

WATERSHED PROTECTION DEPARTMENT

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

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

November 12, 2019

Mr. Perry Isner Wetlands & Waters, Inc. 328 Broad Street, Suite D Statesville, NC 28677

Project Name: Williams Corner

Location: <u>Lystra Road & 15/501, Chatham County</u>

Subject Features: Seven (7) intermittent streams, three (3) perennial

streams, fourteen (14) jurisdictional wetlands, one (1)

pond

Date of November 5, 2019

Determination:

Planning Application: <u>2019-2201</u>

Explanation:

The site visit was completed on November 5, 2019 by Drew Blake with the Chatham County Watershed Protection Department and Chris Huysman of Wetlands & Waters, Inc., for Williams Corner that is located within the Jordan Lake watershed. Wetlands & Waters personnel completed a previous site visit which resulted in the identification of three (3) potentially ephemeral streams, nine (9) intermittent streams, four (4) perennial streams, and fourteen (14) potential wetlands on the property. Wetlands & Waters submitted a request for Chatham County to complete a formal review to determine if the features would be subject to riparian buffers according to Section 304 of the Chatham County Watershed Protection Ordinance. All points of origin, stream type transitions, and wetland boundaries were reviewed in the field. SF6, SF7, and SF8 were determined to not meet the requirements of an ephemeral stream. The wetland boundaries had previously been confirmed by Andy Williams of the US Army Corps of Engineers.

Required Riparian Buffers:

Tributaries A, B, F, H, I, J, and Z were confirmed as intermittent streams and will require a 50-ft buffer from the top of bank landward. Tributaries E, G, and K were confirmed as perennial streams and will require a 100-ft buffer from the top of bank landward. All wetlands were confirmed by the USACE and will require a 50-ft buffer from the flagged wetland boundary. The existing pond between Wetland I and SF4 will require a 50-ft buffer as the pond meets the definition of a "perennial waterbody" as defined in Section 109 of the Chatham County Watershed Protection Ordinance.

Proposed Buffer Impacts:

Submittal of a No Practical Alternatives Authorization Application, in accordance with Section 304 (I) of the Chatham County Watershed Protection Ordinance, must occur if this project results in impacts to riparian buffers. No Practical Alternatives Authorization Applications must be submitted prior to or at the same time as the projects Soil Erosion and Sedimentation Control Plans. All approvals for the No Practical Alternatives



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Authorization must be received prior to submitting for Construction Plan approval from the Chatham County Planning Department.

Project Revisions:

Should the scope of the project change additional consultation and reviews may be necessary. This report is written to apply to most recent revision of the Chatham County Watershed Protection Ordinance. Alternations to the project scope may apply riparian buffers that are not described in this report.

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

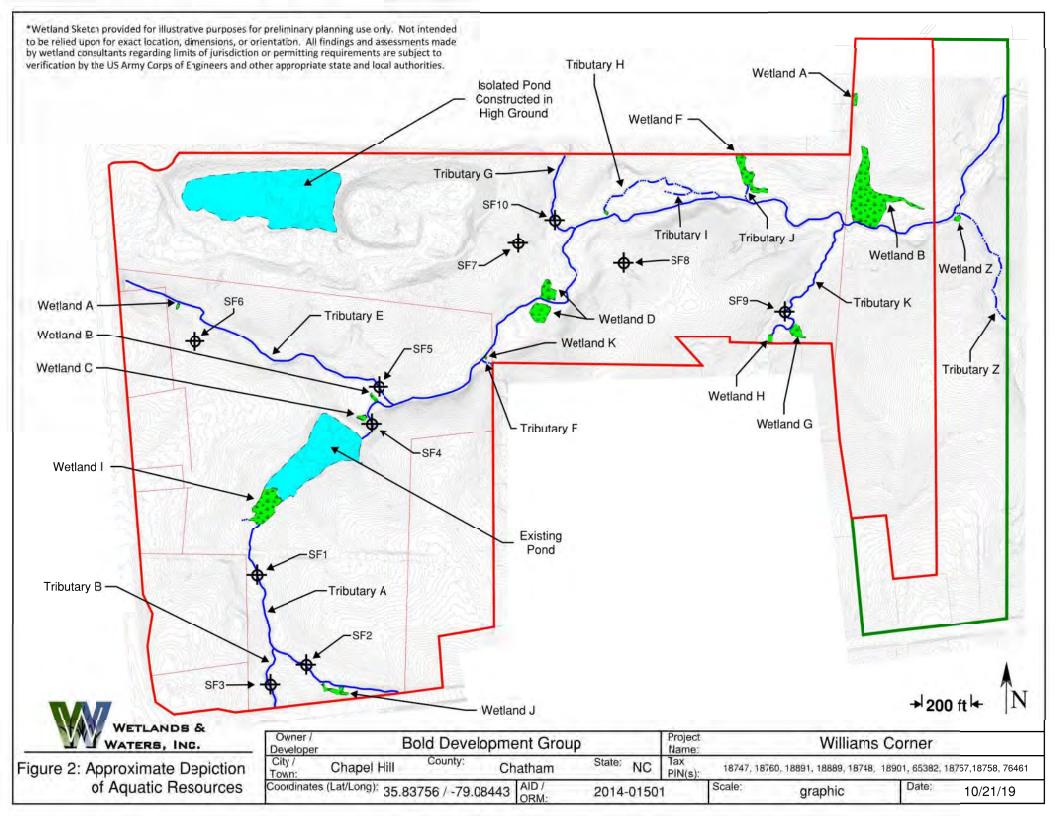
Enclosures: Wetland Sketch Map dated 10/21/19, completed by Wetlands & Waters

Stream Forms, completed by Wetlands & Waters Wetland Data Forms, completed by Wetlands & Waters NRCS Soil Survey Map, Completed by Wetlands & Waters USGS Topographic Map, completed by Wetlands & Waters

Major Subdivision Riparian Buffer Application Packet

cc: Rachael Thorn, Chatham County Watershed Protection Director Kimberly Tyson, Planner II/Subdivision Administrator

Angela Birchett, Chatham County Zoning Administrator Jason Sullivan, Chatham County Planning Department Director



NC DWQ Stream Identification Form Version 4.11/Villans Correct NC DWQ Stream Identification Form Version 4.11 Date: Project/Site: Tab Latitude: Date: Project/Site: Latitude: Evaluator: County: Longitude: Evaluator: County: hat ham **Total Points:** Longitude: Stream Determination (circle one) Stream is at least intermittent Total Points: Other Ephemeral Intermittent Perennial Stream Determination (circle one) Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* e.g. Quad Name: Other if≥ 19 or perennial if≥ 30* Ephemeral Intermittent Perennial e.g. Quad Name: A. Geomorphology (Subtotal = Absent Weak Moderate Strong A. Geomorphology (Subtotal -1ª Continuity of channel bed and bank Absent Weak 0 Moderate 1 Strong 3) 1ª Continuity of channel bed and bank 2. Sinuosity of channel along thalweg 0 0 1 1 3. In-channel structure: ex. riffle-pool, step-pool, (3) 2. Sinuosity of channel along thalweg 0 1 2 3 3. In-channel structure: ex. riffle-pool, step-pool, 0 ripple-pool sequence 1 3 4. Particle size of stream substrate ripple-pool sequence D 1 2 0 3 0 3 4. Particle size of stream substrate 5. Active/relict floodplain D 0 2 3 3 3 5. Active/relict floodplain 6. Depositional bars or benches 0 0 11 3 6. Depositional bars or benches 3 3 7. Recent alluvial deposits 0 de (1) 2 3 3 7. Recent alluvial deposits 8. Headcuts 0 0 (1) 1 2 3 2 3 9. Grade control 8. Headcuts D (02 0.5 1 1.5 3 9. Grade control 10. Natural valley (0/ 0.5 D 0.5 1 (1.5) 1.5 11. Second or greater order channel 10. Natural valley 0.5 No = 0Yes = 1.5 11. Second or greater order channel artificial ditches are not rated; see discussions in manual No = 0 Yes = 3 artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = B. Hydrology (Subtotal = 12. Presence of Baseflow e, 1 2 3 12. Presence of Baseflow 13. Iron oxidizing bacteria (0) 1 1 2 2 0 3 3 13. Iron oxidizing bacteria 14. Leaf litter 1.5 2 0.5 3 0 14. Leaf litter 15. Sediment on plants or debris 1.5 0 B 1 0.5 1.5 0 15. Sediment on plants or debris 16. Organic debris lines or piles 0 (0.5) 0 (0.5 1 17. Soil-based evidence of high water table? 1.5 16. Organic debris lines or piles 1.5 No = 00 0.5 Yes = 3 17. Soil-based evidence of high water table? 1.5 C. Biology (Subtotal = No = 0Kes = 3\) 0000 C. Biology (Subtotal = _ 18. Fibrous roots in streambed 2 0 18. Fibrous roots in streambed 19. Rooted upland plants in streambed 2 0 19. Rooted upland plants in streambed 0 20. Macrobenthos (note diversity and abundance) 3 2 1 2 3 20. Macrobenthos (note diversity and abundance) 1 0 21. Aquatic Mollusks 1 1 2 2 3 3 21. Aquatic Mollusks 22. Fish Co 0 0.5 1 2 1.5 3 22. Fish 23. Crayfish 0 0.5 0.5 1 1.5 23. Crayfish 1.5 24. Amphibians O 0 0.5 0.5 1 1 1.5 24. Amphibians 1.5 25. Algae (0) (0.5) 0.5 1 1.5 1.5 25. Algae 26. Wetland plants in streambed 95/ FACW = 0.75; OBL = 1.5 Other = 0 0 1.5 *perennial streams may also be identified using other methods. See p. 35 of manual. 26. Wetland plants in streambed FACW = 0.75; OBL = 1.5 Other = 0) *perennial streams may also be identified using other methods. See p. 35 of manual. Notes: Notes: Sketch: Sketch:

