



BURDETTE LAND CONSULTING, INC.

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July 20, 2006

Mr. Daniel T. Sullivan
Contentnea Creek Development Company
8502-202 Six Forks Road
Raleigh, North Carolina 27615

**RE: Surface Waters and Wetlands Delineation
Pennington South Property
Pittsboro, Chatham County, North Carolina
BLC Project #: 60053**

Dear Mr. Sullivan:

On July 12, 2006, Burdette Land Consulting, Inc. (BLC) conducted a determination and delineation of jurisdictional and isolated wetlands, and streams on the subject property. This 79-acre property is located on the south side of US Highway 64 approximately 2000 feet west of Big Woods Road (SR 1716), near Lake Jordan in Chatham County, North Carolina. An unnamed tributary to Windfall Branch runs from southwest to northwest through the property and has WS-IV and NSW water quality classifications. Figure 1 depicts the location of the property on the US Geological Survey (USGS) Merry Oaks, NC 7.5-minute quadrangle topographic map.

Waters of the US, commonly referred to as jurisdictional waters, include intermittent and perennial streams, ponds, lakes, rivers, and wetlands that are adjacent to or eventually connect to navigable waters. They are under the jurisdiction of the US Army Corps of Engineers (USACE), which regulates the discharge of fill material, mechanized land clearing, and excavation within their boundaries. If these features are not connected downstream then they are considered isolated and regulated only by the State of North Carolina through the NC Division of Water Quality (NCDWQ). The NCDWQ and a number of local government entities also regulate activities within vegetated riparian buffers established around surface waters to protect water quality. Riparian buffers only apply to wetlands in certain municipalities. Proposed development and road/utility construction require these jurisdictional and isolated waters and their associated riparian buffers to be identified and delineated in order to avoid impacts where practicable and to obtain the proper permits when impacts cannot be avoided.

Scope of Work

The delineation of jurisdictional and isolated waters consisted of a field reconnaissance of the property to identify surface waters and areas that meet the criteria for jurisdictional wetlands described below. Surface waters (intermittent and perennial streams, ponds, lakes, and rivers) are identified by an ordinary high water mark usually indicated by a clear line impressed in the bank, shelving along the water's edge, changes in the character of the soil, destruction of terrestrial vegetation, and/or presence of litter or debris.

Areas that exhibit hydrophytic vegetation, hydric soils, and wetland hydrology are wetlands according to the *1987 Corps of Engineers Wetland Delineation Manual*. Hydrophytic vegetation is present when more than 50 percent of the dominant species are obligate wetland, facultative wetland, or facultative plants listed on the *National List of Plant Species that Occur in Wetlands*. Hydric soils are identified based on Field Indicators of Hydric Soils published by the Natural Resources Conservation Service. Field indicators for hydric soils rely on the presence of gray or black colored surface and subsurface soils. Areas exhibiting wetland hydrology are permanently inundated to irregularly inundated or saturated with water. Since inundation and saturation may not be present during a one time field visit to conduct a wetland delineation, field indicators of wetland hydrology were established to confirm the presence of this parameter. These field indicators include, but are not limited to, direct observation of saturation or inundation, watermarks on woody vegetation, drift lines, sediment deposits, drainage patterns within wetlands, and the presence of oxidized root channels in the soil. Areas that meet all three criteria for wetlands may be either jurisdictional or isolated depending on whether or not they are adjacent or connect to navigable waters.

Surface waters in the Neuse and Tar-Pamlico River Basins require maintenance of 50-foot wide riparian buffers directly adjacent to these features. Only those surface waters shown on the most recent version of the soil survey map provided by the Natural Resource Conservation Service or 7.5-minute quadrangle topographic maps supplied by the USGS are subject to the Neuse/Tar-Pamlico River Basin: Nutrient Sensitive Waters Management Strategy: Protection and Maintenance of Riparian Areas with Existing Forest Vegetation (15A NCAC 2B.0233/260). The NCDWQ may exempt surface waters depicted on these maps from the riparian buffer rules if an on-site determination shows that the features are one of the following:

- 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.

The NCDWQ does not require maintenance riparian buffers directly adjacent to surface waters in the Cape Fear River Basin at this time. However, Chatham County requires 50-foot wide riparian buffers on all streams shown on the applicable USGS topographic map. Additionally, Chatham County may require maintenance of a riparian buffer on stream channels present in the field, which meet the criteria for at least an intermittent stream channel, but are not shown on the

USGS topographic map. BLC has identified surface water features that would be considered at least intermittent stream channels.

