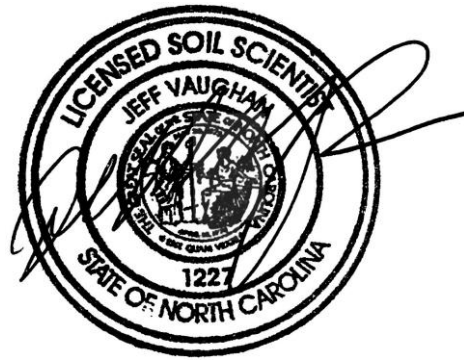




Agri-Waste Technology, Inc.

501 N Salem Street, Suite 203, Apex, NC 27502

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Soils & Site Evaluation Report – On-site Wastewater Systems

662 Walnut Grove Rd
Oxford, NC 27565
Granville County
PIN 0967-0082-5442

Prepared For:	Francisco Pagan, Client
Prepared By:	Jeff Vaughan, LSS, Sr. Soil Scientist Bailey Stiles, Environmental Scientist
Report Date:	June 12, 2024



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**Soils & Site Evaluation Report – On-site Wastewater Systems
662 Walnut Grove Rd, Oxford, NC 27565
Granville County PIN 0967-0082-5442**

Prepared For: Francisco Pagan, Client

Prepared By: Jeff Vaughan, LSS, Sr. Soil Scientist

Bailey Stiles, Environmental Scientist

Report Date: June 12, 2024

Agri-Waste Technology, Inc. (AWT) was contracted by Francisco Pagan to perform a soils & site evaluation for the property located at 662 Walnut Grove Rd (Granville County PIN 0967-0082-5442). Bailey Stiles and Jordan Harris of Agri-Waste Technology, Inc. (AWT) conducted the fieldwork. A reference property map, provided by Granville County GIS is included in Attachment 1. Municipal water and wastewater services are not available; therefore, on-site water (well) and wastewater will be required.

The subject properties are approximately a 19.98 acres in size. The parcels are partially wooded and partially open grassland. There are existing structures on the property, it is uncertain if any of those existing structures are serviced by an on-site wastewater system. Additionally, portions of the natural topography of the property has been disturbed and graded.

The dominant soil types mapped on this property are Chewacla and Wehadkee (map symbol ChA), Georgeville silt loam (map symbol GeC), Enon loam (map symbol EnB) and Iredell loam (map symbol IrB). Soil characteristics within the evaluated area most closely matched those of a shallow and eroded Enon loam, Iredell loam. Limiting features of the soil borings advanced on this property include shallow indications of saturation (chroma 2) and mixed/expansive clay mineralogy. These soils typically cause issues with onsite wastewater systems as they restrict the movement of water through the soil. A total of 13 borings were advanced in different areas during the evaluation. No significant inclusions or deviations from this mapped soil type were noted in any borings within the area evaluated by AWT.

No consistent areas with suitable depths for any county based on-site wastewater system could be delineated during the evaluation. Usable soil depths ranged from 6 inches to 10 inches before encountering an unsuitable feature. The attached evaluation map indicates the approximate depths and locations of all borings. In general, a consistent area of 13+ inches of usable soil is required for the most advanced county based on-site wastewater system (TS II treatment standard pretreatment with subsurface drip dispersal).

Summary:

Based on the outcome of this preliminary evaluation, no recommendation can be made to pursue a county based on-site wastewater system.

We appreciate the opportunity to assist you in this matter. Please contact us with any questions, concerns, or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Vaughan". The signature is stylized with a large, sweeping "J" and a long, horizontal stroke at the end.