NC DWQ Stream Identification Form Version 4.11 Latitude: Project/Site Date: Longitude: County: | Evaluator: Other Stream Determination (circle one) **Total Points:** e.g. Quad Name: Ephemeral Intermittent Perennial Stream is at least intermittent if≥ 19 or perennial if ≥ 30* Moderate Strong Weak Absent A. Geomorphology (Subtotal = (3) 1 1ª Continuity of channel bed and bank 0 2. Sinuosity of channel along thalweg 0 1 2 3. In-channel structure: ex. riffle-pool, step-pool, 3 0 1 ripple-pool sequence 2 3 8 1 4. Particle size of stream substrate 3 1 5. Active/relict floodplain 8 3 2 0 6. Depositional bars or benches 2 3 00 7. Recent alluvial deposits 3 2 1 8. Headcuts 1 0.5 9. Grade control 0.5 1 10. Natural valley Yes = 3 No = B 11. Second or greater order channel artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = 3 2 1 12. Presence of Baseflow 3 2 0 13. Iron oxidizing bacteria 0 0.5 1 1.5 14. Leaf litter 1.5 1 0 (Q.5/ 15. Sediment on plants or debris 1.5 0.9 1 0 16. Organic debris lines or piles res = 3 No = 017. Soil-based evidence of high water table? C. Biology (Subtotal = 0 3 2 18. Fibrous roots in streambed 0 2 19. Rooted upland plants in streambed D 3 2 1 20. Macrobenthos (note diversity and abundance) 3 2 0 1 21. Aquatic Mollusks 9 1.5 0.5 22. Fish 1.5 0.5 1 23. Crayfish 0.5 1 1.5 24. Amphibians 1.5 (0.5) 25. Algae FACW = 0.75; OBL = 1.5 Other = 0 26. Wetland plants in streambed *perennial streams may also be identified using other methods. See p. 35 of manual. ferrestrial somi Notes: Sketch:

WILLIAMS NC DWQ Stream Identification Form Version 4.11 Latitude: Project/Site Longitude: P(County: Evaluator:/ Other Stream Determination (circle one) **Total Points:** Ephemeral Intermittent Perennial e.g. Quad Name; Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* Strong Moderate Weak Absent A. Geomorphology (Subtotal = 63/ 1 0 1ª Continuity of channel bed and bank (2) 3 1 0 2. Sinuosity of channel along thalweg 3. In-channel structure: ex. riffle-pool, step-pool, (3 3 1 D ripple-pool sequence (2) 3 D 4. Particle size of stream substrate 3 173 2 0 5. Active/relict floodplain 3 2 13 0 6. Depositional bars or benches 3 2 (1) 0 7. Recent alluvial deposits 3 2 (0) 1 8. Headcuts 115 (0.5) 0 9. Grade control 1.5/ 0 0.5 10. Natural valley Yes = 3 No = 011. Second or greater order channel artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = 3 0 12. Presence of Baseflow 3 2 0 13. Iron oxidizing bacteria 0 0.5 1.5 14. Leaf litter 1.5 1 0.5 0 15. Sediment on plants or debris 1.5 (0.5/ 1 0 16. Organic debris lines or piles Yes No = 017. Soil-based evidence of high water table? C. Biology (Subtotal = _ 0 18. Fibrous roots in streambed 0 1 19. Rooted upland plants in streambed 3 2 1 (D) 20. Macrobenthos (note diversity and abundance) 3 2 (4) 1 21. Aquatic Moliusks 1.5 (0) 0.5 22. Fish 1.5 1 0.5 (0) 23. Crayfish 1.5 (0.5) (0) 24 Amphibians 1.5 (0.5) 25. Algae FACW = 0.75; OBL = 1.5 Other = 0 26. Wetland plants in streambed *perennial streams may also be identified using other methods. See p. 35 of manual.

Sketch:

Notes:

NC DWQ Stream Identification Form Version 4.11 TRIB E NC DWQ Stream Identification Form Version 4.11 Project/Site: SF C Latitude: Project/Site: Side Latitude: Evaluator: County: Longitude: Evaluator: County: Total Points: Longitude: Stream Determination (circle one) Stream is at least intermittent Other **Total Points:** Stream Determination (circle one) if ≥ 19 or perennial if ≥ 30* Ephemeral Intermittent Perennial e.g. Quad Name: Stream is at least intermittent Other if ≥ 19 or perennial if ≥ 30* Ephemeral Intermittent Perennial e.g. Quad Name: A. Geomorphology (Subtotal = 7 Absent Weak Moderate Strong A. Geomorphology (Subtotal = 1ª Continuity of channel bed and bank Absent Weak Moderate 0 1 Strong (3) 1ª Continuity of channel bed and bank 2. Sinuosity of channel along thalweg 11 0 1 12 12 2. Sinuosity of channel along thalweg 3. In-channel structure: ex. riffle-pool, step-pool, 3 3 0 03 3mm 3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence 0 (3) 3 1 6 4. Particle size of stream substrate ripple-pool sequence 1 2 0 3 1 3 4. Particle size of stream substrate 5. Active/relict floodplain D (1) D 2 23 3 3 5. Active/relict floodplain 6. Depositional bars or benches 0 0 (1) 1 2 2 3 3 6. Depositional bars or benches 7. Recent alluvial deposits 1 0 2 (2)3 3 7. Recent alluvial deposits 8. Headcuts 01 0 2 3 15 8. Headcuts 9. Grade control 00 0 0.5 2 1 3 9. Grade control 10. Natural valley 0 0.5 0.5 1.5) 1.5 10. Natural valley 11. Second or greater order channel 0 0.5 No = 011 Yes = 3 1.5 artificial ditches are not rated; see discussions in manual 11. Second or greater order channel No = 0 Yes = 3 artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = 0, 6) B. Hydrology (Subtotal = _ 12. Presence of Baseflow 0 1 3 12. Presence of Baseflow 13. Iron oxidizing bacteria (0) 20 1 2 1 3 2 3 13. Iron oxidizing bacteria 14. Leaf litter (0) 1.5 1 2 1 0 3 14. Leaf litter 15. Sediment on plants or debris 1.5 0 0 0.5 0.5 0 1.5 15. Sediment on plants or debris 16. Organic debris lines or piles 0) 0 1) 0.5 0.5 1 17. Soil-based evidence of high water table? 1.5 16. Organic debris lines or piles 1.5 0.5 No = 0Yes = 3 1 17. Soil-based evidence of high water table? 1.5 C. Biology (Subtotal = 955 No = 0Yes = 3 (3) C. Biology (Subtotal = 18. Fibrous roots in streambed 0 18. Fibrous roots in streambed 19. Rooted upland plants in streambed 3 3 (1) 1 0 0 19. Rooted upland plants in streambed 20. Macrobenthos (note diversity and abundance) 3 0 2 1 0 3 20. Macrobenthos (note diversity and abundance) 21. Aquatic Mollusks 0 0 2 1 2 3 3 21. Aquatic Mollusks 22. Fish 0 0 0.5 1 2 1 3 1.5 22. Fish 0 23. Crayfish 0 0.5 0.5 1 1.5 1.5 23. Crayfish 24. Amphibians 0.5 0 (0.5 1 1.5 1.5 24. Amphibians 25. Algae (0) 0.5 0 0.5 (1) 1.5 1.5 25. Algae 26. Wetland plants in streambed 0 0.5 FACW = 0.75; OBL = 1.5 Other € 0 1.5 26. Wetland plants in streambed *perennial streams may also be identified using other methods. See p. 35 of manual. FACW = 0.75; OBL = 1.5 Other = 0 *perennial streams may also be identified using other methods. See p. 35 of manual. Notes: Notes: Sketch: Sketch:

