

**WAC 246-272A-0010 Definitions.** (1) Acronyms used in this chapter:

"**ANSI**" means American National Standards Institute.

"**BOD**" means biochemical oxygen demand, typically expressed in mg/L.

"**CBOD<sub>5</sub>**" means carbonaceous biochemical oxygen demand, typically expressed in mg/L.

"**FC**" means fecal coliform, typically expressed in number colonies/100 ml.

"**LOSS**" means a large on-site sewage system (see chapter 246-272B WAC).

"**NSF**" means National Sanitation Foundation International.

"**O&G** (formerly referred to as **FOG**)" means oil and grease, a component of sewage typically originating from food stuffs (animal fats or vegetable oils) or consisting of compounds of alcohol or glycerol with fatty acids (soaps and lotions). Typically expressed in mg/L.

"**OSS**" means on-site sewage system.

"**RS&G**" means recommended standards and guidance.

"**SSAS**" means a subsurface soil absorption system.

"**TAC**" means the technical advisory committee established in WAC 247-272A-0400.

"**TN**" means total nitrogen, typically expressed in mg/L.

"**TSS**" means total suspended solids, a measure of all suspended solids in a liquid, typically expressed in mg/L.

"**USEPA**" means United States Environmental Protection Agency.

(2) Definitions used in this chapter:

"**Additive**" means a commercial product added to an on-site sewage system intended to affect the performance or aesthetics of an on-site sewage system.

"**Approved**" means a written statement of acceptability issued by the local health officer or the department.

"**Bed**" means a soil dispersal component consisting of an excavation with a width greater than three feet.

"**Building sewer**" means that part of the horizontal piping of a drainage system extending from the building drain, which collects sewage from all the drainage pipes inside a building, to an on-site sewage system. It begins two feet outside the building wall and conveys sewage from the building drain to the remaining portions of the on-site sewage system.

"**Cesspool**" means a pit receiving untreated sewage and allowing the liquid to seep into the surrounding soil or rock.

"**Conforming system**" means any on-site sewage system or component, meeting any of the following criteria:

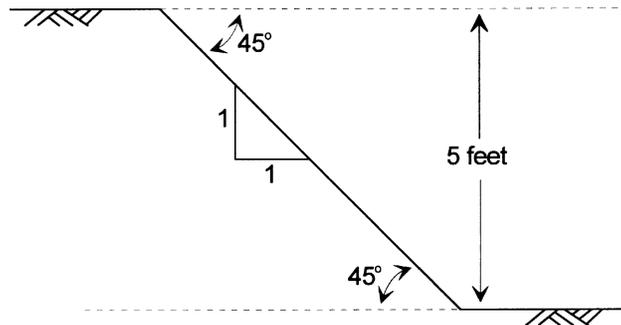
(a) In full compliance with new construction requirements under this chapter; or

(b) Approved, installed and operating in accordance with requirements of previous editions of this chapter; or

(c) Permitted by the waiver process under WAC 246-272A-0420 that assures public health protection by higher treatment performance or other methods.

"**Cover material**" means soil placed over a soil dispersal component composed predominately of mineral material with no greater than ten percent organic content. Cover material may contain an organic surface layer for establishing a vegetative landscape to reduce soil erosion.

**"Cuts and/or banks"** means any naturally occurring or artificially formed slope greater than one hundred percent (forty-five degrees) and extending vertically at least five feet from the toe of the slope to the top of the slope as follows:



**"Department"** means the Washington state department of health.

**"Designer"** means a person who matches site and soil characteristics with appropriate on-site sewage technology. Throughout this chapter this term applies to both on-site sewage treatment system designers licensed under chapter 18.210 RCW and professional engineers licensed under chapter 18.43 RCW.

**"Design flow"** means the maximum volume of sewage a residence, structure, or other facility is estimated to generate in a twenty-four-hour period. It incorporates both an operating capacity and a surge capacity for the system during periodic heavy use events. The sizing and design of the on-site sewage system components are based on the design flow.

**"Development"** means the creation of a residence, structure, facility, subdivision, site, area, or similar activity resulting in the production of sewage.

**"Disinfection"** means the process of destroying pathogenic microorganisms in sewage through the application of ultraviolet light, chlorination, or ozonation.

**"Distribution technology"** means any arrangement of equipment and/or materials that distributes sewage within an on-site sewage system.

**"Drain field"** see subsurface soil absorption system (SSAS) and soil dispersal component.

**"Drainrock"** means clean washed gravel or crushed rock ranging in size from three-quarters inch to two and one-half inches, and containing no more than two percent by weight passing a US No. 8 sieve and no more than one percent by weight passing a US No. 200 sieve.

**"Effluent"** means liquid discharged from a septic tank or other on-site sewage system component.

**"Expanding clay"** means a clay soil with the mineralogy of clay particles, such as those found in the Montmorillonite/Smectite Group, which causes the clay particles to expand when they absorb water, closing the soil pores, and contract when they dry out.

