark Section, Township, Range:

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6635 Long: -79.0073 Datum: NAD83

Soil Map Unit Name: CrB - Creedmoor-Green Level complex, 2 to 6 percent slopes NWI classification: PFO

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- X 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)
- ____ 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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 0.5
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 2

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 WM1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 30')			
1. *Vaccinium corymbosum*	30	Yes	FACW
2. *Quercus alba*	10	Yes	FACU
3. *Viburnum nudum*	10	Yes	OBL
4. *Acer rubrum*	10	Yes	FAC
5.			
6.			
7.			
8.			
9.			
	60 =Total Cover		
50% of total cover: 30	20% of total cover: 12		
Herb Stratum (Plot size: 5')			
1. *Woodwardia areolata*	5	Yes	FACW
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*	5	Yes	FAC
2. *Vitis rotundifolia*	2	Yes	FAC
3.			
4.			
5.			
	7 =Total Cover		
50% of total cover: 4	20% of total cover: 2		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	35	x 2 =	70
FAC species	17	x 3 =	51
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	72 (A)		171 (B)

Prevalence Index = B/A = 2.38

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.)
Sphagnum moss present

SOIL

Sampling Point: DP WM1

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	90	7.5YR 6/4	10	C	PL	Loamy/Clayey	Faint redox concentrations
4-12	10YR 5/2	90	7.5YR 6/4	10	C	PL	Loamy/Clayey	Distinct 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 9/29/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WM2

Investigator(s): S. Clark Section, Township, Range:

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6637 Long: -79.0071 Datum: NAD83

Soil Map Unit Name: CrB - Creedmoor-Green Level complex, 2 to 6 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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 WM2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus alba*	45	Yes	FACU
2. *Acer rubrum*	20	Yes	FAC
3. *Quercus nigra*	20	Yes	FAC
4.			
5.			
6.			
7.			
	85	=Total Cover	
50% of total cover: 43		20% of total cover:	17
Sapling/Shrub Stratum (Plot size: 30')			
1. *Vaccinium virgatum*	20	Yes	FACW
2. *Quercus nigra*	15	Yes	FAC
3. *Carya tomentosa*	15	Yes	UPL
4. *Vaccinium corymbosum*	15	Yes	FACW
5. *Oxydendrum arboreum*	10	No	UPL
6. *Ilex opaca*	5	No	FACU
7.			
8.			
9.			
	80	=Total Cover	
50% of total cover: 40		20% of total cover:	16
Herb Stratum (Plot size: 5')			
1.			
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: 15')			
1. *Smilax rotundifolia*	15	Yes	FAC
2. *Gelsemium sempervirens*	5	Yes	FAC
3. *Vitis rotundifolia*	5	Yes	FAC
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	35	x 2 =	70
FAC species	80	x 3 =	240
FACU species	50	x 4 =	200
UPL species	25	x 5 =	125
Column Totals:	190 (A)		635 (B)

Prevalence Index = B/A = 3.34

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 WM2

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
0-3	10YR 4/3	100					Loamy/Clayey	
3-12	10YR 5/4	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)
- ___ 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 9/29/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WN1

Investigator(s): S. Clark Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6599 Long: -79.0114 Datum: NAD83

Soil Map Unit Name: CrB - Creedmoor-Green Level complex, 2 to 6 percent slopes NWI classification: PFO

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)

- ____ 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)
- ____ 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): 5
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 4

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 WN1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	15	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	15	=Total Cover	
50% of total cover: 8		20% of total cover: 3	
Sapling/Shrub Stratum (Plot size: 30")			
1. *Liquidambar styraciflua*	25	Yes	FAC
2. *Ilex opaca*	20	Yes	FACU
3. *Quercus nigra*	20	Yes	FAC
4.			
5.			
6.			
7.			
8.			
9.			
	65	=Total Cover	
50% of total cover: 33		20% of total cover: 13	
Herb Stratum (Plot size: 5')			
1.			
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: 15')			
1. *Smilax rotundifolia*	40	Yes	FAC
2. *Gelsemium sempervirens*	15	Yes	FAC
3.			
4.			
5.			
	55	=Total Cover	
50% of total cover: 28		20% of total cover: 11	

