



## Soil & Environmental Consultants, PA

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

December 14, 2017  
S&EC Project No.: 13392.W1

To: New Poole Holdings, LLC  
Attn: Troy Menges & Howard Sowell  
1024 A Washington Street  
Raleigh, NC 27605

Re: Wetland Delineation and Stream Evaluation  
810 S New Hope Road Property  
Wake County, NC

Mr. Menges & Mr. Sowell:

On December 13, 2017, S&EC personnel completed the wetland delineation and stream evaluation on the 810 S New Hope Road Property in Wake County, 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 Wake County, as well as a representative from the NCDWR. S&EC will schedule these site visits 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**

Steven Ball, RF, PWS

Project Manager

Dan McCauley

Environmental Scientist

Attachments:

- 1) Wetland Delineation Report
- 2) USGS site vicinity map
- 3) NRCS Soil Survey
- 4) Wetland & Stream Sketch Map
- 5) Requirements for Delineation Maps
- 6) Agent Authorization Form



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### **DETAILED WETLAND DELINEATION & STREAM EVALUATION FOR THE 810 S NEW HOPE ROAD PROPERTY**

On **DECEMBER 13, 2017**, S&EC personnel completed a detailed wetland delineation and stream evaluation on the Rex Road Site ( $\pm 1.78$  acres). The site is located at 810 S New Hope Road in Wake County, 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 a stream generally account for the jurisdictional waters observed on the site. The attached wetland sketch map depicts the approximate locations of the stream 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). Areas on the site with positive indicators of hydric soils, evidence of wetland hydrology, and presence of hydrophytic vegetation were flagged with sequentially numbered, pink 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., a stream and wetlands) exist on the site. Please refer to the attached “Wetland Sketch Map” for specific flag numbers and approximate locations.

A jurisdictional stream and wetlands were observed during the site evaluation; the approximate locations of each are illustrated on the attached wetland sketch map. Features identified on-site are described below:

- Feature A (UT to Crabtree Creek) is believed to begin off property to the southeast and flow north off property. This stream is believed to be considered intermittent.
- Wetland 1 is believed to be considered jurisdictional. The USACE will need to confirm these findings.

Surface waters on this site flow into Crabtree Creek in the Neuse River Basin, which has been classified in “Classification and NC DWQ Standards Applicable to Surface Waters and Wetlands of North Carolina” as C;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.

#### ***Neuse River Buffers:***

The surface waters potentially subject to the Neuse River Riparian Buffers include **Feature A**. No other surface waters are indicated on either the USGS topographic or Wake County Soil Survey maps. A site meeting with a representative from the NCDWR is required to confirm our buffer determinations.

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 surveyed 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. The Wetland Delineation Map should include all of the information listed on the attached “**Obtaining a Jurisdictional Determination – Submitting a Plat for Corps Verification.**” S&EC delineation flag numbers should be shown on the wetland survey. 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

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

in this list may also apply. S&EC personnel are available to discuss these regulations as they apply to your project.

***Neuse River Buffer Rules:***

The Neuse River Basin: Nutrient Sensitive Waters Management Strategy: Protection and Maintenance of Riparian Areas with Existing Forest Vegetation (15A NCAC 2B.0233) rules apply 50-foot wide riparian buffers directly adjacent to surface waters in the Neuse River Basin (intermittent streams, perennial streams, lakes, ponds, and estuaries), excluding wetlands. The rule defines surface waters as features approximately shown on either the most recent version of the soil survey map prepared by the Natural Resource Conservation Service (NRCS) of the US Department of Agriculture (USDA) or the 7.5-minute quadrangle topographic maps prepared by the US Geologic Survey (USGS). Surface waters that appear on these maps are not subject only if an on-site determination by the NC Division of Water Resources / Water Quality Programs (DWR/WQP) shows that they fall into one of the following categories:

- 1) Ditches and manmade conveyances other than modified natural streams;
- 2) Manmade ponds and lakes that are located outside natural drainage ways; or
- 3) Ephemeral (stormwater) streams.