**"Expansion"** means a change in a residence, facility, site, or use that:

(a) Causes the sewage quantity or quality to exceed the existing design flow of the on-site system, for example, when a residence is increased from two to three bedrooms or a change in use from an office to a restaurant; or

(b) Reduces the treatment or dispersal capability of the existing on-site sewage system or the reserve area, for example, when a building is placed over a reserve area.

**"Extremely gravelly"** means soil with sixty percent or more, but less than ninety percent rock fragments by volume.

**"Failure"** means a condition of an on-site sewage system or component that threatens the public health by inadequately treating sewage or by creating a potential for direct or indirect contact between sewage and the public. Examples of failure include:

(a) Sewage on the surface of the ground;

(b) Sewage backing up into a structure caused by slow soil absorption of septic tank effluent;

(c) Sewage leaking from a sewage tank or collection system;

(d) Cesspools or seepage pits where evidence of groundwater or surface water quality degradation exists;

(e) Inadequately treated effluent contaminating groundwater or surface water; or

(f) Noncompliance with standards stipulated on the permit.

**"Fecal coliform"** means bacteria common to the digestive systems of warm-blooded animals that are cultured in standard tests. Counts of these organisms are typically used to indicate potential contamination from sewage or to describe a level of needed disinfection. Generally expressed as colonies per 100 ml.

**"Gravelly"** means soils with fifteen percent or more, but less than thirty-five percent rock fragments by volume.

**"Gray water"** means sewage from bathtubs, showers, bathroom sinks, washing machines, dishwashers, and kitchen sinks. It includes sewage from any source in a residence or structure that has not come into contact with toilet wastes.

**"Groundwater"** means subsurface water occupying the zone of saturated soil, permanently, seasonally, or as the result of the tides. Indications of groundwater may include:

(a) Water seeping into or standing in an open excavation from the soil surrounding the excavation or monitoring ports.

(b) Spots or blotches of different color or shades of color interspersed with a dominant color in soil, caused by reduction and oxidation of iron. These color patterns are redoximorphic features, commonly referred to as mottling. Redoximorphic features often indicate the intermittent presence of groundwater and may indicate poor aeration and impeded drainage. Also see "water table."

**"Holding tank sewage system"** means an on-site sewage system which incorporates a sewage tank without a discharge outlet, the services of a sewage pumper/hauler, and the offsite treatment and disposal for the sewage generated.

**"Hydraulic loading rate"** means the amount of effluent applied to a given treatment step, in this chapter expressed as gallons per square foot per day (gal/sq.ft./day).

**"Industrial wastewater"** means the water or liquid carried waste from an industrial process. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feedlots, poultry houses, or dairies. The term includes contaminated stormwater and leachate from solid waste facilities.

**"Infiltrative surface"** means the surface within a treatment component or soil dispersal component to which effluent is applied and through which effluent moves into original, undisturbed soil or other porous treatment media.

**"Installer"** means a person approved by the local health officer to install on-site sewage systems or components.

**"Local health officer"** means the health officer of the city, county, or city-county health department or district within the state of Washington, or a representative authorized by and under the direct supervision of the local health officer, as defined in chapter 70.05 RCW.

**"Maintenance"** means the actions necessary to keep the on-site sewage system components functioning as designed.

**"Massive structure"** means the condition of a soil layer in which the layer appears as a coherent or solid mass not separated into peds of any kind.

**"Moderate structure"** means well-formed distinct peds evident in undisturbed soil. When disturbed, soil material parts into a mixture of whole peds, broken peds, and material that is not in peds.

**"Monitoring"** means periodic or continuous checking of an on-site sewage system, which is performed by observations and measurements, to determine if the system is functioning as intended and if system maintenance is needed. Monitoring also includes maintaining accurate records that document monitoring activities.

**"On-site sewage system" (OSS)** means an integrated system of components, located on or nearby the property it serves, that conveys, stores, treats, and/or provides subsurface soil treatment and dispersal of sewage. It consists of a collection system, a treatment component or treatment sequence, and a soil dispersal component. An on-site sewage system also refers to a holding tank sewage system or other system that does not have a soil dispersal component.

**"Operating capacity"** means the average daily volume of sewage an OSS can treat and disperse on a sustained basis. The operating capacity, which is lower than the design flow, is an integral part of the design and is used as an index in OSS monitoring.

**"Ordinary high-water mark"** means the mark on lakes, streams, springs, and tidal waters, found by examining the beds and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland with respect to vegetation, as that condition exists on the effective date of this chapter, or as it may naturally change thereafter. The following definitions apply where the ordinary high-water mark cannot be found:

(a) The ordinary high-water mark adjoining marine water is the elevation at mean higher high tide; and

(b) The ordinary high-water mark adjoining freshwater is the line of mean high water.

