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|  <p>THURSTON COUNTY <i>Washington</i> Est. 1852</p> <p>Public Health & Social Services POLICY</p> | Policy Title APPLICATION OF RECOMMENDED STANDARDS AND GUIDANCE FOR SAND LINED TRENCH SYSTEMS - MARCH 2014 VERSION | |
| | Number ONST.20.POL.822 | Effective Date 02/01/2024 |
| | Latest Approval Date 06/21/2023 | Approved By Art Starry |
| | Next Review Date 06/29/2029 | |
| POLICY INTENT | | |
| Purpose | 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. | |
| Scope | <input checked="" type="checkbox"/> Internal Only <input checked="" type="checkbox"/> Direct Impact to Citizens | |
| Are Office/Department Documents on this subject permitted? | <input checked="" type="checkbox"/> Yes, the policy clarifies regulations used only by the Environmental Health Division (Article IV and WAC 246-272A) | <input type="checkbox"/> No |
| POLICY STATEMENT | | |
| <p>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.</p> <p>Possible Applications: Page 7 of 31</p> <ol style="list-style-type: none"> 1. The 5th sentence of the first paragraph is amended to read: “If the soil adjacent to within 6 inches of the layer of drainrock or gravelless chambers 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 or gravelless chambers making up the trench’s sidewalls and endwalls 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.20.POL.840. <p>Wet Season Studies are <i>not</i> required for approval of deep trench systems for sites where:</p> <ul style="list-style-type: none"> • 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. <p>Deep trench systems for <i>new construction</i> projects where saturation exists in the overlying soils shall be addressed as follows:</p> | | |

- 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 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.

3.6.1 Media Specifications

Filter media used in constructing a sand lined trench must be accompanied with a written certification from the supplier that the media fully conforms to one of the media specifications listed in Appendix A as determined by ASTM C-136 (dry sieving) and ASTM C-117 (wet sieving).

The installer is not required to provide the specifications to the department on each installation but must provide them with their Installer Construction Completion Form upon request by the department. This requirement applies to all ASTM C-33 sand-based sewage systems.


24 inches of native undisturbed Types 2-6 soil is equivalent to TLB including 12 inches of soil below it for disposal and is not required to be removed and replaced with ASTM C-33 sand to meet this treatment level per correspondence from Washington State Department of Health.

DEFINITIONS AND ACRONYMS

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| Insert Term | N/A |
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RELEVANT LAWS AND OTHER SUPPORTING INFORMATION

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| County Code | Article IV |
| State Law | WAC 246-272A |
| State Rule | |
| Other Sources | |
| Superseded Documents | ONST.09.POL.822 |
| Supporting Documents | ONST.20.GUI.822 – Technical Guidelines – Use of Sand-lined Trenches / Beds. 9/9/97 Email from Selden Hall – WSDOH |
| Related Documents | ONST.20.POL.840 (Wet Season Study) |
| Communication and Implementation Strategy | The Policy Administrator will: <ul style="list-style-type: none"> • Coordinate the review of the Office/Department Documents to ensure consistency. • Send signed updated policy to OSS Professionals and Staff through Constant Contact e-mail. |

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| | <ul style="list-style-type: none"> Post signed updated policy to Division's OSS Professionals Webpage and PHSS intranet site. | |
| POLICY ADMINISTRATION | | |
| Policy Owner | Steve Petersen, Program Manager, Environmental Health Division | |
| Contact Person (if different from above) | | |
| Roles and Responsibilities | Laura Blakely | Policy Administrator |
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| REVISION HISTORY | | |
| Effective Date | Approved By | Modifications |
| 06/21/2023 |  Art Starry/Environmental Health Director | <ul style="list-style-type: none"> Policy Updated Updated page numbers in referenced RS&G Added gravelless chambers Added clarification to sand spec requirement Clarified 24" Types 2-6 soil treatment level |
| Xx/xx/xxxx | _____ Name/Title | |
| Xx/xx/xxxx | _____ Name/Title | |
| Reviewers of the Current Revision | Brad Sangston/Environmental Health Specialist II _____ Name/Title Steven Davies/Environmental Health Specialist II _____ Name/Title Steve Petersen/Program Manager Environmental Health Division _____ Name/Title | _____ Name/Title _____ Name/Title _____ Name/Title |

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| FURTHER INFORMATION | |
| This section is not published on the final PDF document. It is for website purposes only | |
| Keywords for search engine | Soil, media, sand lined trench, groundwater, west season |