***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 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.

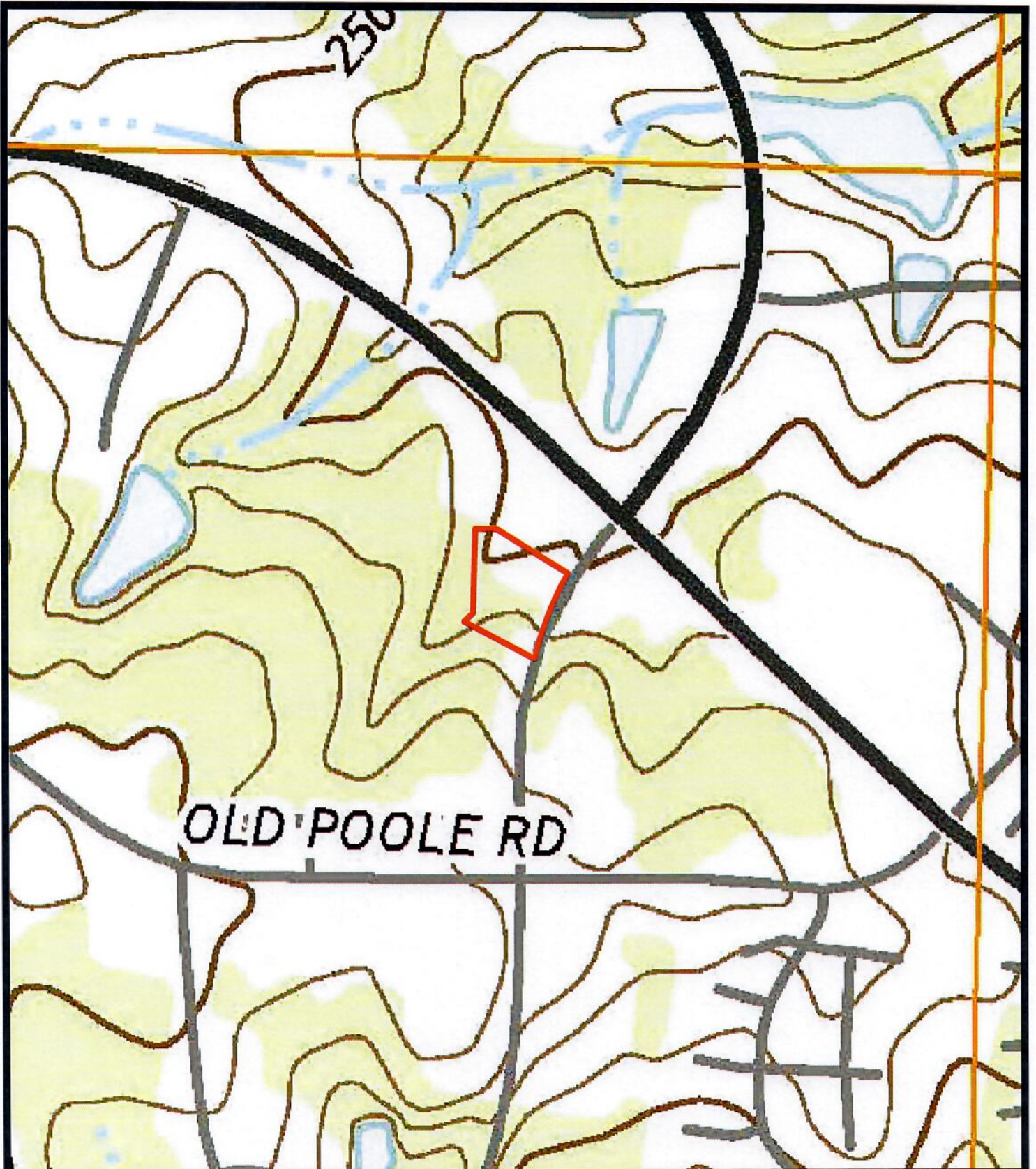
**Limitations**

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 New Poole Holdings, 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 810 S New Hope Road Property was completed by S&EC on December 13, 2017. This site contains a jurisdictional stream 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: **13392.W1**

