

LINCOLN COUNTY
ON-SITE SEWAGE
DISPOSAL

SITE EVALUATIONS



In Lincoln County, on-site sewage disposal site evaluations are performed by County Sanitarians working with rules promulgated by Oregon's Department of Environmental Quality.

The actual site evaluation may be briefly described as an examination of soil and site characteristics relative to on-site sewage disposal. To be more specific, the governing criterion will be discussed.

SOIL

The best soil for on-site sewage disposal has a balance between its permeability and filtering capacities. Clay soil has the best filtering capacity but has poor permeability. Sand is just the opposite, having very fast permeability but poor filtering capacity. The best soil texture for on-site sewage has equal proportions of the three soil components, sand, silt and clay. It is called loam. Other soils such as siltloam, sandy clay loams and clay loams are well suited for on-site sewage disposal. In general, systems are not allowed in sand but only if using low-pressure distribution.

Another soil characteristic important for on-site sewage disposal is soil structure. It is defined as the combination or arrangement of primary soil particles into secondary particles, units, or peds. Simply put, it is the structural components remaining when the soil is broken apart. These components can be described as crummy, blocky, or in the case of sand, single grain. In general the finer the individual primary components the more massive the soil structures are. Massive soil

structures are poorly suited for on-site sewage disposal because; (1) they have a tendency to swell when wet, tightening the soil and thus reducing permeability and (2) in non-swelling soils liquids flow along the wide cracks or voids between the peds and are subject to a very low degree of filtering. Crummy structure, typical loams are best for on-site sewage disposal.

As might be expected along the Oregon coast the most important single factor determining whether a site can be approved or not is the level attained by the seasonal water table. Water tables come in two forms, permanent and temporarily perched. Permanent water tables are valuable resources providing a potential year round water source. Consequently, greater vertical separation distance between an on-site sewage disposal system and a permanent water table must be maintained. Temporary tables require less protection since they disappear during dry periods and thus would not provide a dependable water source.

Water levels are determined two ways: either by examining the soil for distinct coloration or by actual monitoring of the water table over the winter months. Blotches of soil colors indicating a water table are called mottles. They are most commonly shades of orange or gray. Their cause is the alternating wetting and drying of the soil, which tends to form isolate pockets of high and low iron concentrations. True mottles only form in soil that is completely water saturated for long periods. There are conditions where mottles are not apparent although there is definitely a high seasonal water table. Mottles might be incapable of forming due to soil chemistry or they might be masked by a strong soil color.

SITE CHARACTERISTICS

If soil conditions are found suitable for on-site sewage disposal, a site still might not be approved if there are severe site limitations. Site limitations are usually manifested into lack of usable area. These areas include: a small lot, setbacks which must be met (to wells, cutbanks, streams etc.) and limited area with acceptable soil. Options which should be considered to overcome lack of usable area include easements to adjoining property, combining lots, and special systems which use less area. In addition, if a legal commitment can be obtained guaranteeing public sewer hookup within five years, a replacement drainfield area is not needed.

SITE APPROVALS

Once site inspections (which may include winter monitoring if necessary) and all additional research are completed, a written report will be issued. Written reports will state the following:

1. The type of system which must be utilized. Properties with limitations will require more elaborate systems to increase treatment of the septic tank effluent before it is discharged into the ground.
2. The soil "rating" or seepage area of the bed or drainline required per bedroom. The finer textured the soil (clays) the more seepage area is needed to spread the effluent over a wider area.
3. Setback which must be maintained. These include 100 feet from wells and springs. 10 feet from building foundations and property lines.

4. A statement that the County Planning Department's approval is needed before development can proceed.
5. Identification of what area is approved for on-site sewage disposal and what areas are not.
6. Any special conditions such as a limit on the number of bedrooms allowed or the time of year the system may be installed.
7. A statement that the approval letter will be voided if the property is divided, the soil is cut or filled, or conditions on adjacent properties make issuance of permit impossible. (Technical rule changes do not invalidate approval letters).

With an approval letter a construction permit can be obtained provided a completed application, an adequate plot plan is submitted meeting all conditions of the approval and the required fees are paid. Construction permits are valid for one year from the date of issuance and are renewable.

SITE DENIALS

Site denial letters should contain the reason for the denial and an estimation on the chance of obtaining a variance from the rule or rules that cannot be adhered to.

Variations can only be granted by special Variance Officers appointed by the Department of Environmental Quality. Variance applications must show that the site-limiting factor can be overcome and that the public health and the environment can be protected. Variance applications are commonly prepared by consulting sanitarians. There is a separate application and fee required for a variance application.

Another option that is available is a site denial review request to the Department of Environmental Quality representative of the area. A site denial review will address only the question of the denials compliance with the rules governing the on-site sewage disposal. A separate fee and application is also required.

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