


**Number:** ONST.09.POL.822  
**Title:** APPLICATION OF RECOMMENDED STANDARDS AND GUIDANCE  
FOR SAND LINED TRENCH SYSTEMS – JULY 2009 VERSION

**Related:** ONST.07.POL.840  
(Wet Season Study)

**Approved:**   
**Environmental Health Director**  
**Date:** December 24, 2009

**Cancels:** ONST.02.POL.822 (9/1/02)

**RCW/Code:** WAC 246-272A; ARTICLE IV

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**This policy clarifies how Thurston County Environmental Health applies the *Washington State Department of Health Recommended Standards and Guidance (RS&G) for Sand Lined Trench Systems.***

The RS&G document has two types of information: Recommended Standards and Guidance. The numbered “shall” and “must” Standards are mandatory and must be implemented as written, and the italicized Guidance found in text boxes, is optional. Clarifications and exceptions to these rules are indicated below.

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1. The 5<sup>th</sup> sentence of the first paragraph is amended to read: “If the soil ~~adjacent to~~ within 6 inches of the layer of drainrock atop the sand media is Type 1, additional filter media sand or an impervious material must be placed between the type 1 soil and the drainrock making up the trench’s sidewalls and endwall to prevent short-circuiting.”
2. Second paragraph and Figure 3: A sand lined trench with an infiltrative surface in the native receiving soil deeper than 36” below original grade is called a “deep trench”. A deep trench may require a Wet Season Study as stipulated in ONST.07.POL.840.

**Wet Season Studies are *not* required for approval of deep trench systems for sites where:**

- The site is known to be unaffected by seasonal water table influence within the depth necessary for the desired system plus the minimum required vertical separation. An example would be use of a sand-lined trench 48” deep in a part of the Spanaway soil complex that is not subject to high groundwater.
- The design is to correct an existing system in failure where the upper soils are found unsuitable, but a porous material is located at greater depth. Deep trench proposals for repairs also are not subject to the minimum soil depth requirements.

**Deep trench systems for *new construction* projects where saturation exists in the overlying soils shall be addressed as follows:**

- If the site is sloping with definite groundwater movement or subsurface drainage along an impervious layer or through a permeable one, an interceptor drain must be installed upslope of the proposed drainfield area to divert this water away from the drain field site. An approved 30 mil PVC liner shall be used to surround the deep trench excavation to a depth no less than 36" below the drainrock bottom. This liner shall in all cases extend above the drainrock to the surface, and be staked over a small berm around the lip of the excavation. Cover material shall be placed over the staked liner.
- If the site is relatively flat without definite movement of groundwater along any particular path in the soil horizon, a PVC liner shall be required if it is needed to protect the sand column from inundation of groundwater from the surrounding soil. Criteria used in making this determination may include soil texture, site topography, or other information/justification as may exist for the area under review.