Whatcom County

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Agenda Bill Master Report

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TITLE FOR AGENDA ITEM:

Ordinance adopting amendments to Whatcom County Code 24.05, Onsite Sewage System Regulations

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

The proposed ordinance amends Whatcom County Code 24.05 Onsite Sewage System Regulations. In January of 2024, the Board of Health adopted changes to the Washington State administration code WAC 246-272A. Since this time, WCC.24.05 has been reviewed to reflect OSS mangament best practices and the required changes in WAC 246-272A.

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
02/11/2025	Council	INTRODUCED	Council Public Works & Health Committee
	Aye: 7	Buchanan, Byrd, Donovan, Elenbaas, Galloway, Scanlon, and Stremler	
	Nay: 0		
02/25/2025	Council Public Works & Health Committee	DISCUSSED AND MOTION(S) APPROVED	
02/25/2025	Council	DISCUSSED AND MOTION(S) APPROVED	
03/11/2025	Council	ADOPTED	
	Aye: 7	Buchanan, Byrd, Donovan, Elenbaas, Galloway, Scanlon, and Stremler	
	Nay: 0		

Attachments: Staff Memo, Summary of Significant Code Changes, Substitute Summary of Significant Code Changes, Proposed Ordinance, Notice of Action Proposed on 2.11.2025, Notice of Hearing after 2.25.2025

Exhibit A
WCC 24.05 Onsite Sewage System Regulations

Sections:

24.05.~~150~~260 Inspection~~ and record drawing~~.

24.05.~~160~~270 Record drawings.

24.05.280 Operation, monitoring and maintenance – Owner responsibilities.

~~24.05.170~~24.05.290 Operation, monitoring and maintenance – Food service establishments.

24.05.300 Remediation.

24.05.310 Repair of failures.

24.05.~~180~~320 Minor repair of malfunctions.

24.05.330 Expansions.

24.05.~~190~~340 Abandonment.

24.05.~~200~~350 Septage management.

24.05.~~210~~360 Developments, subdivisions, and minimum land area requirements.

~~24.05.220 –~~24.05.370 Approval of installers, pumpers, and maintenance service providers.

24.05.380 Licensing~~.~~

24.05.~~230~~390 Technical advisory group (TAG).

24.05.400 Policy advisory group.

24.05.410 Waivers.

24.05.~~240~~420 Required review of rules.

24.05.430 Enforcement.

24.05.~~250 Appeals~~440 Notice of decision – Adjudicative proceeding.

24.05.~~260~~450 Severability.

24.05.~~270~~460 Fees.

24.05.~~010~~010~~001~~ Purpose, objectives, and authority.

~~A~~1. The purpose of this chapter is to protect the public health by minimizing:

~~1.~~(a) The potential for public exposure to sewage from on-site sewage systems~~;~~ (OSS); and

~~2.~~(b) Adverse effects to public health that discharges from ~~on-site sewage systems~~OSS may have on ground and surface waters.

~~B~~2. This chapter regulates the location, design, installation, operation, maintenance, and monitoring of ~~on-site sewage systems~~OSS to:

1. (a) Achieve long-term sewage treatment and effluent dispersal; and

2. (b) Limit the discharge of contaminants to waters of the state.

3. The state board of health is authorized under RCW 43.20.050 to establish minimum requirements for the department of health and local boards of health, and consistent with RCW 43.70.310 integrating the preservation of public health with protection of the environment in order to endorse policies in common.

4. This chapter is intended to coordinate with other applicable statutes and rules for the design of OSS under Chapter 18.210 RCW, Chapters 196-33 and Chapter 246-272A WAC.

5. This chapter is intended to coordinate with other applicable statutes for land use planning under chapters 36.70 and 36.70A RCW, and the statutes for subdivision of land under chapter 58.17 RCW and with land use planning regulation of Whatcom County. (Ord. 2006-056 Exh. A~~C.~~)

6. The local health officer may designate low-lying marine shorelines in their jurisdiction.

7. This chapter provides for the issuance of permits, establishment of fees, licensing and bonding of installers, pumpers, and operation and maintenance specialists of sewage disposal systems and an appeals procedure.

~~D. This chapter is intended to coordinate with other applicable statutes and rules for the design of on-site sewage systems under Chapter 18.210 RCW and Chapters 196-33 and 246-272A WAC.~~

~~E. This chapter is intended to coordinate with the land use planning regulation of Whatcom County.~~

~~(Ord. 2006-056 Exh. A).~~

24.05.~~020~~020~~05~~ Administration.

The health officer shall administer this chapter under the authority and requirements of Chapters ~~70.05, 70.08, 70.46, and 43.70 RCW. Under RCW 70.05.060(7), fees may be charged for this administration.~~70.05, 70.08, 70.46, 70A.105, 70A.110 and 43.70 RCW. Under RCW 70.05.060(7), fees may be charged for this administration. (Ord. 2006-056 Exh. A).

24.05.~~060~~030~~07~~ Applicability.

~~A.~~(1) The health officer~~:~~

~~1.~~:(a) Shall apply this chapter to OSS treating sewage and dispersing effluent from residential sewage sources with design flows up to 3,500 gallons per day;

~~2.~~(b) May apply this chapter to OSS for nonresidential sources of sewage if treatment, siting, design, installation, and operation and maintenance measures provide treatment and effluent dispersal equal to that required of residential sources;

~~3.~~ (c) May not apply this chapter to industrial wastewater.

~~B.~~(2) The department shall apply the requirements of chapter 246-272A for the registration of proprietary treatment and distribution products.

(3) A valid sewage system design approval or construction permit issued prior to the effective date of the ordinance codified in this chapter:

~~1.~~(a) Shall be acted upon in accordance with regulations in force at the time of issuance;

~~2.~~(b) Shall have a maximum validity period of five years from the date of issuance or remain valid for an additional year beyond the effective date of the ordinance codified in this chapter, whichever assures the most lenient expiration date; and

~~3.~~(c) May be modified to include additional requirements if the health officer determines that a serious threat to public health exists.

~~C.~~(4) This chapter does not apply to facilities regulated as reclaimed water use under chapters 90.46 RCW and 173-219 WAC.

(5) WDOE has authority and approval over:

~~1.~~(a) Domestic or industrial wastewater under Chapter 173-240 WAC; and

~~2.~~(b) Sewage systems using mechanical treatment, or lagoons, with ultimate design flows above 14,500 gallons per day.

~~D.~~(c) Intermediate septage holding facilities of 20,000 gallons or more

(6) WDOH has authority and approval over:

~~1.~~(a) Systems with design flows through any common point between 3,500 to 14,500 gallons per day; and

~~2.~~(b) Any large on-site sewage system (LOSS) for which jurisdiction has been transferred to WDOH~~under conditions of memorandum of agreement~~.

~~E.~~(7) The health officer has authority and approval over:

~~1. Systems with design flows through any common point up to 3,500 gallons per day;~~

~~2.~~(a) Any large on-site sewage system (LOSS) for which jurisdiction has been transferred to the ~~WCHD~~WCHCS from WDOH by contract.

~~F.~~(8) Where this chapter conflicts with Chapter ~~90.46~~90.46 RCW, Water Pollution Control, the requirements under those statutes apply. (Ord. 2006-056 Exh. A).

24.05.~~030~~040~~09~~ Adoption by reference.

Chapter ~~246-272A WAC, On-Site Sewage System~~246-272A WAC, OSS Rules and Regulations, is hereby adopted by reference. If a conflict arises between Chapter ~~246-272A~~246-272A WAC and this chapter, the more restrictive regulation shall prevail. Any subsequent amendment to Chapter ~~246-272A~~246-

272A WAC shall be considered to have been incorporated into this chapter without the need for further amendment. (Ord. 2006-056 Exh. A).

24.05.~~040~~050~~010~~ Definitions.

The definitions used in this section apply throughout this chapter unless the context clearly indicates otherwise:

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

~~"Aerobic treatment unit (ATU)" means a container which provides enhanced aerobic biodegradation or decomposition of sewage by bringing the sewage into contact with air by some mechanical or nonmechanical means, e.g., air pumps, air injectors, fabric, grids, gravel, pipes or rotating disks.~~

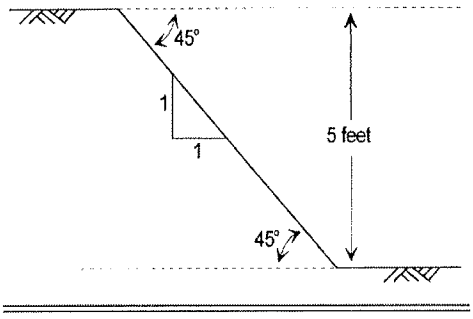
~~"Alternative system" means an on-site sewage system other than a conventional gravity system or conventional pressure distribution system. Properly operated and maintained alternative systems provide equivalent or enhanced treatment performance as compared to conventional gravity systems.~~

"ADU" means accessory dwelling unit. An accessory dwelling unit is a 2nd dwelling unit on the same piece of property as the primary dwelling unit."

"ANSI" means American National Standards Institute.

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

"Bank" means any naturally occurring slope greater than 100 percent (45 degrees) and extending vertically at least five feet from the toe of the slope to the top of the slope as follows:



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

"BL" means bacterial level

"Bedroom" means any enclosed room of 70 square feet or more that is not designated as a kitchen, living/family room, utility room, office, bathroom, or dining room adjacent to the kitchen.

"

"Black water" means any waste from toilets or urinals.

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

"Building drain" means that part of the lowest piping of a building's drainage system that receives the discharge of sewage from pipes inside the walls of the building and conveys it to the building sewer beginning two feet outside the building wall.

"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.~~OSS. 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~~OSS.

"CBOD5" means carbonaceous biochemical oxygen demand, typically expressed in mg/L.

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

"Common point" as it refers to OSS means any interconnection of sewerage piping systems whether inside or outside of a building or structure.

Community Drainfield means 1. An OSS designed to serve more than one development other than primary dwelling & ADU; or 2. An OSS with a design flow, at any common point, more than one thousand (1,000) gallons per day and less than or equal to three thousand five hundred (3,500) gallons per day for non-residential sources.

"Conforming system" means any ~~on-site sewage system~~OSS meeting any of the following criteria:

~~1.~~(a) In full compliance with new construction requirements under this chapter; or

~~2.~~(b) Approved, installed and operating in accordance with requirements of previous editions of this chapter; or

~~3.~~(c) Permitted through the waiver process ~~which assures public health protection~~under WCC 24.25.~~0420~~.410.

"Continuing Education Unit" (CEU) means 8 contact hours earned by ~~higher treatment performance~~attending continuing education programs such as but not limited to approved training, classes, courses, workshops, offerings, correspondence instructions or other ~~mitigation methods~~means of providing instruction. A certificate of completion is required to receive credit.

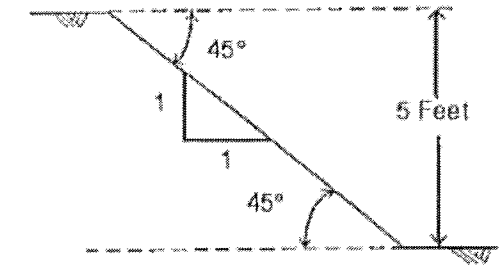
~~"Conventional gravity system" means an on-site sewage system consisting of a septic tank and a subsurface soil absorption system with gravity distribution of the effluent.~~

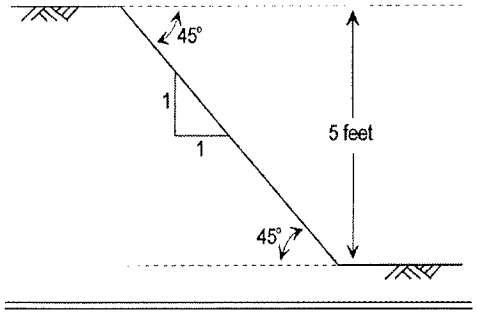
"Covenant" means a recorded agreement outlining certain activities and/or practices that are required or prohibited by a property owner.

"Cover material" means soil placed over a soil dispersal component composed predominately of mineral material with no greater than 10 percent organic content. Cover material is permeable soil that may contain an organic surface layer for establishing a vegetative landscape to reduce soil erosion.

~~"Cut and/or bank"~~

"Cuts means any ~~naturally occurring or~~ artificially formed slope greater than 100 percent (45 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 OSS 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 24-hour period. It incorporates both an operating capacity and a surge capacity for the ~~system~~OSS during periodic heavy use events. The sizing and design of the ~~on-site sewage system~~OSS components are based on the design flow.

~~"Designer" means a person who matches site and soil characteristics with appropriate on-site sewage technology licensed under Chapter 18.210 RCW and professional engineers licensed under Chapter 18.43 RCW.~~

"Detention Pond" means an earthen impoundment used for the collection and temporary storage of stormwater runoff.

"Development" means the creation of a residence, structure, facility, subdivision, site, area planned unit development, ~~site, area,~~ or any 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~~OSS.

~~Drain Field. See "Subsurface soil absorption system (SSAS)" and "Soil dispersal component."~~

~~"Drainage ditch" means a linear excavation or depression constructed for the purpose of conveying surface runoff or ground water from one area to another.~~

"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 U.S. No. 8 sieve and no more than one percent by weight passing a U.S. No. 200 sieve.

"DS&G" means department standards and guidance.

"E. coli" means Escherichia coli bacteria. Counts of these organisms are typically used to indicate potential contamination from sewage or to describe a level of needed disinfection, typically expressed as colony forming units/100 ml~~.~~

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

"EPA" means United States Environmental Protection Agency.

"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:

~~1.~~(a) Causes ~~an on-site~~the sewage ~~system~~quantity or quality to exceed ~~its~~the existing design flow or treatment ~~or dispersal capability;~~of the OSS, for example, when a residence is increased from two to three bedrooms or a change in use from an office to a restaurant or change in restaurant type to produce high strength waste; or

~~2. Results in an increase of more than 50 percent of the existing floor space; or~~

~~3.~~(b) Reduces the treatment or dispersal capability of the existing ~~on-site sewage system~~ OSS or the reserve area~~;~~, for example, when a building is placed over a reserve area.

"Extremely gravelly" means soil with 60 percent or more, but less than 90 percent, rock fragments by volume.

"Failure" means a condition of an ~~on-site sewage system~~OSS 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:

~~1.~~(a) Sewage on the surface of the ground;

~~2. Sewage~~(b) Septic backing up into a structure caused by slow soil absorption of septic tank effluent;

~~3.~~(c) Sewage leaking from a ~~septic~~sewage tank~~, pump chamber, holding tank,~~ or collection system;

~~4.~~(d) Cesspools or seepage pits where evidence of ground water or surface water quality degradation exists;

~~5.~~(e) Inadequately treated effluent contaminating ground water or surface water;

~~6.~~(f) Noncompliance with standards stipulated on the permit.

"Fecal coliform" or "FC" 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~~Typically expressed ~~as colonies per~~ in colony forming units/100 ml.

"Fill" means unconsolidated material that:

(a) Meets soil types 1-6 textural criteria and is used as part of a dispersal component;

(b) Is used to change grade or to enhance surface water diversion; or

(c) Is any other human-transported material.

"Flood plain" means an area that is low-lying and adjacent to a stream or river that is covered by water during a flood.

"Geotextile" means barrier material covering the gravel trench or bed. The geotextile shall be nonwoven. The fabric shall be free of any chemical treatment or coating which reduces permeability and shall be inert to chemicals commonly found in soil.

"GPD" means gallons per day.

"Gravelly" means soils with 15 percent or more, but less than 35 percent, rock fragments by volume.

~~"Gray water"~~

Greywater" means sewage from any source in a residence or structure that has not come into contact with toilet or urinal wastes, including 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.~~

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

~~1.~~(a) Water seeping into or standing in an open excavation from the soil surrounding the excavation or monitoring port.

~~2.~~(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 ground water and may indicate poor aeration and impeded drainage. ~~Also see "Water table."~~

~~"Health officer" means the health officer of Whatcom County, or a representative authorized by and under the direct supervision of the health officer as defined in Chapter 70.05 RCW.~~

~~"~~

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

"Hydraulic loading rate" means the amount of effluent applied to a given treatment step, ~~in this regulation~~ expressed as gallons per square foot per day ~~(~~or 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~~Industrial wastewater includes contaminated storm water and leachate from solid waste facilities.

"Infiltration pond" means an earthen impoundment used for the collection, temporary storage, and infiltration of stormwater run-off.

"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 ~~qualified~~ person approved by ~~a~~the local health officer to install an OSS or ~~repair on-site sewage systems or~~OSS components.

"Intermediate septage holding tank" means a septage holding tank used by a licensed pumper intended for intermediate storage of septage up to 19,999 gallons prior to final disposal at a permitted facility.

~~"Large~~

"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.

"LOSS" means a large on-site sewage system ~~(LOSS)" means any on-site sewage system with design flows, at any common point, greater than 3,500 gallons per day.~~under chapter 246-272B WAC.

"Lot" means the entire parcel of land with fixed boundaries in single or joint ownership, which area is for the use of the occupants of the building to be served by the proposed sewage disposal system. Easements may be included in determining the boundaries of the lot.

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

"Maintenance service provider" means a management entity certified by the local health officer and conducts a comprehensive analysis of an OSS.

"Malfunction" means a damaged or deficient previously conforming OSS component that may be corrected by means of a minor repair.

"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.

"May" means discretionary, permissive, or allowed.

