



## Soil & Environmental Consultants, PA

8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
sandec.com

March 13, 2020  
S&EC Project No.: 13785.W4

**To:** Trinsic Acquisition Company, LLC  
Attn: Ryan Stewart  
110 Corcoran Street 5<sup>th</sup> floor  
Durham, NC 27701

**Re:** Wetland Delineation and Stream Evaluation  
850 N. Estes Drive  
Chapel Hill, NC

Mr. Stewart:

On March 9, 2020 S&EC personnel completed the wetland delineation and stream evaluation on the N. Estes Drive property in Chapel Hill, NC. You will find the attached report detailing our findings. Maps that further document the wetland and stream related site characteristics are also attached.

The next step in the wetland and stream verification process is to visit the site with the Army Corps of Engineers' agent for Orange County. S&EC will schedule this site visit at your request.

As you move forward in planning your development, S&EC personnel are available for site plan review and permit consultation services. Please contact S&EC if you have any questions related to wetland and stream regulations or if you need clarification of the attached report.

Sincerely,  
**SOIL & ENVIRONMENTAL CONSULTANTS, PA**

A handwritten signature in blue ink, appearing to read 'S. Ball', with a long horizontal flourish extending to the right.

Steven Ball, RF, PWS

Project Manager

Attachments:

- 1) Wetland Delineation Report
- 2) USGS site vicinity map
- 3) NRCS Soil Survey
- 4) Wetland & Stream Sketch Map
- 5) Agent Authorization Form
- 6) Orange County Buffer Letter



---

# Soil & Environmental Consultants, PA

8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
sandec.com

## **DETAILED WETLAND DELINEATION & STREAM EVALUATION FOR THE N. ESTES DRIVE SITE**

On **MARCH 9, 2020**, S&EC personnel completed a detailed wetland delineation and stream evaluation on the N. Estes Drive Site ( $\pm 14$  acres). The site is located on 850 N. Estes Drive in Chapel Hill, NC. Figure 1 and Figure 2 show the location of the site on a USGS topographic quadrangle and NRCS County Soil Survey, respectively.

### **EXECUTIVE SUMMARY**

We have determined that wetlands and streams generally account for the jurisdictional waters observed on the site. The attached wetland sketch map depicts the approximate locations of streams and wetlands identified during our evaluation. Please refer to the sketch map and the results and recommendations section below for more detailed information.

### **SCOPE OF WORK**

The detailed wetland delineation consisted of traversing the property to examine soils, vegetation, and hydrology across the site in search of areas that meet the criteria for jurisdictional wetlands as described by the procedures set forth in the Corps of Engineers Wetlands Delineation Manual (January 1987 – Final Report) and Reginal Supplement (Version 2.0). Areas on the site with positive indicators of hydric soils, evidence of wetland hydrology, and presence of hydrophytic vegetation were flagged with sequentially numbered orange S&EC logo flagging. Proof of wetland hydrology would be the existence of hydric soils with oxidized root channels in the upper 12 inches of the soil profile, water borne deposits, drift lines, scour marks, drainage patterns, regional indicators of soil saturation, etc. Surface waters such as intermittent and perennial stream channels, ponds, and lakes, which are also subject to regulation by the US Army Corps of Engineers (USACE) as waters of the US, were also identified. These surface waters may also be referred to as jurisdictional waters to indicate that they are within the jurisdiction of the USACE. It is important to note that wetlands are also classified as waters of the US and regulated by the USACE under authority of the Clean Water Act (33 USC 1344).

### **RESULTS & RECOMMENDATIONS**

The results of the detailed wetland delineation and stream evaluation are discussed below.

#### ***Wetlands and Jurisdictional Waters:***

We have determined that jurisdictional waters (i.e., streams and wetlands) exist on the site. Please refer to the attached “Wetland Sketch Map” for specific flag numbers and approximate locations.

A jurisdictional stream was observed during the site evaluation; the approximate location of the stream is illustrated on the attached wetland sketch map. Streams identified on-site are described below:

- Feature A (UT to Cole Springs Branch) is believed to be an intermittent stream in the southeast corner of the property (See attached buffer letter).