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	0	x 2 =	0
FAC species	115	x 3 =	345
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	135 (A)		425 (B)

Prevalence Index = B/A = 3.15

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 WN1

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
0-3	10YR 4/2	100						
3-12	10YR 5/1	95	10YR 4/6	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 9/29/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WN2

Investigator(s): S. Clark Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6601 Long: -79.0117 Datum: NAD83

Soil Map Unit Name: CrB - Creedmoor-Green Level complex, 2 to 6 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ 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:
adjacent to old tire ruts
Per Antecedent Precipitation Tool - Normal conditions

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 WN2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus alba*	20	Yes	FACU
2. *Acer rubrum*	15	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	35	=Total Cover	
50% of total cover: 18		20% of total cover: 7	
Sapling/Shrub Stratum (Plot size: 30')			
1. *Liquidambar styraciflua*	50	Yes	FAC
2. *Pinus taeda*	15	Yes	FAC
3. *Quercus alba*	10	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
	75	=Total Cover	
50% of total cover: 38		20% of total cover: 15	
Herb Stratum (Plot size: 5')			
1.			
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: 15')			
1. *Smilax rotundifolia*	15	Yes	FAC
2. *Gelsemium sempervirens*	5	Yes	FAC
3. *Vitis rotundifolia*	2	No	FAC
4.			
5.			
	22	=Total Cover	
50% of total cover: 11		20% of total cover: 5	

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	0	x 2 =	0
FAC species	102	x 3 =	306
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	132 (A)		426 (B)

Prevalence Index = B/A = 3.23

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 WN2

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
0-9	10YR 3/3	100					Loamy/Clayey	
9-14	10YR 4/3	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WR1

Investigator(s): S. Clark Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6599 Long: -79.0197 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification: PFO

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:
Per Antecedent Precipitation Tool - Normal conditions

HYDROLOGY

Wetland Hydrology Indicators:

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

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- X Water Marks (B1)
- X Sediment Deposits (B2)
- X 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)

- ____ 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)
- ____ 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** 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 WR1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	25	Yes	FAC
2. *Nyssa sylvatica*	20	Yes	FAC
3. *Ilex opaca*	15	No	FACU
4. *Quercus nigra*	15	No	FAC
5. *Pinus taeda*	25	Yes	FAC
6.			
7.			
	100	=Total Cover	
50% of total cover: 50		20% of total cover:	20
Sapling/Shrub Stratum (Plot size: 30')			
1. *Liquidambar styraciflua*	20	Yes	FAC
2. *Quercus nigra*	20	Yes	FAC
3. *Acer rubrum*	5	No	FAC
4. *Vaccinium corymbosum*	20	Yes	FACW
5. *Ilex opaca*	5	No	FACU
6.			
7.			
8.			
9.			
	70	=Total Cover	
50% of total cover: 35		20% of total cover:	14
Herb Stratum (Plot size: 5')			
1.			
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: 15')			
1. *Smilax rotundifolia*	20	Yes	FACU
2.			
3.			
4.			
5.			
	20	=Total Cover	
50% of total cover: 10		20% of total cover:	4

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	130	x 3 =	390
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	190 (A)		590 (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: DP WR1

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 6/3	85	10YR 5/8	15	C	PL	Loamy/Clayey	
4-12	10YR 6/2	85	10YR 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:

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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WR2

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6599 Long: -79.0197 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

HYDROLOGY

Wetland Hydrology Indicators:

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

- ____ Surface Water (A1)
- X 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)