"mg/L" means milligrams per liter.

"ml" means milliliter.

"Minimum usable land area" means the minimum land area within the minimum lot size required per development using an OSS, which is based on soil type and type of water supply. Minimum usable land area is free of all physical restrictions and meet minimum vertical and horizontal separations.

"Minor repair" means the repair or replacement of any of the following existing damaged or malfunctioning OSS components except that the repair or replacement of a sewage tank, treatment component, or soil dispersal component is not considered a minor repair:

(a) Control panels;

(b) Building sewers;

(c) Any other portions of tightline in the OSS;

(d) Risers and riser lids;

(e) Sewage tank baffles;

(f) Effluent filters;

(g) Sewage tank pumps and lids;

(h) Pump control floats; and

(i) OSS inspection boxes and ports.

"Mobile home park" means a plot of ground in which three or more sites are intended for permanent occupancy by mobile homes.

"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.

"Modification" means the alteration of an existing OSS component that does not result in an expansion of the system. A modification is not considered a repair.

"Monitoring" means periodic or continuous checking of an ~~on-site sewage system~~OSS, 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.

"NSF" means National Sanitation Foundation International.

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

~~"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.

"Operation and maintenance specialist" means a ~~qualified~~ person ~~approved~~licensed by the local health officer and approved to perform operation inspections, minor repairs and maintenance ~~inspections~~ on ~~on-site sewage systems or~~OSS and OSS components.

"Ordinary high water mark" means the mark on lakes, streams, 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 the regulation codified in this chapter, or as it may naturally change thereafter. The following ~~definitions~~conditions apply where the ordinary high water mark cannot be found:

~~1.~~(a) The ordinary high water mark adjoining marine water is the elevation at mean higher high tide; and

~~2.~~(b) The ordinary high water mark adjoining freshwater is the line of mean high water.

"OSS" means on-site sewage system, an integrated system of components, located on or nearby the property it serves, which conveys, stores, treats, and provides subsurface soil treatment and dispersal of sewage. It consists of a collection system, a treatment component or treatment component sequence, and a soil dispersal component. An OSS also refers to a holding tank sewage system or other system that does not have a soil dispersal component. The term "on-site sewage system (OSS)" does not include any system regulated by a water quality discharge permit issued under chapter 90.48 RCW.

"PAG" means policy advisory group.

"PDP" means product development permit.

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

"Permit" means a written document issued by the health officer authorizing the construction, installation, expansion or ~~alteration~~modification of a sewage disposal system.

~~"~~

"Person~~"~~" means any individual, corporation, company, association, society, firm, partnership, joint stock company, or any governmental agency, or the authorized agents of ~~any such entities. Employees of persons holding a valid license under this chapter are included in and covered by the license and a company may designate an employee as a qualified professional representing the company.~~these entities. For the purposes of WCC 24.05.~~0430~~.430 and 24.05.~~0440~~.440, a person is defined to include:

(a) Applicant;

(b) Reapplicant;

(c) Permit holder; or

(d) Any individual associated with (a), (b) or (c) of this subsection including, but not limited to:

(i) Board members;

(ii) Officers;

(iii) Managers;

(iv) Partners;

(v) Association members;

(vi) Agents; and

(vii) Third persons acting with the knowledge of such persons.

"Planned unit development" means a ~~development~~subdivision characterized by a unified site design, clustered residential units ~~and/~~, resorts, industrial or commercial units, and areas of common open space~~.~~, to be planned and constructed as a unit.

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

"Premises" means any building or structure and the property on which it is located and surrounding area utilized by persons as a residence, a place of business or place of sponsored public assembly and includes established picnic or campgrounds.

~~"~~

"Pressure distribution~~"~~" means a system of small-diameter pipes equally distributing effluent throughout an ~~SSAS~~OSS, as described in the ~~WDOH "RS~~DS&G for Pressure Distribution Systems~~," latest version.~~, 2022. A subsurface drip system ~~may be used wherever the regulation requires~~ is considered a pressure distribution system.

"Professional engineer" means a person who is currently licensed as an engineer under the provisions of Chapter ~~18.43 RCW.~~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:

~~1.~~(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

~~2.~~(b) Approved by or under permit from ~~WDOE, WDOH and/or~~ the department of ecology, the department of health or a local health officer.

~~"~~

"Puget Sound counties" means Clallam, Island, Kitsap, Jefferson, Mason, San Juan, Seattle-King, Skagit, Snohomish, Tacoma-Pierce, Thurston, and Whatcom. All other counties are defined as non-Puget Sound counties.

"Pump chamber" means a watertight receptacle placed after a septic tank, sewage tank, or other treatment facility that contains the required controls and alarms to convey sewage effluent to a treatment or dispersal component.

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

"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.

"Remediation" means any action, approved by the local health officer, which attempts to restore the function of a previously conforming OSS dispersal component that has failed. Remediation is not considered:

(a) A minor repair;

(b) A repair;

(c) An additive; or

(d) A treatment or distribution technology that allows the OSS to meet a specific treatment level

"Recreational vehicle" means a vehicular-type unit as defined by the Department of Labor and Industries, designed for temporary living quarters for recreational, camping or travel use, which either has its own motor power or is mounted on or drawn by another vehicle.

"Recreational vehicle park" means a plot of land in which three or more sites are occupied or intended for occupancy by recreational vehicles for travel, recreational or vacation uses.

"Repair" means ~~restoration, by reconstruction or~~ the relocation, ~~or~~ replacement or reconstruction of a failed ~~on-site sewage system~~OSS, or any OSS components not included in the list for a minor repair, which have failed in order to restore the OSS to a nonfailure status.

"Report of system status" means a ~~WCHD~~WCHCS operations and maintenance report filed by a ~~WCHD~~WCHCS licensed O&M specialist completed at intervals outlined in WCC ~~24.05.160(A)(4~~ 24.05.~~0270~~.280 (1)(e).

"Reserve area" means an area of land approved for the installation of a conforming ~~system~~OSS and dedicated for replacement of the OSS upon its failure.

"Residential sewage" means sewage having the constituency and ~~strength~~ quality typical of ~~wastewater from domestic households.~~residential septic tank effluent consistent with treatment level E identified in Table III in WCC 24.05.~~0110~~.100.

"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~~. Examples include gravel, cobbles, stones, and boulders.

~~"RS&G" means recommended standards and guidance documents published and updated by WDOH.~~

"School" means any publicly financed or private or parochial school or facility used for the purpose of school instruction, from the kindergarten through twelfth grade. This definition does not include a private residence in which parents teach their own natural or legally adopted children.

"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~~are also ~~be called "~~known as dry wells~~.~~".

"Septage" means ~~the mixture of~~liquid or solid ~~wastes, scum, sludge, and liquids pumped~~material removed from ~~within septic~~ sewage tanks, ~~pump chambers,~~cesspools, portable toilets, type III marine sanitation devices, vault toilets, pit toilets, recreational vehicle holding tanks, ~~and other OSS components.~~or similar systems that receive only domestic sewage.

Septic System. See "On-site sewage system (OSS)."

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

"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. ~~Also see "Residential sewage."~~

"Sewage quality" means contents in sewage that include:

~~1.~~(a) CBOD5, TSS, and O&G;

~~2.~~(b) Other parameters that ~~can~~may adversely affect treatment. Examples include pH, temperature, and dissolved oxygen; or

~~3.~~(c) Other constituents that create concerns due to specific site sensitivity. Examples include fecal coliform-, E. coli, phosphorus, 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~~OSS including tanks for use with proprietary products.

"Shall" means mandatory.

"Shoreline management program area" means upland areas within 200 feet of the ordinary high water mark (OHWM) of the shoreline of all streams with a mean average flow of 20 cubic feet per second, all lakes over 20 acres in size, all marine shorelines, and all associated wetlands and flood plains, and floodways in accordance with the Whatcom County critical areas ordinance.

"Significant periods of the year" means six months or longer.

"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~~Certified Professional Soil Scientist.

"Soil type" means a numerical classification of fine earth particles and coarse fragments as described in WCC ~~24.05.110(B)(5), Table II.~~ 24.05.~~0220~~.180 (2)(e).

~~"SSAS (subsurface soil absorption system)"~~

"Standard methods" 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 regulation, with either gravity or pressure distribution of the treatment component effluent.~~

~~"Standard Methods" means the 20th~~ 23rd 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~~58.17 RCW, now or as hereafter amended, including both long and short subdivisions, planned unit developments, and mobile home parks.

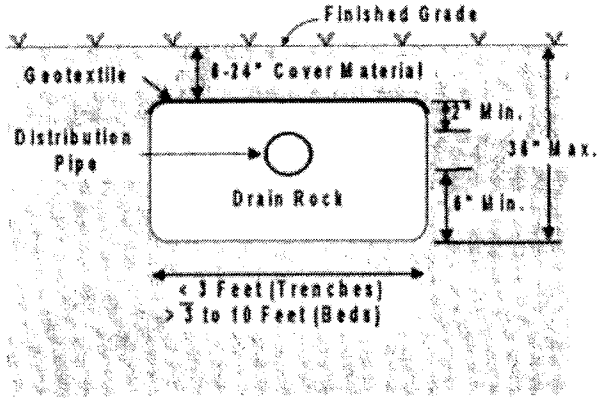
~~"~~

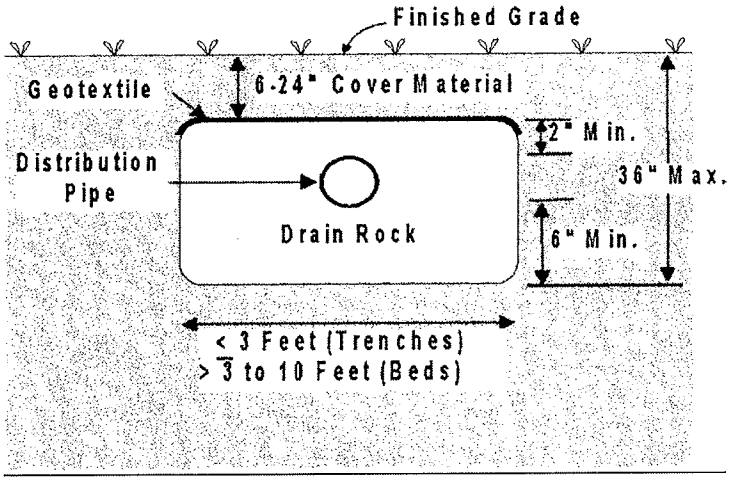
"Subsurface drip system~~"~~" means an efficient pressurized wastewater distribution system that can deliver small, precise doses of effluent to soil surrounding the drip distribution piping ~~(called~~, also known as dripline~~)~~, as described in the ~~WDOH "RS~~DS&G for Subsurface Drip Systems~~."~~.

~~"Subsurface~~

"SSAS" means a subsurface soil absorption system ~~(SSAS)" means~~ that is 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 regulation~~suitable soil, with either gravity or pressure distribution of the treatment component effluent.





"Suitable" means original, undisturbed, unsaturated soil of soil types 1-6 with at least the vertical separation established in this chapter.

"Surface water" means any ~~body of water, whether~~ fresh or marine body of water, 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, and tidal waters.

"TAG" means the technical advisory group established in WCC 24.05.~~0400~~.390.

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

"

"Tiny Home on Wheels" (THOW) is a dwelling unit that is 400 square feet or less in floor area (excluding sleeping lofts) and is a portable structure licensed to be transported on the highways by a motor vehicle. A THOW that is designed to be self-contained are equivalent to and are permissible under the same rules as for recreational vehicles (RVs) established in WCC 20.97.200 .

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

"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, and N) used in these rules to:~~

~~1. Identify treatment~~ component ~~performance demonstrated through requirements specified in WAC 246-272A-0110; and~~

~~2. 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.

"Treatment level" means one of the following levels (A, B, C, BL1, BL2, BL3, E, & N) to:

(a) Identify treatment component performance demonstrated through requirements specified in WCC 24.05.~~0110~~.100; and

(b) Match site conditions of vertical separation and soil type with treatment components.

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

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

"Unit volume of sewage" means:

~~1.~~(a) Flow from a single-family residence;

~~2.~~(b) Flow from a mobile home site in a mobile home park; or

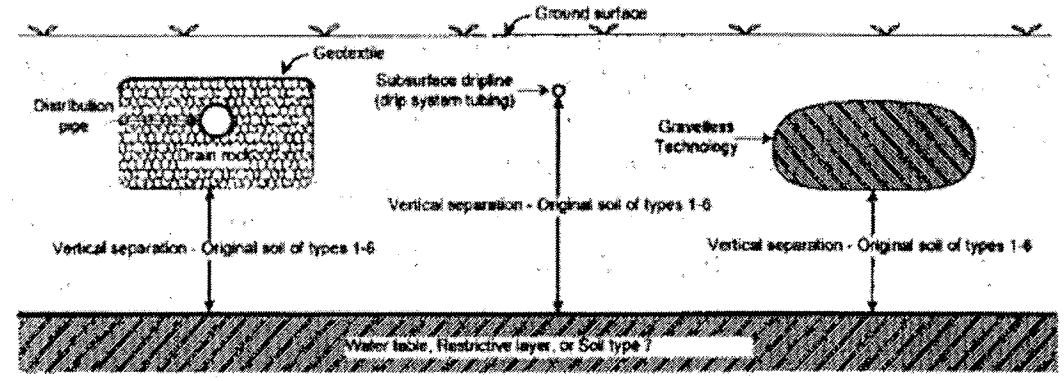
~~3.~~(c) Four hundred fifty gallons of sewage per day where the proposed development is not single-family residences or a mobile home park.

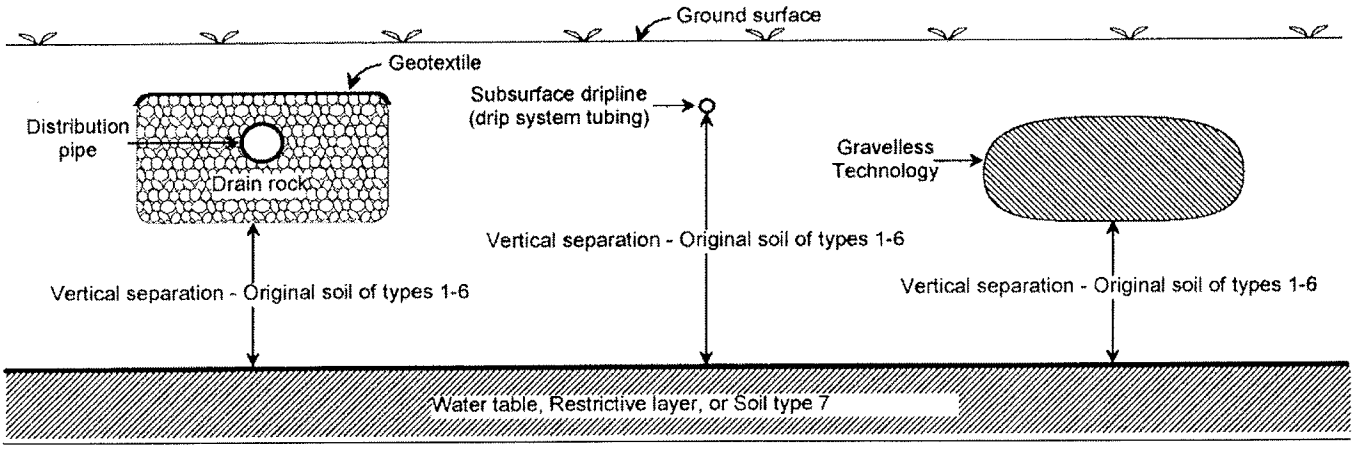
~~"USEPA" means the United States Environmental Protection Agency.~~

"Unknown OSS" means an OSS that was installed without the knowledge or approval of the local health jurisdiction, including those that were installed before such approval was required.

"Unpermitted sewage discharge" means the discharge of sewage or treated effluent from an unknown OSS.

"Vertical separation" means the depth of ~~unsaturated, original, undisturbed soil of soil types one through six~~suitable soils between the bottom infiltrative surface of a soil dispersal component and the highest seasonal water table, a restrictive layer, or soil type seven as illustrated below by the profile drawing of subsurface soil absorption systems:





"Very gravelly" means soil containing 35 percent or more, but less than 60 percent, rock fragments by volume.

"Water supply protection zone" means the land area around each existing or proposed well site to protect the water supply from contamination. Also known as Sanitary Control Area. See WCC 24.11 "Definitions"

"Water table" means the upper surface of the ground water, whether permanent or seasonal. Also see "~~Ground water.~~"groundwater" as described in this section.

~~"WCHD~~

"WCHCS" means the Whatcom County Health and Community Services ~~health department.~~

~~"WDOE" means the Washington State Department of Ecology.~~

~~"WDOH" means the Washington State Department of~~

"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 ~~ground water~~groundwater for agricultural, municipal, industrial, domestic, or commercial use. ~~Excluded~~ The following are not considered a well:

~~1.~~(a) A temporary observation or monitoring well used to determine the depth to a water table for locating an OSS;

~~2.~~(b) An observation or monitoring well used to measure the effect of an OSS on a water table; ((and))

~~3.~~(c) An interceptor or curtain drain constructed to lower a water table~~.~~; and

(d) A dewatering well used temporarily for the purpose of a sewage tank or pump chamber installation.

"Wet season" means the period of year from December 1st ~~to May 1st.~~through April 30th under precipitation conditions typical for the region. (Ord. 2008-015 Exh. A; Ord. 2006-056 Exh. A).