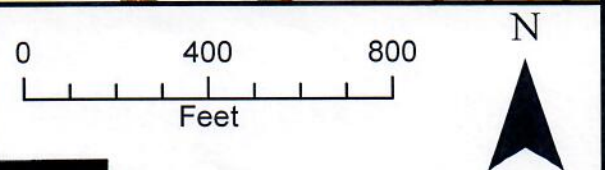
Project Manager: **SB**

Scale: **1" = 400'**

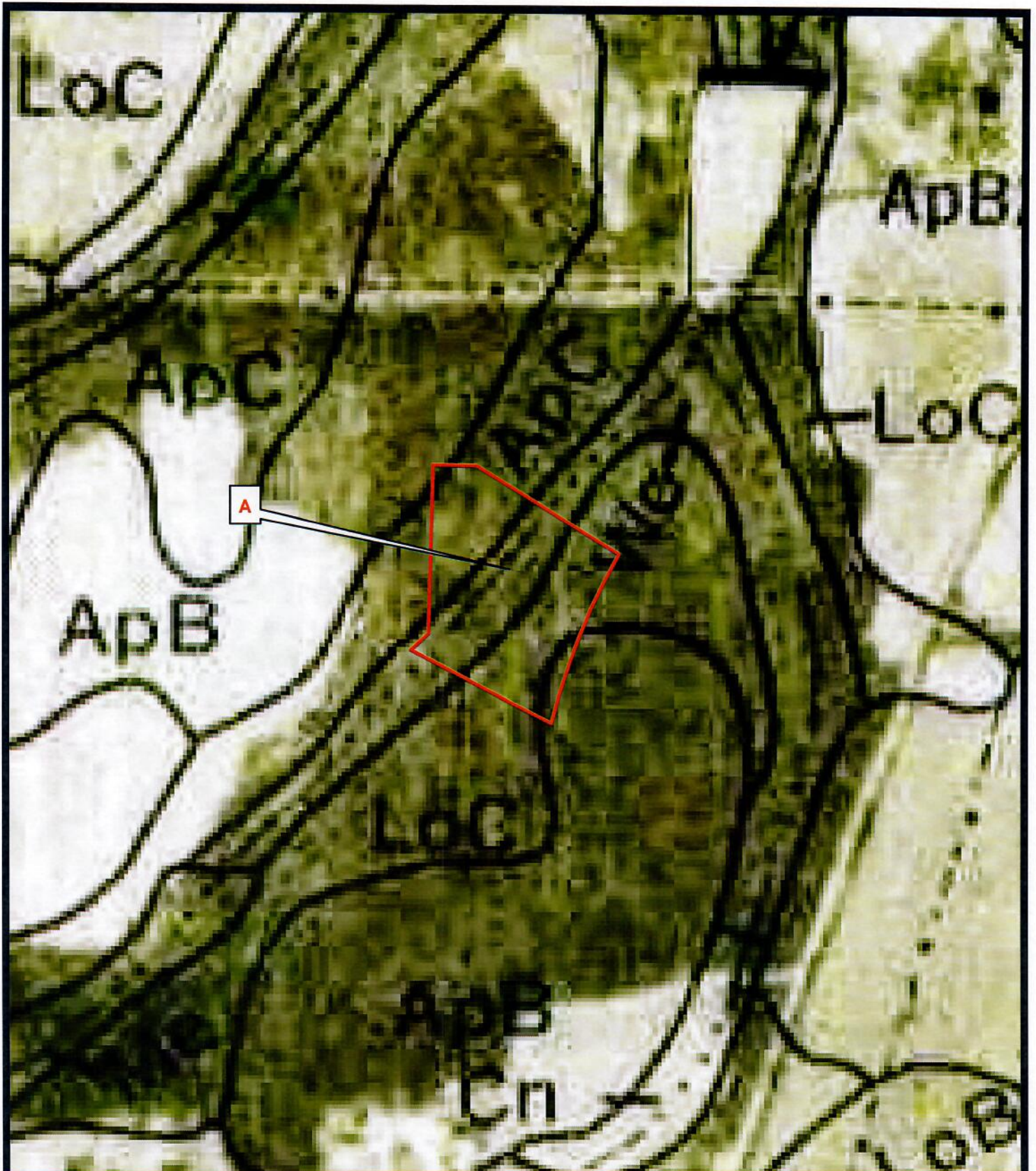
Date: **12/14/17**

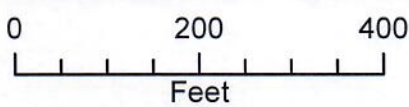


Map Title:  
**Figure 1 - USGS Map**  
 810 S New Hope Rd  
 Wake County, NC

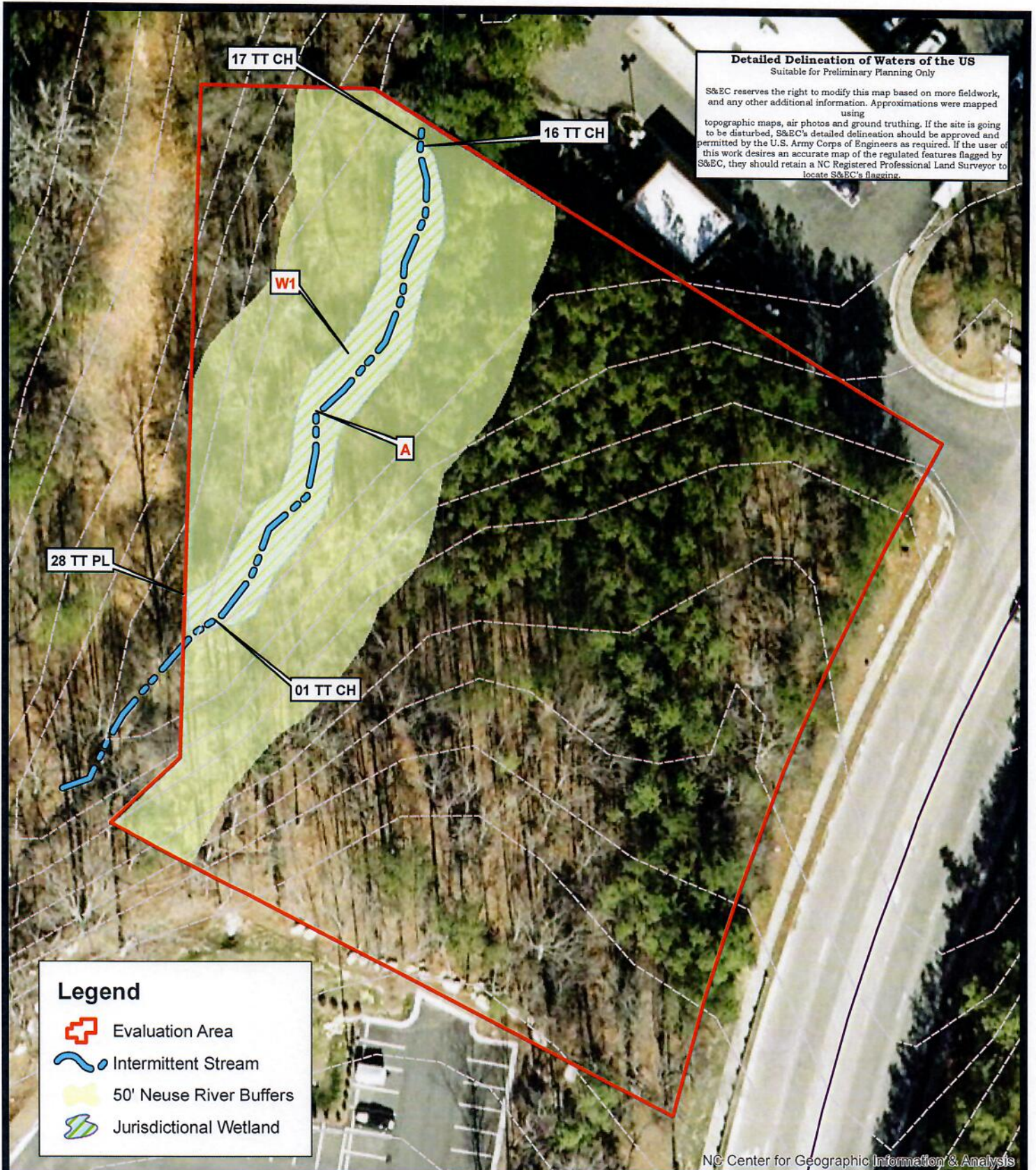
Source: **NC USGS**  
 Raleigh East Quadrangle



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Project Number: <b>13392.W1</b>	Map Title: <b>Figure 2 - Soil Survey Map</b>	 0      200      400 Feet	 N
Project Manager: <b>SB</b>	810 S New Hope Rd Wake County, NC		
Scale: <b>1" = 200'</b>	Source: Wake County Soil Survey Sheet 60	 <b>Soil &amp; Environmental Consultants, PA</b> <small>8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615 • Phone: (919) 846-5900 • Fax: (919) 846-9467 sande.com</small>	
Date: <b>12/14/17</b>			



Project Number: **13392.W1**

Project Manager: **SB**

Scale: **1" = 50'**

Date: **12/13/17**

Map Title: **Figure 3 - Sketch Map**

810 S New Hope Rd  
 Wake County, NC

Source: **Wake County GIS  
 NC One Maps**

0 50 100  
 Feet

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## Survey Standards for Jurisdictional Determinations