- ____ 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)
- ____ 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 ____	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 WR2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus phellos*	40	Yes	FAC
2. *Liquidambar styraciflua*	10	No	FAC
3. *Carpinus caroliniana*	10	No	FAC
4. *Pinus taeda*	30	Yes	FAC
5.			
6.			
7.			
	90	=Total Cover	
50% of total cover: 45		20% of total cover:	18

Sapling/Shrub Stratum (Plot size: 30')			
1. *Carpinus caroliniana*	40	Yes	FAC
2. *Liquidambar styraciflua*	20	Yes	FAC
3. *Acer rubrum*	10	No	FAC
4.			
5.			
6.			
7.			
8.			
9.			
	70	=Total Cover	
50% of total cover: 35		20% of total cover:	14

Herb Stratum (Plot size: 5')			
1. *Carex sp.*	30	Yes	
2.			
3.			
4.			
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: 15')			
1. *Smilax rotundifolia*	40	Yes	FACU
2.			
3.			
4.			
5.			
	40	=Total Cover	
50% of total cover: 20		20% of total cover:	8

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	160	x 3 =	480
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	200 (A)		640 (B)

Prevalence Index = B/A = 3.20

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 WR2

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
0-8	10YR 6/2	97	10YR 5/6	3	C	PL	Loamy/Clayey	
8-12	10YR 6/2	90	10YR 5/6	10	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WR3

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6599 Long: -79.0199 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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 WR3

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus alba*	40	Yes	FACU
2. *Pinus taeda*	20	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	
50% of total cover: 30		20% of total cover:	12
Sapling/Shrub Stratum (Plot size: 30')			
1. *Liquidambar styraciflua*	30	Yes	FAC
2. *Ilex opaca*	10	Yes	FACU
3.			
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. *Vaccinium corymbosum*	40	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	40	=Total Cover	
50% of total cover: 20		20% of total cover:	8
Woody Vine Stratum (Plot size: 15')			
1. *Smilax rotundifolia*	10	Yes	FACU
2.			
3.			
4.			
5.			
	10	=Total Cover	
50% of total cover: 5		20% of total cover:	2

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	40	x 2 =	80
FAC species	50	x 3 =	150
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	150 (A)		470 (B)

Prevalence Index = B/A = 3.13

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: DP WR3

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
0-1	10YR 3/2	100					Loamy/Clayey	
1-12	10YR 5/4	97	10YR 5/6	3	C	PL	Loamy/Clayey	Distinct 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)
- ___ 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/08/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WS

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6646 Long: -79.0214 Datum: NAD83

Soil Map Unit Name: CrB—Creedmoor-Green Level complex, 2 to 6 percent slopes NWI classification: PFO

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- X 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)
- ____ 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)
- ____ 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: DP WS

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	40	Yes	FAC
2. *Acer rubrum*	40	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	80	=Total Cover	
50% of total cover: 40		20% of total cover: 16	
Sapling/Shrub Stratum (Plot size: 30')			
1. *Ilex opaca*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	10	=Total Cover	
50% of total cover: 5		20% of total cover: 2	
Herb Stratum (Plot size: 5')			
1. *Microstegium vimineum*	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*	40	Yes	FACU
2. *Vitis rotundifolia*	10	Yes	FAC
3.			
4.			
5.			
	50	=Total Cover	
50% of total cover: 25		20% of total cover: 10	

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	95	x 3 =	285
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	145 (A)		485 (B)

Prevalence Index = B/A = 3.34

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.)
sphagnum moss present

SOIL

Sampling Point: DP WS

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
0-1	10YR 3/1	100					Loamy/Clayey	
1-12	10YR 4/1	80	10YR 6/6	20	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)**
- X 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WU1

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6720 Long: -79.0288 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

HYDROLOGY

Wetland Hydrology Indicators:

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

- ____ Surface Water (A1)
- X 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)
- 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)
- ____ 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 X	No ____	Depth (inches): 1
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 WU1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	40	Yes	FAC
2. *Liriodendron tulipifera*	40	Yes	FACU
3.			
4.			
5.			
6.			
7.			
	80	=Total Cover	
50% of total cover: 40		20% of total cover: 16	