24.05.060~~13~~ Local Rules ~~Requirements.~~

(1) The local health officer shall enforce the requirements of this chapter until the local board of health adopts local OSS regulations. The local board of health may adopt and enforce local rules governing OSS when the local regulations are:

(a) Consistent with, and at least as stringent as this chapter; and

(b) Approved by the department prior to the effective date of local regulations.

(2) To apply for department approved local OSS regulations a local board of health shall submit the proposed local regulations to the department.

(3) Within 90 days of receipt of proposed local regulations, the department shall:

(a) Approve the proposed regulations; or

(b) Deny the proposed regulations if the department determines local regulations are not consistent with this chapter or less stringent than this chapter and provide specific reasons for the denial.

(4) Upon receipt of department approval, or after 90 days if the department fails to act, the local board may implement adopted regulations. The local board shall provide a copy of the adopted local regulations to the department.

(5) If the department denies approval of local regulations, the local board of health may:

(a) Resubmit revised regulations that address the specific reasons for the denial for department consideration; or

(b) Submit a request to the department to review its denial within 120 days from the date the local board of health receives the specific reasons for the denial.

(6) Upon receipt of request for review of the department denial, the department shall:

(a) Acknowledge the receipt of the request within 30 days; and

(b) Form a mutually acceptable advisory panel to review the department denial and reach an agreement within a reasonable time. The panel shall consist of:

(i) One representative from the department;

(ii) One representative from a local health jurisdiction other than that which requested the review; and

(iii) One member of the TAG.

(7) If good faith efforts to reach an agreement are unsuccessful between the department and a local board of health, the local board of health may appeal the denial to the Washington state board of health for resolution.

(8) Nothing in this chapter shall prohibit the adoption and enforcement of more stringent regulations by a local board of health.

24.05.~~050~~070~~15~~ Local management ~~and regulation~~plans.

~~A.~~(1) The local health officer shall develop ~~and maintain~~ a written ~~plan~~local management plan to provide guidance to Whatcom County Health & Community Services regarding development and management activities for all OSS within Whatcom County~~ in accordance with WAC 246-272A-0015.~~. The department

will review the existing OSS local management plans for Whatcom County Health & Community Services within two years of the effective date of the rule. If the department determines a plan ~~and management activities~~revision is necessary upon review, the local health officer shall ~~include:~~revise the local management plan for all OSS within Whatcom County consistent with subsection (2) of this section.

~~1. Progressive development~~(2) At a minimum, the local management plan for Whatcom County must specify how the local health jurisdiction will:

(a) Progressively develop and ~~maintenance of~~maintain an inventory- including the type and location of all known OSS in operation within Whatcom County;

~~2. Identification of~~(b) Identify any areas where OSS could pose an increased public health risk~~;~~. The following areas shall be given priority in this activity:

~~3. Identification of~~(i) Shellfish protection districts or shellfish growing areas;

(ii) Sole source aquifers as designated by the EPA;

(iii) Areas in which aquifers used for potable water as designated under the Washington State Growth Management Act under chapter 36.70A RCW are critically impacted by recharge;

(iv) Designated wellhead protection areas in Group A public water supplies under chapter 246-290 WAC;

(v) Up-gradient areas directly influencing water recreation facilities designated for swimming in natural waters with artificial boundaries within the waters as described by the Water Recreation Facilities Act under chapter 70.90 RCW;

(vi) Areas designated as special protection areas under WAC 173-200-090;

(vii) Wetland areas under production of crops for human consumption;

(vii) Frequently flooded areas including areas delineated by the Federal Emergency Management Agency or as designated under the Washington State Growth Management Act under chapter 36.70A RCW;

(ix) Areas where nitrogen has been identified as a contaminant of concern including, but not limited to, the marine waters of Puget Sound;

(x) Areas where phosphorous has been identified as a contaminant of concern;

(xi) Areas where sea level rise may impact adequate horizontal separations to surface water; and

(xii) Other areas designated by the local health officer.

(c) Identify operation, maintenance and monitoring requirements commensurate with risks posed by OSS within ~~areas posing an increased public health risk~~the geographic areas identified in (b) of this subsection;

~~4.~~(d) Educate OSS owners about their responsibilities to perform OSS operation and maintenance, including information for owners to complete any inspection required by WCC 24.05.~~0270~~.280:

(i) Facilitating education of homeowners regarding their responsibilities to properly use and maintain their on-site sewage systems, and provide operation and maintenance information for all types of systems in use within Whatcom County;

~~5.~~(ii)Remind and encourage homeowners to complete the operation and maintenance inspections required by this chapter;

~~6.~~(e) Maintain records required under this chapter, including ~~of~~ all operation and maintenance activities as identified;

~~7.~~(f) Enforce OSS owner permit application, operation, monitoring and maintenance and failure repair requirements ~~defined in this chapter~~in WCC 24.05.~~0200~~.160 (2), 24.05.~~0260~~.260, 24.05.~~0270~~.280, 24.05.290, and 24.05.~~0280~~.310;

~~8.~~(g) Describe the capacity of ~~WCHD~~ the local health jurisdiction to ~~adequately~~ fund the ~~OSS~~local management plan, ~~including~~ which includes a summary of program expenditures by activity, source of funds, a strategy to fill any funding gaps, and the ability to find failing and unknown systems; and

~~9. Develop and maintain the~~(h) Verify that the local management plan ~~to coordinate~~ was developed in coordination with the comprehensive land use ~~plans~~ plan of the entities governing development within Whatcom County.

~~B. After being approved by the~~ (3) The department shall review the local management plan for Puget Sound counties at least once every five years. If the department determines plan revision is necessary upon review of the local management plan described in subsection (2) of this section, the department shall notify the local health officer of their findings.

(4) The local health officer for Puget Sound counties shall:

(a) Review and update the local management plan, as necessary, or at least once every five years;

(b) If after the review the local management plan is updated, provide an opportunity for public input on the local management plan;

(c) Following local board of health approval, submit the local management plan to the department for review;

(d) Implement the local management plan; (Ord. 2006-056 Exh. A)

(e) Submit an annual report to the department including all of the following ~~a public hearing, the health officer shall develop a written plan under subsection A of this section and shall~~in a format specified by the department:

~~1.~~(i) Number of OSS;

(ii) Number of unknown OSS identified;

(iii) Number of failures found;

(iv) Number of failures repaired; and

(v) Status of compliance with inspections required by WCC 24.05.~~0270~~.280;

(f) Supply a copy of the ~~plan to the WDOH;~~

~~2. Supply a copy of the~~local management plan to the entities responsible for land use planning and development regulations ~~within Whatcom County; and~~in the local health jurisdiction.

~~3. Implement~~(5) In order to implement the ~~approved~~ plan~~. (Ord.~~ described in subsections (1) of this section, the local ~~2006-056 Exh. A).~~

~~24.05.060 Applicability.~~

~~A. The~~ health officer~~:~~

~~1. Shall apply this chapter to OSS treating sewage and dispersing effluent from residential sewage sources with design flows up to 3,500 gallons per day;~~

~~2. May apply this chapter to OSS for nonresidential sources of sewage if treatment, siting, design, installation, and operation and maintenance measures provide treatment and effluent dispersal equal to that required of residential sources;~~

~~3. May not apply this chapter to industrial wastewater.~~

~~B. A valid sewage system design approval or construction permit issued prior to the effective date of~~ shall require the ~~ordinance codified in this chapter:~~

~~1. Shall be acted upon in accordance with regulations in force at~~ owner of the ~~time of issuance;~~OSS to:

~~2. Shall have a maximum validity period of five years from the date of issuance or remain valid for an additional year beyond the effective date of the ordinance codified in this chapter, whichever assures the most lenient expiration date; and~~

~~3. May be modified to include additional requirements if the health officer determines that a serious threat to public health exists.~~

~~C. WDOE has authority and approval over:~~

~~1. Domestic or industrial wastewater under Chapter 173-240 WAC; and~~

~~2. Sewage systems using mechanical treatment, or lagoons, with ultimate design flows above 14,500 gallons per day.~~

~~D. WDOH has authority and approval over:~~

~~1. Systems~~(a) Comply with additional requirements identified in the plan for the location, design, or performance; and

(b) Comply with ~~design flows through any common point between 3,500 to 14,500 gallons per day; and~~

~~2. Any large on-site sewage system (LOSS) for which jurisdiction has been transferred to WDOH under~~ the conditions of ~~memorandum of agreement~~the operational permit if one is required.

~~E. The health officer has authority and approval over:~~

~~1. Systems with design flows through any common point up to 3,500 gallons per day;~~

~~2. Any large on-site sewage system (LOSS) for which jurisdiction has been transferred to the WCHD from WDOH by contract.~~

~~F. Where this chapter conflicts with Chapter~~ 90.46 ~~RCW, Water Pollution Control, the requirements under those statutes apply. (Ord. 2006-056 Exh. A).~~

(6) In order to implement the plan described in subsections (1) of this section, the local health officer may require the owner of the OSS to:

(a) Ensure additional maintenance and monitoring of the OSS;

(b) Provide dedicated easements for inspections, maintenance, and potential future expansion of the OSS; and

(c) Place a notice to title identifying any additional requirements for OSS operation, maintenance and monitoring.

(7) The department shall maintain and update guidance and provide technical assistance to assist local health jurisdictions in local management plan development.

24.05.~~070~~080~~25~~ Connection to public sewer system.

~~A. When~~ (1) Upon the failure of an existing OSS within the service area of a sewer utility, the local health officer shall:

(a) Permit the repair or replacement of the OSS only if a conforming OSS can be designed and installed, excluding OSS designed in compliance with or proposing to use Table X in WCC 24.05.~~0280~~.310; or

(b) Require connection to a public sewer system if the sewer utility allows the connection and has adequate public sewer services ~~are~~ available within 200 feet ~~of~~from where the ~~residence or facility, the health officer, upon the failure of an~~ existing ~~on-site sewage system, shall require hook-up~~building drain connects to the ~~public~~existing building sewer ~~system. The distance shall be~~, or where no building drain exists, within 200 feet from where the sewer line begins, as measured along the usual or most feasible route of access.

~~B.~~ (2) The owner of a ~~residence or other facility~~ structure served by ~~a Table VII repair, as described in WCC~~ 24.05.170, ~~shall~~ an OSS permitted as a repair under Table X in WCC 24.05.~~0280~~.310 shall abandon

the OSS ~~according to the requirements specified in WCC 24.05.190,~~as specified in WCC 24.05.0300.340, and connect the ~~residence or other facility~~ structure to a public sewer system when:

~~1.~~ (a) Connection is deemed necessary to protect public health by the local health officer;

~~2.~~ (b) An adequate public sewer becomes available within 200 feet of the ~~residence~~existing structure, or ~~other facility~~ in cases where no building drain exists, within 200 feet from where the sewer for the building begins, as measured along the usual or most economically feasible route of access; and

~~3.~~ (c) The sewer utility allows the sewer connection.

~~C. The~~(3) Local boards of health ~~officer~~ may require a new development to connect to a public sewer system to protect public health.

~~D. The~~(4) Local boards of health ~~officer~~ shall require new development or a development with a failing ~~system~~ OSS to connect to a public sewer system if it is required by the comprehensive land use plan or development regulations~~.~~ (Ord. 2006-056 Exh. A).

24.05.090~~100~~ Sewage technologies.

(1) The department shall maintain standards and guidance for local health officers to permit sewage treatment and distribution technologies.

(2) Before the local health officer permits sewage technologies, the sewage technologies must be registered for use as described in this chapter, have standards for use as described or referenced in this chapter, or have DS&G describing sewage technologies uses as maintained by the department.

(3) The department may remove, restrict, or suspend a proprietary product's approval for use based on failure to meet required standards or conditions of approval.

24.05.100~~0110~~ Proprietary treatment products – Eligibility for registration.

(1) Manufacturers shall register a proprietary treatment product with the department using the process described in WAC 246-272A-0120 before a local health officer may permit use of the product.

(2) To be eligible for product registration, manufacturers desiring to sell or distribute proprietary treatment products in Washington state shall:

(a) Verify product performance through testing using the testing protocol established in Table I of this section;

(b) Report product test results of influent and effluent sampling obtained throughout the testing period (including normal and stress loading phases) for evaluation of constituent reduction according to the requirements in Table II of this section;

(c) Demonstrate product performance according to the requirements in Table III of this section. All 30-day averages and geometric means obtained throughout the test period must meet the identified threshold values to qualify for registration at that threshold level; and

(d) Verify bacteriological reduction according to WAC 246-272A-0130 for product registration utilizing bacterial levels BL1, BL2, BL3.

(3) Manufacturers verifying product performance through testing according to the following standards or protocols shall have product testing conducted by a testing facility accredited by ANSI:

(a) NSF/ANSI Standard 40: Residential Wastewater Treatment Systems;

(b) NSF/ANSI Standard 41: Non-Liquid Saturated Treatment Systems;

(c) NSF Protocol P157 Electrical Incinerating Toilets - Health and Sanitation;

(d) NSF/ANSI Standard 245: Residential Wastewater Treatment Systems - Nitrogen Reduction; or

(e) NSF/ANSI Standard 385: Residential Wastewater Treatment Systems – Disinfection Mechanics for Bacteriological Reduction described in WAC 246-272A-0130.

(4) Manufacturers verifying product performance through testing according to EPA Method 1664, Revision B and using a wastewater laboratory certified by the Washington department of ecology shall provide supporting information, including flow data, and influent and effluent quality sampling results from a minimum of three installations with similar design loading to demonstrate product performance to Category 2 standards.

(5) Treatment levels established in Table III of this section are intended to establish treatment product performance in a product testing setting under established protocols by qualified testing entities. Field compliance standards for proprietary treatment products shall follow the requirements in WAC 246-272A-0120(5).

(6) Manufacturers may submit a written request to substitute components of a registered product's construction in cases of supply chain shortage or similar manufacturing disruptions impacting installations, operation, or maintenance. The substitution request must include a report stamped, signed, and dated by a professional engineer demonstrating the substituted component will not negatively impact performance or diminish the effect of the treatment, operation, and maintenance of the original registered product. If approved, substitution is authorized until rescinded by the department.

Table I

Testing Requirements for Proprietary Treatment Products	
Treatment Component/Sequence Category	Required Testing Protocol

Category 1 Designed to treat septic tank effluent anticipated to be equal to or less than treatment level E.	NSF/ANSI 40—Residential Wastewater Treatment Systems versions dated between January 2009 and May 31, 2021
Category 2 Designed to treat effluent or sewage with sewage quality parameters anticipated to be greater than treatment level E. (Such as at restaurants, grocery stores, mini-marts, group homes, medical clinics, residences, etc.)	EPA Method 1664, Revision B (February 2010)
Category 3 Black water component of residential sewage (such as composting* and incinerating** toilets).	NSF/ANSI Standard 41: Non-Liquid Saturated Treatment Systems Versions dated between February 2011 and May 31, 2021) **NSF Protocol P157 Electrical Incinerating Toilets - Health and Sanitation (April 2000)
Total Nitrogen Reduction in Categories 1 & 2 (Above)	NSF/ANSI Standard 245: Residential Wastewater Treatment Systems – Nitrogen Reduction (Versions dated between January 2018 and May 31, 2021)

Table II

Test Results Reporting Requirements for Proprietary Treatment Products	
Treatment Component/Sequence Category	Testing Results Reported
Category 1 Designed to treat septic tank effluent anticipated to be equal to or less than treatment level E.	Report the following test results of influent and effluent sampling obtained throughout the testing period for evaluation of reduction of CBOD52, and TSS: □ Average □ Standard Deviation □ Minimum □ Maximum □ Median □ Interquartile Range □ 30-day Average (for each month) For evaluation of bacteriological reduction performance. Report complete treatment component sequence testing as described in Table III, Category 1. For evaluation of performance meeting treatment level BL1:

	(1) Report fecal coliform test results of influent and effluent sampling by geometric mean from samples drawn within 30-day or monthly calendar periods, obtained from a minimum of three samples per week throughout the testing period. See WAC 246-272A-0130. (2) Report complete testing results for supplemental bacteriological reduction technology1 when the required treatment levels for fecal coliform in Table III, Category 1 are not met by the primary proprietary treatment product. For evaluation of performance meeting treatment levels BL2 or BL3: (1) Report fecal coliform test results of influent and effluent sampling by geometric mean from samples drawn within 30-day or monthly calendar periods, obtained from a minimum of three samples per week throughout the testing period as described in WAC 246-272A-0130; or (2) Report complete testing results for supplemental bacteriological reduction technology1 when the required treatment levels for fecal coliform in Table III, Category 1 are not met by the primary proprietary treatment product. For all options, test report must also include the individual results of all samples drawn throughout the test period.
Category 2 Designed to treat effluent or sewage with sewage quality parameters anticipated to be greater than treatment level E. (Such as at restaurants, grocery stores, mini-marts, group homes, medical clinics, atypical residences, etc.)	Report all individual test results and full test average values of influent and effluent sampling obtained throughout the testing period for the evaluation of reduction of: CBOD5, TSS and O&G. Establish the treatment capacity of the product tested in pounds per day for CBOD5.
Category 3 Black water component of residential sewage (such as composting and incinerating toilets).	Report test results on all required performance criteria according to the format prescribed in the NSF test protocol described in Table I.
Total Nitrogen Reduction in Categories 1 & 2 (Above)	Report test results on all required performance criteria according to the format prescribed in the test protocol described in Table I.