Surface waters on this site flow into Bolin Creek in the Cape Fear River Basin, which has been classified in "Classification and NC DWQ Standards Applicable to Surface Waters and Wetlands of North Carolina" as WS-V;NSW .

The wetlands onsite were identified as being a Headwater Forest wetland type as outlined in the publication <sup>1</sup>"NCWAM Manual." This wetland type is common throughout the piedmont region of North Carolina and is found mainly along headwater streams like the one onsite. The wetland areas in the timber operation should be reviewed in a drier period. The wetlands meet all criteria and indicators but have been heavily disturbed by the logging operation. It is also possible these areas could be considered isolated. The USACE would need to confirm.

### ***Orange County Buffers:***

Orange county has conducted a buffer evaluation on this site. The documentation is attached.

All S&EC flags comprising the wetland and jurisdictional waters delineation should be surveyed and a Wetland Delineation Map generated for use in site planning and USACE approval and permitting. The entire length of each stream feature was not flagged but will need to be survey located for the Wetland Delineation Map. Stream features may be located either along the centerline (with channel widths noted at each survey point) or at the top-of-bank. Please have the property owner or contracting buyer complete the attached agent authorization form if you would like S&EC to act on their behalf for requesting approval of the wetland delineation. This form will also be used in preparing a permit application for impacts to wetlands or surface waters when we are provided with a plan showing the proposed impacts. **S&EC cannot conduct correspondence with the USACE unless we have agent authorization (see attached Agent Authorization). This authorization form must be filled out in its entirety and returned to S&EC (a faxed copy is acceptable).**

### **Regulations**

A general list of regulations that apply to jurisdictional wetlands and waters present on the site are discussed below. Please be aware that other local, state, and federal regulations not included in this list may also apply. S&EC personnel are available to discuss these regulations as they apply to your project.

### ***Wetland Permitting:***

The current Nationwide Permits were issued by the USACE on March 18, 2017. The USACE Wilmington District issued revised Regional Conditions for the 2017 Nationwide Permits. We

---

<sup>1</sup>North Carolina Wetland Assessment Method.

recommend you forward a conceptual site plan to our office for review by one of our permitting specialist, who can best advise you of the specific permitting needs as you progress through the planning process.