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. *Carex sp.*	10	Yes	FACW
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: 2 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	40	x 3 =	120
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	90 (A)		300 (B)

Prevalence Index = B/A = 3.33

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 WU1

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 4/2	80	10YR 6/6	20	C	PL	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)
- 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WU2

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6720 Long: -79.0287 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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 WU2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	70	Yes	FAC
2. *Nyssa sylvatica*	10	No	FAC
3.			
4.			
5.			
6.			
7.			
	80	=Total Cover	

50% of total cover: 40 20% of total cover: 16

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.			
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: 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: 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	80	x 3 =	240
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		240 (B)

Prevalence Index = B/A = 3.00

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 WU2

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					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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP WWD1

Investigator(s): K. Hamlin/ P. Beach Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6713 Long: -79.0326 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)
- ____ 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 WWD1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	60	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	60	=Total Cover	
50% of total cover: 30		20% of total cover:	12
Sapling/Shrub Stratum (Plot size: 30')			
1. *Pinus taeda*	10	No	FAC
2. *Liquidambar styraciflua*	60	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	70	=Total Cover	
50% of total cover: 35		20% of total cover:	14
Herb Stratum (Plot size: 5')			
1. *Smilax rotundifolia*	2	No	FAC
2. *Lonicera japonica*	5	Yes	FACU
3. *Vitis rotundifolia*	2	No	FAC
4. *Liquidambar styraciflua*	5	Yes	FAC
5. *Carex sp.*	5	Yes	FACW
6. *Juncus effusus*	2	No	FACW
7. *Boehmeria cylindrica*	2	No	FACW
8.			
9.			
10.			
11.			
	23	=Total Cover	
50% of total cover: 12		20% of total cover:	5
Woody Vine Stratum (Plot size: 15')			
1. *Lonicera japonica*	5	Yes	FACU
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: 4 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	9	x 2 =	18
FAC species	139	x 3 =	417
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	158 (A)		475 (B)

Prevalence Index = B/A = 3.01

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 WWD1

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 6/3	50					Loamy/Clayey	50% 10YR 6/6 mixed matrix
4-12	10YR 6/3	60					Loamy/Clayey	20% 10YR 6/2, 20% 10YR 6/6 mixed matrix

[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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/06/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP XF1

Investigator(s): S. Clark Section, Township, Range: Cape Fear Township

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6667 Long: -79.0258 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification: PFO

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:

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)
- 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)

- ____ 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)
- ____ 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** 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 XF1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling/Shrub Stratum (Plot size: 30')			
1. *Pinus taeda*	30	Yes	FAC
2. *Acer rubrum*	15	Yes	FAC
3. *Liquidambar styraciflua*	10	No	FAC
4. *Vaccinium corymbosum*	10	No	FACW
5. *Ilex opaca*	10	No	FACU
6.			
7.			
8.			
9.			
	75 =Total Cover		
50% of total cover: 38	20% of total cover: 15		
Herb Stratum (Plot size: 5')			
1.			
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: 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: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (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	10	x 2 =	20
FAC species	55	x 3 =	165
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	75 (A)		225 (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 XF1

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
0-1	10YR 2/1	100					Loamy/Clayey	
1-5	10YR 4/1	100					Loamy/Clayey	
5-12	10YR 6/1	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/08/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP XG1

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6685 Long: -79.0274 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification: PFO

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)
- ____ 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)
- ____ 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: DP XG1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	50	Yes	FAC
2. *Liquidambar styraciflua*	50	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	100 =Total Cover		
50% of total cover: 50	20% of total cover: 20		

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*	60	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60 =Total Cover		
50% of total cover: 30	20% of total cover: 12		