**"Ped"** means a unit of soil structure such as blocks, column, granule, plate or prism formed by natural processes.

**"Person"** means any individual, corporation, company, association, society, firm, partnership, joint stock company, or any governmental agency, or the authorized agents of these entities.

**"Planned unit development"** means a subdivision characterized by a unified site design, clustered residential units and/or commercial units, and areas of common open space.

**"Platy structure"** means soil that contains flat peds that lie horizontally and often overlap. This type of structure will impede the vertical movement of water.

**"Pressure distribution"** means a system of small diameter pipes equally distributing effluent throughout a SSAS, as described in the

department's "Recommended Standards and Guidance for Pressure Distribution Systems," 2001. A subsurface drip system may be used wherever the chapter requires pressure distribution.

**"Professional engineer"** means a person who is currently licensed as an engineer under the provisions of chapter 18.43 RCW.

**"Proprietary product"** means a sewage treatment and distribution technology, method, or material subject to a patent or trademark.

**"Public domain technology"** means a sewage treatment and distribution technology, method, or material not subject to a patent or trademark.

**"Public sewer system"** means a sewerage system:

(a) Owned or operated by a city, town, municipal corporation, county, or other approved ownership consisting of a collection system and necessary trunks, pumping facilities and a means of final treatment and disposal; and

(b) Approved by or under permit from the department of ecology, the department of health and/or a local health officer.

**"Pumper"** means a person approved by the local health officer to remove and transport sewage or septage from on-site sewage systems.

**"Record drawing"** means an accurate graphic and written record of the location and features of the OSS that are needed to properly monitor, operate, and maintain that system.

**"Repair"** means the relocation, replacement or reconstruction of a failed on-site sewage system.

**"Reserve area"** means an area of land approved for the installation of a conforming system that is protected and maintained for replacement of the OSS upon its failure.

**"Residential sewage"** means sewage having the constituency and strength typical of wastewater from domestic households.

**"Restrictive layer"** means a stratum impeding the vertical movement of water, air, and growth of plant roots, such as hardpan, claypan, fragipan, caliche, some compacted soils, bedrock and unstructured clay soils.

**"Rock fragment"** means rock or mineral fragments having a diameter of two millimeters or more; for example, gravel, cobbles, stones, and boulders.

**"Seepage pit"** means an excavation more than three feet deep where the sidewall of the excavation is designed to dispose of septic tank effluent. Seepage pits may also be called "dry wells."

**"Septage"** means the mixture of solid wastes, scum, sludge, and liquids pumped from within septic tanks, pump chambers, holding tanks, and other OSS components.

**"Septic tank"** means a watertight treatment receptacle receiving the discharge of sewage from a building sewer or sewers, designed and constructed to permit separation of settleable and floating solids from the liquid, detention and anaerobic digestion of the organic matter, prior to discharge of the liquid.

**"Septic system"** see on-site sewage system or OSS.

**"Sewage"** means any urine, feces, and the water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments or other places.

**"Sewage quality"** means contents in sewage that include:

(a) CBOD<sub>5</sub>, TSS, and O&G;

(b) Other parameters that can adversely affect treatment. Examples include pH, temperature, and dissolved oxygen;

(c) Other constituents that create concerns due to specific site sensitivity. Examples include fecal coliform and nitrogen.

**"Sewage tank"** means a prefabricated or cast-in-place septic tank, pump tank/dosing chamber, holding tank, grease interceptor, recirculating filter tank or any other tanks as they relate to on-site sewage systems including tanks for use with proprietary products.

**"Soil dispersal component"** means a technology that releases effluent from a treatment component into the soil for dispersal, final treatment and recycling.

**"Soil log"** means a detailed description of soil characteristics providing information on the soil's capacity to act as an acceptable treatment and dispersal medium for sewage.

**"Soil scientist"** means a person certified by the American Society of Agronomy as a Certified Professional Soil Scientist.

**"Soil type"** means one of seven numerical classifications of fine earth particles and rock fragments as described in WAC 246-272A-0220 (2) (e).

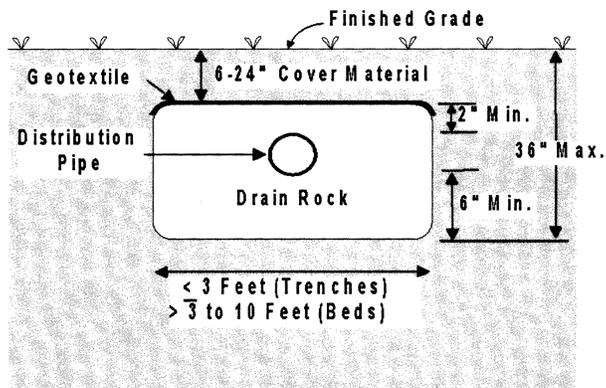
**"Standard methods"** means the *20th Edition of Standard Methods for the Examination of Water and Wastewater*, prepared and published jointly by the American Public Health Association, the American Water Works Association and the Water Environment Federation.