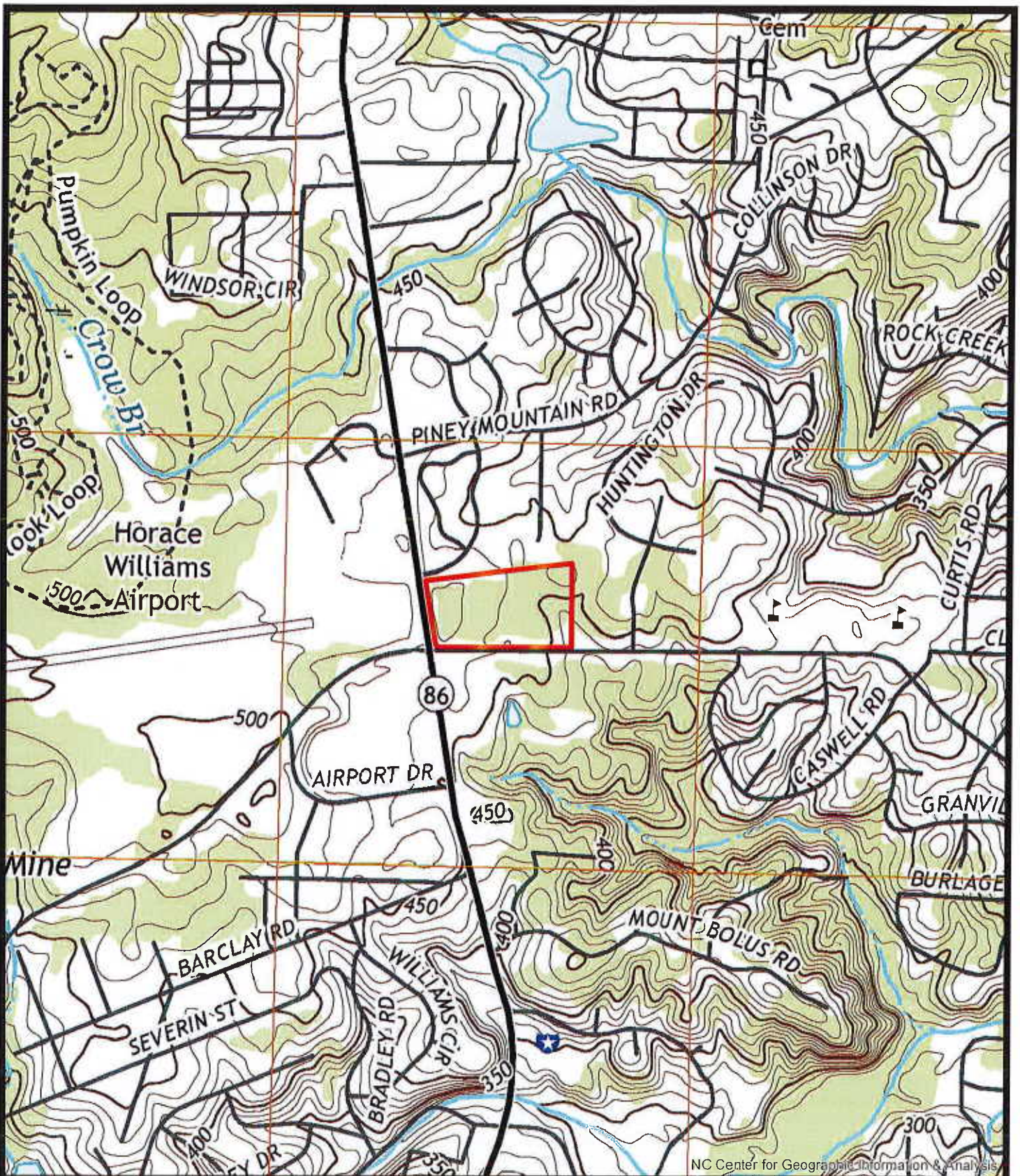
Generally, wetland impact permits are issued on a per-project basis as determined by the USACE. The USACE has determined that impacts on parcels sub-divided from larger tracts are sometimes considered to be cumulative to existing impacts for the large tract. If this is the case, then thresholds for notification may not apply to your project and impacts to streams/wetlands must be considered in light of existing permits.

### **Limitations**

Our evaluations, conclusions, and recommendations are based on project and site information available to us at the time of this report and may require modification if there are any changes in the project or site conditions, or if additional data about the project or site becomes available in the future. This report is intended for use by Trinsic Acquisitions Company, LLC on this project. These findings are not intended or recommended to be suitable for reuse on extensions of the project or on any other project. Reuse on extensions of this project or on any other project shall be done only after written verification or adaptation by SOIL & ENVIRONMENTAL CONSULTANTS, PA, for the specific purpose intended.

### **CONCLUSION**

The wetland and stream delineation for the 850 N. Estes Drive Property was completed by S&EC on March 9, 2020. This site contains potentially jurisdictional streams and wetland areas that may require preconstruction authorization for impacts, depending on the size and nature of the impact (i.e. road construction, lot fill, stormwater pond construction, etc.). USACE and DWR/WQP verification of our site assessment should be obtained. Following verification meetings with regulatory agencies, the next step in the stream and wetland identification and permitting process is to obtain a field survey of our delineation for formal approval by the USACE. Upon completing the survey, these site constraints may then be integrated into planning for property development.



