



Soil & Environmental Consultants, PA

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www.SandEC.com

April 30, 2008

S&EC Project No.: 10862.W1

Lee-Moore Capital Company
Attn: Mark Maddox
PO Drawer 9
Sanford, NC 27331-0009

Re: Chatham County Buffer Evaluation
Chatham County Line Site
Chatham/Orange Counties, NC

Mr. Maddox:

On April 16, 2008, S&EC personnel completed the Chatham County Buffer evaluation on the Chatham County Line Site in Chatham/Orange Counties. You will find the attached report detailing our findings. Supporting maps that further document the buffer related site characteristics are also attached. Please review this information and call our office if you have questions.

The next step in the buffer verification process is to visit the site with a Chatham County representative. S&EC will contact you about scheduling a site meeting with the Chatham County representative.

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.

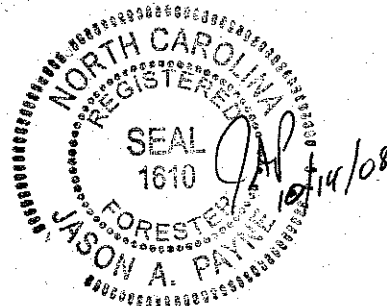
Sincerely,

Jason Payne
NC Registered Forester #1610

Steven Ball
Wetland Scientist

Attachments:

- 1) Chatham County Buffer Report
- 2) USGS site vicinity map
- 3) NRCS Soil Survey
- 4) Buffer Survey



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CHATHAM COUNTY BUFFER EVALUATION FOR THE COUNTY LINE SITE

On April 16, 2008, S&EC personnel completed a Chatham County Buffer evaluation on the County Line site (\pm 62 acres). The project is located east of and adjacent to Hwy 15/501 at the Chatham/Orange County line, between Chapel Hill and Pittsboro, NC (see attached map). 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 thirteen areas will likely require county buffer protection on the site. The attached survey map depicts the location of each buffer area identified during our evaluation. The delineated areas were surveyed, and the appropriate buffer widths have been established to incorporate into planning for the project.

SCOPE OF WORK

The Chatham County Buffer Evaluation was conducted according to guidelines referenced in the Chatham Watershed Protection Ordinance Section 304(E)3. Specifically, the ordinance directs evaluators to the "Field Procedures for Classification of Streams and Waterbodies, Chatham County, NC" (December 12, 2007), which "prescribes methodologies for establishing the location and extent of streams and water bodies in the field." Areas on the site that met the criteria for buffer protection were delineated in the field with numbered, pink S&EC logo flagging. It is important to note that some features described in this report may meet the criteria for jurisdictional wetlands or other Waters of the US regulated by the US Army Corps of Engineers (USACE) and/or the NC Division of Water Quality (NC-DWQ) under authority of the Clean Water Act (33 USC 1344).

QUALIFICATIONS OF PRINCIPAL INVESTIGATORS

Investigator: Jason Payne, Scientist

Education: BS Forest Management, Environmental Science Minor, NC State University
Experience: Soil & Environmental Consultants, PA; July 2003 to present
Certifications: NC Registered Forester #1610, North Carolina Soil Scientist in Training (NCSSIT), Intermittent & Perennial Stream Identification for Riparian Buffer Rules, Aquatic Insect Collection Protocols for Stream Mitigation and Restoration.
Expertise: Wetland delineations, stream delineations and stream classifications, soil evaluations, forest management, natural resource management.

Investigator: Steven Ball, Scientist

Education: BS Forest Management, NC State University
Experience: Soil & Environmental Consultants, PA; July 2005 to present
Certifications: Intermittent & Perennial Stream Identification for Riparian Buffer Rules, Aquatic Micro Invertebrate Collection and Identification.
Expertise: Wetland delineations, stream delineations and stream classifications, soil evaluations, forest management, natural resource management.

RESULTS & RECOMMENDATIONS

The results of the Chatham County Buffer Evaluation are discussed below.

Chatham County Buffers:

We have determined that the following on-site areas meet the criteria for buffer protection as defined by the Chatham County Watershed Protection Ordinance. Please refer to the attached Survey Map for specific flag numbers and locations.

Thirteen total buffered features were observed during the site evaluation; the locations of these areas are illustrated on the attached survey map.

Ephemeral Streams identified on-site that would likely require a 30-foot buffer are described below:

- Feature A (Unnamed Tributary -UT to Wilson Creek) begins at flag E-01 and continues downstream to a confluence with feature B.
- Feature B (UT to Wilson Creek) begins at flag E-02 and flows east until it converges with a wetland and feature A (transitions to a perennial channel)
- Feature C (UT to Wilson Creek) begins at the base of the a retention basin and converges with feature B (after perennial transition)
- Feature D (UT to Wilson Creek) begins at C06 and flows to feature B (after perennial transition)

Perennial Streams that would likely require a 100-foot buffer were identified on-site and are described below:

- Feature B (perennial) begins below the wetland and ephemeral section.
- Feature E (UT to Wilson Creek) flows onto property from the north and is perennial to its confluence with feature B

- Feature I (UT to Wilson Creek) flows onto property from the north and is perennial to its confluence with feature B as well.