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Please note that the approval and signature of survey plats will only be done in association with an Approved Jurisdictional Determination. The Corps accepts both electronic and hardcopy plats for signature, however this will be at the discretion of the project manager. If a hard copy is submitted, the Corps requires that all hard-copy submittals include at least one original Plat (to scale) that is no larger than 11"x17". Submitted plats must be legible, including labeling (the use of match lines for larger tracts are encouraged). Additional copies of a plat, including those larger than 11"x17", may also be submitted for Corps signature as needed. Prior to final production of a plat, the Wilmington District recommends that the surveyor electronically submit a draft of the survey to the Corps project manager for review.

### PLATS SUBMITTED FOR APPROVAL

- Must be signed and sealed by a licensed professional land surveyor
- Must be to scale (all maps must include an accurate graphic scale and verbal scale)
- Must include a North Arrow, Scale(s), Title, Property Information
- Must clearly depict surveyed property or project boundaries
- Must clearly identify the known surveyed point(s) used as reference (e.g. property corner, USGS monument)
- Jurisdictional wetlands depicted on the survey should:
  - Be labeled as Wetland Waters of the US, 404 wetlands, wetlands, etc.
  - Include acreage (or square footage) of wetland polygons
  - Identify each wetland polygon using an alphanumeric system
- Jurisdictional non-wetland waters (non-wetland tidal/navigable waters, tributaries, impoundments, ditches, etc.) depicted on the survey should:
  - Be labeled as Non-Wetland Waters of the US, stream, tributary, open water, relatively permanent waters (RPW), pond, etc.
  - Mark the centerline of linear waters (tributaries), with approximate widths to the Ordinary High Water Mark (OHMW) OR a surveyed OHWM boundary of the tributary.
    - List the linear footage of linear features and area (using approximate widths)
  - Mark the extent of OHMW for non-linear waters such as lakes, ponds, etc.
    - List the acreage of non-linear features
  - Identify each feature using an alphanumeric system

- Isolated waters, waters that lack a significant nexus to navigable waters, or non-jurisdictional upland features should be identified as non-jurisdictional. Please include the acreage and/or linear length of these features as appropriate.
- Must include a legible Waters of the United States (wetlands and other waters) Delineation Table of distances and bearings/metes and bounds/GPS coordinates of all surveyed delineation points
- Must ensure that all depicted wetlands or other waters intersect or tie-to surveyed project/property boundaries

**CERTIFICATION LANGUAGE**

- Plats submitted for Corps approval should include the following Certification language when the entire actual Jurisdictional Boundary is depicted:

*"This certifies that this copy of this plat accurately depicts the boundary of the jurisdiction of the Section 404 of the Clean Water Act as determined by the undersigned on this date. Unless there is change in the law or our published regulations, this determination of Section 404 jurisdiction may be relied upon for a period not to exceed five years from this date. The undersigned completed this determination utilizing the appropriate Regional Supplement to the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual, 33 C.F.R. part 328 and other U.S. Army Corps of Engineers guidance."*

Regulatory Official: \_\_\_\_\_

Title: \_\_\_\_\_

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

USACE Action ID No.: \_\_\_\_\_

- Plats submitted for Corps approval should include the following Certification language when uplands may be present within a depicted Jurisdictional Boundary:

*"This certifies that this copy of this plat identifies all areas of waters of the United States regulated pursuant to Section 404 of the Clean Water Act as determined by the undersigned on this date. Unless there is change in the law or our published regulations, this determination of Section 404 jurisdiction may be relied upon for a period not to exceed five years from this date. The undersigned completed this determination utilizing the appropriate Regional Supplement to the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual, 33 C.F.R. part 328 and other U.S. Army Corps of Engineers guidance."*

Regulatory Official: \_\_\_\_\_

Title: \_\_\_\_\_

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

USACE Action ID No.: \_\_\_\_\_

## GPS SURVEYS

For surveys prepared using a Global Positioning System (GPS), the survey must include all of the above, as well as:

- be at sub-meter accuracy at each survey point.
- include an accuracy verification. One of more of the known points (property corner, monument) shall be located with the GPS and cross referenced with the existing traditional property survey (metes and bounds).
- include a brief description of the GPS equipment utilized.



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## 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:

Watershed:

### PROPERTY OWNER INFORMATION:

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

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

Phone 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.***