NC DWQ Stream Identification Form Version 4.11 NC DWO Stream Identification Form Version 4.11 Latitude: Project/Site: Date: Latitude: Project/Site: Date: | 0 . 1 Longitude: County: Evaluator: Longitude: County: Evaluator: Stream Determination (circle one) Other Total Points: **Ephemeral Intermittent Perennial** Stream Determination (circle one) e.g. Quad Name: **Total Points:** Stream is at least intermittent e.g. Quad Name: if ≥ 19 or perennial if ≥ 30* Stream is at least intermittent **Ephemeral Intermittent Perennial** if ≥ 19 or perennial if ≥ 30* Strong Moderate Weak Absent A. Geomorphology (Subtotal = Strong Moderate Weak (2) 3 Absent A. Geomorphology (Subtotal = 1 0 1ª Continuity of channel bed and bank 3 2 3 0 (1) 1ª Continuity of channel bed and bank 0 2. Sinuosity of channel along thalweg 3 (1)0 2. Sinuosity of channel along thalweg 3. In-channel structure: ex. riffle-pool, step-pool, 3 3 2 6 (0) 3 3. In-channel structure: ex. riffle-pool, step-pool, 2 1 ripple-pool sequence 3 2 M ripple-pool sequence 4. Particle size of stream substrate 3 2 3 0 1 2 (D) 4. Particle size of stream substrate 5. Active/relict floodplain 2 3 3 0 1 2 (0) 5. Active/relict floodplain 6. Depositional bars or benches 3 2 3 0 1 2 1 (O) 6. Depositional bars or benches 7. Recent alluvial deposits 2 3 3 (0) 1 2 9 1 7. Recent alluvial deposits 3 8. Headcuts 1.5 2 (1) P 0 0.5 1 8. Headcuts 9. Grade control 1.5 1 1.5 0.5 1 (0.5) 0 9. Grade control 10. Natural valley 1.5 0.5 1 Yes = 3 0 No =0 10. Natural valley 11. Second or greater order channel Yes = 3 No € q 11. Second or greater order channel artificial ditches are not rated; see discussions in manual artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = 3 2 999 1 B. Hydrology (Subtotal = 12. Presence of Baseflow 3 2 D 3 12. Presence of Baseflow 1 13. Iron oxidizing bacteria 3 0 0 0.5 1 1.5 13. Iron oxidizing bacteria 14 Leaf litter 0 (0.5 1.5 1.5 0.5 (0) 14. Leaf litter 15. Sediment on plants or debris 1.5 1.5 0.5 0 0.5 15. Sediment on plants or debris D 16. Organic debris lines or piles 1.5 Yes = 3 (0.5) 1 No = 0 17. Soil-based evidence of high water table? 16. Organic debris lines or piles Yes = 3 No + 0) 17. Soil-based evidence of high water table? C. Biology (Subtotal = 0 (1) C. Biology (Subtotal = _ 3 18. Fibrous roots in streambed n 0 2 2) 18. Fibrous roots in streambed 3 19. Rooted upland plants in streambed 0 (1) 3 2 0 2 1 19. Rooted upland plants in streambed 20. Macrobenthos (note diversity and abundance) 2 3 3 0 1 2 (D) 1 20. Macrobenthos (note diversity and abundance) 21. Aquatic Mollusks 3 2 1.5 TA 1 1 0.5 21. Aquatic Mollusks 22. Fish 1.5 1.5 0.5 O 0 1 0.5 22. Fish 23. Crayfish 1.5 1.5 1 0.5 1 0) 0 0.5 23. Crayfish 24. Amphibians 1.5 0.5 1 1.5 D 0.5 24. Amphibians O 25. Algae 1.5 FACW = 0.75; OBL = 1.5 Other = 0 0.5 D/ 25. Algae 26. Wetland plants in streambed FACW = 0.75; OBL = 1.5 Other # 0 *perennial streams may also be identified using other methods. See p. 35 of manual 26. Wetland plants in streambed *perennial streams may also be identified using other methods. See p. 35 of manual. Notes: Notes: Sketch: Sketch:

NC DWQ Stream Identification Form Version 4.11 NC DWQ Stream Identification Form Version 4.11 Date: Project/Site:< Latitude: Date: Project/Site:CF Latitude: Evaluator: County: Longitude: Evaluator: County: Total Points: Longitude: Stream Determination (circle one) Stream is at least intermittent Other **Total Points:** Ephemeral Intermittent Perennial Stream Determination (circle one) Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* e.g. Quad Name: Other if ≥ 19 or perennial if ≥ 30* Ephemeral Intermittent Perennial e.g. Quad Name: A. Geomorphology (Subtotal Absent Weak Moderate Strong A. Geomorphology (Subtotal = 7.0) 1ª Continuity of channel bed and bank Absent Weak Moderate 0 Strong 1 3 1 Continuity of channel bed and bank 2. Sinuosity of channel along thalweg 0 1 0 1 3 2. Sinuosity of channel along thalweg 3. In-channel structure: ex. riffle-pool, step-pool, 3 0 1 (2) 3. In-channel structure: ex. riffle-pool, step-pool, 0 (27 ripple-pool sequence 1 3 ripple-pool sequence D 1 (2) 4. Particle size of stream substrate 3 0 1 (D) 3 4. Particle size of stream substrate 5. Active/relict floodplain D 1 (2 0 1 (2) 3 5. Active/relict floodplain 6. Depositional bars or benches D 0 1 1 (2) (3) 3 6. Depositional bars or benches 7. Recent alluvial deposits 0 1 2 0 (2 1 3 3 7. Recent alluvial deposits 8. Headcuts 0 0 1 2 1 3 3 8. Headcuts 9. Grade control 0) (0) 1 0.5 1 15 9. Grade control 10. Natural valley 0 0.5 0 0.5 1.5 (15) 10. Natural valley 11. Second or greater order channel 0 0.5 No = 01.5 Yes €3 11. Second or greater order channel artificial ditches are not rated; see ascuss No = 0Yes #3 artificial ditches are not rated; see discussions in manual B. Hydrology (Subtotal = B. Hydrology (Subtotal = 12. Presence of Baseflow 2 1 3 12. Presence of Baseflow 13. Iron oxidizing bacteria 0 0 1 2 (3 2 3 13. Iron oxidizing bacteria 14. Leaf litter 0 1.5 1 3 0.5 0 14. Leaf litter 15. Sediment on plants or debris 1.5 (0.5) 0.5/ 1 0 0 1.5 15. Sediment on plants or debris 16. Organic debris lines or piles 0 0 0.5 0.5 1.5 1 1.5 17. Soil-based evidence of high water table? 16. Organic debris lines or piles 0 0.5 No = 0(1 Yes € 3 1.5 17. Soil-based evidence of high water table? C. Biology (Subtotal = 4.5 No = 0Yes = 3 C. Biology (Subtotal = 0 15 18. Fibrous roots in streambed 3 1) 18. Fibrous roots in streambed 0 19. Rooted upland plants in streambed (3 (1) 2 0 1 0 19. Rooted upland plants in streambed (3 20. Macrobenthos (note diversity and abundance) 0 (7) 1 2 20. Macrobenthos (note diversity and abundance) 0 3 (1) 21. Aquatic Mollusks 10 2 2 3 3 21. Aquatic Mollusks 22. Fish (0) Co 0.5 1 2 1.5 22. Fish 23. Crayfish 0 0.5 0.5 1.5 1 1.5 23. Crayfish 24. Amphibians 0 0 0.5 (1 0.5 (1) 1.5 1.5 24. Amphibians 25. Algae 0 0.5 (1) 0 (0.5) 1.5 1.5 25. Algae 26. Wetland plants in streambed D FACW = 0.75; OBL = 1.5 Other = 0 0.5 (1) 1.5 26. Wetland plants in streambed *perennial streams may also be identified using other methods. See p. 35 of manual. FACW = 0.75; OBL = 1.5 Other = 0 *perennial streams may also be identified using other methods. See p. 35 of manual. Notes: Notes: Sketch: 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: Williams Corners | | City/County: Pittsboro/ | Chatham | _Sampling Date: | 07/31/19 |
|---|--------------------------------|--------------------------------------|-------------------------|---------------------------|----------|
| Applicant/Owner: ZR Chatham LLC | | | State: NC | Sampling Point: | DF1 |
| Investigator(s): C. Huysman, P. Isner | | Section, Township, Range: | | _ | |
| Landform (hillside, terrace, etc.): hillside | Lo | · ocal relief (concave, convex, r | none): concave | Slope (%): | 1 |
| Subregion (LRR or MLRA): LRR P, MLRA | | • | 79.08625 | | WGS84 |
| Soil Map Unit Name: Wedowee | <u> </u> | | NWI classifica | | |
| Are climatic / hydrologic conditions on the sit | o typical for this time of yes | ar? Yes X | | | - 1 |
| Are Vegetation , Soil , or Hydr | • | | ircumstances" present? | explain in Remarks Yes X | |
| | | | | | |
| Are Vegetation, Soil, or Hydr | | | olain any answers in Re | , | |
| SUMMARY OF FINDINGS – Attacl | 1 site map showing s | sampling point locatio | ns, transects, imp | portant feature | es, etc. |
| Hydrophytic Vegetation Present? | Yes X No | Is the Sampled Area | | | |
| Hydric Soil Present? | Yes X No | within a Wetland? | Yes X | No | |
| Wetland Hydrology Present? | Yes X No | | | | |
| Remarks: | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| HYDROLOGY | | | | | |
| Wetland Hydrology Indicators: | | | Secondary Indicators | | equired) |
| Primary Indicators (minimum of one is requ | | | Surface Soil Crac | , , | |
| Surface Water (A1) | True Aquatic Plants | | | ed Concave Surfac | ce (B8) |
| High Water Table (A2) | Hydrogen Sulfide O | | Drainage Patterns | , , | |
| Saturation (A3) | | res on Living Roots (C3) | Moss Trim Lines | | |
| Water Marks (B1) | Presence of Reduce | | Dry-Season Wate | | |
| Sediment Deposits (B2) | | on in Tilled Soils (C6) | Crayfish Burrows | • • | |
| Drift Deposits (B3) | Thin Muck Surface (| | | on Aerial Imagery | (C9) |
| Algal Mat or Crust (B4) | Other (Explain in Re | emarks) | Stunted or Stress | | |
| Iron Deposits (B5) | | | Geomorphic Posi | | |
| Inundation Visible on Aerial Imagery (B | 7) | | Shallow Aquitard | ` , | |
| Water-Stained Leaves (B9) | | | Microtopographic | , , | |
| Aquatic Fauna (B13) | | | FAC-Neutral Test | (D5) | |
| Field Observations: | | | | | |
| Surface Water Present? Yes | No X Depth (inch | | | | |
| Water Table Present? Yes | No X Depth (inch | | | | |
| Saturation Present? Yes X | No Depth (inch | nes): 1 Wetland I | Hydrology Present? | Yes X | . No |
| (includes capillary fringe) | | | -9-1-1- | | |
| Describe Recorded Data (stream gauge, m | onitoring well, aerial photos | , previous inspections), if ava | illable: | | |
| | | | | | |
| Remarks: | | | | | |
| remarks. | | | | | |
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| Species Statum (Plot size:) | · · · · · · · · · · · · · · · · · · · | Absolute | Dominant | Indicator | |
|--|---|----------------|-----------------|-----------|---|
| That Are OBL, FACW, or FAC: 1 (a) Total Number of Dominant Species That Are OBL, FACW, or FAC: 100.0% (b) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (c) Provisions of Index worksheet: Total % Cover of: Solf total cover: 20% of total cover: Diquidambar styraciflua 2 No FAC Liquidambar styraciflua 2 No FAC Liquidambar styraciflua 2 No FAC Column Totals: 44 (A) 134 Prevalence Index = BIA = 3.05 Hydrophytic Vegetation Indicators: 1 Rapid Test for Hydrophytic Vegetation (X 2 - Dominance Test is >50% Hydrophytic Vegetation (Frovide support data in Remarks or on a separate sheet) Sambucus nigra 5 No FAC Sambucus nigra 5 No FAC Sambucus nigra 5 No FAC Liquidambar styraciflua 2 No FAC Sambucus nigra 5 No FAC Sambucus nigra 5 No FAC Sambucus nigra 5 No FAC Liquidambar styraciflua 6 No FAC Sambucus nigra 5 No FAC Sambucus nigra 5 No FAC Sambucus nigra 6 No FAC Sambucus nigra 7 No FAC Liquidambar styraciflua 6 No FAC Sambucus nigra 7 No FAC Sambucus nigra 8 No FAC Sambucus nigra 7 No FAC Sambucus nigra 8 No FAC Sambucus nigra 7 No FAC Sambucus nigra 8 No FAC Sambucus nigra 8 No FAC Sambucus nigra 8 No FAC Sambucus nigra 9 No FAC Sambucus nigra 9 No FAC Sambucus nigra 1 No FAC Microstepium winineum 1 No FAC Sambucus nigra 1 No FAC Sambucus nigra 1 No FAC Microstepium winineum 1 No FAC Microstepium win | ree Stratum (Plot size:) | | | | Dominance Test worksheet: |
| Total Number of Dominant Species Across All Strats: Total Cover | | | | | · |
| Species Across All Strata: 1 (0) Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (0) Provalence Index worksheet: Total % Cover of: Multiply by: Total % Cover of: Multiply by: Total % Cover of: Multiply by: Total % Cover of | | | | | |
| Percent of Dominant Species | | | | | |
| That Are OBL, FACW, or FAC: 100.0% (a) Foreign Factor Total Cover Total % Cover of: Multiply by: 10BL species 0 | - | | | | |
| Total (Cover of: | | | | | |
| Diling/Shrub Stratum (Plot size: 15) | | | | | |
| Pling/Shrub Stratum (Plot size: 15) 2 No FAC FACW species 0 | | | =Total Cover | | Total % Cover of: Multiply by: |
| Liquidambar styraciflua 2 No FAC FAC species 42 x 3 = 126 FACU species 0 x 5 = 0 Column Totals: 44 (A) 134 Prevalence Index = B/A = 3.05 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Microstegium vimineum 30 Yes FAC 30 FACU Sambucus nigra 50% of total cover: 50% of total cover: 50% of total cover: 50% of total cover: 20 20% of total cover: 8 Lonicera japonica 2 = Total Cover 8 40 = Total Cover 50% of total cover: 1 | 50% of total cover: | 20% | of total cover: | | OBL species 0 x 1 = 0 |
| FACU species 2 x 4 = 8 UPL species 0 x 5 = 0 Column Totals 44 (A) 134 Prevalence Index = BIA = 3.05 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' (Provide supported attain Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Microstegium vimineum 30 Yes FAC Carex abscondita 5 No FAC Sambucus nigra 5 No FAC Definitions of hydric soil and wetland hydrology mupresent, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree - Woody plants, excluding vines, 8 in , (7.6 cn more in diameter at breast height (DBH), regardles height. Sapling/Shrub - Woody plants, excluding vines, 8 in , DBH and greater than or equal to 3.28 ft mi) tall. Herb - All herbaceous (non-woody) plants, regardl of size, and woody plants less than 3.28 ft tall. Woody Vine - All woody vines greater than 3.28 ft height. Lonicera japonica 2 No FACU Problematic Hydrophytic Vegetation Hydrophytic Vegetation Hydrophytic Vegetation | pling/Shrub Stratum (Plot size: 15 | _) | | | FACW species 0 x 2 = 0 |
| UPL species 0 x5 = 0 Column Totals: 44 (A) 134 Prevalence Index = BIA = 3.05 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation | Liquidambar styraciflua | 2 | No | FAC | FAC species 42 x 3 = 126 |