Project Number: **13785.W4**

Project Manager: **SB**

Scale: **1" = 1000'**

Date: **03/13/2020**

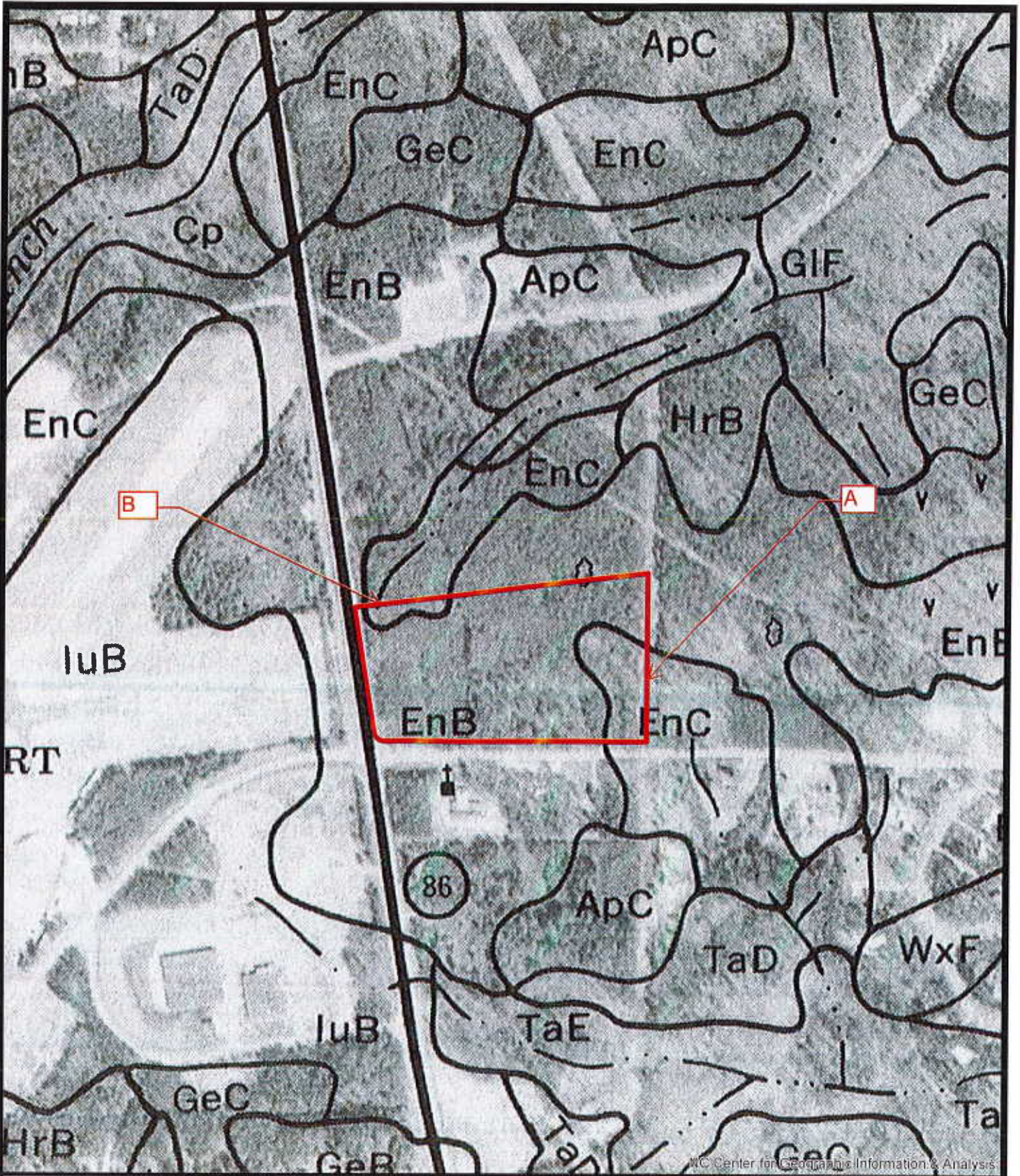
Map Title: **Figure 1 - USGS Map**  
**850 North Estes Drive,**  
**Chapel Hill, NC 27514**

Source: **2016 NC**  
**Chapel Hill Quad**

0 1,000 2,000  
 Feet

**S&EC**  
**Soil & Environmental Consultants, PA**  
 8412 Falls of Stone Road, Suite 104, Raleigh, NC 27615 • Phone: (919) 846-9901 • Fax: (919) 846-4467  
 sandec.com

NC Center for Geographic Information & Analysis



NC Center for Geographic Information & Analysis

Project Number: **13785.W4**

Project Manager: **SB**

Scale: **1" = 500'**

Date: **03/13/2020**

Map Title: **Figure 2 - Soil Survey**

**850 North Estes Drive,  
Chapel Hill, NC 27514**

Source: **Orange County Soil  
Survey Sheet 26**

0 500 1,000  
Feet

**S&EC** **Soil & Environmental Consultants, PA**  
8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
sandy.com

# Legend

-  Evaluation Area
-  Jurisdictional Intermittent Stream
-  Potentially Jurisdictional Wetland
-  Potentially Jurisdictional Marginal Wetland
-  50' Orange County Buffer
-  2' Contour

## Detailed Delineation of Waters of the US

Suitable for Preliminary Planning Only

S&EC reserves the right to modify this map based on more fieldwork, and any other additional information. Approximations were mapped using topographic maps, air photos and ground truthing. If the site is going to be disturbed, S&EC's detailed delineation should be approved and permitted by the U.S. Army Corps of Engineers as required. If the user of this work desires an accurate map of the regulated features flagged by S&EC, they should retain a NC Registered Professional Land Surveyor to locate S&EC's flagging.