Wetland boundaries and some channel centerlines were identified with pink, sequentially numbered flagging. For each surface water or wetland identified, we evaluated the downstream connection to distinguish isolated from jurisdictional waters. Additionally, surface waters encountered on the site were examined using NCDWQ stream evaluation techniques. Figure 2 shows the location of the site on the applicable Chatham County Soil Survey map.

Results

We observed stream channels and two jurisdictional wetlands on the site. The Surface Waters and Wetlands Sketch Map provided as Figure 3 shows the approximate location of these features on the site. The following flag numbers were hung in the field to locate the start points and boundaries of these features: 100-113. It is important to note that sequentially numbered flags were hung around all wetland areas near or outside of 30 feet from buffered stream channels, but the centerline of obvious stream channels were not flagged. These features are approximated on the map to ensure that they are also surveyed along with the wetland boundary flags.

Flag #111 denotes the point at which Stream Channel A begins to exhibit important aquatic function. Linear footage of impacts proposed to this channel below flag #111 would count towards the overall limit of 300 linear feet of stream channel impacts under the Nationwide Permit program.

Stream Channel A is definitely subject to maintenance of a 50-foot wide vegetated buffer by Chatham County because it is shown on the USGS topographic map provided as Figure 1. Based on our field evaluation, BLC also believes that Chatham County may require vegetated buffers on Stream Channels B and D. The limits of stream channels and wetland boundaries and information regarding stream channels that exhibit important aquatic function provided are based on our best professional judgment and require verification from the USACE.

In general, property owners may choose to submit a jurisdictional and isolated waters survey to the USACE for their signature, which establishes the jurisdictional and isolated waters boundaries until the map expires five years from the date it is signed. A USACE signed survey is not required for permitting, but is offered to provide property owners with the assurance that the boundaries of jurisdictional and isolated waters on the property would not change for five years. Attached is a two-page guidance document regarding the preparation of a jurisdictional and isolated waters survey map suitable for the USACE's approval. It also includes four certification statements available for different site circumstances. The certification "For sites where there may be upland within the depicted boundary" is appropriate for this site.

An agent authorization form signed by the current property owner is required for BLC to submit either a survey for approval or a permit application for proposed development. A blank agent authorization form is attached for your use. A buyer may also sign this authorization provided contact information for the current property owner is provided along with the relevant portions of the real estate contract documenting the current property owner's authorization for the buyer to conduct inspections of the property.

Jurisdictional Waters Permitting

There are several layers of regulations that apply independently to these features. However, the USACE and NCDWQ have developed a joint-application with concurrent review for permits to impact jurisdictional and isolated waters including wetlands, which is referred to as a Pre-Construction Notification Application.

Jurisdictional Waters

The USACE has issued activity specific Nationwide Permits to streamline the permitting process for unavoidable impacts to less than 300 linear feet of jurisdictional stream channel that exhibits important aquatic function and/or perennial stream channels and/or 0.5 acre of jurisdictional wetlands and other surface waters. Pre-construction notification and approval from the USACE is required for greater than 150 linear feet of stream channel impact and 0.10 acre of wetland impacts. Nationwide Permits have a maximum 45-day processing period upon the USACE's receipt of a complete application. Compensatory mitigation may be required to offset the loss of jurisdictional stream channels and wetlands when an approval from the USACE is required. Impacts that exceed the thresholds above for Nationwide Permits require an individual permit. Individual permit processing could take as much as 12 months to complete.

Impacts permitted by the USACE also require a Section 401 Water Quality Certification from NCDWQ. The NCDWQ has issued General Water Quality Certifications for impacts to jurisdictional waters approved by USACE and impacts to riparian buffers. Pre-construction notification and approval from the NCDWQ is required for greater than 150 linear feet of stream channel impact and 0.10 acre of wetland impacts for the entire project area and/or any length of stream impact within Neuse, Tar-Pamlico, or Randleman River Basins that require written concurrence from the NCDWQ for compliance with the riparian buffer rules discussed below. Water Quality Certifications have a maximum 60-day processing period upon the NCDWQ's receipt of a complete application. Compensatory mitigation may be required for impacts to 150 linear feet or more of stream channel and/or 1 or more acre of wetlands.

Mr. Daniel Sullivan
July 20, 2006
Project #: 60053

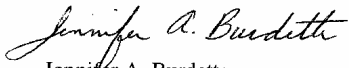
Recommendations

BLC recommends proceeding with a survey of the wetlands and stream channels identified on Figure 3. If proposed, BLC also recommends continued coordination with our office regarding permitting impacts to jurisdictional waters and wetlands present on the site.

We thank you for the opportunity to provide our services in support of the this project and look forward to assisting Contentnea Creek Development Company with obtaining the proper permits for development.