1 Test results for BOD5 may be submitted in lieu of test results for CBOD5. In these cases numerical values for CBOD5 will be determined using the following formula: (BOD5 × 0.83 = CBOD5).

2 Supplemental bacteriological reduction technology must be tested for influent/effluent fecal coliform or E. coli per WAC 246-272A-0130 (bacteriological reduction testing protocol). Supplemental fecal coliform or E. coli reducing technologies will be rated for log base 10 removal of fecal coliform or E. coli. The lowest 30-day geometric mean will be used to rate reduction level. The highest monthly geometric mean for treatment technology fecal coliform or E. coli reduction will be used as the baseline value for review

Table III

Product Performance Requirements for Proprietary Treatment Products							
Treatment Component/Sequence Category	Product Performance Requirements						
Category 1 Designed to treat effluent anticipated to be equal to or less than treatment level E.	Treatment System Performance Testing Levels						
	Level	Parameters					
		CBOD5 mg/L	TSS mg/L	O&G mg/L	FC col/100 mL	TN mg/L	E. coli cfu/100 mL
	A	10	10	——	——	——	——
	B	15	15	——	——	——	——
	C	25	30	——	——	——	——
	BL1	25	30	——	200	——	126
	BL2	——	——	——	1,000	——	——
	BL3	——	——	——	50,000	——	——
	E	228	80	20	——	——	——
	N	——	——	——	——	30 (or 50% reduction based on mass loading	——

						as required in WAC 246-272A-0320)		
	Values for Levels A - D are 30-day values (averages for CBOD5, TSS, and geometric mean for FC.) All 30-day averages throughout the test period must meet these values in order to be registered at these levels. Values for Levels E and N are derived from full test averages.							
Category 2 Designed to treat high-strength sewage when septic tank effluent is anticipated to be greater than treatment level E. (Such as at restaurants, grocery stores, mini-marts, group homes, medical clinics, residences, etc.)	All of the following requirements must be met: (1) All full test averages must meet Level E; and (2) Establish the treatment capacity of the product tested in pounds per day for CBOD5.							
Category 3 Black water component of residential sewage (such as composting and incinerating toilets).	Test results must meet the performance requirements established in the NSF test protocol.							
Total Nitrogen Reduction in Categories 1 & 2 (Above)	Test results must establish product performance effluent quality meeting Level N, when presented as the full test average.							

24.05.01120 Proprietary treatment product registration – Process and requirements.

(1) Manufacturers shall register proprietary treatment products with the department by submitting a complete registration application for review and approval in the format provided by the department, including:

(a) Manufacturer's name, mailing address, phone number, email address, and website address;

(b) Contact person's name, title, mailing address, email address, and phone number. The contact person must be vested with the authority to represent the manufacturer in this capacity;

(c) Name, including specific brand and model, of the proprietary treatment product;

(d) A description of the function of the proprietary treatment product along with any known limitation on the use of the product;

(e) Product description and technical information, including process flow drawings and schematics; materials and characteristics; component design specifications; design capacity, volumes and flow assumptions and calculations; components; dimensioned drawings and photos;

(f) For treatment systems in Category 2, daily capacity of the model or models in pounds per day of CBOD5;

(g) Siting and installation requirements;

(h) Detailed description, procedure and schedule of routine service and system maintenance events;

(i) Estimated operational costs for the first five years of the treatment component's life. This must include both estimated annual electricity costs, and routine maintenance costs, including replacement of parts;

(j) Identification of information subject to protection from disclosure of trade secrets;

(k) Most current dated copies of product brochures and manuals: Sales & Promotional; Design; Installation; Operation & Maintenance; and Homeowner Instructions;

(l) The most recently available product test protocol dated no earlier than the dates in WAC 246-272A-0110 Table I and the results report;

(m) A signed and dated certification by the manufacturer's agent specifically including the following statement, "I certify that I represent (INSERT MANUFACTURING COMPANY NAME) and I am authorized to prepare or direct the preparation of this application for registration. I attest, under penalty of law, that this document and all attachments are true, accurate, and complete. I understand and accept that the product testing results reported with this application for registration are the parameters and values to be used for determining conformance with Treatment System Performance Testing Levels established in chapter 246-272A WAC";

(n) A signed and dated certification from the testing entity including the statement, "I certify that I represent (INSERT TESTING ENTITY NAME), that I am authorized to report the testing results for this proprietary treatment product. I attest, under penalty of law, that the report about the test protocol and results is true, accurate, and complete"; and

(o) The fee described in WAC 246-272-2000.

(2) Products within a single series or model line, sharing distinct similarities in design, materials, and capacities, may be registered under a single application, consistent with the provisions of their test protocol for the certification of other products within a product series. Products outside of the series or model line must be registered under separate applications.

(3) Upon receipt of a registration application the department shall:

(a) Verify that the application is complete including dated and current copies of all of the required manuals; and

(b) If approved, place the product on the department's list of registered on-site treatment and distribution products.

(4) All registrations are valid for up to one year, expiring on December 31st of each year. Fees are not prorated.

(5) In order to renew a proprietary treatment product technology registration, a manufacturer shall:

(a) Apply for renewal of product registration using the format provided by the department;

(b) Submit any of the following applicable reports:

(i) A retesting report from the testing entity according to the protocol required for registration as identified in this section;

(ii) A field verification performance report as identified in the proprietary products DS&G, dated the effective date of the rule. If field performance results demonstrate that the product has failed to meet the requirements in the DS&G, the manufacturer shall report to the department describing the reasons for the failure to meet the requirements consistent with the DS&G;

(c) Provide an attestation to the department verifying whether or not the product has changed over the previous year. If the product has changed, the attestation must also include a full description of the changes. If the product has changed in a way that affects performance, the product may not be renewed and shall meet the requirements for initial registration;

(d) Provide a statement that all required dated manuals are current, or submit the updated and dated new manuals; and

(e) Submit the fee established in WAC 246-272-2000.

(6) As part of product registration renewal, the department shall:

(a) Request field assessment comments from local health officers no later than October 31st of each year. These comments may include concerns about a variety of field assessment issues, including:

(i) Product function, including verification of field performance testing as identified in the DS&G;

(ii) Product reliability; and

(iii) Problems arising with operation and maintenance;

(b) Discuss with the TAG any field assessment information that may impact product registration renewal;

(c) Notify the manufacturer of any product to be discussed with the TAG, prior to discussion with the TAG, regarding the nature of comments received;

(d) Renew the product registration unless:

(i) The manufacturer of a product does not apply for renewal; or

(ii) The department, after deliberation with the TAG, concludes product registration renewal should not be given or should be delayed until the manufacturer submits information that satisfactorily answers concerns and issues; and

(e) Provide a compliance plan to the manufacturer within 90 days based on departmental concerns of public health risk related to the product.

(7) The department shall maintain a list of proprietary treatment products meeting the registration requirements established in this chapter. The product registration is a condition of approval for use.

(8) Manufacturers shall have readily accessible product information for designers, regulators, OSS owners and other interested parties posted on the manufacturer's website including the most current dated version of:

(a) Product manuals;

(b) Design instructions;

(c) Installation instructions;

(d) Operation and maintenance;

(e) Owner instructions; and

(f) How to locate a list of representatives and manufacturer certified maintenance service providers, if any.

24.05.120~~13~~0 Bacteriological reduction.

This section establishes the requirements for registering bacteriological reduction processes.

(1) Manufacturers shall, for the purpose of product registration as described in WAC 246-272A-0110 and 246-272A-0120:

(a) For meeting treatment levels BL1 verify bacteriological reduction performance by sampling for fecal coliform or E. coli.

(b) For meeting treatment level BL2 or BL3, verify bacteriological reduction performance by sampling for fecal coliform.

(2) All test data submitted for product registration shall be produced by an ANSI accredited, third-party testing and certification organization whose accreditation is specific to on-site wastewater treatment products. Bacteriological reduction performance must be determined either:

(a) According to the procedures in NSF/ANSI Standard 385 for supplemental bacteriological reduction; or

(b) Concurrent with testing protocol. The treatment product or treatment component sequence testing according to the NSF/ANSI Standard 40 testing protocol.

(3) Testing under subsection (2)(b) of this section shall be completed in compliance with the following requirements:

(a) Collect samples from both the influent and effluent streams, identifying the treatment performance achieved by the full treatment process, component or sequence;

(b) Obtain influent characteristics falling within a range of 104 - 108 fecal coliform/100 mL or 102 - 106E. coli/100 mL calculated as 30-day geometric means during the test;

(c) Test the influent to any disinfection unit and report the following at each occasion of sampling performed in (d) of this subsection:

(i) Flow rate;

(ii) pH;

(iii) Temperature;

(iv) Turbidity; and

(v) Color;

(d) Obtain samples for fecal coliform or E. coli analysis during both the design loading and stress loading periods identified by NSF/ANSI Standard 40. Grab samples shall be collected from both the influent and effluent on three separate days of the week. Each set of influent and effluent grab samples must be taken from a different dosing time frame, either morning, afternoon, or evening, so that samples have been taken from each dosing time frame by the end of the week;

(e) Conduct analyses according to standard methods;

(f) Report the geometric mean of fecal coliform or E. coli test results from all samples taken within 30-day or monthly calendar periods;

(g) Report the individual results of all samples taken throughout the test period design and stress loading; and

(h) Report all maintenance and servicing conducted during the testing period, including for example, instances of cleaning a UV lamp, or replenishment of chlorine chemicals.

(4) Manufacturers may register products in treatment levels BL1 and BL2 using disinfection.

(5) Manufacturers may not register products for treatment level BL3 using disinfection.

24.05.01340 Proprietary distribution products – Certification requirements.

(1) Proprietary distribution products, including gravelless distribution products and subsurface dripline products, must be registered with the department before permitting, sale, and use. To be eligible for registration as described in WAC 246-272A-0145, products must first be certified as described in this section.

(2) To be certified, proprietary gravelless distribution products shall:

(a) Be constructed or manufactured from materials that are non-decaying and non-deteriorating and do not leach chemicals when exposed to sewage and the subsurface soil environment;

(b) Provide liquid storage volume at least equal to the storage volume provided within the 30 percent void space in a 12-inch layer of drainrock in a drainrock-filled distribution system.

This storage volume must be established by the gravelless distribution products, OSS design and installation and must be maintained for the life of the OSS. This requirement may be met on a lineal-foot, or on an overall system design basis;

(c) Provide effluent distribution to the infiltrative surface at the soil interface; and

(d) Maintain the integrity of the trench or bed. The material used, by its nature and its manufacturer-prescribed installation procedure, must withstand the physical forces of the soil sidewalls, soil backfill and the weight of equipment used in the backfilling.

(3) Proprietary subsurface dripline products shall:

(a) Be warranted by the manufacturer for use with sewage and for resistance to root intrusion;

(b) Incorporate emitters with a maximum nominal rated discharge of 1.3 gallons per hour. Emitter discharge rate may be controlled either by use of pressure-compensating emitters or with a pressure regulator; and

(c) Be color-coded purple to identify that the pipe contains nonpotable water from a sewage source.

(4) To be certified by the department, the manufacturer must submit:

(a) A signed and dated statement by the manufacturer's agent specifically including the following statement, "I certify that I represent (INSERT MANUFACTURING COMPANY NAME) and I am authorized to prepare or direct the preparation of this application for product registration. I attest, under penalty of law, that this document and all attachments, are true, accurate, and complete."

(b) A signed and dated statement from the licensed professional engineer including the statement, "I certify that I represent (INSERT PROFESSIONAL ENGINEERING FIRM NAME), that I am authorized to certify the performance characteristics for the proprietary distribution product presented in this application. I attest, under penalty of law, that the technology report is true, accurate, and complete."

24.05.1400~~145~~ Proprietary distribution product registration – Process and requirements.

(1) Manufacturers shall register their proprietary distribution products with the department by submitting a complete application for review and approval in the format provided by the department, including:

(a) Manufacturer's name, mailing address, phone number, email address, and website address;

(b) Contact person's name, title, mailing address, email address, and phone number. The contact person must be vested with the authority to represent the agent of the manufacturer in this capacity;

(c) Name, including specific brand and model, of the proprietary distribution product;

(d) A description of the function of the proprietary distribution product along with any known limitations on the use of the product;

(e) Product description and technical information, including schematics; materials and characteristics; component design specifications; design capacity, volumes and flow assumptions and calculations; components; dimensioned drawings and photos;

(f) Siting and installation requirements;

(g) Detailed description, procedure and schedule of routine service and system maintenance events;

(h) Identification of information subject to protection from disclosure of trade secrets;

(i) Most current, dated copies of product brochures and manuals: Sales & Promotional; Design; Installation; Operation & Maintenance; and Owner Instructions;

(j) For gravelless chamber systems a quantitative description of the actual exposed trench-bottom infiltrative surface area for each model seeking registration;

(k) A statement from a professional engineer that certifies the technology meets the standards established in WAC 246-272A-0140;

(l) The fee established in WAC 246-272-2000.

(2) Products within a single series or model line, sharing distinct similarities in design, materials, and capacities, may be registered under a single application. Products outside of the series or model line must be registered under separate applications.

(3) Upon receipt of an application the department shall:

(a) Verify that the application is complete, including dated and current copies of all required manuals; and

(b) If approved, place the product on the list of registered on-site treatment and distribution products.

(4) All registrations are valid for up to one year, expiring on December 31st of each year. Required fees are not prorated.

(5) In order to renew a proprietary distribution product registration, a manufacturer shall:

(a) Apply for renewal of product registration using the form or in the format provided by the department;

(b) Provide an attestation to the department verifying whether or not the product has changed over the previous year. If the product has changed, the attestation must also include a full description of the changes. If the product has changed in a way that affects performance, the product may not be renewed and shall meet the requirements of initial registration;

(c) Provide a statement that all required dated manuals are current, or submit the updated and dated new manuals; and

(d) Submit the fee established in WAC 246-272-2000.

(6) As part of product registration renewal, the department will:

(a) Request field assessment comments from local health officers before November 1st of each year. These comments may include concerns about a variety of field assessment issues, including product function, product reliability, and problems arising with operation and maintenance;

(b) Discuss with the TAG any field assessment information that may impact product registration renewal;

(c) Notify the manufacturer of any product to be discussed with the TAG, prior to discussion with the TAG, regarding the nature of comments received;

(d) Renew the product registration unless:

(i) The manufacturer of a product does not apply for renewal; or

(ii) The department, after deliberation with the TAG, concludes product registration renewal should not be given or should be delayed until the manufacturer submits information that satisfactorily answers concerns and issues; and

(e) Provide a compliance plan to the manufacturer within 90 days based on departmental concerns of public health risk related to the product.

(7) The department shall maintain a list of proprietary distribution products meeting the registration requirements established in this chapter. The product registration is a condition of approval for use.

(8) Manufacturers shall have readily accessible product information for designers, regulators, OSS owners and other interested parties posted on the manufacturer's website including the most current dated version of:

(a) Product manuals;

(b) Design instructions;

(c) Installation instructions;

(d) Operation and maintenance;

(e) Owner instructions; and

(f) How to locate a list of representatives and manufacturer certified maintenance service providers, if any.

24.05.150~~80~~ Product development permits.

The health officer may issue a product development permit (PDP) for any single component or sequence in accordance with WAC 246-272A-0170. (Ord. 2006-056 Exh. A).

24.05.~~090 Permits~~1600200 Permit requirements.

(1) ~~A. Prior to beginning the construction process,~~ permit is not required for a ~~designer~~ minor repair. The local health officer may require the owner to submit information regarding any activities defined as a minor repair for recordkeeping purposes.

(2) Except for a minor repair, a person proposing the installation, repair, modification, connection to, or expansion of an OSS, shall ~~develop and submit~~ submit an application and obtain a permit from the local health officer prior to beginning construction. The permit application must include the following ~~to the health officer and obtain approval~~:

~~1.~~ (a) General information including:

~~a.~~ (i) Name and address of the property owner and the applicant at the head of each page of submission;

~~b.~~ (ii) Parcel number, property ID and ~~address,~~ if available, the address and site ID;

~~c.~~ (iii) Source of drinking water supply;

~~d.~~ (iv) Identification if the property is within the boundaries of a recognized sewer utility;

~~e.~~ (v) Size of the parcel;

~~f.~~ (vi) Type of permit for which application is being made~~; for~~. For example, new installation, repair, expansion, ~~alteration, or~~ modification, operational~~;~~, as built or tank only

~~—~~(vii) A permitted drainfield

~~g.~~ (viii) Source of sewage~~; for~~. For example, residential, restaurant, or other type of business;

~~h.~~ (ix) Location of utilities;

~~i.~~ (x) Name of the site evaluator, designer or professional engineer;

(xi) Name, signature, stamp of the designer or professional engineer, and date paperwork was stamped adjacent to stamp;

~~j.~~ (xii) Date of application; ~~and~~

~~k.~~ (xiii) Name and signature of the fee simple owner, the contract purchaser of the property or the owner's authorized agent.