**Orange County buffer confirmed by Allison Weakley on 11/19/18**

**Impacted wetlands should be reviewed for the potential to be reduced.**



Project Number: **13785.W4**

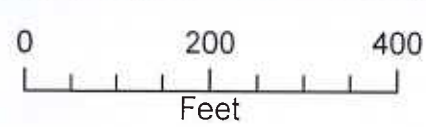
Project Manager: **SB**

Scale: **1" = 200'**

Date: **03/13/2020**

Map Title:  
**Wetland Sketch Map**  
 850 North Estes Drive,  
 Chapel Hill, NC 27514

Source: **Aerials from NC One Map**



**Soil & Environmental Consultants, PA**  
 8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615 • Phone: (919) 846-5900 • Fax: (919) 846-0407  
 sandec.com



# Soil & Environmental Consultants, PA

8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
sandec.com

## PROPERTY OWNER CERTIFICATION / AGENT AUTHORIZATION

Project Name/Description: \_\_\_\_\_ S&EC Project # \_\_\_\_\_

Date: \_\_\_\_\_

The Department of the Army  
U.S. Army Corps of Engineers, Wilmington District  
69 Darlington Avenue  
Wilmington, NC 28403

Attn: \_\_\_\_\_ Field Office: \_\_\_\_\_

I, the undersigned, a duly authorized owner of record of the property/properties identified herein, do authorize representatives of the Wilmington District, U.S. Army Corps of Engineers (Corps) and Soil & Environmental Consultants, PA (S&EC) staff (as my agent) to enter upon the property herein described for the purpose of conducting on-site investigations and issuing a determination associated with Waters of the U.S. subject to Federal jurisdiction under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899. This document also authorizes S&EC (as my agent) to act on my behalf and take all actions necessary for the processing, issuance and acceptance of a permit or certification and any and all associated standard and special conditions. This notification supersedes any previous correspondence concerning the agent for this project.

NOTICE: This authorization, for liability and professional courtesy reasons, is valid only for government officials to enter the property when accompanied by S&EC staff. You should call S&EC to arrange a site meeting prior to visiting the site.

### PARCEL INFORMATION:

Parcel Index Number(s) (PIN): \_\_\_\_\_

Site Address: \_\_\_\_\_

City, County, State: \_\_\_\_\_

### PROPERTY OWNER INFORMATION:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone No.: ( ) \_\_\_\_\_ Fax No.: ( ) \_\_\_\_\_ Mobile No.: ( ) \_\_\_\_\_

Email: \_\_\_\_\_

Property Owner (please print) \_\_\_\_\_

Date \_\_\_\_\_

\_\_\_\_\_  
Property Owner Signature

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





**PUBLIC WORKS DEPARTMENT  
STORMWATER MANAGEMENT DIVISION**

405 Martin Luther King, Jr. Blvd.  
Chapel Hill, NC 27514-5705  
Telephone (919) 969-7246  
Fax (919) 969-7276  
[www.townofchapelhill.org](http://www.townofchapelhill.org)

November 21, 2018

Mr. Dan Jewell  
Coulter Jewell Thames, PA  
111 W. Main Street  
Durham, NC 27701  
[djewell@citpa.com](mailto:djewell@citpa.com)

**RE: Stream Determination for 850 N. Estes Drive, Chapel Hill, NC 27514  
PIN 9789-35-9617**

Dear Mr. Jewell:

As requested, the Town Public Works Department has performed a stream determination for the property identified on the attached forms. This determination indicates whether different types of streams (perennial, intermittent, and/or ephemeral) or perennial waterbodies are present on the property in question or on nearby properties. These streams and their classifications are shown on the accompanying map. Stream segments regulated by the Town's Jordan Lake Watershed Riparian Buffer regulations are highlighted. **Locations of all features on the map are approximate and must be field surveyed for precise location.**

