SOIL AND SITE EVALUATION - PERCOLATION TEST

[APPLICATION]

[SEWAGE CONTRACTORS & HAULERS]

PERC QUESTIONS

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1. What is a Perc test?

Perc tests are soil and site evaluations performed on a parcel in a location where one would install a septic system. They are conducted to determine the suitability of a site to accept wastewater discharge from a septic system.

Before a test can be performed, certain items must be addressed. The applicant should ask themselves the following questions BEFORE applying for a perc test:

- Is there enough land to support an initial septic system, and build a home meeting setbacks from septic area and property lines? The State of Maryland requires a Sewage Reserve Area (SRA) be a minimum of 10,000 sq ft; and depending on the perc results it could be much larger.
- Can the test site meet the setback distances from wells, ditches, drainage systems, rivers, ponds, wetlands, etc.? Recommend measuring property. If two pits (100 feet apart from each pit) can fit and still be 150' from wells (also wells on adjoining parcels), ditches, drainage systems, rivers, ponds, wetlands, etc., then the setback criteria may not be an issue.
- Is this project feasible? Sometimes when someone is planning to take an acre or two from a relative's farm, for example, the applicant should find out if this project is even possible. Zoning issues may need to be resolved before one should go to the expense of applying for a non-refundable perc test or even the expense of hiring a surveyor. Call Planning & Codes at 410-479-8100. Also in all cases where you have a property that has an existing home, a Water/Sewer Verification must be completed before the perc test application can be processed.

- When do I plan to build? Check with our office to determine if an older perc approval is still valid. Apply for a perc test at least one year or more before applying for a building permit.
- Is there a possibility of public sewer coming to the area I am thinking of testing? If the parcel in question is on the outskirts of a town that has public water and sewer, recommend contacting that specific town to see if they are planning to run their sewer system on or near the property. Keep in mind that well and septic permits are issued on an *interim* basis. That means that once a public system is available, the on-site septic system and/or well must be abandoned and the dwelling or business is connected to the public system.

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2. Checklist for Perc test including subdivision and any building development:

1. Check with Planning & Codes at 410-479-8100 to make sure the project can be done.
2. If your project is on a parcel that has an existing home, apply for a Water/Sewer Verification first. In Section "D" on the application, make note the size of the parcel, how many new lots, and how many lots with existing home(s) will be done. For example, if you have a 10 acre parcel, and you plan to take a small lot and the rest of the 10 acres to remain with existing house, make a note similar to: "10 acre parcel, new lot to be approximately 1-2 acres, remaining lands to stay with existing house." A site plan must accompany the application.
3. Prepare a scaled site plan showing the location of test site. Include location of any wells within 150 feet of the existing and proposed property lines. Note on your site plan if there are no wells within 150 feet of property lines. The site plan should show the piezometer locations, proposed property lines, existing property lines, buildings, driveways, home(s), wells, and septic system(s).
4. Apply for the perc test (see #2 above if the parcel has an existing home site): Submit application (signed by legal owners), site plan, and appropriate fee. Expect results of soil evaluation: dry perc - within 60 days of application; if wet season test, expect results at end of wet season – usually in June, provided wet season application was received by **December 1st** and no drought conditions exist.
5. Prepare site: Expect an Environmental Health Specialist (EHS) to contact you shortly after the perc application is received to schedule the pit test portion (soil test). Do not install the pits until that portion of the test is scheduled. Please keep in mind, however, that the piezometers (wet season) must be installed on the parcel by **December 1st**, to have the best chances of the site evaluated during the wet season.
6. Apply for the Plat Evaluation: Submit plat (if subdividing); Recommend your surveyor submit an initial "Worksheet" before preparing formal plats, this could save you time and money. Upon receipt of the "Worksheet" the Environmental Health Specialist will review it and send comments to the surveyor.
7. Apply for Septic Permit (if no subdivision required and you are ready to build).

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3. Who does Perc tests?

