

Site Evaluation
Reference #:
573355

RECEIVED
07/09/2025
GROUNDWATER

Site Evaluation Report

Owner's Name: Marsha Middleton
Owner's Address: 12392 Taylor Mill Road
Laurel, DE 19956

Parcel Number: P/O 2-32-7.00-32.11
Proposed Lot 3

Phone Number: (302) 381-1680

Property Location: 12392 Taylor Mill Road
Laurel, DE
(+/- 1.634 acres)

PAID
\$ 75.00 07/09/2025

Evaluation Date: May 6, 2025

Central Water Provided: No

Hydrologic Unit Code: 020801090203 – Elliott Pond Branch

Central Sewer Provided: No

Depth to and Type of Limiting Zones Encountered:

- Soil Boring 1 (SB1): 39 inches to redoximorphic features, 69 inches to free water.
Aquic Arenic Hapludult
- Soil Boring 2 (SB2): 39 inches to redoximorphic features, 69 inches to free water.
Aquic Arenic Hapludult
- Soil Boring 3 (SB3): 39 inches to redoximorphic features, 69 inches to free water.
Aquic Arenic Hapludult

Summary of Evaluation: This evaluation was conducted to determine the type of on-site wastewater treatment and disposal system (OWTDS) that is suited for this property under current DNREC Regulations and policies. Soils in the evaluated area are moderately well drained based on the depth to redoximorphic features and observed groundwater levels used to estimate the depth to the seasonal high groundwater levels.

The Web Soil Survey (NRCS, 2025) indicates that the site is potentially underlain by the moderately well to somewhat well drained Pepperbox-Rosedale Complex, 0 to 2 percent slope (PsA). It is my opinion that the soils observed in the immediate vicinity of Soil Borings 1, 2 and 3 correlate to the moderately well drained Rockawalkin Soil Mapping Unit.

The soils have moderate limitations for an OWTDS related landscape positions on the extent of the suitable soils. The owner wishes to build a new home on this mostly clear vacant lot. FEMA flood plains, Non Tidal wetlands and Tax ditch easements do not impact this property per Sussex County and DNREC online information.

A Full Depth Low Pressure Pipe treatment and disposal system is potentially suited in the vicinity of Soil Borings 1, 2 and 3. A limiting zone of 39 inches is recommended in the immediate vicinity of Soil Borings 1, 2 and 3 based on observed redoximorphic features. Suitabilities are providing that setback requirements under DNREC Exhibit C can be met. Estimated permeabilities in the immediate vicinity of Soil Borings 1, 2 and 3 are moderate based on field estimated sandy loam within the upper 60 inches of the observed soil material and DNREC Exhibit Y. A design rate of 30 minutes per inch is estimated in the immediate vicinity of Soil Borings 1, 2 and 3.

Date

7/7/25


Bruce B. Bagley, CPSS
License Number: 2464

NOTE: This Site Evaluation Report is a summary of the investigation conducted by Bruce Bagley. This report is not a Site Evaluation Approval which typically, but not always, comes with this report. A Site Evaluation Approval, signed by DNREC is required to obtain a septic permit.

Bruce B. Bagley, CPSS, 420 Cosden Road, Barclay, Maryland 21607 (410) 708-3854

Site Evaluation Approval

The soils on this site are approved when the following is completed in full and is signed by the approving authority. This is not a septic permit but is required to obtain a septic permit. A septic permit is required to obtain a building or placement permit. Isolation requirements from wells, easements, ditches, and other encumbrances may limit the area that is available for a septic permit. It is the responsibility of the designer to verify the information provided by this approval prior to obtaining a septic permit. The information provided here is obtained primarily by field observations and is believed to be accurate under the conditions that existed at the time of the evaluation. Compaction of soils from lot clearing, grading activities, and filling activities may negate this approval or modify the type of system that can be permitted and installed. Lots that are wooded at the time the evaluation are to be inspected prior to septic system installation at the discretion of the Installer.

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Disposal System and Location: Full Depth Low Pressure Pipe treatment and disposal system in the immediate vicinity of Soil Borings 1, 2 and 3 provided that setback requirements under Exhibit C can be met. Other OWTDS options include any conventional/alternative technologies approved by DNREC.

Depth to Limiting Zone: 39 inches for design purposes based on observed redoximorphic features.

Design Considerations and Comments:

1. See Site Evaluation Report and Drawing.
2. See DNREC Exhibits O/P in the Delaware Regulations, amended January 11, 2014 (2014 Regulations) for criteria on Low Pressure Pipe systems.
3. See Exhibit C, Minimum Isolation Distances in the revised 2014 Regulations. All isolation distances specified in Exhibit C must be maintained e.g., 100-foot isolation distance between system and domestic water supply wells.
4. The wastewater disposal area should be clearly marked e.g., by surrounding it with construction fence and the area should be avoided as much as is feasible during construction to avoid disturbance/soil compaction. The Department of Natural Resources and Environmental Control (DNREC) has formulated guidance for clearing/soil compaction avoidance; contact DNREC at 302-856-4561 for guidance.

Replacement Disposal System and Location: Same as initial system if space permits or sand-lined upgrade.

Limitations of Soil Evaluation for System Design/Replacement: The soil evaluation was performed to evaluate soil conditions with respect to a wastewater disposal system for a single family residence. For alternative uses contact the site evaluator or DNREC to determine whether additional site evaluation services are necessary.

Instructions to Property Owner

1. Contact a Class C Designer.
2. A permeability rate of 30 minutes per inch has been estimated for the soil on your site based on soil textures and tables published by DNREC. You may use the estimated rate or, at your expense, have a percolation test conducted by a Class A Percolation Tester. Contact Bruce Bagley and DNREC if you choose to conduct a percolation test.
3. For questions call Bruce Bagley at (410) 708-3854 or DNREC at (302) 856-4561.

This report has been prepared by:

Bruce B. Bagley, Certified Professional Soil Scientist
Delaware License Number 2464

Bruce Bagley has conducted this site evaluation in accordance with DNREC Regulations and Policies with the best of its ability and with the information provided by the owner and under the conditions that existed at the time of the evaluation. Bruce Bagley is only liable for this evaluation to the extent of the cost of this evaluation.

For Office Use Only

DNREC APPROVED

DNREC Reviewing Soil Scientist-Approving Authority

07/17/2025

Date

07/17/2025

Date Field Checked

07/17/2030

Expiration Date

DNREC Disclaimer: Approval of a site evaluation indicates only that the site evaluation, based on information presented to us, was conducted in compliance with these Regulations. It is not an indication of the correctness or quality of the site evaluation and does not guarantee the evaluation is free of omissions or that a permit can be issued.

The Class D licensee is responsible for errors/omissions.

If there are questions regarding this report, contact the Class D licensee.

Bruce B. Bagley, CPSS, 420 Cosden Road, Barclay, Maryland 21607 (410) 708-3854

Refer to Sections 5.3.12.2.6 & 5.3.12.2.8 regarding low pressure pipe septic systems.