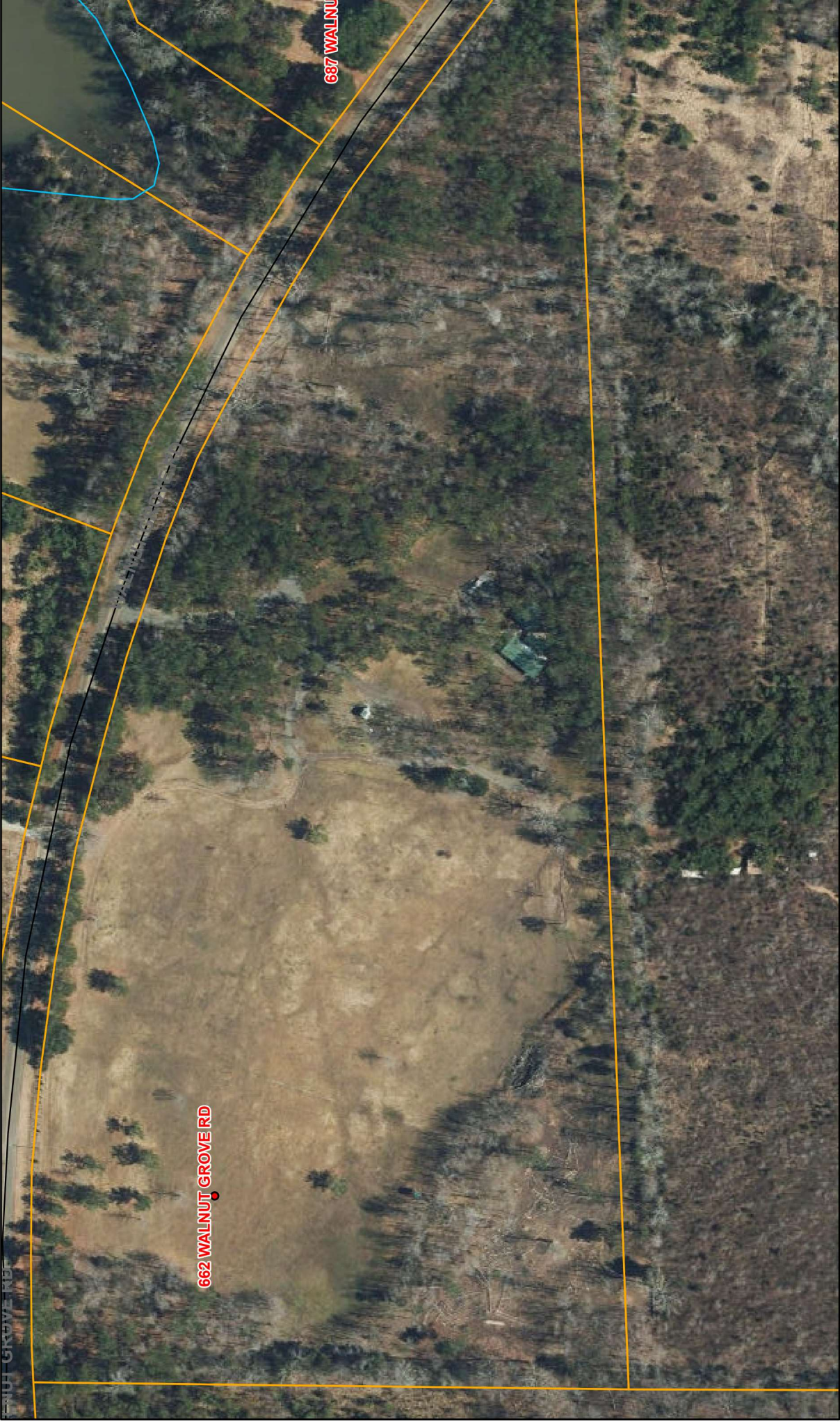
Jeff Vaughan, LSS

Summary of Attachments

- Attachment 1: Current GIS Aerial
- Attachment 2: AWT Evaluation Map
- Attachment 3: Soil Survey Description

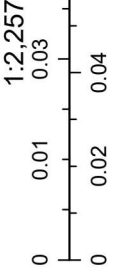
Attachment 1: Current GIS Aerial

Granville County, NC



6/7/2024, 1:34:19 PM

- Address Points
- County Boundary
- Parcels
- Centerlines
- Hydro
- granville_nc_anno