Perc tests are evaluated by a licensed Environmental Health Specialist (EHS) in the health department, upon receipt of application, current fee, and acceptable site plan.

It is the applicant's responsibility to prepare the site and provide a site plan and maintain access to that test site.

In cases where you are not sure where you want to have the perc test performed, it is recommended that you contact a soil consultant to suggest test sites. Most soil consultants will install the piezometers and prepare the initial site plan. They may recommend a sewage contractor to install the test pits.

Planning & Codes maintains a List of Engineers and Surveyors. Most Engineers and Surveyors can recommend a Soil Consultant.

Most of the sewage contractors in Caroline County install test pits for the perc test, and some will also install the pipes. They do not prepare site plans.

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4. When can Perc tests be done?

Before that can be answered, consider the fact that perc tests are broken down into three categories: Soil Test, Wet Season Test, Sand Mound Test and are described below:

- **Soil Test**: Two test pits are installed by the applicant on the property and can be evaluated any time throughout the year; however, ***an appointment must be scheduled by the EHS before the test pits are installed*** – expect a call from this office shortly after you apply for your perc test. A site plan and appropriate fee must accompany the application. *All perc tests are required to go through this stage.* Expect written results approximately 6-8 weeks after the site has been evaluated. It is important to keep access to the site and the immediate site area clear of brush to enable the Environmental Health Specialist (EHS) to perform the necessary testing. Recommend keeping site clear (mowing area, etc.) until written results have been received.
- **Wet Season Test**: Three pipes (also known as piezometers) are installed approximately ten feet from the test pits. The application with appropriate fee must be received by **December 1st** in order to go through the upcoming wet season. The wet season is the time of year when the ground is the wettest; usually begins in January and ends in April or May, but these dates can vary. The pipes are monitored throughout the wet season. Most of the soils in this county are wet season soils; a soil test will confirm the soil type. Expect written results from a wet season test at the end of May of June, except in drought conditions when the test can be postponed to the following yearly wet season. Click here for perc site preparation information
- **Sand Mound Test**: Ten gallons of water must be left (by the application) at the site and appropriate fee must accompany the application. This can be done any time during the year, however, the site in question must have gone through the soil test and the wet season test before a sand mound test application can be accepted.

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5. Where can Perc tests be done?

The health department does not determine where a perc test can be performed. However it is recommended that the test site be approximately:

- A minimum of 150 feet from wells, streams, ponds, drainage ditches, wetlands, and all wells (this included adjoining parcels, make sure neighbor's well across the street or adjoining, too, is 150' from your test site). This applies to placement of pipes and test pits – the actual Sewage Reserve Area (SRA) could be closer, depending on the perc results.
- A minimum of 50 feet from property lines (this includes proposed property lines); this applies to placement of test pits (piezometers) and test pits – the actual Sewage Reserve Area (SRA) could be closer; depending on the perc results.
- Fields in crop cannot be accessed by the Environmental Health Specialist (EHS) unless written permission is granted by the owner.

Clear an access to the test site. If your site is wooded, check with Planning & Codes at 410-479-8100 to make sure you can clear the site of trees.

Please keep access clear until written results have been received.

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6. How much will Perc test cost?

The testing fees will vary depending on what type of perc test is being applied for. The fees are also determined by the number of sites being tested.

One perc test site may require up to three different fees – the soil test fee, the wet season test fee, and the sand mound test fee; OR one perc test site may only require the single fee of the soil test. The initial soil test (pits) will determine if wet season testing is required. The wet season test will determine if a regular septic system can go on site, or if a sand mound test option is available.

Remember, however, that the majority of the soils in this county are wet season soils, so it is highly probable that Example C will be the cost.

Refer to the fee schedule to get the current fee

Note that the testing fee does NOT include preparing the site. Most sewage contractors could prepare the site, the cost may vary. Call a contractor for prices.

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7. How long are Perc approvals valid and can they be extended?