| Column Totals: 44 (A) 134 Prevalence Index = B/A = 3.05 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supported ata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Microstegium vimineum 30 Yes FAC Carex abscondita 5 No FAC Sambucus nigra 5 No FAC Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, a in, (7.6 cm more in diameter at breast height (DBH), regardles height. Sapling/Shrub – Woody plants, excluding vines, a in, (7.6 cm more in diameter at breast height (DBH), regardles height. Sapling/Shrub – Woody plants, excluding vines, a in, (7.6 cm more in diameter at breast height (DBH), regardles height. Herb – All herbaceous (non-woody) plants, regardled for size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height. Prevalence Index = B/A = 3.05 Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supported ata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ** Indicators of hydric soil and wetland hydrology mupresent, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, is than 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb – All herbaceous (non-woody) plants, regardled for size, and woody plants less than 3.28 ft height. Woody Vine – All woody vines greater than 3.28 ft height. | | | | | |
| Prevalence Index = B/A = 3.05 Prevalence Index = B/A = 3.05 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide suppodata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Microstegium vimineum | | | | | |
| Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide suppodata In Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Microstegium vimineum 30 Yes FAC Carex abscondita 5 No FAC Sambucus nigra 5 No FAC Definitions of Four Vegetation Strata: Tree - Woody plants, excluding vines, a in. (7.6 cm more in diameter at breast height (DBH), regardles height. Sapling/Shrub - Woody plants, excluding vines, let than 3 in. DBH and greater than or equal to 3.28 ft m) tall. Woody Vine Stratum (Plot size: 15) Lonicera japonica 2 No FACU Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >5.00° 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide suppodata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mu present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree - Woody plants, excluding vines, a in. (7.6 cm more in diameter at breast height (DBH), regardles height. Sapling/Shrub - Woody plants, excluding vines, let than 3 in. DBH and greater than or equal to 3.28 ft m) tall. Woody Vine - All woody vines greater than 3.28 ft lei! Woody Vine - All woody vines greater than 3.28 ft height. | | | | | `` |
| 1 - Rapid Test for Hydrophytic Vegetation 2 = Total Cover 50% of total cover: 1 20% of total cover: 1 Indicrostegium vimineum 30 Yes FAC Carex abscondita 5 No FAC Sambucus nigra 5 No FAC Definitions of Four Vegetation Strata: Tree — Woody plants, excluding vines, lating in diameter at breast height (DBH), regardles height. Sapiling/Shrub — Woody plants, excluding vines, lating in Jall. Woody Vine Stratum (Plot size: 15) Lonicera japonica 2 No FAC 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test is >50% 3 - Prevalence Index is ≤ 3.0° 4 - Morphological Adaptations¹ (Provide suppodate in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology mupresent, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree — Woody plants, excluding vines, 3 in. (7.6 cn more in diameter at breast height (DBH), regardles height. Sapiling/Shrub — Woody plants, excluding vines, lating in Jall. Herb — All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody Vine — All woody vines greater than 3.28 ft height. Hydrophytic Vegetation 1 - Rapid Test for Hydrophytic Vegetation in Accounts and the provided suppodate in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology mupresent, unless disturbed or problematic. Definitions of Four Vegetation Strata: 1 The — Woody plants, excluding vines, lating in the plant in Remarks or on a separate sheet) 1 Indicators of hydric soil and wetland hydrology mupresent, unless disturbed or problematic. Definitions of Four Vegetation Strata: 1 | | | | | |
| 2 | | | | | |
| 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide suppodata in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Microstegium vimineum 30 Yes FAC Carex abscondita 5 No FAC Sambucus nigra 5 No FAC Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cmore in diameter at breast height (DBH), regardles height. Sapling/Shrub – Woody plants, excluding vines, 1 it han 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb – All herbaceous (non-woody) plants, regard of size, and woody vines greater than 3.28 ft height. Sody Vine Stratum (Plot size: 15) Lonicera japonica 2 No FAC Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mupresent, unless disturbed or problematic. Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology mupresent, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cmore in diameter at breast height (DBH), regardles height. Sapling/Shrub – Woody plants, excluding vines, lithan 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb – All herbaceous (non-woody) plants, regard of size, and woody vines greater than 3.28 ft height. Woody Vine – All woody vines greater than 3.28 ft height. | - | | | | 1 |
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| data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) Microstegium vimineum 30 Yes FAC Carex abscondita 5 No FAC Sambucus nigra 5 No FAC Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, is than 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb – All herbaceous (non-woody) plants, regardly of size, and woody vines greater than 3.28 ft height. Microstegium vimineum | | | =Total Cover | | |
| | 50% of total cover: | | | 1 | |
| Microstegium vimineum Carex abscondita 5 No FAC Sambucus nigra 5 No FAC Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardles height. Sapling/Shrub – Woody plants, excluding vines, 8 it than 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: 15) Lonicera japonica 2 No FACU Hydrophytic Vegetation | | 1 2070 | or total cover. | | Problematic Hydrophytic Vegetation ¹ (Explain) |
| Carex abscondita 5 No FAC Sambucus nigra 5 No FAC No FAC Definitions of Four Vegetation Strata: Tree — Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardles height. Sapling/Shrub — Woody plants, excluding vines, 8 than 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb — All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody Vine — All woody vines greater than 3.28 ft height. Lonicera japonica 2 No FACU Hydrophytic Vegetation Hydrophytic Vegetation | | 30 | Yes | FAC | |
| Sambucus nigra 5 No FAC Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm more in diameter at breast height (DBH), regardles height. Sapling/Shrub – Woody plants, excluding vines, let than 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, let than 3 in. DBH and greater than or equal to 3.28 ft m) tall. Woody Vine – All woody vines greater than 3.28 ft height. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, let than 3 in. DBH and greater than or equal to 3.28 ft m) tall. Woody Vine – All woody vines greater than 3.28 ft height. Hydrophytic Vegetation | · · · · · · · · · · · · · · · · · · · | 5 | | | |
| more in diameter at breast height (DBH), regardles height. Sapling/Shrub – Woody plants, excluding vines, lethan 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height. Woody Vine – All woody vines greater than 3.28 ft height. Lonicera japonica 2 No FACU Hydrophytic Vegetation | Sambucus nigra | 5 | No | FAC | Definitions of Four Vegetation Strata: |
| more in diameter at breast height (DBH), regardles height. Sapling/Shrub – Woody plants, excluding vines, lethan 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb – All herbaceous (non-woody) plants, regardle of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height. Woody Vine – All woody vines greater than 3.28 ft height. Lonicera japonica 2 No FACU Hydrophytic Vegetation | | | | | Tree – Woody plants, excluding vines, 3 in. (7.6 cn |
| Sapling/Shrub – Woody plants, excluding vines, lethan 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height. Woody Vine – All woody vines greater than 3.28 ft height. Lonicera japonica 2 No FACU Hydrophytic Vegetation | | | | | more in diameter at breast height (DBH), regardles |
| than 3 in. DBH and greater than or equal to 3.28 ft m) tall. Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height. Woody Vine – All woody vines greater than 3.28 ft height. Doddy Vine Stratum (Plot size: 15) Lonicera japonica 2 No FACU Bydrophytic Vegetation | | | | | height. |
| m) tall. Herb – All herbaceous (non-woody) plants, regardly of size, and woody plants less than 3.28 ft tall. Woody Vine – All woody vines greater than 3.28 ft height. Dody Vine Stratum (Plot size: 15) Lonicera japonica 2 No FACU Bydrophytic Vegetation Hydrophytic Vegetation | | | | | |
| Herb – All herbaceous (non-woody) plants, regards of size, and woody plants less than 3.28 ft tall. | - | | | | |
| of size, and woody plants less than 3.28 ft tall. Woody Vine — All woody vines greater than 3.28 ft height. Dody Vine Stratum (Plot size: 15) Lonicera japonica 2 No FACU 2 =Total Cover B Hydrophytic Vegetation | | | | | iii) tali. |
| 40 =Total Cover 50% of total cover: 20 20% of total cover: 8 Woody Vine – All woody vines greater than 3.28 ft height. | · | | | | ` |
| 50% of total cover: 20 20% of total cover: 8 boody Vine Stratum (Plot size: 15) Lonicera japonica 2 No FACU 2 Total Cover Hydrophytic Vegetation | · | | | | |
| Dody Vine Stratum (Plot size: 15) Lonicera japonica 2 No FACU Hydrophytic Vegetation Veget | | | | _ | |
| Lonicera japonica 2 No FACU Hydrophytic Vegetation | | 20 20% | of total cover: | 8 | neight. |
| | | 0 | NI - | FAOU | |
| 2 =Total Cover Vegetation | Lonicera japonica | | NO | FACU | |
| =Total Cover Vegetation | | | | | |
| 2 =Total Cover Vegetation | | | | | |
| 2 =Total Cover Vegetation | | | | | |
| vegetation | | | =Total Cover | | 1 2 . 2 |
| | 50% of total cover: | | | 1 | Present? Yes X No |
| | emarks: (include photo numbers here or on a sep | parate sneet.) | | | |
| emarks: (Include photo numbers here or on a separate sheet.) | | | | | |