**"Strong structure"** means peds are distinct in undisturbed soil. They separate cleanly when soil is disturbed, and the soil material separates mainly into whole peds when removed.

**"Subdivision"** means a division of land or creation of lots or parcels, described under chapter 58.17 RCW, including both long and short subdivisions, planned unit developments, and mobile home parks.

**"Subsurface drip system"** means an efficient pressurized wastewater distribution system that can deliver small, precise doses of effluent to soil surrounding the drip distribution piping (called dripline) as described in the department's *"Recommended Standards and Guidance for Subsurface Drip Systems."*

**"Subsurface soil absorption system" (SSAS)** means a soil dispersal component of trenches or beds containing either a distribution pipe within a layer of drainrock covered with a geotextile, or an approved gravelless distribution technology, designed and installed in original, undisturbed, unsaturated soil providing at least minimal vertical separation as established in this chapter, with either gravity or pressure distribution of the treatment component effluent.



**"Surface water"** means any body of water, whether fresh or marine, flowing or contained in natural or artificial unlined depressions for significant periods of the year, including natural and artificial

lakes, ponds, springs, rivers, streams, swamps, marshes, irrigation canals and tidal waters.

**"Timed dosing"** means delivery of discrete volumes of sewage at prescribed time intervals.

**"Treatment component"** means a technology that treats sewage in preparation for further treatment and/or dispersal into the soil environment. Some treatment components, such as mound systems, incorporate a soil dispersal component in lieu of separate treatment and soil dispersal components.

**"Treatment level"** means one of six levels (A, B, C, D, E, & N) used in these rules to:

(a) Identify treatment component performance demonstrated through requirements specified in WAC 246-272A-0110; and

(b) Match site conditions of vertical separation and soil type with treatment components. Treatment levels used in these rules are not intended to be applied as field compliance standards. Their intended use is for establishing treatment product performance in a product testing setting under established protocols by qualified testing entities.

**"Treatment sequence"** means any series of treatment components that discharges treated sewage to the soil dispersal component.

**"Trench"** means a soil dispersal component consisting of an excavation with a width of three feet or less.

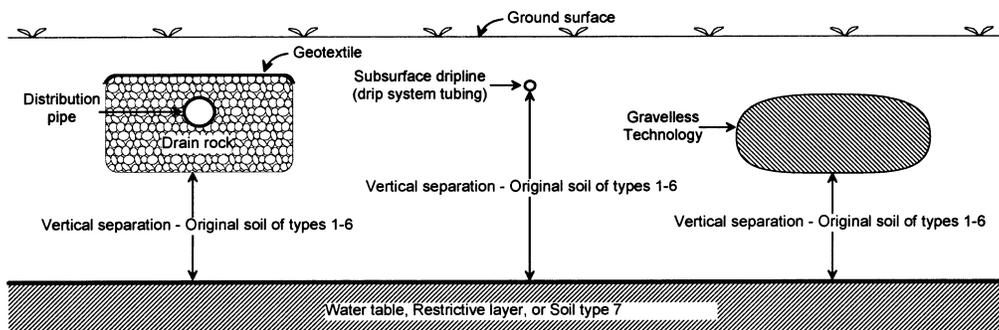
**"Unit volume of sewage"** means:

(a) Flow from a single-family residence;

(b) Flow from a mobile home site in a mobile home park; or

(c) Four hundred fifty gallons of sewage per day where the proposed development is not single-family residences or a mobile home park.

**"Vertical separation"** means the depth of unsaturated, original, undisturbed soil of soil types 1-6 between the bottom infiltrative surface of a soil dispersal component and the highest seasonal water table, a restrictive layer, or soil type 7 as illustrated below by the profile drawing of subsurface soil absorption systems:



**"Very gravelly"** means soil containing thirty-five percent or more, but less than sixty percent rock fragments by volume.

**"Water table"** means the upper surface of the groundwater, whether permanent or seasonal. Also see "groundwater."

**"Well"** means any excavation that is constructed when the intended use of the well is for the location, diversion, artificial recharge, observation, monitoring, dewatering or withdrawal of groundwater for agricultural, municipal, industrial, domestic, or commercial use. Excluded are:

(a) A temporary observation or monitoring well used to determine the depth to a water table for locating an OSS;

- (b) An observation or monitoring well used to measure the effect of an OSS on a water table; and
- (c) An interceptor or curtain drain constructed to lower a water table.

[Statutory Authority: RCW 43.20.050. WSR 05-15-119, § 246-272A-0010, filed 7/18/05, effective 9/15/05.]