If the site is not maintained, the perc approval could be rescinded. In other words, make sure no one puts a pond, ditch, or well in, too close to the test site. Also make sure the site is easily found on the property, especially if the home is not going on the parcel in the near future. Most perc results require a surveyor to field locate the test site(s); i.e. surveyor to find the pits/pipes and prepare a scaled site plan showing

these locations. This scaled site plan is referred to as a "Worksheet" and the surveyor or homeowner will submit it to the health department. Once the percs have been platted and approved by the health department, the percs are good unless the regulations for some reason may change to become for stringent. You may want to apply for a Property Status Report every two years to have written verification that the perc is up to date. The Property Status Report may include any new requirements regarding to the septic system design.

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8. Perc disapprovals, what are my options?

When a perc disapproval letter is issued, options are noted on the letter. Sometimes a sand mound test option is available; other times the only option would be to get public water/sewer if it comes to the area. Do not assume that a sand mound could go on any property that does not pass a perc test.

Not all perc disapprovals will give a sand mound test option; nor do all sand mound test options pass.

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9. Site preparation:

Below is a cross section of the test pit and piezometer (pipe). Note the pit should be no deeper than 5 feet and at least 3 feet wide – a gentle slope would be needed to allow someone access into the pit. The pipe should be approximately 10' from the pit.

Recommend you read SITE PREPARATION FOR PERC TESTS for more details in preparing your test site

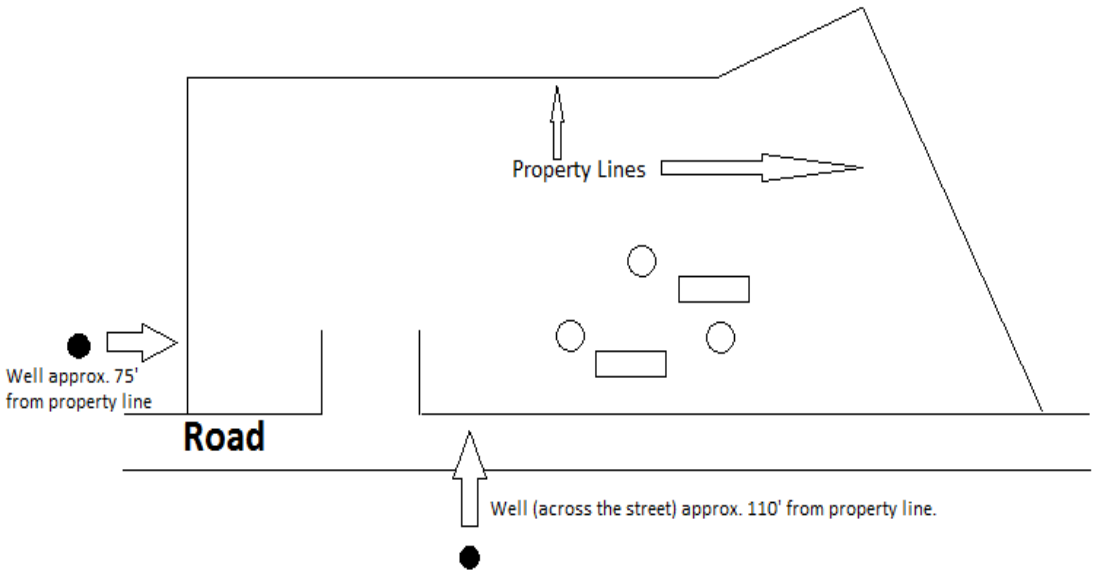
Site Plan:

The site plan should show the following:

- Prefer to be on 8 ½ x 11 regular sized paper
- Owner's name (including applicant's name if different from owner)
- Name of Road (if property borders more than one road, use the road planned for entrance – show entrance)
- Map, Block/Grid, Parcel numbers (if in subdivision, include lot # and name of subdivision – block & grid are considered the same in this office)
- Scale (prefer engineer's scale: 1" = 100' etc.)
- Location of pits and/or pipes (use a box for the pits and circle for pipes – see below) when initially applying, your site plan should show the pip location (3 pipes per site). It may not show the pits as now the sanitarian schedules the pit test after the application is received.

