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Alex:

This report concerns the preliminary soils and site investigations for septic system suitability on a section of the Bailey Land Co. property located on the east side of Vick Road about 1,200 ft. north of the intersection with Ruffin Collie Road in southeastern Franklin County. The property identification number for the larger 64.28 ac. tract is: 2851-29-7543.

The attached sketch map shows the approximate location of soils areas that were identified from field investigations and as were inferred from the USDA soil survey maps of the area. This map was prepared using property information and aerial photography obtained from the Franklin County and Nash County GIS web site. The topographic contours (2 ft. interval-LIDAR) were obtained from the NC DOT GIS web site. The USDA soil survey maps of the area were also consulted as the general nature of the soils, landforms and streams.

The soils were investigated by hand auger borings made at selected locations and from field observations of soil related landforms and vegetation. The locations of the individual soil borings as well as selected cultural features and drainage features were estimated using a Trimble mapping grade GPS receiver. Most of the soil borings were made in the vicinity of the proposed 1 acre lots along Vick Road. A few borings were made on the proposed 10 acre tracts behind the road front lots. This report and map are intended to provide general information regarding soil suitability for septic systems. Additional soils investigations may be needed before any permit for sewage disposal can be finalized.

## SOILS GENERAL

The soils on this property are mapped in the Wedowee (WeB & WeC) soils mapping units by the USDA soil survey of Franklin & Nash Counties. A copy of the soil survey map obtained from the Franklin County Soil Survey. Under the USDA system these soils are classified as having moderate limitations for septic drain fields. The main potential limitations identified are the clayey subsoils and the slopes. These soils are commonly permitted for septic drain fields in Franklin and Nash Counties. A significant concern for use of the USDA maps for planning is the map scale and the high probability that inclusions of soils with contrasting interpretations will be present. Detailed on-site investigations are recommended to verify the suitability of the soils and the overall feasibility for development.

Mr. Alex Bailey  
July 17, 2021  
Page 2.

## SOIL SUITABILITY

The suitability classifications of the soils areas as shown on the attached sketch map based on State Sewage Disposal regulations (15A NCAC 18A .1900-.1970) are as follows:

**SOILS AREA 2:** These soils will dominantly classify provisionally suitable for conventional or modified septic system drain fields. These are well drained soils with sandy loam surface layers and yellowish brown to yellowish red clay to clay loam subsoils that exhibit soil structure and are free of seasonal wetness indicators within the upper 30 to 36 inches or more from the surface. These soils have potential for conventional septic system drain fields. At some locations modifications to the standard design (shallow placement of trenches or at grade installations) may be needed. The sewage loading rates are estimated to range from 0.25 to 0.35 gal./sq. ft. of trench bottom for conventional drain fields.

**SOIL BORINGS** A few soil borings were made at favorable landscape positions within the 10 acre tracts that are shown on the sketch map. The soils at these locations are generally similar to the soils along the road frontage, which suggests that suitable septic drain field site are likely to be present on each of the tracts. Additional detailed investigations will be required to verify the size and specific suitability for the individual sewage disposal sites.

## STREAMS


A copy of the soils map from the Soil Survey of Franklin County (USDA, 2004) is also attached with this report. A stream feature is shown on this map (highlighted in blue marker) which has its head near the rear of the road front lots. These features are subject to riparian buffers under the Tar River Basin Regulations (15A NCAC 02B .0259). Under the buffer regulations most development related activities are prohibited within the buffer zones (50 ft. each side of the stream channel). You may want to review these regulations (vis Google search using the administrative code) to become familiar with the restrictions and allowable uses within the buffer zones.

## SUMMARY

From these investigations it appears that the road front lots as sketched should be feasible for development using conventional or modified conventional drain fields for sewage disposal. It is likely that each of the 10 acre tracts can be developed subject to further detailed soils and site investigations.

Please call me if you want to discuss these investigations or the development of for the property in more detail.

Sincerely

  
Daniel J. Bliley  
Licensed Soil Scientist