Attachment 2: AWT Evaluation Map



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Preliminary Soil Evaluation

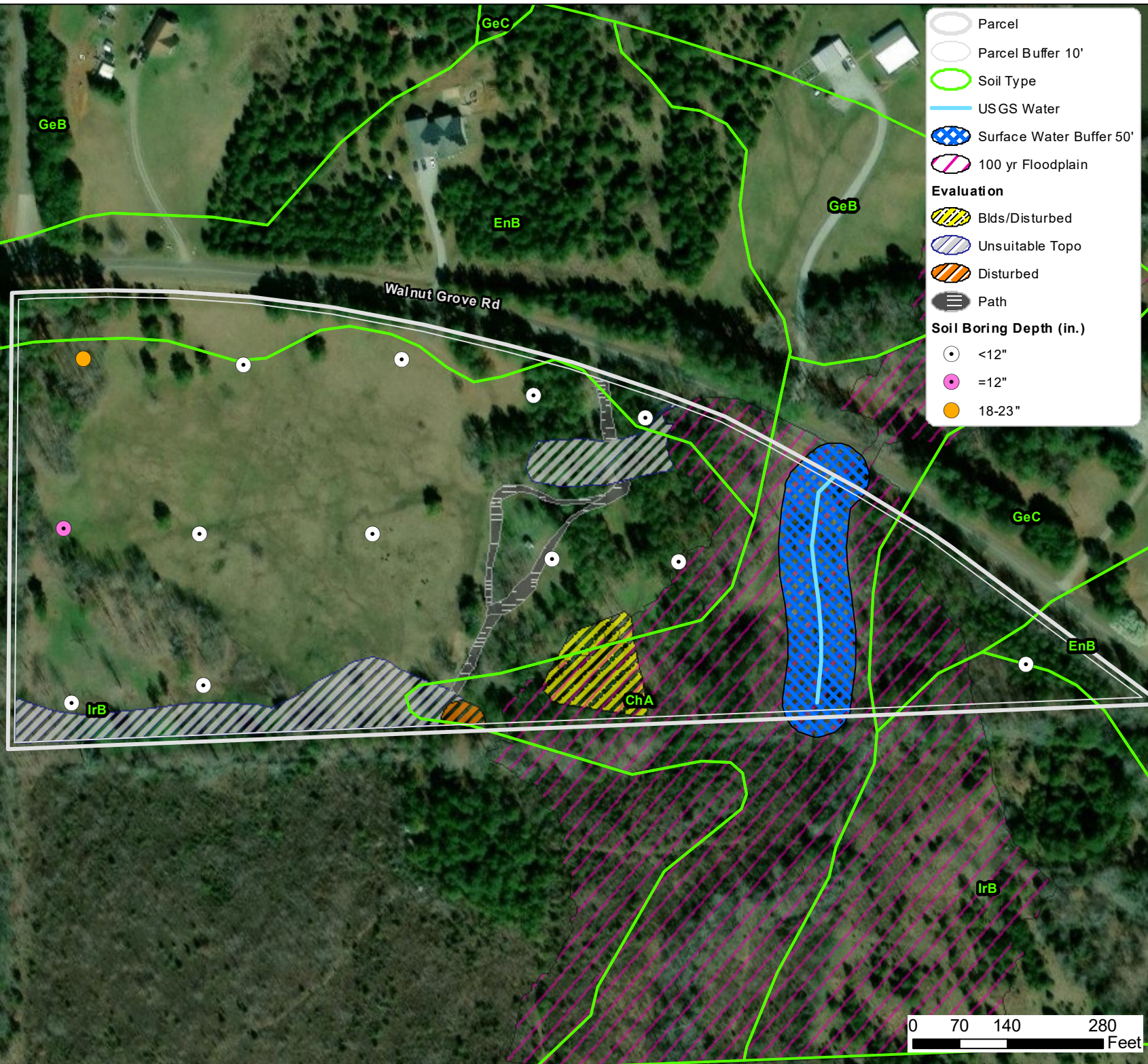
Francisco Pagan
Granville Co., NC
PIN: 096700825442



Soil Types:

ChA-Chewacla and Wehadkee
soils
GeC-Georgeville silt loam
EnB-Enon loam
IrB-Iredell loam

Drawn By: Julie Davidson
Reviewed By: Bailey Stiles
Date: 6/12/2024



Surface water and/or bad topo areas have not been officially evaluated for stream ID according to local regulatory requirements. This map is intended for preliminary purposes only and not to be used as a plat/survey or can it be assumed all streams are identified on this property.