Wetland areas identified on-site that would likely require a 50-foot buffer are described below. The wetland areas have been reviewed and approved by the USACE, which has verified that these are the only jurisdictional wetlands on-site:

- The wetland area F is best characterized as a Forest wetland community as outlined in the publication¹ "A Field Guide to North Carolina Wetlands."
- The wetland area G is best characterized as a Forest wetland community¹.
- The wetland area K is best characterized as a Forest wetland community¹.

Seep and/or Springs identified on-site that would likely require a 30-foot buffer are described below (excluding wetlands):

- The seep/spring area J is best characterized as a Low Elevation Seep as outlined in the publication² "Classification of Natural Communities of NC"
- The seep/spring area around feature D is best characterized as a Low Elevation Seep.
- The seep/spring area H is best characterized as a Low Elevation Seep as outlined in the publication "Classification of Natural Communities of NC"

Surface waters on this site flow into Wilson Creek in the Cape Fear River Basin (Chatham County Municipal Buffers), which has been classified in NC-DWQ's "Classification and Water Quality Standards Applicable to Surface Waters and Wetlands of North Carolina" as WS-IV; NSW.

Streams on this site will likely be subject to buffer regulations administered by state and local authorities. A brief description of county buffers can be found in the regulations section of this report. The project engineer or planner should provide input toward the application of these regulations to the site plan during design and review. The NC-DWQ is also currently reviewing draft regulations that could potentially apply state regulated buffers alongside streams and other surface waters within the Jordan Lake Watershed. Details of the rules are subject to change during the review process.

Regulations

A short list of regulations that apply to buffer areas observed 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.

Chatham County Watershed Protection Ordinance:

The Chatham County Watershed Protection Ordinance was revised December 10, 2007 to require more stringent buffer requirements around surface water features in the County's

¹"A Field Guide To North Carolina Wetlands"; Department of Environment, Health and Natural Resources, January 1996.

²Schafale, Michael P. and Alan S. Weakley. "Classification of the Natural Communities of North Carolina"; North Carolina Natural Heritage Program, Division of Parks and Recreation, Department of Environment and Natural Resources, 1990

jurisdiction. The ordinance requires all stream classifications to be conducted by a qualified professional who has received documented certification of training in classifying streams and surface waters in North Carolina. Additionally, all seep, spring and wetland delineations must be conducted by a qualified professional who has at least 2 years of demonstrated experience in conducting wetland delineations in North Carolina under the Clean Water Act Sections 401 and 404 provisions. All field determinations of streams, seeps and springs are subject to review and approval by the County.

The ordinance requires a one hundred (100') foot buffer along each side of perennial streams, or the full horizontal extent of the "Area of Special Flood Hazard 5" as most recently mapped by the North Carolina Floodplain Mapping Program, NC Division of Emergency Management, whichever is greater. Intermittent Streams require a fifty (50') foot riparian buffer along each side. Ephemeral Streams require a thirty (30') foot buffer along each side. Wetlands require a riparian buffer of fifty (50') feet from the delineated boundary, surrounding all features classified as wetlands and linear wetlands. Seeps and Springs (not considered jurisdictional wetlands by the USACE) require a thirty (30') foot buffer measured from the delineated boundary.

Before any land disturbance activities may begin, and in addition to any erosion control notification, the riparian buffer boundaries must be clearly flagged in the field and approved by county staff. Tree protection fencing or other approved protective measures must be installed along the approved flagging lines.

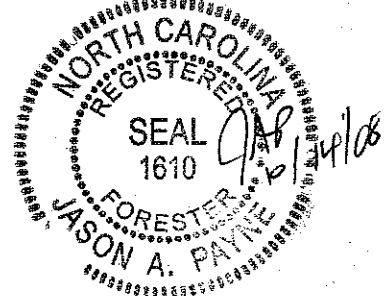
Wetland Permitting:

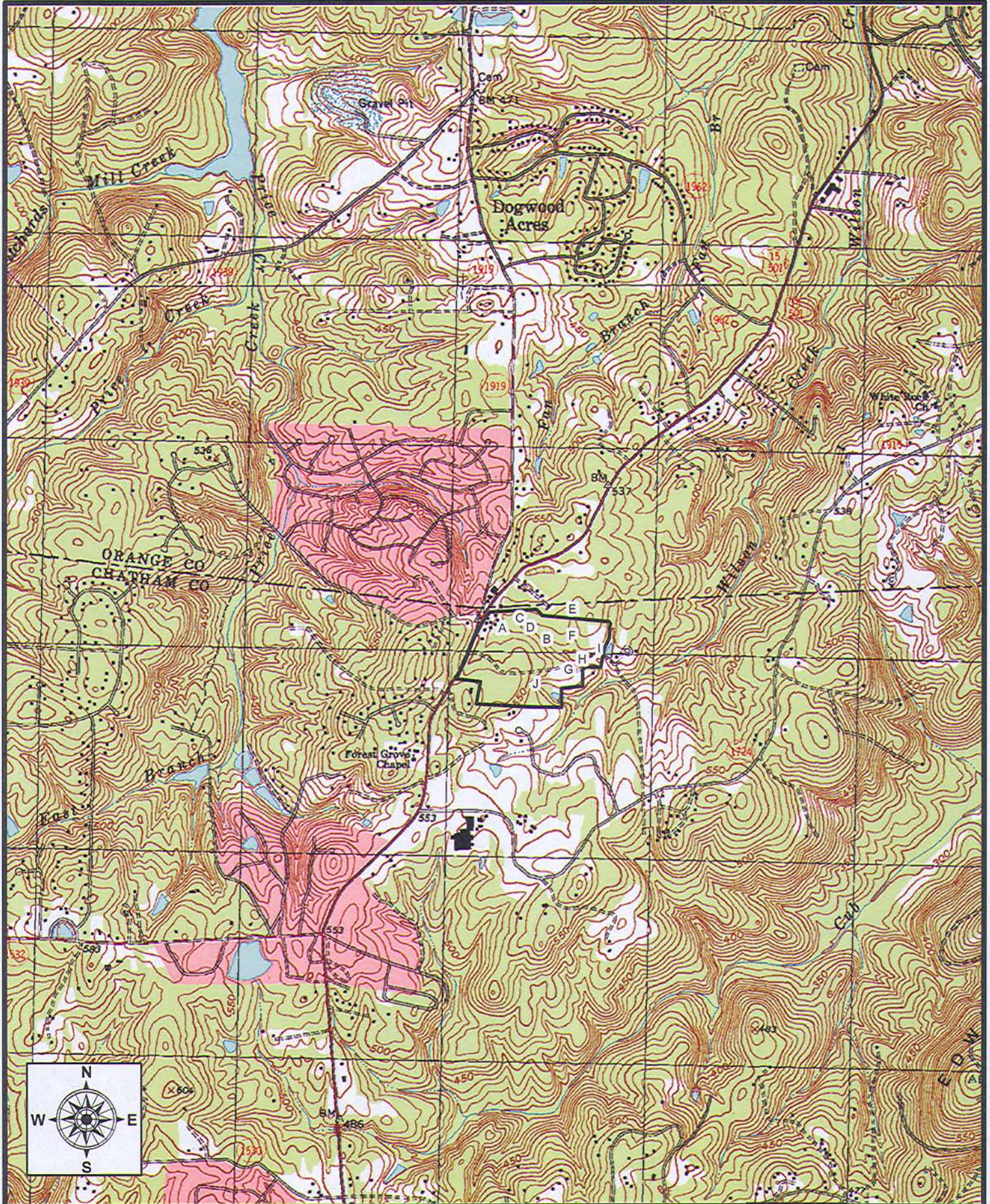
New Nationwide Permits were issued by the USACE on March 19, 2007 and the USACE Wilmington District issued revised Regional Conditions for the 2007 Nationwide Permits on June 5, 2007. You may forward a conceptual site plan to our office for review by one of our permitting specialist, who can best advise 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.

CONCLUSION

The Chatham County Buffer Evaluation for the County Line Site was completed by S&EC on April 16, 2008. This site contains buffered areas that require protection under the Chatham County Watershed Protection Ordinance. Some activities such as utility crossings are allowed in the riparian buffer as prescribed under Section 304(F)5. Please have the project engineer or planner review the buffer survey and incorporate these constraints into the plan for property development.





Project No. 10862.W1	Scale: 1" = 2000'
Project Mgr. JP	Drawn By: MM

Date: 04/15/08

**FIG. 1 - USGS TOPOGRAPHIC MAP
COUNTY LINE SITE
CHATHAM/ORANGE COUNTY, NC**

SOURCE:
FARRINGTON
USGS QUADRANGLE
DATED: 1999



11010 Raven Ridge Rd.
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**FIG. 2 - SOIL SURVEY MAP
COUNTY LINE SITE
CHATHAM/ORANGE COUNTY, NC**

SOURCE:
CHATHAM COUNTY
SOIL SURVEY



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**FIG. 2 - SOIL SURVEY MAP
COUNTY LINE SITE
CHATHAM/ORANGE COUNTY, NC**

SOURCE:
CHATHAM COUNTY
SOIL SURVEY



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**FIG. 2 - SOIL SURVEY MAP
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