

Mitchell Environmental, P.A.

Re:
Parker Spring
Sketch R

**PRELIMINARY
SITE EVALUATION FOR USE OF ON-SITE SEWAGE
DISPOSAL SYSTEMS
for
CHATHAM LAND & TIMBER MANAGEMENT, LLC PROPERTY
CHATHAM COUNTY, NORTH CAROLINA**

Submitted to:

Chatham County Public Health Department
Environmental Health Division
80 East Street
Pittsboro, North Carolina 27312

Prepared for:

RLA Development, LLC
4441 Six Forks Road
Suite 106-142
Raleigh, North Carolina 27609

Prepared by:

Scott Mitchell, PE, LSS
Mitchell Environmental, P.A.
602 East Academy Street, Suite 105
Fuquay-Varina, North Carolina 27526

**DATE: October 6, 2006
PROJECT NO.: 5506**



I. Introduction

During July and October 2006, a preliminary site evaluation for use of on-site sewage disposal systems was completed for a single tract of land on North Pea Ridge Road in east Chatham County. The tract evaluated totals approximately 87 acres (*PIN 9773-60-6982.000*). The attached map illustrates the approximate boundaries of soil suitability units on this site. This map is based on limited investigation and is suitable for preliminary planning purposes only.

II. Status of Site Improvements and Vegetative Cover

The entire tract is covered with forest vegetation of various ages and degrees of maturity. The only improvements observed on the site include remnants of an abandoned structure and cemetery near the east boundary of the site. A soil road leads to the observed improvements. Other improvements may be present but were not observed.

III. Method of Evaluation and Soil Moisture Conditions

Soils on the site were evaluated using a hand auger. The soil and its surface were moist but not saturated during the evaluation. Outside of jurisdictional streams, no standing water was observed at any location on the site.

IV. Soils Analysis

According to the Chatham County Soil Survey, the site is covered by soils of the Badin-Nanford Complex, Cid-Lignum Complex, Georgeville Series, Georgeville-Badin Complex and Nanford-Badin Complex. Each of these soils has moderate limitations for septic system nitrification fields due to slow percolation rates. Provisionally suitable soils represented by the above listed soil series have formed in Carolina Slate Belt rocks and other fine grained rocks.

Floodprone areas of the site were not evaluated due to their unsuitable landscape position. Additionally, several areas on the property were found to be unsuitable or potentially unsuitable for conventional nitrification fields due to improvements listed above, shallow depth to expansive clays, saprolite or bedrock, landscape position, compaction and/or evidence of a shallow seasonal high water table.

The attached map indicates the approximate boundary of provisionally suitable soils on the site. Observed soils on this site exhibit a controlling texture of silty clay. Conventional sewage systems for proposed lots should be designed for a long-term acceptance rate of 0.3-0.25 gpd/ft² for conventional trench systems and 0.15-0.075 gpd/ft² for nitrification fields that utilize pressure distribution.

V. Proposed Use and Source of Water Supply

Upon approval, the site will be subdivided into lots for single-family homes. Individual septic systems will be installed on each lot or on off-site/remote nitrification fields. Potable water will be supplied by individual wells installed on each lot.