This stream determination information is used to determine the location and extent of the Resource Conservation District (RCD) and Jordan Lake Watershed Riparian Buffers. Specific land use regulations and restrictions apply within the boundaries of these protected areas. If you are considering any kind of work on this property, including clearing vegetation, paving, grading, or building, please consult with the Town Planning Department to determine the possible extent of the Resource Conservation District (RCD) and Jordan Lake Watershed Riparian Buffer on this property and the applicable corresponding regulations.

This stream determination will remain in effect for five years from the date of the site visit, after which a new stream determination with site visit will be required.

In accordance with the Town's procedures, you may appeal this administrative decision to the Town Manager. If you wish to do so, you must file your written appeal accompanied by any materials you believe support your appeal, within **30 days** of receipt of this letter.

If you have questions regarding stream determinations, please contact me at (919) 969-7202 or [aweakley@townofchapelhill.org](mailto:aweakley@townofchapelhill.org). If you have questions regarding the Town's Resource Conservation District (RCD) or the Jordan Watershed Riparian Buffer regulations, please contact the Planning Department at (919) 968-2728, or view information online at: <http://www.townofchapelhill.org/town-hall/departments-services/public-works/stormwater-management/regulations-ordinances>.

Regards,

A handwritten signature in cursive script that reads "Allison Schwarz Weakley".

Allison Schwarz Weakley  
Stormwater Analyst



PUBLIC WORKS DEPARTMENT  
STORMWATER MANAGEMENT DIVISION  
405 Martin Luther King, Jr. Blvd.  
Chapel Hill, NC 27514-5705  
Telephone (919) 969-7246  
Fax (919) 969-7276  
www.townofchapelhill.org

## STREAM DETERMINATION SITE VISIT RESULTS

Property Information	
Parcel ID Number (PIN)	Address / Location Description
9789-35-9617	850 N. Estes Drive

These are the results of a site visit to the properties listed above for a stream determination conducted on 11/19/2018 by Town Staff:

- No perennial, intermittent, or ephemeral streams or perennial waterbodies were identified on or near the property(ies) in question.
- Perennial, intermittent, or ephemeral streams, or perennial waterbodies, were identified on or near the property(ies) in question and shown on the attached map(s).

**A map showing water features, their Town flow classifications, presence of Jordan Watershed Riparian Buffers, and their approximate locations is attached. Origins or breakpoints that have been flagged in the field are marked on the map. Stream classification forms and additional site visit notes and maps are also attached.**

Other conditions exist which may affect the location of the Resource Conservation District or Jordan Watershed Riparian Buffer:










- FEMA floodzone is mapped in the area. Precise location of the Base Flood Elevation and associated Resource Conservation District must be determined by a field survey commissioned by the owner or a representative.
- Segments of perennial or intermittent stream are piped in the area, as shown on the map. These segments do not have an associated Jordan Watershed Riparian Buffer.
- Possible Jurisdictional Wetlands have been identified in the area. A formal review by a professional certified in Jurisdictional Wetland Delineation is recommended if impacts to wetlands are anticipated.








*Allison Weasley*

Town Staff Signature

11/21/2018  
Date

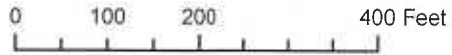
# Stream Determination Area Map

-  Intermittent Stream
-  Culverts
-  2-foot Contours
-  10-foot Contours
-  Buildings
-  Parcels
-  Addresses
-  Approximate Jordan Buffer
-  Subject Property

-  Possible Jurisdictional Wetlands
-  Non-perennial Waterbody
-  Wide Perennial Stream
-  Perennial Waterbody
-  Ephemeral Breakpoint
-  Intermittent Breakpoint
-  Perennial Breakpoint

Address: 850 N. Estes Drive, Chapel Hill, NC

Parcel ID: 9789-35-9617



1 inch = 200 feet

**Stream locations are approximate and must be verified by survey.  
 Buffers are measured from top of bank. RCD buffers may apply.  
 Please contact the Town of Chapel Hill Planning Department to verify.**