~~2.~~ (b) The soil and site evaluation as specified under WCC 24.05.~~0220~~.180;

(c) A dimensioned site plan of the proposed initial OSS, the reserve area and those areas immediately adjacent that contain characteristics impacting design including:

(i) Designated areas for the proposed initial OSS and the reserve area;

(ii) The location of all soil logs and other soil tests for the OSS;

(iii) General topography, percent slope and direction;

(iv) Drainage characteristics;

(v) Horizontal separations as noted in Table IV in WCC 24.05~~.0210~~.170;

(vi) The location of existing and proposed encumbrances affecting OSS placement, including legal access documents if any component of the OSS is not on the lot where the sewage is generated;

(vii) An arrow indicating north;

(viii) A legend of symbols used;

(ix) Plan scale and a graphic scale bar;

(x) Vertical datum used (such as "assumed," "North American Vertical Datum of 1988 (NAVD 88)," "National Shoreline Reference Station (NSRS)," or "unknown");

(xi) An elevation benchmark and relative elevations of system components;

(xii) Name, signature, stamp, and contact information of the designer; and

(xiii) A statement on limitation of use indicating the site plan is not a survey.

(xiv) Existing and proposed well with 50'and 100' radius;

(xv) Properly decommissioned well with 10' radius (the designer shall submit a "decommissioned water well report" provided by a licensed well driller which verifies that appropriate decommissioning procedures noted in Chapter ~~24.05.110~~.173-160 WAC were followed);

~~3.~~ (xvi) Existing or proposed water meter and lines;

(xvii) Surface water and/or known wetland buffers as shown by approved/valid wetland delineation.

(xviii) Include horizontal setback measurements between OSS components and foundations/footing drains.

(xix) Include all proposed and existing building footprint dimensions (square footage), impervious surfaces, and any other site feature that may impact minimum land use.

(xx) Dimensioned drainfields in ¼ foot increments.

(d) A detailed ~~system~~ OSS design meeting the requirements under WCC ~~24.05.120~~ 24.05~~.0230~~.190, 24.05~~.0232~~.200, 24.05~~.0234~~.220, and 24.05~~.238~~.230 including:

a. A dimensional(i) A drawing showing the dimensioned location of components of the proposed OSS, and the system designed for the reserve area if reserve site characteristics differ significantly from the initial area;

b. (ii) Vertical cross-section drawings showing:

i. (A) The depth of the disposalsoil dispersal component, the vertical separation, and depth of soil cover material; and

ii. (B) Other new and existing OSS components constructed at the site;

c. (C) Pump and float elevations.

(iii) Calculations (showing work) and assumptions supporting the proposed design, including:

i. (A) System operating capacity and design flow;

(B) Soil type;

ii. (C) Hydraulic loading rate in the disposalsoil dispersal component; and

iii. System's maximum daily flow capacity.

4. Such(D) Waste Strength for non-residential developments;

(E) Pump specifications (TDH & GPM);

(F) Pump curve;

(G) Proprietary Treatment Product manufacturer worksheet.

(iv) All tank(s) x-sections and all components labeled within:

(A) Septic Tank (i.e. outlet filter);

(B) Pump Tank (i.e. pump and float(s) elevations;

(C) Proprietary Treatment Product Tank(s) (as allowed by manufacturer).

(e) Any additional information as deemed necessary by the local health officer.

B. (3) The local health officer may develop the information required in subsection (2) of this section if authorized by local rules.

(4) The local health officer shall:

1. (a) Respond to an application within 30 days as required in RCW 70.05.074;

(b) Permit only public domain treatment technologies that are described in this chapter or in a current DS&G;

(c) Permit only proprietary products that are registered by the department;

(d) Issue a permit when the information submitted under subsection ~~A~~(2) of this section meets the requirements contained in this chapter and in local rules;

~~2.~~(e) Identify the permit as a new installation, repair, expansion, modification, ~~or~~ operational permit or tank only;

~~3.~~(f) A permit expires in four years from the issue date. It can be renewed for one more year after it expires, but the renewal must be approved by the health officer.

(g) Include a reminder on the permit application of the ~~applicant's~~applicant's right of appeal; and

~~4. State~~(h) If requiring an operational permit, state the period of validity and the date and conditions of renewal ~~when requiring operational permits to be obtained and retained;~~ including any required field compliance.

~~5. Specify the expiration date on the permit;~~

~~6. Respond to an~~(i) An application ~~within 30 days as required in RCW 70.05.074;~~

~~7. Permit only public domain technologies that have WDOH RS&G. Permit only proprietary products that are registered by the WDOH. During the period of transition~~shall expire 1 year from ~~the list of approved systems and products to the registered list, the health officer may permit products on the list of approved systems and products.~~

~~C. A permit is not required for replacement, addition,~~submission or ~~modification of broken~~subsequent revision, if no action has been taken by applicant or ~~malfunctioning building sewers, risers and lids, sewage tank lids, sewage tank baffles, sewage tank pumps, pump control floats, pipes connecting multiple sewage tanks, and OSS inspection boxes and ports where a sewage tank, treatment component, or soil dispersal component does not need to be replaced. The health officer may require the owner to submit~~designer of record to provide necessary information ~~regarding these activities for recordkeeping purposes~~for WCHCS to make a decision.

~~D.~~(5) The local health officer may revoke or deny a permit for just cause. Examples include, but are not limited to:

~~1.~~(a) Construction or continued use of an OSS that threatens ~~the~~ public health;

~~2.~~(b) Misrepresentation or concealment of material fact in information submitted to the local health officer; or

~~3. Failure to meet~~(c) Noncompliance with the conditions of the permit, this chapter or ~~the regulations~~any local rules.

~~E. Before the health officer issues~~(6) An applicant for a permit ~~for the installation of~~to install an OSS ~~to serve more than one unit volume of sewage, or~~serving more than one development~~, the applicant shall show:~~

~~1. An approved public entity owning or managing~~ must submit an application that proves the OSS (exemption may be allowed for primary dwelling and ADU):

(a) Is owned or managed in perpetuity~~; or~~ by a public entity;

~~2. A management arrangement acceptable to the health officer, recorded~~(b) Is described in ~~covenant, lasting until the on-site system is no longer needed, and containing~~a separate writing including, but not limited to~~:~~

~~a. A recorded~~, an easement ~~allowing~~, covenant, contract, or other legal document authorizing access for construction, operation~~, monitoring~~ maintenance, and repair ~~of the OSS~~; and

~~b. Identification of an adequate financing mechanism to assure the funding of operation, maintenance, and repair of the OSS.~~

~~F.~~ (c) If owned privately, it is adequately financed.

(7) The local health officer shall not delegate the authority to issue permits.

~~G.~~ (8) The local health officer may stipulate additional requirements for a particular permit if necessary ~~for~~ to protect public health ~~protection~~.

~~H.~~ (9) The health officer shall notify any ~~water~~sewer district, ~~sewer~~water district or city in which the development or premises is to be located, a copy of the application for new construction or repair~~,~~ ~~provided the district or city has requested said notice.~~. The permit shall not be issued for at least 15 calendar days in order that the district or city be given the opportunity to provide public sewer services. Upon notice by the district or city that they have no objection to issuance of permit, it may be issued before the 15-day waiting period.

~~I. A permit shall expire three years from the date of issuance. A permit may be renewed for one year upon review by the health officer.~~

~~J.~~ (10) After the permit is issued, any alteration of the approved design shall be approved by the health officer in writing prior to the OSS installation. (Ord. 2006-056 Exh. A).

24.05.~~100~~170 Location.

1. OSS shall ~~design~~be designed and ~~install OSS~~ installed to meet ~~-~~ at least the minimum horizontal separations shown in Table ~~I,~~ IV:

Table IV

Minimum Horizontal Separations~~:~~

~~Table I – Minimum Horizontal Separations~~

Items Requiring Setback	From ~~Edge~~edge of ~~Disposal Component~~soil dispersal component and	From ~~Sewage Tank~~sewage tank and ~~Distribution Box~~distribution box	From ~~Building Sewer, Collection~~building sewer, and ~~Nonperforated Distribution1~~nonperforated distribution pipe

~~Table I – Minimum Horizontal Separations~~

	~~Reserve Area~~reserve area		
~~Nonpublic well or suction line~~Well	100 ft.	50 ft.	50 ft.
Public drinking water well	100 ft.	100 ft.	100 ft.
Nonpublic drinking water well	100 ft.	50 ft.	50 ft.
Public drinking water spring- or surface water measured from the ordinary high-water ~~mark2~~mark	200 ft.	200 ft.	100 ft.
~~Spring~~Nonpublic drinking water spring or surface water ~~used as drinking water source~~ measured from the ordinary high-water ~~mark2~~mark1	100 ft.	50 ft.	50 ft.
Nonpublic, in-ground, drinking water containment vessel3	20 ft.	10 ft.	10 ft.
Pressurized water supply ~~line3~~line or easement for water supply line	10 ft.	10 ft.	10 ft.
Closed geothermal loop4 or pressurized nonpotable water line	10 ft.	10 ft.	10 ft.
Decommissioned well (decommissioned in accordance with ~~Chapter 173-160~~ chapter 173-160 WAC)4	10 ft.	N/A	N/A
Surface water measured from the ordinary high-water mark:	100 ft.	50 ft.	10 ft.
~~Marine water~~	~~100 ft.~~	~~50 ft.~~	~~10 ft.~~
~~Fresh water~~	~~100 ft.~~	~~50 ft.~~	~~10 ft.~~

~~Table I – Minimum Horizontal Separations~~

Building foundation/in-ground swimming pool	10 ft.~~5~~	5 ft.~~5~~	2 ft.
Property or easement ~~line5~~line	5 ft.	5 ft.	N/A
Lined[5] stormwater detention pond6	-	-	-
- Down-gradient[7]:	30 ft.	N/A	N/A
- Up-gradient[7]:	10 ft.	N/A	N/A
Unlined[8] stormwater infiltration pond6 (up or down-gradient)[7]	100 ft.	50 ft.	10 ft.
Irrigation canal or irrigation pond (up or down-gradient)	100 ft.	50 ft.	10 ft.
Interceptor/curtain drains/foundation drains/drainage ditches~~:~~	-	-	-
- Down-~~gradient6~~gradient[2]:	30 ft.	5 ft.	N/A
- Up-~~gradient6~~gradient[2]:	10 ft.	N/A	N/A
Subsurface stormwater infiltration or dispersion component6	-	-	-
- Down-gradient7:	30 ft.	10 ft.	N/A
- Up-gradient7:	30 ft.	10 ft.	N/A
Other site features that may allow effluent to surface~~:~~	-	-	-
- Down-~~gradient6~~gradient[2]:	30 ft.	5 ft.	N/A
- Up-~~gradient6~~gradient[2]:	10 ft.	N/A	N/A
Down-gradient cuts or banks with at least 5 ft. of original, undisturbed soil above a restrictive layer due to a structural or textural change	25 ft.	N/A	N/A

~~Table I – Minimum Horizontal Separations~~

Down-gradient cuts or banks with less than 5 ft. of original, undisturbed~~,~~ soil above a restrictive layer due to a structural or textural change	50 ft.	N/A	N/A
~~Other adjacent soil~~Soil dispersal components~~/subsurface storm water infiltration systems~~ serving a separate OSS	10 ft.	N/A	N/A

~~1. "Building sewer" as defined by the most current edition of the Uniform Plumbing Code. "Nonperforated distribution" includes pressure sewer transport lines.~~

~~2.~~ 1 If surface water is used as a public drinking water supply, the designer shall locate the OSS outside of the required source water protection area.

~~3. The health officer may approve a sewer transport line within 10 feet of a water supply line if the sewer line is constructed in accordance with Section 2.4 of WDOE's "Criteria for Sewage Works Design," revised October 1985, or equivalent.~~

~~4. Before any dispersal component can be placed within 100 feet of a well, the designer shall submit a "decommissioned water well report" provided by a licensed well driller, which verifies that appropriate decommissioning procedures noted in Chapter 173-160 WAC were followed. Once the well is properly decommissioned, it no longer provides a potential conduit to ground water, but septic tanks, pump chambers, containment vessels or distribution boxes should not be placed directly over the site.~~

~~5. The health officer may allow a reduced horizontal separation to not less than two feet where the property line, easement line, or building foundation is up-gradient.~~

~~6.~~ 2 The item is down-gradient when liquid will flow toward it upon encountering a water table or a restrictive layer. The item is up-gradient when liquid ~~will flow away from it upon encountering a water table or restrictive layer.~~

~~B. Where~~ will flow away from it upon encountering a water table or restrictive layer.

3 Any in-ground containment vessel used to store drinking water.

4 A network of underground piping carrying fluid under pressure used to heat and cool a structure.

5 Lined means any ~~condition indicates~~ component that has the intended function of detaining the stormwater with no intention of dispersal into surrounding soil.

6 OSS components take precedence in cases of horizontal setback conflicts between OSS and stormwater components.

7 Down-gradient means that subsurface water flows toward and is usually located lower in elevation. Up-gradient means subsurface water does not
flow toward and generally flat, or flows away from and generally located higher in elevation.

8 Unlined means any component that has the ability to or intended function of infiltrating the stormwater.

(2) When conditions indicate a greater potential for contamination or pollution, the local health officer may increase the minimum horizontal separations. Examples of such conditions include~~-~~, but are not limited to, excessively permeable soils, unconfined aquifers, shallow or saturated soils, dug wells, and improperly abandoned wells.

~~C.~~ (3) The local health officer may allow a reduced horizontal separation to not less than two feet from where the property line, easement line, or building foundation is up-gradient.

(4) The local health officer may require an applicant to demonstrate the OSS meets (a), (b), or (c) of this subsection when determining if a horizontal separation to a minimum of 75 feet between an OSS dispersal component and ~~an individual~~ a water well, spring, or surface water ~~may be reduced to a minimum of 75 feet by the health officer, and be described as a "conforming" system upon signed approval by the health officer if the applicant demonstrates~~that is not a public water source is allowed:

~~1.~~ (a) Adequate protective site-specific conditions, such as physical settings with low ~~hydro-geologic~~ hydrogeologic susceptibility from contaminant infiltration. Examples of such conditions include evidence of confining layers ~~and/or aquatards separating~~, an aquatard that separates potable water from the OSS treatment zone, excessive depth to ~~ground water~~groundwater, down-gradient contaminant source, or outside the zone of influence; or

~~2.~~ (b) Design and proper operation of an OSS ~~system assuring~~ with enhanced treatment performance beyond that accomplished by meeting the vertical separation and effluent distribution requirements described in ~~WCC 24.05.120(B), Table III~~ Table VI in WCC 24.05.~~0230~~.190; or

~~3.~~ (c) Evidence the OSS satisfies the requirements of ~~protective conditions involving both subsections (C)(1~~ (a) and (~~2~~b) of this ~~section; and~~subsection.

~~4. The well conforms to Chapter 173-160 WAC, Minimum Standards for Construction and Maintenance of Wells, if applicable.~~

~~D.~~ (5) Persons shall design ~~and/~~or install ~~disposal components~~a soil dispersal component only ~~where~~if:

~~1.~~ (a) The slope is less than 45- percent ~~(~~or 24- degrees~~);~~;

~~2.~~ (b) The area is not subject to:

~~a.~~ (i) Encroachment by buildings or construction such as placement of ~~swimming pools,~~ power poles and underground utilities;

~~b.~~ (ii) Cover by impervious material;

~~c.~~ (iii) Vehicular traffic; or

~~d.~~ (iv) Other activities adversely affecting the soil or the performance of the OSS~~;~~.

~~3.~~ (c) Sufficient reserve area for replacement exists to treat and dispose ~~of 100~~one hundred percent of the design flow;

~~4.~~ (d) The land is stable; and

~~5.~~ (e) Surface drainage is directed away from the site.

~~E. New OSS shall be located on the same lot as the buildings they are designed to serve, or on a separate lot if a permanent easement for access, maintenance and repair is obtained and recorded.~~

~~F.~~ (6) The local health officer may approve a sewer transport line within ~~10~~ten feet of a water supply line if the sewer line is constructed in accordance with ~~Section~~section C1-9-.1 of the ~~WDOE "~~department of ecology's "Criteria ~~for~~For Sewage Works Design~~," December 1998.~~," 2008. (Ord. 2006-056 Exh. A).

24.05.~~110~~180 Soil and site evaluation.

~~A.~~ (1) Only professional engineers, designers, or ~~the~~local health ~~officer~~officers may perform soil and site evaluations. Soil scientists may only perform soil evaluations.

~~B.~~ (2) The person evaluating the soil and site shall:

~~1.~~ (a) Report:

~~a.~~ (i) A sufficient number of soil logs to evaluate conditions within:

~~i.~~ (A) The initial ~~disposal~~soil dispersal component; and

~~ii.~~ (B) The reserve area~~;~~.

~~b.~~ (ii) The ~~ground water~~groundwater conditions, the date of the observation, and the probable maximum height;

~~c.~~ (iii) The topography (contour lines or percent slope and direction) of the proposed initial ~~system~~OSS, the reserve area, and those areas immediately adjacent that contain characteristics impacting the design;

~~d.~~ (iv) The drainage characteristics of the proposed initial ~~system~~OSS, the reserve area and those areas immediately adjacent that contain characteristics impacting the design;

~~e.~~ (v) The existence of structurally deficient soils subject to major wind or water erosion events such as slide zones and dunes;

~~f.~~ (vi) The existence of designated ~~floodplains and other~~flood plains;

(vii) Other areas identified in the local management plan required in WCC ~~24.05.050;~~ 24.05.~~0015~~.070; and

~~g.~~(viii) The location of existing features affecting ~~system~~ OSS placement, such as, but not limited to:

~~i.~~ (A) Wells ~~and suction lines~~;

~~ii.~~ (B) Water sources and supply lines;

~~iii.~~ (C) Surface water and ~~storm water~~stormwater infiltration areas;

~~iv.~~ (D) Abandoned wells;

~~v.~~ (E) Outcrops of bedrock and restrictive layers;

~~vi. Buildings;~~

~~vii.~~(F) Buildings. If the building is unknown, included drain field setback lines for building foundations (include minimum up-gradient and down-gradient horizontal setback lines between OSS components and building fountain/foundation drains),

(G) Property lines and lines of easement;

~~viii.~~ (H) Interceptors such as footing drains, curtain drains ~~and~~, drainage ditches and roof drain conveyance pipes;

~~ix.~~ (I) Cuts, banks, and fills; percent slope for cuts, banks or fills (include minimum horizontal setback line).