Woody Vine Stratum (Plot size: 15')			
1. *Smilax rotundifolia*	20	Yes	FAC
2.			
3.			
4.			
5.			
	20 =Total Cover		
50% of total cover: 10	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: 4 (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	180	x 3 =	540
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	180 (A)		540 (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 XG1

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
0-1	10YR 4/4	80	10YR 6/6	20	C	PL	Loamy/Clayey	Distinct redox concentrations
1-12	10YR 4/2	80	10YR 6/6	20	C	PL	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)
- 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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/08/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP XG2

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6692 Long: -79.0279 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification:

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- 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)
- ____ 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)
- ____ 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 X	No ____	Depth (inches): 2

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 XG2

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer rubrum*	30	Yes	FAC
2. *Liquidambar styraciflua*	30	Yes	FAC
3. *Quercus nigra*	30	Yes	FAC
4.			
5.			
6.			
7.			
	90	=Total Cover	
50% of total cover: 45		20% of total cover: 18	
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. *Osmundastrum cinnamomeum*	40	Yes	FACW
2. *Osmunda spectabilis*	15	Yes	OBL
3. *Woodwardia areolata*	5	No	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60	=Total Cover	
50% of total cover: 30		20% of total cover: 12	
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: 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	15	x 1 =	15
FACW species	45	x 2 =	90
FAC species	90	x 3 =	270
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	150 (A)		375 (B)

Prevalence Index = B/A = 2.50

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 XG2

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	100					Loamy/Clayey	
2-12	10YR 5/1	80	10YR 6/6	20	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: The Conservancy / Moncure Assemblage City/County: Chatham Sampling Date: 10/08/2020

Applicant/Owner: The Conservancy Real Estate Group, LLC State: NC Sampling Point: DP XG3

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

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

Subregion (LRR or MLRA): LRR P, MLRA 136 Lat: 35.6663 Long: -79.0283 Datum: NAD83

Soil Map Unit Name: CrC—Creedmoor-Green Level complex, 6 to 10 percent slopes NWI classification: PFO

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:
Per Antecedent Precipitation Tool - Normal conditions

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)
- X 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)
- ____ 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)
- 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 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 XG3

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus taeda*	20	Yes	FAC
2. *Liquidambar styraciflua*	60	Yes	FAC
3.			
4.			
5.			
6.			
7.			
	80	=Total Cover	
50% of total cover: 40		20% of total cover: 16	

Sapling/Shrub Stratum (Plot size: 30')			
1. *Liquidambar styraciflua*	15	Yes	FAC
2. *Acer rubrum*	15	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	30	=Total Cover	
50% of total cover: 15		20% of total cover: 6	

Herb Stratum (Plot size: 5')			
1. *Osmundastrum cinnamomeum*	30	Yes	FACW
2. *Carex sp.*	60	Yes	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90	=Total Cover	
50% of total cover: 45		20% of total cover: 18	

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: 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	30	x 2 =	60
FAC species	110	x 3 =	330
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		390 (B)

Prevalence Index = B/A = 2.79

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 XG3

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
0-1	10YR 4/4	80	10YR 6/6	20	C	PL	Loamy/Clayey	
1-12	10YR 4/1	80	10YR 6/6	20	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:

Watershed Protection Department
Website: www.chathamnc.org

Date Received: _____ PL# _____

Riparian Buffer Review Application
Surface Water Identification Request for
Major Subdivisions

Tract Information

Parcel #: see attached table Watershed District (and name of creek if known): Shaddox Creek-Haw River & Beaver Creek

Property Owner: see attached table

Location/Physical Address of Tract: 35.666933°N, 79.026928°W

Driving Directions from Pittsboro: Travel south from Pittsboro & turn east on Moncur-Pittsboro Rd. Turn left onto US-1 North and take exit 81 to Pea Ridge Rd. Travel north on Pea Ridge for 2.2 miles. Turn right on New Elam Church Rd. and continue for 0.8 mile. Turn left on Partian Rd (SR1908). Site is +/-0.7 mile beyond pavement. Note: Google incorrectly labeled Partian Rd as Partin Rd.