SOIL Sampling Point: DF1

| Depth | ription: (Describe t Matrix | | | x Featu | | | | | , | |
|---------------|--------------------------------|------------|--------------------|------------|-------------------|------------------|-----------------|----------|-----------------------|------------------|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | | Rem | arks |
| 0-5 | 5YR 3/2 | 95 | 5YR 4/4 | 5 | С | PL | Sandy | | Distinct redox of | concentrations |
| 5-7 | 7.5YR 4/4 | 100 | | | | | Sandy | | | |
| 7-16 | 5GY 5/2 | 100 | | | | | Loamy/Clay | ev | | |
| | | | | | | | | <u> </u> | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | oncentration, D=Depl | etion, RM= | =Reduced Matrix, M | IS=Masl | ked Sand | Grains. | ² Lc | | Pore Lining, M | |
| Hydric Soil I | ndicators: | | | | | | | | | tic Hydric Soils |
| Histosol | (A1) | | Polyvalue Be | elow Sur | face (S8) | (MLRA | 147, 148) | | luck (A10) (ML | |
| Histic Ep | pipedon (A2) | | Thin Dark Su | urface (S | 69) (MLR | A 147, 14 | 18) | Coast F | Prairie Redox | (A16) |
| Black His | stic (A3) | | Loamy Muck | y Miner | al (F1) (N | ILRA 136 | 5) | (MLR | RA 147, 148) | |
| Hydroge | n Sulfide (A4) | | Loamy Gleye | ed Matri | x (F2) | | | Piedmo | ont Floodplain | Soils (F19) |
| Stratified | I Layers (A5) | | Depleted Ma | itrix (F3) |) | | | (MLR | RA 136, 147) | |
| 2 cm Mu | ck (A10) (LRR N) | | Redox Dark | Surface | (F6) | | | Red Pa | arent Material (| (F21) |
| Depleted | Below Dark Surface |) (A11) | Depleted Da | rk Surfa | ce (F7) | | | (outs | side MLRA 12 | 7, 147, 148) |
| Thick Da | rk Surface (A12) | | Redox Depre | essions | (F8) | | | Very Sh | hallow Dark Si | urface (F22) |
| | lucky Mineral (S1) | | Iron-Mangan | | sses (F12 | 2) (LRR N | l, | Other (| Explain in Rer | marks) |
| Sandy G | leyed Matrix (S4) | | MLRA 136 | 6) | | | | • | | |
| X Sandy R | edox (S5) | | Umbric Surfa | | | | | | | vegetation and |
| Stripped | Matrix (S6) | | Piedmont Flo | oodplain | Soils (F | 19) (MLR | A 148) | wetland | d hydrology mi | ust be present, |
| Dark Sur | face (S7) | | Red Parent I | Material | (F21) (M | LRA 127 | , 147, 148) | unless | disturbed or p | roblematic. |
| Restrictive L | _ayer (if observed): | | | | | | | | , | |
| Type: | | | | | | | | | | |
| Depth (in | iches): | | | | | | Hydric Soil | Present? | Yes_X | No |
| Remarks: | <u> </u> | | <u></u> | | | | - | | | |
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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: Williams Corner | | City/County: Pittsboro, | Chatham County | _Sampling Date: | 07/31/19 |
|--|-------------------------------|--------------------------------|--------------------------|-----------------------------|------------------|
| Applicant/Owner: ZR Chatham LLC | | | State: NC | Sampling Point: | DF2 |
| Investigator(s): C. Huysman, P. Isner | | Section, Township, Range: | | _ | |
| Landform (hillside, terrace, etc.): hillside | Lo | cal relief (concave, convex, i | none): Concave | Slope (%): | 2 |
| Subregion (LRR or MLRA): LRR P, MLRA 1 | | • | 79.086880 | | WGS 84 |
| Soil Map Unit Name: Wedowee | <u> </u> | | NWI classificat | | |
| Are climatic / hydrologic conditions on the site | tunical for this time of yea | r? Yes X | | | - 1 |
| Are Vegetation, Soil, or Hydro | ** | | circumstances" present? | explain in Remarks Yes X | |
| Are Vegetation, Soil, or Hydro | logy naturally proble | ematic? (If needed, ex | plain any answers in Rei | marks.) | · —— |
| SUMMARY OF FINDINGS – Attach | <u> </u> | | • | • | es, 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 | | | <u></u> | |
| Remarks: | | | | | |
| HYDROLOGY | | | | | |
| Wetland Hydrology Indicators: | | | Secondary Indicators (| (minimum of two r | equired) |
| Primary Indicators (minimum of one is requir | ed: check all that annly) | | Surface Soil Crack | | <u>squireu j</u> |
| Surface Water (A1) | True Aquatic Plants | (B14) | Sparsely Vegetate | , , | ce (B8) |
| High Water Table (A2) | Hydrogen Sulfide Od | | Drainage Patterns | | 70 (20) |
| Saturation (A3) | | res on Living Roots (C3) | Moss Trim Lines (| • | |
| Water Marks (B1) | Presence of Reduce | • , , | Dry-Season Water | • | |
| Sediment Deposits (B2) | Recent Iron Reduction | on in Tilled Soils (C6) | Crayfish Burrows | (C8) | |
| Drift Deposits (B3) | Thin Muck Surface (| C7) | Saturation Visible | on Aerial Imagery | (C9) |
| Algal Mat or Crust (B4) | Other (Explain in Re | marks) | Stunted or Stresse | ed Plants (D1) | |
| Iron Deposits (B5) | | | X Geomorphic Posit | ion (D2) | |
| Inundation Visible on Aerial Imagery (B7 |) | | Shallow Aquitard (| | |
| Water-Stained Leaves (B9) | | | Microtopographic | , , | |
| Aquatic Fauna (B13) | | | FAC-Neutral Test | (D5) | |
| Field Observations: | | | | | |
| Surface Water Present? Yes | No X Depth (inch | | | | |
| Water Table Present? Yes Saturation Present? Yes | No X Depth (inch | · ——— | Urdualami Duaaant? | Vaa | Na V |
| Saturation Present? Yes (includes capillary fringe) | No X Depth (inch | es) wetiand i | Hydrology Present? | Yes | No X |
| Describe Recorded Data (stream gauge, mo | nitoring well, aerial photos | nrevious inspections) if av | ailahle | | |
| Describe recorded Data (officially gauge, mo | morning well, derial priotos, | previous inspections), if uve | madic. | | |
| Demonto | | | | | |
| Remarks: | | | | | |
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VEGETATION (Five Strata) – Use scientific names of plants. Sampling Point:

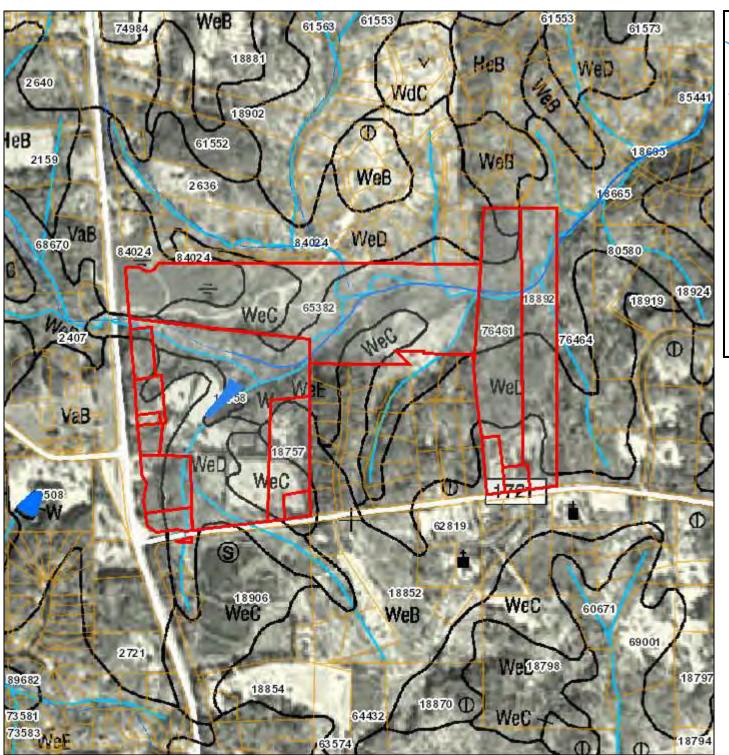
| <u>Tree Stratum</u> (Plot size: 30) | Absolute % Cover | Dominant Species? | Indicator Status | Dominance Test worksheet: | |
|--|--|---|---------------------|--|--------------------------------------|
| 1. Liriodendron tulipifera | 25 | Yes | FACU | | |
| Acer rubrum | | Yes | FAC | Number of Dominant Species That Are OBL, FACW, or FAC: 6 | (A) |
| 3. Pinus taeda | 10 | Yes | FAC | | (八) |
| 4. | | 103 | TAO | Total Number of Dominant Species Across All Strata: 10 | (B) |
| 5. | | | | | (D) |
| 6. | | . | | Percent of Dominant Species That Are OBL, FACW, or FAC: 60.0% | (A/B) |
| 0. | 50 | =Total Cover | | That Are OBL, FACW, or FAC: 60.0% Prevalence Index worksheet: | (A/D) |
| 50% of total cover: | | of total cover: | 10 | Total % Cover of: Multiply by: | |
| _ | 25 20% | o or total cover. | 10 | | _ |
| Sapling Stratum (Plot size: 25) | 4.5 | V | E40 | | _ |
| 1. Acer rubrum | 15 | Yes | FAC | FACW species 0 x 2 = 0 | _ |
| 2. Carpinus caroliniana | 10 | Yes | FAC | FAC species 85 x 3 = 255 | _ |
| 3. | | <u> </u> | | FACU species 45 x 4 = 180 | _ |
| 4 | | | | UPL species 0 x 5 = 0 | _ |
| 5 | | · | | Column Totals:130 (A)435 | _(B) |
| 6. | | | | Prevalence Index = B/A = 3.35 | _ |
| | 25 | =Total Cover | | Hydrophytic Vegetation Indicators: | |
| 50% of total cover: | 13 20% | of total cover: | 5 | 1 - Rapid Test for Hydrophytic Vegetation | |
| Shrub Stratum (Plot size:) | | | | X 2 - Dominance Test is >50% | |
| 1. Ligustrum sinense | 10 | Yes | FACU | 3 - Prevalence Index is ≤3.0 ¹ | |
| 2. Elaeagnus angustifolia | 5 | Yes | FACU | 4 - Morphological Adaptations ¹ (Provide suppo | orting |
| 3 | | | | data in Remarks or on a separate sheet) | |
| 4 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) |) |
| 5. | | | | ¹ Indicators of hydric soil and wetland hydrology mu | ıst he |
| 6. | | | | present, unless disturbed or problematic. | 201 20 |
| | | =Total Cover | | Definitions of Five Vegetation Strata: | |
| | 13 | | | | |
| 50% of total cover: | | of total cover: | 3 | , | |
| 50% of total cover: | | | 3 | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i | n. |
| Herb Stratum (Plot size: 5) | | | 3 FAC | Tree – Woody plants, excluding woody vines, | |
| Herb Stratum (Plot size: 5) | 8 20% | of total cover: | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB) | |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum 2. | 8 20% | of total cover: | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i | H). |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum | 8 20% | of total cover: | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB Sapling – Woody plants, excluding woody vines, | H). |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum 2. | 8 20% | of total cover: | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. | H). |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum 2. 3. 4. 5. | 8 20% | of total cover: | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less | H). |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum 2. 3. 4. 5. 6. | 8 20% | of total cover: | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and lest than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | H). ss |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum 2. 3. 4. 5. 6. 7. | 8 20% | of total cover: | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and lest than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including woody vines, including woody vines, approximately 3 to 20 ft (1 to 6 m) in height. | H). ss |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum 2. 3. 4. 5. 6. 7. 8. 9. 9. | 8 20% | of total cover: | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and lest than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody properties. | H). ss |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum 2. 3. 4. 5. 6. 7. 8. 9. | 8 20% | of total cover: | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and lest than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody properties. | H). ss ing blants, |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum 2. 3. 4. 5. 6. 7. 8. 9. 10. | 8 20% | of total cover: | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB) Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody prescribed woody vines, less than approximately 3 m) in height. | H). ss ing blants, ft (1 |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum 2. 3. 4. 5. 6. 7. 8. 9. | 8 20% 25 | Yes | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and lest than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody pexcept woody vines, less than approximately 3 | H). ss ing blants, ft (1 |
| Herb Stratum (Plot size: 5) | 25 25 25 | Yes Total Cover | FAC | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB) Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody prescribed woody vines, less than approximately 3 m) in height. | H). ss ing blants, ft (1 |
| Herb Stratum (Plot size: 5) | 25 25 25 | Yes | | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB) Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody prescribed woody vines, less than approximately 3 m) in height. | H). ss ing blants, ft (1 |
| Herb Stratum (Plot size: 5) | | Yes Yes Total Cover of total cover: | FAC 5 | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB) Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody prescribed woody vines, less than approximately 3 m) in height. | H). ss ing blants, ft (1 |
| Herb Stratum (Plot size: 5) 1. Microstegium vimineum 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 11. 11. 11. 11. 11. 11. 11. 11 | 25 25 25 3 20% | Yes Total Cover of total cover: | FAC 5 | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB) Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody prescribed woody vines, less than approximately 3 m) in height. | H). ss ing blants, ft (1 |
| Herb Stratum | | Yes Yes Total Cover of total cover: | FAC 5 | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB) Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody prescribed woody vines, less than approximately 3 m) in height. | H). ss ing blants, ft (1 |
| Herb Stratum | 25 25 25 3 20% | Yes Total Cover of total cover: | FAC 5 | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB) Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody prescribed woody vines, less than approximately 3 m) in height. | H). ss ing blants, ft (1 |
| Herb Stratum | 25 25 25 3 20% | Yes Total Cover of total cover: | FAC 5 | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB) Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody prescribed woody vines, less than approximately 3 m) in height. | H). ss ing blants, ft (1 |
| Herb Stratum | | Yes Total Cover of total cover: Yes Yes Yes Yes Yes Yes Yes | FAC 5 | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DB) Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody prescribed woody vines, less than approximately 3 m) in height. | H). ss ing blants, ft (1 |
| Herb Stratum (Plot size: | | Yes Total Cover Yes Total Cover Yes Yes Yes Total Cover Total Cover | FAC FAC FACU | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DBI Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and lest than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody except woody vines, less than approximately 3 m) in height. Woody Vine – All woody vines, regardless of height Hydrophytic Vegetation | H). ss ing blants, ft (1 |
| Herb Stratum (Plot size: | 25 25 25 3 20%) 10 5 5 | Yes Total Cover of total cover: Yes Yes Yes Yes Yes Yes Yes | FAC 5 | Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 i (7.6 cm) or larger in diameter at breast height (DBI Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and lest than 3 in. (7.6 cm) DBH. Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody except woody vines, less than approximately 3 m) in height. Woody Vine – All woody vines, regardless of heighted the state of the size of | H). ss ing blants, ft (1 |

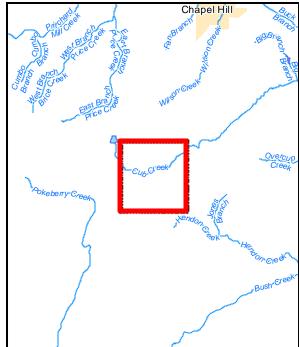
DF2

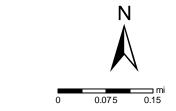
SOIL Sampling Point: DF2

| Depth | Matrix | | Redo | x Featur | es | | | | |
|---------------------|---|------------|--------------------|-----------|-------------------|------------------|------------------------------------|------------------------------|----------------------|
| (inches) | Color (moist) | % | Color (moist) | % | Type ¹ | Loc ² | Texture | Remarks | |
| 0-2 | 2.5Y 4/3 | 100 | | | | | Loamy/Clayey | | |
| 2-8 | 2.5Y 5/3 | 60 | 7.5YR 4/2 | 40 | D | М | Loamy/Clayey | | |
| 8-12 | 2.5Y 5/3 | 50 | 10YR 5/4 | 50 | D | М | Loamy/Clayey | | |
| 12-20 | 10YR 5/4 | 50 | 10YR 4/4 | 30 | D | M | Loamy/Clayey | | |
| | | | 2.5Y 5/2 | 20 | D | М | | | |
| | | | | | | | | | |
| Type: C=Cor | ncentration, D=Deple | etion, RM= | =Reduced Matrix, M | S=Mask | ed Sand | Grains. | ² Location: PL= | Pore Lining, M=Matrix. | |
| Hydric Soil In | | , | , | | | | | for Problematic Hydri | : Soils ³ |
| Histosol (A | | | Polyvalue Be | low Sur | face (S8) | (MLRA | | fuck (A10) (MLRA 147) | |
| | pedon (A2) | | Thin Dark Su | | | | | Prairie Redox (A16) | |
| Black Hist | , | | Loamy Muck | | | | | RA 147, 148) | |
| | n Sulfide (A4) | | Loamy Gleye | | | | | ont Floodplain Soils (F1 | 9) |
| | Layers (A5) | | Depleted Ma | | ` , | | | RA 136, 147) | , |
| | ck (A10) (LRR N) | | Redox Dark | Surface | (F6) | | Red Pa | arent Material (F21) | |
| Depleted | Below Dark Surface | (A11) | Depleted Da | rk Surfac | ce (F7) | | (outs | side MLRA 127, 147, 14 | 8) |
| Thick Dar | k Surface (A12) | | Redox Depre | essions (| F8) | | Very S | hallow Dark Surface (F2 | 2) |
| Sandy Mu | ucky Mineral (S1) | | Iron-Mangan | ese Mas | ses (F12 |) (LRR N | Other (| Explain in Remarks) | |
| Sandy Gle | eyed Matrix (S4) | | MLRA 136 | 6) | | | | | |
| Sandy Re | edox (S5) | | Umbric Surfa | ce (F13 |) (MLRA | 122, 136 | i) ³ Indicators | of hydrophytic vegetation | n and |
| Stripped N | Matrix (S6) | | Piedmont Flo | odplain | Soils (F1 | 9) (MLR | A 148) wetlan | d hydrology must be pre | sent, |
| Dark Surfa | face (S7) | | Red Parent I | Material | (F21) (M I | LRA 127 | , 147 , 148) unless | disturbed or problemati | C . |
| Postriotivo I | ayer (if observed): | | | | | | | | |
| Restrictive L | | | | | | | | | |
| | , | | | | | | | | |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | Х |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No _ | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No_ | <u>X</u> |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | <u>x</u> |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No_ | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | YesNo_ | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | <u>×</u> |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | YesNo_ | <u>X</u> |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | YesNo_ | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | YesNo_ | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | YesNo_ | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | <u>X</u> |
| Type: | | | | | | | Hydric Soil Present? | Yes No | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | X |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | <u>X</u> |
| Type: Depth (inc | | | | | | | Hydric Soil Present? | Yes No | X |