~~x.~~ (J) Driveways and parking areas;

~~xi.~~ (K) Existing OSS; and

~~xii.~~ (L) Underground utilities;

~~2.~~ (b) Use the soil and site evaluation procedures and terminology in accordance with Chapter 5 of the On-~~Site~~site Wastewater Treatment Systems Manual, EPA 625/R-00/008, February 2002~~, or later version~~ except where modified by, or in conflict with, this chapter;

~~3.~~ (c) Use the soil names and particle size limits of the United States Department of Agriculture ~~Soil~~Natural Resources Conservation Service classification system;

~~4.~~ (d) Determine texture, structure, compaction-, and other soil characteristics that affect the treatment and water movement potential of the soil by using normal field ~~and/~~or laboratory procedures such as particle size analysis; and

~~5.~~ (e) Classify the soil as in Table ~~II,~~ V:

Table V

Soil Type Descriptions:

~~Table II – Soil Type Descriptions~~

Soil Type	Soil Textural Classifications
1	Gravelly and very gravelly coarse sands, all extremely gravelly soils excluding those with soil types 5 and 6~~,~~ as the non-gravel portion, and all soil types with greater than or equal to 90% rock fragments.
2	Coarse sands.
3	Medium sands, loamy coarse sands, loamy medium sands.
4	Fine sands, loamy fine sands, sandy loams, loams.
5	Very fine sands, loamy very fine sands; or silt loams, sandy clay loams, clay loams and silty clay loams with a moderate or strong

~~Table II – Soil Type Descriptions~~

	structure (excluding platy structure).
6	Other silt loams, sandy clay loams, clay loams, silty clay loams.
7 Unsuitable for treatment or dispersal	Sandy clay, clay, silty clay, strongly cemented or firm soils, soil with a moderate or strong platy structure, any soil with a massive structure, any soil with appreciable amounts of expanding clays.

~~C.~~ (3) The owner of the property or ~~his~~ the owner's agent shall:

~~1.~~ (a) Prepare the soil log excavation to:

~~a.~~ (i) Allow examination of the soil profile in its original position by:

~~i.~~ (A) Excavating pits of sufficient dimensions to enable observation of soil characteristics by visual and tactile means to a depth three feet deeper than the anticipated infiltrative surface at the bottom of the ~~disposal~~soil dispersal component; or

~~ii.~~ (B) Stopping at a shallower depth if a water table or restrictive layer is encountered; ~~and~~

~~b.~~ (ii) Allow determination of the ~~soil's~~soil's texture, structure, color, bulk density or compaction, water absorption capabilities or permeability, and elevation of the highest seasonal water table; and

~~2.~~ (b) Assume responsibility for constructing and maintaining the soil log excavation in a manner to ~~reduce potential for physical~~prevent injury as required by ~~Chapter 296-155~~ chapter 296-155 WAC ~~by~~:

~~a.~~ (i) Placing excavated soil no closer than two feet of the excavation;

~~b.~~ (ii) Providing a ladder, earth ramp or steps for safe egress to a depth of four feet, then scoop out a portion from the floor to gain the additional two-foot depth necessary to observe the six feet of soil face; however, the scooped portion is not to be entered;

~~c.~~ (iii) Provide a physical warning barrier around the excavation's perimeter; and

d. (iv) Fill the excavation after the health officer has approved or deniedmade a decision on the application.

D. (4) The local health officer:

1. (a) Shall render a decision on the height of the water table within 12- months of receiving the application under precipitation conditions typical for the region;

2. (b) May require water table measurements to be recorded during the wet seasonmonths of probable high- water table conditions, if insufficient information is available to determine the highest seasonal water table;

3. (c) May require any other soil and site information affecting location, design, or installation; and

4. (d) May reduce the required number of soil logs for OSS serving a single-family residence if adequate soils information has previously been developed.; and (Ord. 2006-056 Exh. A).

(e) May require another site and soil evaluation if the site has been altered since the initial site and soil evaluation was submitted to the local health officer.

(f) Shall require primary drainfield area must be staked for design review. Reserve drainfield area staking may be required by the health officer as needed.

24.05.120190 Design requirements - General.

A. On-site sewage systems may(1) OSS must only be designed by professional engineers, licensed under Chapter 18.43 RCW or on-site sewage treatment system18.43 RCW or OSS designers, licensed under Chapter 18.210 RCW.18.210 RCW, except:

B.(a) If at the discretion of the local health officer, a resident owner of a single-family residence not within 200 feet of a marine shoreline is allowed to design a conventional gravity OSS for the residence; or

(b) If the local health officer performs the soil and site evaluation, the health officer may design the OSS.

(2) The designer shall use the following criteria when developing a design for an OSS:

1.(a) All the sewage from the building served is directed to the OSS;

2.(b) Sewage tanks have been reviewed and approved by WDOHare in compliance with chapter 246-272C WAC;

3.(c) Drainage from the surface, footing drains, roof drains, subsurface stormwater infiltration systems and other nonsewagenon-sewage drains is prevented from entering the OSS and, the area where the OSS is located and the reserve area are located;

4.(d) The OSS is designed to treat and disperse the sewage volume as follows:

a. (i) For single-family residences, the:

(A) The operating capacity is based on 45 gpd per capita with two people per bedroom.;

(B) The minimum design flow per bedroom per day is the operating capacity of 90 gallons multiplied by 1.33. to account for a 33 percent surge capacity. This results in a minimum design flow of 120 gallons per bedroom per day. A;

(C) The local health officer may require a factor greater than 0.33 percent to account for surge capacity may be required by;

(D) The minimum design flow of the health officer. OSS is 240 gpd; and

(E) The local health officer may require an increase of the design flow for dwellings with anticipated greater flows, such as larger dwellings. The minimum design flow is 240 gallons per day;; or

b. (ii) For single-family residences with one additional dwelling served by the same OSS;

(A) All requirements in (d)(i) of this subsection apply;

(B) The minimum design flow for one additional dwelling is 120 gallons per bedroom; and

(C) The local health officer may require an increase of the design flow for dwellings with anticipated greater flows; or

(iii) For three or more dwellings served by the same OSS:

(A) All requirements in (d)(i) of this subsection apply;

(B) The minimum design flow for the first dwelling is 240 gallons per day;

(C) The minimum design flow for each additional dwelling is 120 gallons per bedroom;

(D) The local health officer may require an increase of the design flow for dwellings with anticipated greater flows; and

(E) The local health officer shall require documentation including, but not limited to, an easement, covenant, contract, or other legal document authorizing access for construction, operation, maintenance, and repair; or

(iv) For other facilities, the design flows noted in the "On-Sitesite Wastewater Treatment Systems Manual," USEPA, EPA-625/R-00/008, February 2002, or later version. If the type of facility is not listed in the EPA design manual, design flows from one of the following documents are used: "On-Site Wastewater Treatment Systems Manual," USEPA, EPA 625/R-00/008, February 2002, shall must be used. Sewage flows from other sources of information may be used in determining system design flows if they incorporate both an operating capacity and a surge capacity;

~~5.~~ (e) The OSS is designed to address sewage quality as follows:

~~a.~~ (i) For all systems, the designer shall consider:

~~i.~~ (A) CBOD5, TSS, and O&G;

~~ii.~~ (B) Other parameters that can adversely affect treatment anywhere along the treatment~~-~~ component sequence. Examples include pH, temperature ~~,~~and dissolved oxygen;

~~iii.~~ (C) The sensitivity of the site where the OSS will be installed. Examples include areas where fecal coliform constituents can result in public health concerns, such as shellfish growing areas, designated swimming areas, and other areas identified by the local management plan required in WCC ~~24.05.050;~~24.05~~.0015~~.070;

~~iv.~~(D) Nitrogen contributions. Where nitrogen has been identified as a contaminant of concern by the local management plan required in WCC ~~24.05.050,~~ 24.05~~.0015~~.070, it ~~shall~~must be addressed through lot size ~~and/or~~, treatment, or both.

~~b. When proposing the use of~~(ii) For OSS ~~for~~treating sewage from a nonresidential ~~sewage~~source, the designer shall provide ~~to~~ the ~~health officer~~following information showing:

~~i. Information to show the~~ (A) The sewage is not industrial wastewater;

~~ii. Information to establish the sewage's strength~~(B) The sewage effluent quality and ~~identify~~identifying chemicals found in the sewage ~~that~~ effluent are not found in sewage effluent from a residential ~~sewage~~source; and

~~iii. A~~(C) A site-specific design providing the necessary treatment ~~equal to that~~equaling required ~~of~~treatment of sewage effluent quality from a residential ~~sewage.~~source;

~~c.~~ (f) The vertical separation ~~to be~~ used to establish the treatment levels and application rates. The selected vertical separation ~~shall~~ must be used consistently throughout the design process~~.~~; and

~~d.~~ (g) Treatment levels:

(i~~.~~) Requirements for matching treatment component and method of distribution with soil conditions of the soil dispersal component are listed in Table ~~III.~~VI of this section. The treatment levels correspond with those established for treatment components under the product performance testing requirements in ~~WAC 246-272A-0110.~~Table III of WCC 24.05~~.0110~~.100. The method of distribution applies to the soil dispersal component.

(ii~~.~~) Disinfection may not be used ~~to~~:

(A) To achieve ~~the fecal coliform requirements to meet:~~

~~(A) Treatment levels A~~BL1 or ~~B~~BL2 in ~~Type~~type 1 soils; or

(B) BL3

Table VI

Treatment ~~level C.~~Component Performance Levels and Method of Distribution[1]

~~Table III – Treatment Component Performance Levels and Method of Distribution1~~

Vertical Separation in ~~Inches~~inches	Soil Type		
	1	2	3 – 6
12 < 18	A – & BL1 pressure with timed dosing	B – & BL2 pressure with timed dosing	B – & BL2 pressure with timed dosing
~~>~~ ≥18 < 24	B – & BL2 pressure with timed dosing	~~B –~~ C & BL3 pressure with timed dosing	~~B –~~ C & BL3 pressure with timed dosing
~~>~~ ≥24 < 36	B – & BL2 pressure with timed dosing	C – & BL3 pressure with timed dosing	E – pressure with timed dosing
~~>~~ ≥36 < 60	B – & BL2 pressure with timed dosing	E – ~~pressure~~ Pressure with timed dosing	E – gravity
~~>~~ ≥60	C – ~~pressure~~ & BL2 Pressure with timed dosing	E – gravity	E – gravity

[1] The treatment component performance levels correspond with those established for treatment components under the product testing requirements in WAC ~~246-272A-0110.~~ 246-272A-0110.~~C.~~

(3) The coarsest textured soil within the vertical separation selected by the designer ~~shall determine~~ determines the minimum treatment level and method of distribution.

~~D.~~ (4) The local health officer~~:~~

~~1. Shall approve only OSS designs meeting the requirements of this chapter;~~

~~2. Shall~~ shall not approve designs for:

(a~~.~~) Cesspools; or

(b~~.~~) Seepage pits~~;~~.

~~3. May~~(5) The local health officer may approve a design for the reserve area different from the design approved for the initial OSS, if both designs meet the requirements of this chapter for new construction.

(6) Designs must conform to and include the following: The drawing paper size shall be 8 1/2 inches by 11 inches up to a maximum paper size of 11 inches x 17 inches and a scale of one inch equals 20 feet, 30 feet or 40 feet. On larger parcels, a scale may be used up to one inch equals 60 feet for the project; provided, that an inset of the OSS is shown at one inch equals 20 feet, 30 feet or 40 feet; and

(a) the inset's distances to at least two intersecting property lines are labeled; and

(b) the inset's distance to major setback distances are labeled (i.e., wells, creeks, lakes, etc.).

~~E.~~ Very large parcels may show remaining site features up to one inch equals 100 feet scale.

(c) Shall require all pages of OSS application/design be numbered.

24.05.200 Design requirements – Septic Tank Sizing.

Septic tanks ~~shall~~must:

(1~~.~~) Have at least two compartments with the first compartment liquid volume equal to one-half to two-thirds of the total liquid volume. This standard may be met by one tank with two compartments or by two single compartment tanks in series.

(2~~.~~) Have the following minimum liquid volumes:

(a) For a single-family residence use Table VII:

~~Table IV – Required Minimum Liquid Volumes of Septic Tanks~~

~~Number of Bedrooms~~	~~Required Minimum Liquid Tank Volume in Gallons~~
~~< 3~~	~~900~~

~~Table IV – Required Minimum Liquid Volumes of Septic Tanks~~

-

~~Number of Bedrooms~~	~~Required Minimum Liquid Tank Volume in Gallons~~
~~4~~	~~1,000~~
~~Each additional bedroom~~	~~250~~

~~b. For OSS treating sewage from a residential source, other than one single-family residence, 250 gallons per bedroom with a minimum of 1,000;~~

~~c. For OSS treating sewage from a nonresidential source, three times the design flow.~~

~~F. Pump chambers shall:~~

~~1. Have cleanout and inspection accesses at or above finished grade;~~

Table VII

Required Minimum Liquid Volumes of Septic Tanks

Number of Bedrooms	Required Minimum Liquid Tank Volume in Gallons
≤4	1,000
Each additional bedroom	250

(b) For OSS treating sewage from a residential source, other than one single-family residence, 250 gallons per bedroom with a minimum of 1,000 gallons;

(c) For OSS treating sewage from a nonresidential source, three times the design flow.

(d) Be equipped with an approved effluent filter unless excluded by requirements of a proprietary treatment design ~~at the outlet~~.

~~3.~~ (e) Be designed with protection against floatation and ground water intrusion in high ground water areas.

~~4. Have~~ (3) Comply with chapter 246-272C WAC.

24.05.210 Design requirements—Pump chambers.

(1) All pump chambers, except pump basins, must be designed to meet the following requirements:

(a) Have a minimum ~~liquid capacities:~~volume of 1,000 gallons;

~~a. For a single-family residence, use Table IV, Required Minimum Liquid Volumes of Septic Tanks:~~

~~2.~~ (b) Provide an internal volume to account for the design flow, full-time pump submergence, space for sludge accumulation below the pump inlet and emergency storage volume of at least 75 percent of the design flow;

(c) Follow any applicable DS&G or proprietary product design manual for all OSS components included in the pump chamber; and

(d) Comply with chapter 246-272C WAC.

(2) For the purposes of this section, "pump basin" means a watertight receptacle that contains a pump to convey sewage from a limited use area that is separate from the main wastewater sewer pipe leaving a structure, to the main treatment component of an OSS; typically much smaller than a pump chamber and separate from the main sewer pipe due to elevation restrictions. Pump basins are intended for limited, specialized uses, and not intended as a replacement or substitute for a pump chamber. Pump basins must be in compliance with chapter 246-272C WAC.

(3) Be designed with protection against floatation, ground water intrusion, and surface water inflow in high ground water areas; and

~~3. Be designed with a pump screen, unless an approved effluent filter is designed at the outlet of the septic tank.~~

~~G.~~

24.05.220 Design ~~Requirements—~~requirements—Soil ~~Dispersal Components~~dispersal components.

(~~1.~~) All soil dispersal components, except one using a subsurface dripline product, ~~shall~~ must be designed to meet the following requirements:

(~~a.~~) Maximum hydraulic loading rates ~~shall be based on the rates~~ described in Table ~~V~~VIII.

Table VIII

Maximum Hydraulic Loading Rate

~~Table V — Maximum Hydraulic Loading Rate~~	Column A	Column B

Soil Type	Soil Textural Classification Description	Loading Rate for Residential Septic Tank Effluent Using Gravity or Pressure Distribution gal./sq. ft./day	Loading Rate for Residential Effluent Meeting Treatment Level C & BL3 or Higher Effluent Quality Using ~~Gravity or~~ Pressure Distribution gal./sq. ft./day
1	Gravelly and very gravelly coarse sands, all extremely gravelly soils excluding those with soil types 5 ~~and~~& 6 as the non-gravel portion, all soil types with greater than or equal to 90% rock fragments.	1.0	1.2
2	Coarse sands.	1.0	1.2
3	Medium sands, loamy coarse sands, loamy medium sands.	0.8	1.0
4	Fine sands, loamy fine sands, sandy loams, loams.	0.6	0.8
5	Very fine sands, loamy very fine sands; or silt loams, sandy clay loams, clay loams and silty clay loams with a moderate structure or strong structure (excluding a platy structure).	0.4	0.56
6	Other silt loams, sandy clay loams, clay loams, silty clay loams.	0.2	0.2
7	Sandy clay, clay, silty clay and strongly cemented firm soils, soil with a moderate or strong platy structure, any soil with a massive structure, any soil with appreciable amounts of expanding clays.	~~Not suitable~~Unsuitable	Unsuitable

(b.) Calculation of the absorption area is based on:

(i.) The design flow in ~~subsection B of this section;~~WCC 24.05.~~0230~~.190 (2); and

(ii.) Loading rates equal to or less than those in Table ~~V~~ VIII of this section as applied to the infiltrative surface of the soil dispersal component or the finest textured soil within the vertical separation selected by the designer, whichever has the finest texture. ~~The installer shall submit documentation that fill material conforms to required sieve specifications.~~

(c.) Requirements for the method of distribution ~~shall~~ must correspond to those in WCC 24.05.0230, Table ~~III~~VI.