Below is an example of a perc test site plan for a vacant lot (no existing buildings, driveways, or wells on test parcel). Notice it shows entrance to the property as well as the location of pits, pipes, and property lines. It also shows the closest well to test site on adjacent parcel.

(SITE PLAN should show all property lines (or two closest lines if it is a large parcel, over 20 acres) and wells, streams, ponds, ditches within 150' of property lines. Refer to example drawn below, please note the darkened in circles represent wells on adjacent parcels within 150' of property lines and the open circles represent the 3 piezometers in the test area. The boxes represent the proposed test pits – they won't go in until the soil work portion of the test is scheduled. The pipes (piezometers) however must go in before December 1st to be considered for upcoming wet season.)



Please note, in cases where the property is very large, include copy from SDAT-Real Property Search – your initial site plan can show pit/pipe locations with notation of distance from two of the closest property lines. Remember, pits to be 100' apart and 150' from any wells, rivers, streams, ponds, ditches, farm field, drainage systems, etc. The pipes are to be approximately 10' from the pits. Refer to SITE PREPARATION FOR PERC TEST.

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10. Soil & Site Evaluation Application **procedures for projects proposing MINOR* subdivision of land:**

In accordance with the Code of Maryland Regulations, (COMAR) 26.04.03 and applicable guidelines with regard to site evaluation for on-site sewage treatment and disposal systems, the following represents minimum information required to begin the site evaluation process. These items shown below are necessary in determining if an evaluation of the site is appropriate and if appropriate, to provide the application with information on testing (field investigation) and scheduling.

1. Completed and signed application
2. Boundary plan by qualified individual; may be a consultant, homeowner, or licensed surveyor, showing proposed lots with acreage denoted.
3. Scale 1" – 100' or larger (i.e. 1"=60')

4. Existing and proposed roads, right-of-way, 25% steep slopes, wetlands, water bodies to include annual and perennial streams, watercourses and public drainage association ditches.
5. Proposed Sewage Reserve Areas (SRA), 10,000 sq ft minimum must be designated on plan parallel with contour of land.
6. Existing structures to include potable water supply well(s) and septic system(s)
7. All subsurface drainage features.
8. Irrigation well(s) with distribution system.
9. Critical areas and buffers

* Minor Subdivision – Any subdivision containing 4 (four) or fewer lots, plats, sites, or other division of land.

Soil and Site Evaluation Application **procedures for projects proposing MAJOR* Subdivision of land**

In accordance with the Code of Maryland Regulations, (COMAR) 26.04.03 and applicable guidelines with regard to site evaluation for on-site sewage treatment and disposal systems, the following requirements minimum information required to begin the site evaluation process. These items shown below are necessary in determining if an evaluation of the site is appropriate and if appropriate, to provide the applicant with information on testing (field investigation) and scheduling.

1. Completed and signed application
2. Boundary plan by licensed surveyor (may be sketch** plat), showing proposed lots with acreage denoted
3. Scale 1" – 100' or larger (i.e. 1"=60')
4. Topography (1 meter contour interval or smaller)
5. Existing and proposed roads, right-of-way, 25% steep slopes, wetlands, 100 year floodplain, critical areas, water bodies to include annual and perennial streams, watercourses and public drainage association ditches.
6. Proposed storm water management areas (if required)
7. Proposed Sewage Reserve Areas (SRA), 10,000 sq. ft. minimum must be designated on plan parallel with contour of land
8. Soil mapping units with areas shown on plan
9. Existing structures to include potable water supply well(s) and septic system(s)
10. All subsurface drainage features
11. Irrigation well(s) with distribution system
12. Critical areas and buffers

** Major Subdivision – Any subdivision containing 5 (five) or more lots, plats, sites, or other divisions of land.*

*** Recommended sketch plat review by Technical Advisory Committee (TAC) prior to field investigation.*