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Preliminary Soil Evaluation

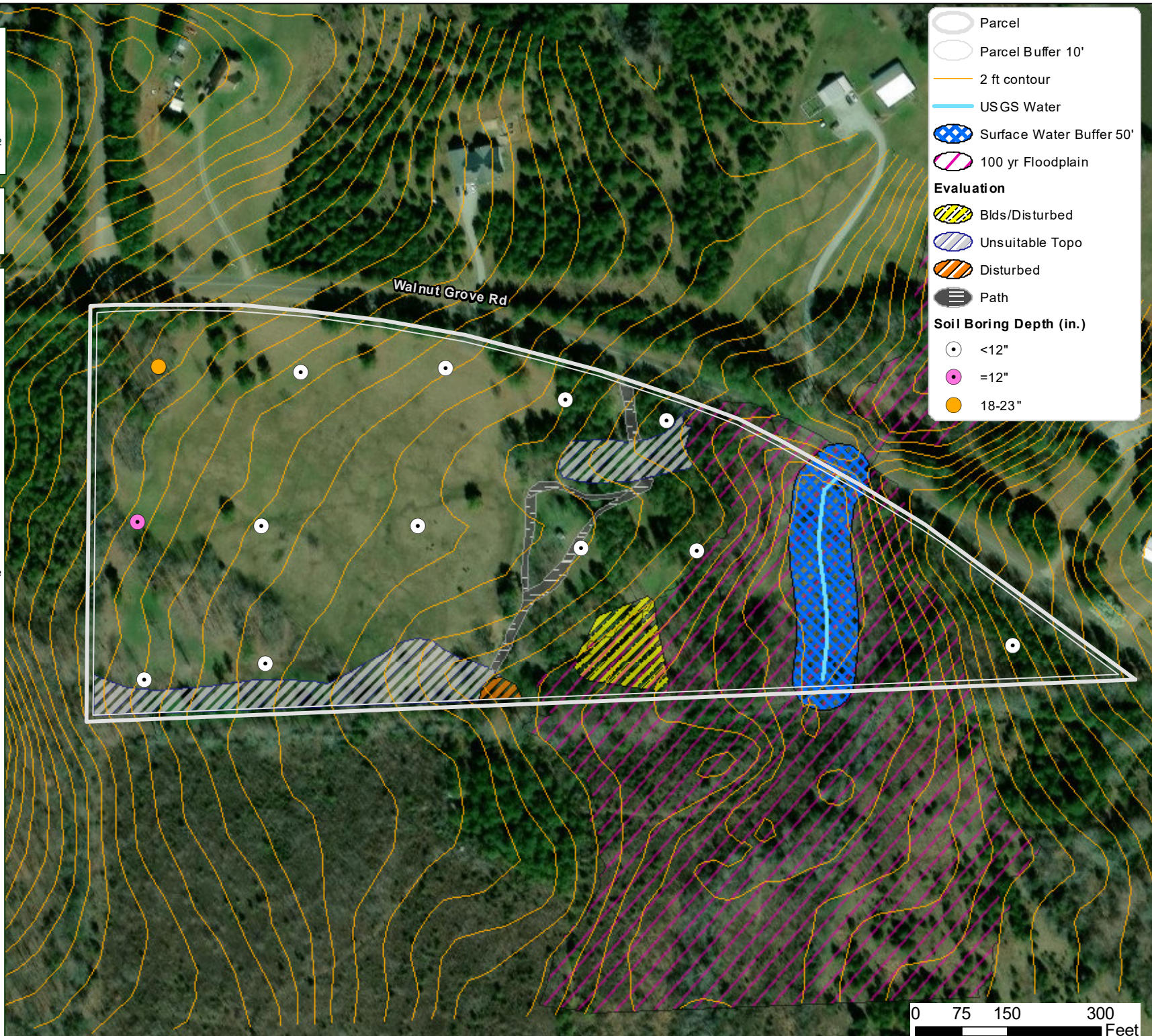
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Soil Types:

ChA-Chewacla and Wehadkee
soils
GeC-Georgeville silt loam
EnB-Enon loam
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Drawn By: Julie Davidson
Reviewed By: Bailey Stiles
Date: 6/12/2024



Attachment 3: Soil Survey Descriptions

TABLE 10.--SANITARY FACILITIES--Continued

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
EnC----- Enon	Severe: percs slowly.	Severe: slope.	Severe: too clayey.	Moderate: slope.	Poor: too clayey, hard to pack.
GeB----- Georgeville	Moderate: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight-----	Fair: too clayey, hard to pack.
GeC----- Georgeville	Moderate: percs slowly, slope.	Severe: slope.	Moderate: slope, too clayey.	Moderate: slope.	Fair: too clayey, hard to pack, slope.
HeB----- Helena	Severe: wetness, percs slowly.	Moderate: slope.	Severe: wetness, too clayey.	Moderate: wetness.	Poor: too clayey, hard to pack.
HeC----- Helena	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness, too clayey.	Moderate: wetness, slope.	Poor: too clayey, hard to pack.
HrB----- Herndon	Moderate: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight-----	Fair: too clayey, hard to pack.
HrC----- Herndon	Moderate: percs slowly, slope.	Severe: slope.	Moderate: slope, too clayey.	Moderate: slope.	Fair: too clayey, hard to pack, slope.
IrB----- Iredell	Severe: wetness, percs slowly.	Moderate: depth to rock, slope.	Severe: depth to rock, wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
IrC----- Iredell	Severe: wetness, percs slowly.	Severe: slope.	Severe: depth to rock, wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
IuC*: Iredell-----	Severe: wetness, percs slowly.	Moderate: depth to rock, slope.	Severe: depth to rock, wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Urban land.					
Picture-----	Severe: wetness, percs slowly.	Moderate: depth to rock.	Severe: depth to rock, wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
LmB----- Lignum	Severe: percs slowly, wetness.	Moderate: depth to rock, slope.	Severe: depth to rock, wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
MaB----- Mayodan	Moderate: percs slowly.	Moderate: seepage, slope.	Severe: too clayey.	Slight-----	Poor: too clayey, hard to pack.

See footnote at end of table.

TABLE 10.--SANITARY FACILITIES

(Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "fair," and other terms. Absence of an entry indicates that the soil was not rated. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
AaA----- Altavista	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: wetness, too clayey.
ApB----- Appling	Moderate: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight-----	Fair: too clayey, hard to pack.
ApC----- Appling	Moderate: percs slowly, slope.	Severe: slope.	Moderate: slope, too clayey.	Moderate: slope.	Fair: too clayey, hard to pack, slope.
AuC*: Appling-----	Moderate: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight-----	Fair: too clayey, hard to pack.
Urban land.					
CaB, CeB2----- Cecil	Moderate: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight-----	Fair: too clayey, hard to pack.
CeC2----- Cecil	Moderate: percs slowly, slope.	Severe: slope.	Moderate: slope, too clayey.	Moderate: slope.	Fair: too clayey, hard to pack, slope.
ChA*: Chewacla-----	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: hard to pack, wetness.
Wehadkee-----	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: wetness, thin layer.
CoA----- Congaree	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Fair: too clayey, wetness.
CrB----- Creedmoor	Severe: wetness, percs slowly.	Moderate: slope.	Severe: wetness, too clayey.	Moderate: wetness.	Poor: too clayey, hard to pack.
CrC----- Creedmoor	Severe: wetness, percs slowly.	Severe: slope.	Severe: wetness, too clayey.	Moderate: wetness, slope.	Poor: too clayey, hard to pack.
EnB----- Enon	Severe: percs slowly.	Moderate: slope.	Severe: too clayey.	Slight-----	Poor: too clayey, hard to pack.

See footnote at end of table.