(d.) Soil dispersal components having daily design flow between 1,000 and 3,500 gallons of sewage per day ~~shall~~must:

(i.) Only be located in soil types ~~one through five~~1-5;

(ii.) Only be located on slopes of less than 30 percent, or 17 degrees; and

(iii.) Have pressure distribution including time dosing.

~~2.~~(2) The local health officer may allow the maximum hydraulic loading rates in Table VIII of this section. Loading rates identified in Column B must not be combined with any dispersal component size reductions.

(3) All soil dispersal components using a subsurface dripline product must be designed to meet the following requirements:

(a. ~~Calculation of the~~) The absorption area calculation is based on:

(i.) The design flow in ~~WAC 246-272A-0230~~(WCC 24.05.~~0230~~.190 (2); and

(ii.) Loading rates ~~that are~~ dependent on the soil type, other soil and site characteristics, and the spacing of dripline and emitters as directed in Table VIII of this section;

(b. ~~The dripline must be installed a~~) A minimum installation of six inches into original, undisturbed soil;

(c.) Timed dosing; and

(d. ~~OSS having daily~~) Daily design flows greater than 1,000 gallons of sewage per day:

(i. ~~May~~) Located only ~~be located~~ in soil types ~~one through five~~1-5;

(ii. ~~May~~) Located only ~~be located~~ on slopes of less than 30 percent, or 17 degrees;.

~~iii. Shall have pressure distribution.~~

~~3.~~(4) All SSAS ~~shall~~ must meet the following requirements:

(a.) The infiltrative surface may not be deeper than three feet below the finished grade, except under special conditions approved by the local health officer. The depth of such system ~~shall~~ must not exceed 10 feet from the finished grade;

(b.) A minimum of six inches of sidewall must be located in ~~original undisturbed~~ suitable soil;

(c. SSAS beds) Beds are only designed in soil types one, two, three 1, 2, 3 or in fine sands with a width not exceeding 10 feet. Gravity beds must have a minimum of one lateral for every three feet in width;

(d.) Individual SSAS laterals greater than 100 feet in length are tomust use pressure distribution;

(e.) A layer of between 6 and 24 inches of cover material; and

(f) Other features shall must conform with the "On-Sitesite Wastewater Treatment Systems Manual," USEPA," United States Environmental Protection Agency EPA-625/R-00/008, February 2002, or later version except where modified by, or in conflict with, this section or local regulationsrules.

4. For (5) SSAS with drainrock and distribution pipe must meet the following requirements:

a. Twelve inches of three-fourths-inch to two-and-one-half-inch washed, clean gravel, covered with a layer of geotextile for conventional gravity distribution;

b. Nine inches of three-fourths-inch to two-and-one-half-inch washed, clean gravel, covered with a layer of geotextile for conventional pressure distribution;

c. (a) A minimum of two inches of drainrock is required above the distribution pipe; and

d. The (b) A minimum of six inches of drainrock below the distribution pipe; and

(c) Location of the sidewall below the invert of the distribution pipe is located in original undisturbed soil.

5. The health officer may increase the loading rate in Table V up to a factor of two for soil types one through four and up to a factor of one and one-half for soil types five and six if a product tested to meet treatment level D is used. This reduction may not be combined with any other SSAS size reductions.

6. The primary and reserve areas:

a. The primary and reserve areas must be sized to at least 100 percent of the loading rates listed in Table V.

b. The (6) The local health officer may allow a legal lot of record created prior to the effective date of the ordinance codified in this chapter that cannot meet this primary and reservethe infiltrative surface area requirement to be developedin a SSAS to include six inches of the SSAS sidewall height when meeting the required absorption area where total recharge by annual precipitation and irrigation is less than 12 inches per year.

(7) The local health officer may permit OSS consisting of septic tanks and a gravity SSAS in soil type 1 if all the following conditionscriteria are met:

i. (a) The OSS serves a single-family residence;

(b) The lot cannot meetsize is two and one-half acres or larger;

(c) Annual precipitation in the region is less than 25 inches per year from a reputable source approved by the local health officer;

(d) The OSS is located outside the 12 counties bordering Puget Sound; and

(e) The geologic conditions beneath the dispersal component must satisfy the minimum ~~primary and reserve area~~ unsaturated depth requirements ~~due~~ to ~~the~~ groundwater as determined by the local health officer. The method for determination is described by "Design Guideline for Gravity Systems in Soil Type 1," 2017.

(8) Both the primary and reserve areas must be sized at least 100 percent of the approved loading rates ~~for medium sand, fine sand and very fine sand listed~~. The local health officer may require the sizing of the reserve area using the loading rate in Table ~~V~~VIII of this ~~chapter;~~section. Column A must be used when sizing the primary area using Column B.

~~ii. The primary and reserve areas are sufficient to allow installation of an SSAS using maximum loading rates of 1.0 gallons per square foot per day for medium sand, 0.8 gallons per square foot per day for fine sand, and 0.6 gallons per square foot per day for very fine sand; and~~

~~iii. A treatment product meeting at least treatment level D and pressure distribution with timed dosing is used.~~

24.05.230 Design ~~Requirements —~~ requirements—Facilitate ~~Operation, Monitoring~~operation, monitoring and ~~Maintenance~~maintenance.

(1.) The OSS must be designed to facilitate routine operation, monitoring and maintenance according to the following criteria:

(a.) For gravity ~~systems, septic~~ OSS:

(i) Sewage tank access for maintenance and inspection at finished grade is required. ~~If effluent filters are used, access to the filter at finished grade is required. The~~The local health officer may allow access for maintenance and inspection of a ~~system consisting of a septic~~ sewage tank ~~and gravity flow SSAS~~ to be a maximum of six inches below finished grade, provided a marker showing the location of the tank access is installed at finished grade.

(ii) Each SSAS lateral must include at least one observation port installed in a representative location in order to facilitate SSAS monitoring.

(b.) For all other ~~systems~~OSS, service access and monitoring ports at finished grade are required for all system components. Specific component requirements include:

~~(i. The building sewer must have a cleanout with a screw cap for service access;~~

~~ii.~~) Septic tanks must have service access maintenance holes (formerly manholes) and monitoring ports for the inlet and outlet. ~~Effluent filters must have access to finished grade~~;

~~iii.~~ (ii) Surge, flow equalization or other sewage tanks must have service access ~~manholes~~maintenance holes;

~~iv.~~ (iii) Other pretreatment units ~~(~~such as aerobic treatment units and packed-bed filters~~)~~ must have service access ~~manholes~~ maintenance holes and monitoring ports;

~~v.~~ (iv) Pump chambers, tanks and vaults must have service access ~~manholes~~maintenance holes;

~~vi.~~ (v) Disinfection units must have service access and be installed to facilitate complete maintenance and cleaning, including an easy-access, freefall sampling port; and

~~vii.~~ (vi) Soil dispersal components ~~shall~~, excluding subsurface drip, must have monitoring ports for both distribution devices and the infiltrative surface.

(c~~.~~) For systems using pumps, clearly accessible controls and warning devices are required including:

(i~~.~~) Process controls such as float and pressure-activated pump on/off switches, pump-run timers and process flow controls;

(ii~~.~~) Diagnostic tools including dose cycle counters and hour meters on the sewage stream, or flow meters on either the water supply or sewage stream; and

(iii~~.~~) Audible and visual alarms designed to alert a resident of a malfunction. The alarm must be placed on a circuit independent of the pump circuit.

(d) The building sewer must have a cleanout with a screw cap for service access;

(2~~.~~) All accesses must be designed to allow for monitoring and maintenance and shall be secured to minimize injury or unauthorized access in a manner approved by the local health officer. (Ord. 2006-056 Exh. A).

24.05.~~130~~240 Holding tank sewage systems.

~~A. Persons shall~~(1) A person may not install or use holding tank sewage systems for residential development or expansion of residences, whether seasonal or year-round, except as set forth under subsection ~~B~~(2) of this section.

~~B.~~ (2) The local health officer may approve installation of holding tank sewage systems only:

~~1.~~ (a) For permanent uses limited to controlled, part-time, commercial usage situations, such as recreational vehicle parks and trailer dump stations~~.~~;

~~2.~~ (b) For interim uses limited to handling of emergency situations~~.~~; or

~~3.~~ (c) For repairs as permitted under WCC ~~24.05.170(A)(3)(a).~~ 24.05.~~028~~0.310.

~~C.~~ (3) A person proposing to use a holding tank sewage system shall:

~~1.~~ (a) Follow ~~established~~ design criteria established by ~~WDOH~~the department;

~~2.~~ (b) Submit a management program to the local health officer assuring ongoing operation, monitoring and maintenance before the local health officer issues the installation permit; and

~~3.~~ (c) Use a holding tank reviewed and approved by ~~WDOH.~~the department. (Ord. 2006-056 Exh. A).

24.05.~~140~~250 Installation.

~~A. The health officer shall require approved~~ (1) Only installers ~~to~~or employees of installers may construct OSS, except as noted under subsection ~~B~~(2) of this section. ~~Licensed installers shall meet all requirements of WCC~~ 24.05.220~~(A).~~

~~B.~~ (2) The local health officer may allow the resident owner of a single-family residence ~~not adjacent~~to install the OSS when:

(a)Adequate knowledge and installation capacity is demonstrated to ~~a marine shoreline to install the OSS for that~~the health officer such as through the completion of the WCHCS homeowner installation exemption process

(3) The local health officer may allow the resident owner of a single-family residence ~~if they meet all~~to install the ~~following~~OSS except when:

~~1. The OSS installer owns or has~~ (a) The primary and reserve areas are within 200 feet of marine water;

(b) The primary and reserve areas are within 100 feet of surface water;

(c) The installation permit meets Table X standards in WCC 24.05.~~0280~~.310;

(d) The resident owner does not own or have a beneficial interest as a contract purchaser of the land on which the OSS is to be installed;~~ and~~

~~2.~~ (e)The OSS is ~~either~~not located on the same lot as the residence or situated on adjoining property controlled by the resident owner and legally listed as an encumbrance;~~ and~~

~~3. The OSS installer will reside in or use the building served by the OSS.~~(f) Persons engaged in the business of buying, selling and constructing homes or land ~~shall not qualify. The health officer may require written examination of resident owners when considering applications~~apply for self-installation~~.~~;

~~C. All persons employed to construct, install or alter a sewage disposal system shall be employees of a licensed installer.~~

~~D.~~ (g) The installation permit consists of a Proprietary Treatment Product or subsurface drip system.

(h) A WCHCS homeowner install exemption packet is required

(3) The installer described by either subsection ~~A~~(1) or ~~B~~(2) of this section shall:

~~1.~~ (a) Follow the approved design;

~~2.~~ (b) Have the approved design in possession during installation;

~~3.~~ (c) Make no changes to the approved design without the prior authorization of the designer and the local health officer;

~~4.~~ (d) Only install ~~septic tanks, pump chambers, and holding~~ sewage tanks approved by ~~WDOH~~the department consistent with chapter 246-272C WAC;

~~5.~~ (e) Be on the site at all times during the excavation and construction of the OSS;

~~6.~~ (f) Install the OSS to be watertight, except for the soil dispersal component;

~~7.~~ (g) Cover the installation only after the local health officer has given approval to cover; and

~~8.~~ (h) Back fill with ~~six~~6 to 24- inches of cover material and grade the site to prevent surface water from accumulating over any component of the OSS. (Ord. 2006-056 Exh. A).

24.05.~~150~~260 Inspection ~~and record drawing~~.

~~A.~~ (1) For all activities requiring a permit, the local health officer shall~~:~~ inspect the OSS. The local health officer shall:

~~1.~~ (a) Visit the OSS site during the site evaluation, construction, or final construction inspection~~.~~;

~~2.~~ (b) Either inspect the OSS before cover or allow the ~~licensed~~ designer ~~or licensed engineer~~ of the OSS to perform the inspection before cover if the designer is not also named as installer of the system~~.~~; and

~~3.~~ (c) Keep the record drawings on file, with the approved design documents.

(2) Prior to any inspection, the local health officer or inspector authorized by the local health officer shall coordinate with the OSS owner to obtain access. When the owner does not authorize access, the local health officer may follow the administrative search warrant procedures in RCW 70A.105.030 to gain access.

(3) For any OSS located on a single property serving one dwelling unit on the same property, the local health officer shall not require a property owner to grant inspection and maintenance easements as a condition of receiving a permit.

(4) During the final construction inspection, the local health officer or the designer of the OSS must confirm the OSS meets the approved design.

(5) To comply with the requirements of WCC 24.05~~.0270~~.280 (1)(e) or (k), an inspection must include, at a minimum:

(a) Inspection and evaluation of:

(i) The status of all sewage tanks including baffles, effluent filters, tank contents such as water level, scum, sludge, solids, water tightness, and general structural conditions;

(ii) The status of all lids, accesses, and risers;

(iii) The OSS and reserve area for any indicators of OSS failure or conditions that may impact system function, operation or repair; and

(iv) Any other components such as distribution boxes;

(b) A review of the record drawing and related documents, if they exist, including previous reports to confirm the system is operating as designed; and

(c) Any proprietary products following the procedures of the accepted operations and maintenance manual associated with those products.

(6) Evidence of an OSS property transfer inspection as required in WCC 24.05.~~0270~~.280 (1)(k) must be provided to the local health jurisdiction on a form approved by the local health officer, including at a minimum:

(a) All applicable information from subsection (5) of this section;

(b) The address of the property served by the OSS;

(c) The date of the inspection;

(d) The permitted type and design flow for known OSS; and

(e) Verification that the record drawing is accurate, if it exists, or an OSS site plan showing the location of all system components relative to structures and prominent site features.

(7) A local health jurisdiction may require an additional inspection report, or additional information, for an inspection required under WAC 246-272A-0270(1). The person responsible for the final construction inspection shall assure the OSS meets the approved design.

~~B.~~ (8) Prior to covering the newly installed OSS, the installer shall notify the health officer and the designer that the system is ready to be inspected. If any portion of the work is covered before it is inspected and approved, the same shall, when ordered, be uncovered by the installer prior to inspection.

~~C. All record drawings shall be prepared by licensed designers or licensed engineers. Record drawings shall be submitted no later than 30 days after the final construction inspection and covering of the OSS, and must be received by WCHD prior to final approval and occupancy. The OSS will not be approved unless the record drawing has been submitted to the WCHD by the designer. The designer, upon.~~

24.05.~~-~~270 Record drawings

Upon completion of new construction, alteration or repair of the OSS, the OSS owner shall ~~develop and~~ submit ~~-~~ a complete and detailed record drawing ~~to both the~~ prepared by a licensed designer or professional engineer to the local health officer ~~and the OSS owner~~ prior to permit final approval or final occupancy of a new construction that includes at a minimum:

(1.) Measurements and directions accurate to ~~plus or minus one-half~~+/- 1/2 foot, unless otherwise determined by the local health officer, ~~to assure~~ so that the following parts of the OSS can be easily located:

(a.) All sewage tank openings requiring access;

(b.) The ends, and all changes in direction, of installed and found buried pipes and electrical cables that are part of the OSS; and

(c.) Any other OSS component which, in the judgment of the local health officer or the designer, must be accessed for observation, maintenance, or operation;

(2.) Location and dimensions of the reserve area;

(3.) Record that materials and equipment meet the specifications contained in the design;

(4.) Initial settings of electrical or mechanical devices that must be known to operate the system in the manner intended by the designer or installer; and

(5.) For proprietary products, ~~manufacturer's~~manufacturer's standard product literature, including performance specifications and maintenance recommendations needed for operation, monitoring, maintenance or repair of the OSS. (Ord. 2006-056 Exh. A).

(6) Final approval and occupancy may not be approved if pending documentation has not been received by WCHCS.

(7) Existing OSS may require a record drawing if site conditions have changed.

24.05.~~1600~~0280 Operation, monitoring, and maintenance – Owner responsibilities.