Subdivision Name (if applicable): The Conservancy

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

Name: Mr. Andrew Ross - The Conservancy Real Estate Group

Contact Phone Numbers: (h) _____ (w) _____ (c) 919-703-6203

E-mail: andrew.ross@floyddevelopment.com

Mailing Address: 4201 Taylor Hall Place, Chapel Hill, NC 27517

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 _____ Total Paid: $_____

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: _____ Date: 10-00-2020

CHATHAM COUNTY

AUTHORIZED AGENT FOR FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO. see attached table PARCEL ID (PIN) see attached table PARCEL SIZE +/- 1.367 acres

STREET ADDRESS: see attached tables

Please print:
Property Owner: The Conservancy Real Estate Group, LLC

Property Owner: _____

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

Sean Clark (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):
4201 Taylor Hall Place, Chapel Hill, NC 27517

Telephone: 919-703-6203 E-mail: andrewross6472@gmail.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: 10-06-2020

Agent Authorized Signature
Date: _____

Revised 10/2017

CHATHAM COUNTY
NORTH CAROLINA

Watershed Protection Department

P.O. Box 548
Pittsboro, NC 27312

Website: www.chathamnc.org

Authorization to Enter Property Form

Date: 10/6/2020

PARCEL No. (AKPAR) 5774, 5775 Chatham Capital Group, LLC and Music Row Investments

I, (print name) ~~COVE CREEK PROPERTY, 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.

Eric Brownlee
(Print Owner's Name)

Eric Brownlee
(Signature of Owner)
(Date) 10/6/2020

Sean Clark
(Print Authorized Agent Name)

Sean Clark
[redacted]d 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) 5558,5569,5780,60441,65274,65275,5570

I, (print name) EQUITY TRUST CO CUST FBO CHRISTINA ZADELL IRA, 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.

Christina Zadell
(Print Owner's Name)

(Signature of Owner)
(Date)

Sean Clark
(Print Authorized Agent Name)

Sean Clark
d 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: 10/6/2020

PARCEL No. (AKPAR) 5233

I, (print name) MUSIC ROW INVESTMENTS 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.

Eric Brownlee
(Print Owner's Name)

Eric Brownlee
(Signature of Owner)
(Date) 10/6/2020

Sean Clark
(Print Authorized Agent Name)

Sean Clark
[redacted]d 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: 10/5/20

PARCEL No. (AKPAR) 5559, 69379

I, (print name) COPELAND WILLIAM RAGAN, 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.

William Ragan Copeland
(Print Owner's Name)

(Signature of Owner)
(Date) 10/5/20

Sean Clark
(Print Authorized Agent Name)

Sean Clark
(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: 10-6-20

PARCEL No. (AKPAR) 62390

I, (print name) RICE RONALD JOSEPH, 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.

RONALD RICE
(Print Owner's Name)

Ronald Rice
(Signature of Owner)
(Date) 10-6-20

Sean Clark
(Print Authorized Agent Name)

Sean Clark [redacted] ed 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: 10/6/2020

PARCEL No. (AKPAR) 5211,5238,5551,5519

I, (print name) 3 Boys Capital, LLC/SB Capital, LLC/Chatham Capital Group, 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.

Kristen Styers
(Print Owner's Name)

(Signature of Owner)
(Date) 10/6/2020

Sean Clark
(Print Authorized Agent Name)

Sean Clark
d 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: 10/6/2020

PARCEL No. (AKPAR) 5504,85339,85340,85341,85342,85343,85344,85346,85347

I, (print name) ~~UNIQUE NAME LLC~~ 3 Boys Capital, 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.

Kristen Styers
(Print Owner's Name)

(Signature of Owner)
(Date) 10/6/2020

Sean Clark
(Print Authorized Agent Name)

Sean Clark
[redacted]ed Agent)
(Date)