Sincerely,

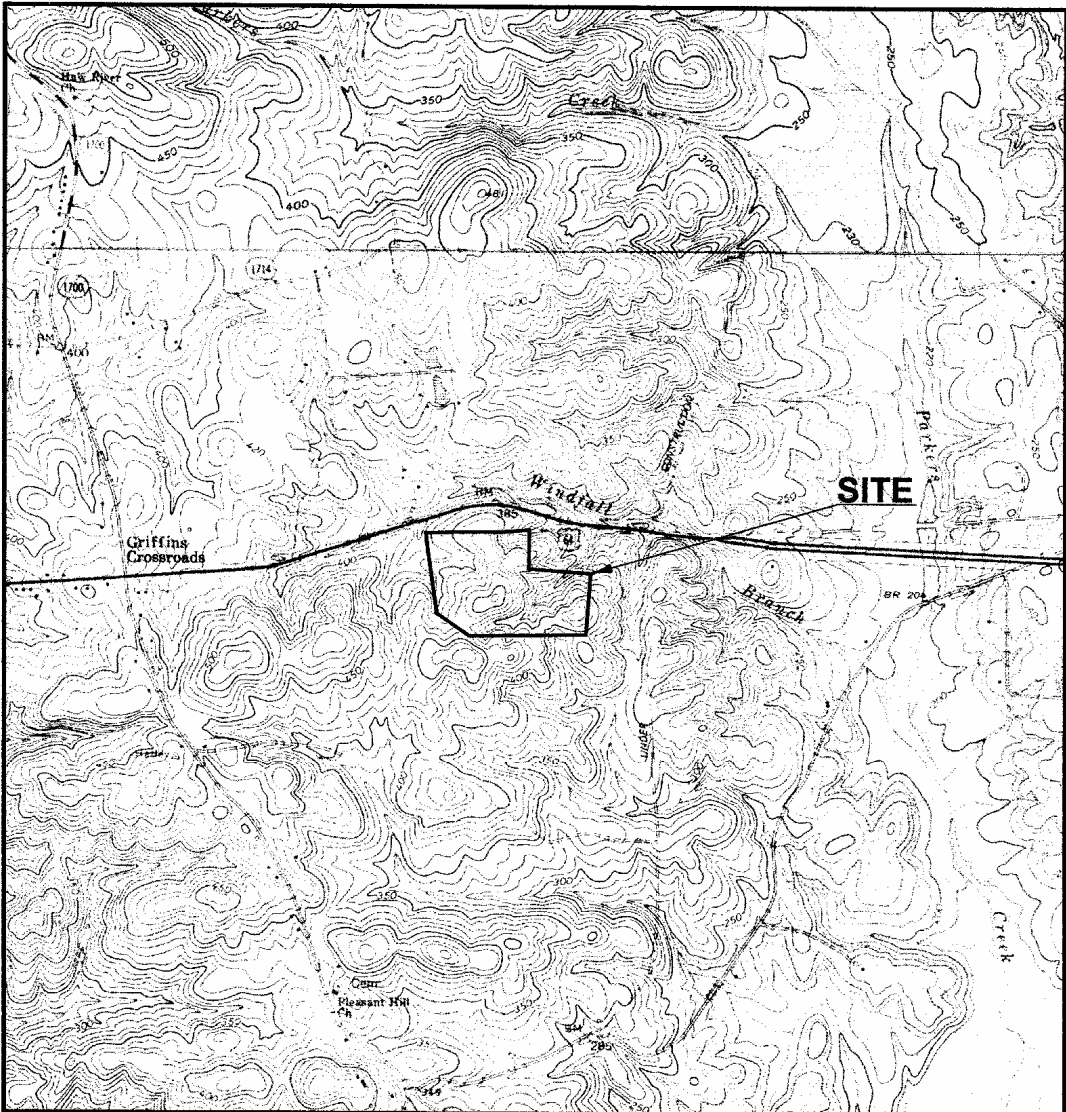
BURDETTE LAND CONSULTING, INC.



Jennifer A. Burdette
Environmental Specialist

Attachments

c: John Harris



<p>GRAPHIC SCALE 1" = 2000'</p>	<p>USGS LOCATION MAP PENNINGTON SOUTH PROPERTY CONTENTNEA CREEK DEVELOPMENT COMPANY PITTSBORO, CHATHAM COUNTY, NC</p>	
<p>BURDETTE LAND CONSULTING, INC. 308D W Millbrook Road, Suite 200 - Raleigh, North Carolina 27609 Telephone (919) 841-9977 -- Fax (919) 841-9909</p>	<p>DATE: 07/10/06 DRAWN BY: TMB PROJECT #: 60053</p>	<p>USGS 7.5' TOPO QUAD: MERRY OAKS CHK'D BY: JAB FIGURE #: 1</p>