Chatham County Tax Map





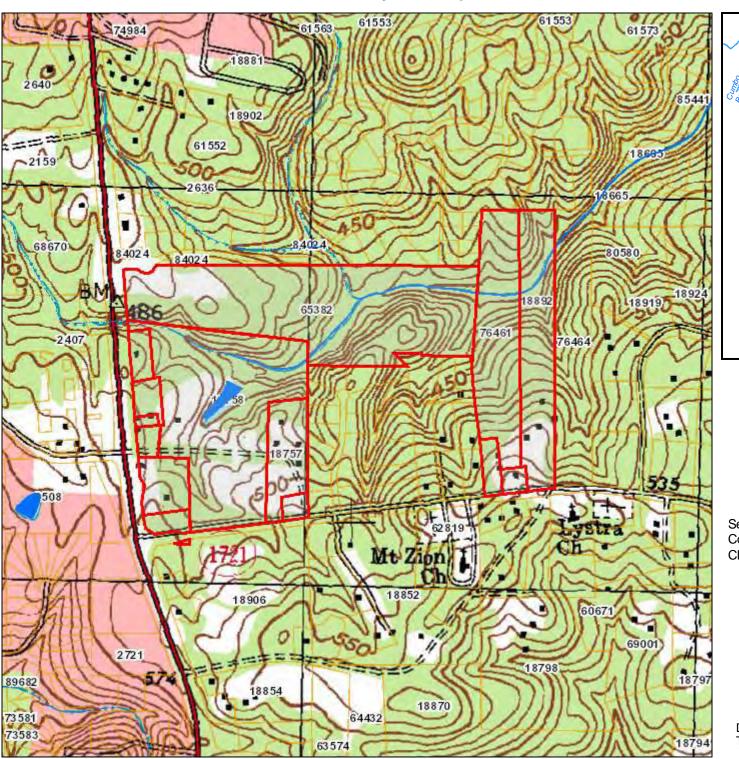


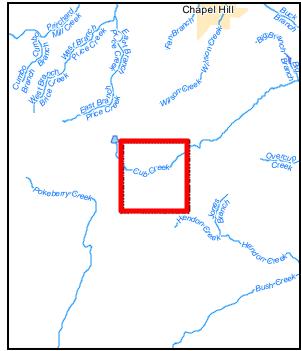
Service Layer Credits: Chatham County, Chatham County GIS NRCS, Chatham County, Chatham County

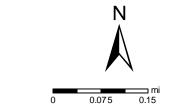


Date: 10/11/2019 Time: 3:47:15 PM

Chatham County Tax Map







Service Layer Credits: USGS, Chatham County, Chatham County GIS Chatham County, Chatham County GIS



Date: 10/11/2019 Time: 3:46:07 PM



| watersiled Fi | otection Department |
|---------------|---------------------|
| Website: | www.chathamnc.org |
| D1 # | |

| Date Received: PL# |
|--------------------|
|--------------------|

Riparian Buffer Review Application Surface Water Identification Request for Major Subdivisions

| <u>Tract Information</u> |
|---|
| Parcel #: multiple (see enclosed) Watershed District (and name of creek if known): WS-IV PA (Cub Creek) |
| Property Owner: ZR Chatham LLC |
| Location/Physical Address of Tract: Intersection of Lystra Road and NC 15-501 |
| Driving Directions from Pittsboro: Take 15-501N towards Chapel Hill. Property Is on right at intersection of Lystra Road. |
| Subdivision Name (if applicable): Williams Corner |
| Owner's/Agent Contact Information (Agent Consultant)Real Estate Agent, Surveyor, Other) Circle one |
| Name: Perry Isner - Wetlands & Waters, Inc. |
| Contact Phone Numbers: (h)(w)(c) |
| E-mail: perry.isner@gmail.com |
| Mailing Address: 328 East Broad Street, Suite D, Statesville, NC 28677 |
| 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? 2 days |
| 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 NCDWO Stream Identification Forms, Version 4.11, Westland Determination Data Forms |
| IVI IVI I IVVI I NICERM IDENTITICATION FORMS, VERSION A. I.I. Wattand Hetamanation Data Com- |





CHATHAM COUNTY

AUTHORIZED AGENT FOR FORM

| PROPERTY LEGA | L DESCRIPTION: | |
|--|---|-----|
| LOT NO. | PARCEL ID (PIN) multiple (see enclosed) PARCEL SIZE 116 (approximately) | |
| STREET ADDRES | S: Lystra Road | _ |
| Please print: Property Owner: | R Chatham LLC | |
| | | |
| _ | mer(s) of the above described property, do hereby authorize | |
| Perry Isner | , of Wetlands & Waters, Inc. (Name of consulting firm if applicable) | _ |
| (Contractor / Agent | (Name of consulting firm if applicable) | |
| Building Pe Zoning Cor Floodplain Soil Erosion Permits to i Evaluation Riparian Bu | for all of the below options. rmit appliance Permits Determination a & Sedimentation Control Permit astall, repair, evaluate, or expand onsite wastewater system(s) aspection/permitting of a private drinking water well(s). ffer Review pursuant to §304 of the Chatham Co. Watershed Protection Ordinance. | |
| Property Owner's | Address (if different than property above): | |
| 416 EAST 37TH STREET NOR | H WICHITA KS 67219 | |
| Telephone: | E-mail: | |
| We hereby certify the knowledge. W.R. Bull | e above information submitted in this application is true and accurate to the best of | our |
| Owner Authorized | Signature Agent Authorized Signature | |
| Date: 13/12/16 | Date | |



P.O. Box 548 Pittsboro, NC 27312

Website: www.chathamnc.org

Authorization to Enter Property Form

| Date: 10/11/19 | |
|---|---|
| PARCEL No. (AKPAR) multiple (see encl | osed) |
| I, (print name) ZR Charman, CCC | |
| or as a representative of the owner(s) do hereby con | vey permission to Chatham County staff to enter the property at |
| their convenience to conduct a surface water identifies | ation (SWID) necessary to determine whether or not water features |
| on my property are subject to the riparian buffer regul | ations 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 r | eview by interested parties. |
| | |
| I understand that stream delineations for the propert | y 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. | |
| 212 CHATHAM, LCC | |
| By D.A. Rle | |
| (Print Owner's Name) | (Signature of Owner) (Date) |
| Will BARRON | |
| (Print Authorized Agent Name) | (Signature of Authorized Agent) (Date) |



Watershed Protection Department Website: www.chathamnc.org

Riparian Buffer Review Application Surface Water Identification Request

| Eastern Mountains and Piedmont Region, digital ph | otographs, notes, sketches, etc. |
|--|-------------------------------------|
| NRCS map with property boundary depicted | |
| USGS map with property boundary depicted | |
| Statement of Credentials (Training Certificate for NCDV) | VQ/NC State University Surface |
| Waters Classification course, 2 years of jurisdiction | al wetland delineation according to |
| the Eastern Mountains and Piedmont Regional Supp | plement 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 (wetlands, ponds) | County Riparian Buffers (streams, |
| Total Number of Features: To | tal Paid: \$_1,000 |
| | |
| I have read and understand the regulations of the Watershed Protection agree to adhere to these associated policies and guidelines herein. | on Ordinance, Section 304, and I |
| Owner/Agent Signature: W.R.Bl. | Date: |
| | |