~~A.~~ (1) The OSS owner is responsible for ~~properly~~ operating, monitoring, and maintaining the OSS to minimize the risk of failure, and ~~to accomplish this purpose~~ shall:

~~1.~~ (a) Request assistance from the local health officer upon occurrence of a system failure or suspected system failure;

(b) Obtain approval from the local health officer before ~~repairing:~~

(i) Repairing, altering, or expanding an OSS~~;~~ as required by WCC 24.05.~~0200~~.160; or

~~a. All systems which were legally permitted at time of installation and which are not currently functional due to failing and/or broken component parts will be allowed to be repaired to functionality. Also see WCC 24.05.090(C);~~

~~2.~~ (ii) Before beginning the use of any newly constructed OSS;

(c) Secure and renew contracts for periodic maintenance ~~where~~ if required by the ~~WCHD~~local health jurisdiction;

~~3.~~ (d) Obtain and renew operation permits if required by the ~~WCHD~~local health jurisdiction;

~~4. Assure a complete evaluation of the system components and/or~~ (e) Obtain an inspection, as required in WAC 246-272A-0260(5), by a maintenance service provider authorized by the local health officer of all OSS and property to determine functionality, maintenance needs and compliance with this chapter and local rules, and any permits. ~~A report of system status shall be completed at the time of the evaluation and submitted to the WCHD;~~:

~~5. Assure subsequent evaluations of the system components and/or property are completed as follows:~~

~~a.~~ (i) At least once every three years ~~for all systems~~, unless more frequent inspections are specified by the local health officer, for all OSS consisting solely of a ~~septic~~ sewage tank and gravity SSAS;

~~b.~~ (ii) Annually for all other ~~systems~~ OSS unless more frequent inspections are specified by the local health officer;

~~6.~~ (iii) Submit the results of the inspection to the local health jurisdiction, using a form approved by the local health officer and in compliance with WCC 24.05~~.0260~~.260 (5);

(f) Employ an approved pumper to remove the septage from the tank when the level of solids and scum indicates that removal is necessary;

~~7.~~ (g) Provide ongoing maintenance and complete any needed repairs to promptly return the ~~system~~ OSS to a proper operating condition;

~~8.~~ (h) Protect the OSS area and the reserve area from:

~~a.~~ (i) Cover by structures or impervious material;

~~b.~~ (ii) Surface drainage, and direct drains, such as footing or roof drains. The drainage must be directed away from the area where the OSS is located;

~~c.~~ (iii) Soil compaction~~, for~~. For ~~example~~example by vehicular traffic or livestock; and

~~d.~~ (iv) Damage by soil removal and grade alteration~~;~~.

~~9.~~ (i) Keep the flow of sewage to the OSS at or below the approved operating capacity and sewage quality;

~~10.~~ (j) Operate and maintain ~~systems~~ OSS as directed by the local health officer~~;~~ and

~~11. Request assistance from the health officer upon occurrence of a system failure or suspected system failure;~~

~~12. Ensure that a current report of system status by a licensed O&M specialist is on file with WCHD when a property with an OSS is offered for sale;~~

~~13.~~ (k) At the time of property transfer~~, provide~~:

(i) Provide to the buyer ~~a copy of the current report of system status on file with the Whatcom County health department, and any~~, all available OSS maintenance and repair records~~,~~ in addition to the completed seller disclosure statement in accordance with ~~Chapter 64.06~~chapter 64.06 RCW for residential real property transfers~~.~~;

~~B.~~ (ii) Beginning February 1, 2027, obtain an inspection, as required in WCC 24.05~~.0260~~.260 (5), by a third-party inspector authorized by the local health officer. The local health officer ~~shall~~ may:

(A) Remove the requirement for an inspection at the time of property transfer if the local health jurisdiction has evidence that the OSS is in compliance with (e) of this subsection and the OSS was inspected by a third-party inspector authorized by the local health officer;

(B) Verify the results of the property inspection for compliance with WCC 24.05. 0260; and

(C) Require additional inspections and other requirements not listed in WCC 24.05~~.0260~~.260;

(iii) Beginning February 1, 2027, obtain an inspection of proprietary treatment products per the product manufacturer recommendations, as required in WCC 24.05~~.0260~~.260, by a third-party inspector authorized by the local health officer. The local health officer may:

(A) Remove the requirement for an inspection at the time of property transfer if the local health jurisdiction has evidence that the OSS is in compliance with (e) of this subsection and the OSS was inspected by a third-party inspector authorized by the local health officer;

(B) Verify the results of the property inspection for compliance with WCC 24.05 0260; and

(C) Require additional inspections and other requirements not listed in WCC 24.05~~.0260~~.260;

(iv) Submit the results of the inspection, and any additional information or reports required by the local health officer, to the local health jurisdiction, using an inspection report form approved by the local health officer. The local health officer may require a compliance schedule for repair of a failure discovered during the property transfer inspection.

(v) An unoccupied/uninhabited property/residence may not be re-occupied when WCHCS staff has verification of a failed OSS until a repair/replacement has been approved and ~~shall be~~ completed.

(2) A person may not:

(a) Use or introduce strong bases, acids or chlorinated organic solvents into an OSS for the purpose of system cleaning;

(b) Use an OSS additive unless it is specifically approved by the department;

(c) Use an OSS to dispose of waste components atypical of sewage from a residential source; or

(d) Use any remediation process or activity unless it is approved by the local health officer and is in compliance with WCC 24.05.~~0278~~.300.

(3). OSS owners may perform their own OSS evaluation in accordance with ~~subsection C~~section 1 of this section except for the following:

(a) ~~1.~~ OSS technologies that are listed as proprietary on the Washington State DOH list of registered on-site treatment and distribution products where the contract with the private proprietary manufacturer prohibits homeowner evaluations;

(b) ~~2.~~ Community drainfields;

(c) ~~3.~~ Nonconforming replacement systems that do not meet vertical and horizontal separation installed as a result of a system failure;

(d) ~~4.~~ OSS serving food service establishments~~.~~;

(e) ~~C.~~ All non-single family residences (SFR's).

(4) OSS owners who choose to perform their own evaluations shall complete O&M homeowner training as approved by the health officer. Upon completion of training, OSS owners may perform their own evaluations until property transfer. In cases of hardship, the health officer may approve the homeowner's selection of a designee who has completed the appropriate class to perform the evaluation. If OSS owners are discovered to be noncompliant with this section, the health officer may proceed with legal remedies in accordance with Chapter 24.07 WCC.

(5) ~~1.~~ OSS owners found to have submitted a false report in which an evaluation was not completed or the system status was misrepresented when in fact it is in failure shall have their homeowner certification revoked and must have all subsequent evaluations performed by a licensed O&M specialist.

(6) ~~2.~~ The health officer shall perform ~~random~~ audits of homeowner evaluations to ensure compliance. OSS evaluations must be completed by a licensed O&M specialist if the OSS owner does not permit an audit inspection.

~~D. Persons shall not:~~

~~1. Use or introduce strong bases, acids or chlorinated organic solvents into an OSS for the purpose of system cleaning;~~

~~2. Use a sewage system additive unless it is specifically approved by WDOH; or~~

~~3. Use an OSS to dispose of waste components atypical of residential wastewater.~~

(7)~~E.~~ The health officer shall require annual inspections of OSS serving schools and food service establishments and may require pumping as needed. (Ord. 2017-010 Exh. A; Ord. 2010-009 Exh. A; Ord. 2008-015 Exh. A; Ord. 2006-056 Exh. A).

24.05.290 Operation, monitoring, and maintenance – Food service establishments.

(1) The local health officer shall require:

(a) Annual operations and maintenance inspections by a certified O&M professional; and,

(b) Annual waste strength sampling

(2) The local health office may require:

(a) Existing food service establishments may be required to upgrade OSS to address waste strength and daily design flow upon change of menu, change of use or change of ownership.

24.05.300 Remediation.

(1) The local health officer may establish a program and requirements for reviewing and approving remediation activities.

(2) Remediation must not:

(a) Result in damage to the OSS;

(b) Result in insufficient soil treatment in the zone between the soil dispersal component and the highest seasonal water table, restrictive layer, or soil type 7; or

(c) Disturb the soil in or below the soil dispersal component if the vertical separation requirements of WCC 24.05~~.0230~~.190 are not met.

24.05.~~1703~~1000 Repair of failures.

~~A.~~ (1) When an OSS failure occurs~~,~~ the ~~OSS owner~~local health officer shall:

~~1. Repair or replace the OSS with a permitted conforming system or component, or a system.~~ (a) Allow an OSS to be repaired using the least costly alternative that meets standards and is likely to provide comparable or better long-term sewage treatment and effluent dispersal outcomes;

(b) Permit an OSS meeting the requirements ~~of~~in Table ~~VII either on the:~~

~~a. Property served; or~~

~~b. Nearby or adjacent property if easements are obtained; or~~

~~2.~~ X of this section only if the OSS has failed and the ~~Connect the residence or facility to a:~~

~~a. Publicly owned LOSS; or~~

~~b. Privately owned LOSS where it is deemed economically feasible; or~~

~~c. Public sewer; or~~

~~3. Perform one of the~~ following ~~when requirements in subsection (A)(1) or (A)(2) of this section~~ are not feasible:

~~a. Use a holding tank for an interim period prior to installing a permitted repair; or~~

~~b. Obtain a National Pollution Discharge Elimination System or state discharge permit from the WDOE issued to a public entity or jointly to a public entity and the system owner only when the health officer determines:~~

(i.~~)~~ ~~An OSS is not feasible; and~~

~~ii. The only realistic method of final disposal of treated effluent is discharge to the surface of the land or into surface water; or~~

~~c. Abandon the property.~~

~~B. Prior to replacing or repairing the soil dispersal component, the OSS owner shall develop and submit information required under WCC 24.05.090(A).~~

~~C. The health officer shall permit a Table VII repair only when:~~

~~1.~~ Installation of a conforming ~~system is not possible; and~~OSS or component; or

~~2.~~ (ii) Connection to either an approved LOSS or a public sewer~~is not feasible~~.

(c) Identify repair permits meeting the requirements in Table IX of this section for the purpose of tracking future performance;

(d) Give first priority to allowing repair and second priority to allowing replacement of an existing conventional OSS, consisting of a septic tank and drainfield, with a similar conventional OSS;

(e) Evaluate all unpermitted sewage discharges to determine if they pose a public health threat. If determined by the local health officer to be a public health threat, the local health officer shall require a compliance schedule;

(f) Report failures within 200 feet of shellfish growing areas to the department; and

(g) Not impose or allow the imposition of more stringent performance requirements of equivalent OSS on private entities than public entities.

(2) The local health officer may:

(a) Require a compliance schedule for failures discovered during property transfer inspections;

(b) Allow a repair of a failure using ASTM C-33 sand or coarser as fill to prevent direct discharge of treated effluent to groundwater, surface water, or upon the surface of the ground if the vertical separation is less than 12 inches.

(3) The OSS owner shall notify the local health officer when there is a failure and indicate which methods will be used to address the failure in accordance with Table IX of this section:

(a) The owner may use option D only if the local health officer determines options A through C are not feasible and may use option E or F only if options A through D are not feasible.

(b) For options A through F, the owner shall develop and submit information and obtain a permit as required under WCC 24.05~~.0200~~.160 prior to any repair or replacement of an OSS on the property served or a nearby property if the owner obtains an appropriate documentation including, but not limited to, an easement, covenant, contract, or other legal document authorizing access for construction, operation, maintenance, and repair.

(c) If options A through F are not feasible, the owner shall discontinue use of the OSS, abandon the OSS according to the requirements in WCC 24.05~~.0300~~.340, and cease all sewage generating activities on the property. (Ord. 2006-056 Exh. A~~D. The person responsible for the design shall locate and design repairs to:~~

~~1. Meet the requirements of Table VII if the effluent treatment and soil dispersal component to be repaired or replaced is closer to any surface water, well, or spring than prescribed by the minimum separation required in WCC 24.05.100, Table I. Pressure distribution with timed dosing in the soil dispersal component is required in all cases where a conforming system is not feasible;~~

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Table IX

Options and Methods to Address an OSS Failure

Options	Method
A	Repair or replace the OSS, with a similar OSS, if the OSS provides comparable or better long-term sewage treatment and effluent dispersal outcomes where: 1. The effluent treatment and soil dispersal component to be repaired or replaced is not closer to any surface water, well, or spring than the minimum separation distance required in Table IV of WCC 24.05~~.0210~~.170 (1); 2. The soil dispersal component to be repaired or replaced complies with the treatment level and dispersal method requirements in Table VI of WCC 24.05~~.0230~~.190; 3. The local health officer has a permit or record of the OSS on file; and 4. The repair or replacement will not result in an OSS that meets the definition of failure.
B	Repair or replace the OSS with an OSS in compliance with new construction requirements under this chapter.
C	Connect the residence or facility to a: 1. Publicly owned LOSS;

	2. Privately owned LOSS where it is deemed economically feasible; or 3. Public sewer.
D	Repair or replace the OSS in conformance with Table X of this section.
E	Use a holding tank.
F	Obtain a National Pollution Discharge Elimination System or state discharge permit from the Washington state department of ecology issued to a public entity or jointly to a public entity and the OSS owner only when the local health officer determines: 1. An OSS is not feasible; and 2. The only realistic method of final dispersal of treated effluent is discharge to the surface of the land or into surface water.

~~1 The treatment component performance levels correspond with those established for treatment components under the product performance testing requirements in WAC 246-272A-0110.~~

~~2 The horizontal separation indicated in Table VII is the distance between the soil dispersal component and the surface water, well, or spring. If the soil dispersal component is up-gradient of a surface water, well, or spring to be used as a potable water source, or beach where shellfish are harvested, the next higher treatment level shall apply unless treatment level A is already required.~~

~~3 On a site where there is a horizontal setback of 75 to 100 feet between an OSS dispersal component and an individual water well, individual spring, nonmarine surface water or surface water that is not a public water source and a vertical separation of greater than 12 inches, a conforming system that complies with WCC 24.05.100(C) shall be installed if feasible.~~

~~2. Protect drinking water sources and~~

(4) When there is an OSS failure, the OSS designer shall:

(a) Evaluate the causes of failure prior to designing the repair or replacement of the OSS;

(b) Prevent the direct discharge of sewage or treated effluent to groundwater, surface water, or upon the surface of the ground;

(c) Meet the horizontal separations under WCC 24.05.~~0210~~.170 (1) to public drinking water sources;

(d) Protect all drinking water sources, shellfish harvesting areas, and water recreation facilities designated for swimming in natural waters;

~~3.~~ (e) Minimize nitrogen discharge in areas where nitrogen has been identified as a contaminant of concern in the local management plan under WCC ~~24.05.050;~~ 24.05.~~0015~~.070;

~~4. Prevent the direct discharge of sewage to ground water, surface water, or upon the surface of the ground;~~

~~5. Meet the horizontal separations under WCC 24.05.100(A) to public drinking water sources;~~

~~6.~~ (f) Not use disinfection to achieve fecal coliform or E. Coli requirements in Table X of this section to meet:

(i) Treatment levels BL1 or BL2 with less than 18 inches of vertical separation; or

(ii) Treatment levels BL1 or BL2 in type 1 soils; or

(iii) Treatment level BL3.

(g) Minimize impact of phosphorus discharge in areas where the local health officer has identified phosphorus as a contaminant of concern in the local management plan under WCC 24.05.~~0015~~.070;

(h) Locate and design repairs meeting the requirements in Table X of this section if the effluent treatment and soil dispersal component to be repaired or replaced is closer to any surface water, well, or spring than prescribed by the minimum separation required in Table IV of WCC 24.05.~~0210~~.170 (1);

(i) Design any nonconforming OSS using pressure distribution with timed dosing in the soil dispersal component; and

(j) Meet all other design requirements of this chapter to the maximum extent permitted by the site~~;~~, to maximize the:

~~7. Maximize the:~~

~~a.~~ (i) Vertical separation;

~~b.~~ (ii) Distance from a well~~,~~ or spring~~, or suction line~~; and

~~c.~~ (iii) Distance to surface water.

~~E. Prior to designing the repair system, the designer shall consider the contributing factors of the failure to enable the repair to address identified causes.~~

~~F. If the vertical separation is less than 12 inches, the health officer may permit ASTM C-33 sand or coarser to be used as fill to prevent direct discharge of treated effluent to ground water, surface water, or upon the surface of the ground.~~

~~G. For a repair using the requirements of Table VII, disinfection may not be used to achieve the fecal coliform requirements to meet:~~

~~1.~~ (jk) Include conforming reserve drainfield area unless site conditions do not allow for it.

(kl) Table X repairs do not allow for increased building footprints or additional buildings that may reduce minimum land use.

Table X

Treatment ~~levels A or B where there is less than 18 inches of vertical separation;~~

~~2. Treatment levels A or B in type one soils; or~~

~~3. Treatment level C.~~

~~H. The health officer shall identify Table VII repair permits for the purpose of tracking future performance.~~

~~I. An~~ Component Performance Levels for Repair of OSS ~~owner receiving a Table VII repair permit from the health officer shall:~~

~~1. Immediately report any failure to the health officer;~~

~~2. Comply with all local~~Not Meeting Vertical and ~~state requirements stipulated on the permit~~Horizontal Separations[1]. ~~(Ord. 2006-056 Exh. A).~~

Vertical Separation (in inches)	Horizontal Separation2											
	< 30 feet			≥ 30 < 50 feet			≥ 50 < 100 feet3			≥ 100 feet		
	Soil Type			Soil Type			Soil Type			Soil Type		
	1	2	3-6	1	2	3-6	1	2	3-6	1	2	3-6
< 12	A & BL1	A & BL1	A & BL1	A & BL1	A & BL1	A & BL1	A & BL1	A & BL1	A & BL1	B & BL2	B & BL2	B & BL2
≥ 12 < 18	A & BL1	A & BL1	A & BL1	A & BL1	B & BL2	B & BL2	A & BL1	B & BL2	B & BL2	Conforming OSS		
≥ 18 < 24	A & BL1	A & BL1	A & BL1	A & BL1	B & BL2	B & BL2	A & BL1	B & BL2	B & BL2			
≥ 24 < 36	A & BL1	B & BL2	B & BL2	B & BL2	B & BL2	B & BL2	B & BL2	B & BL2	C & BL3			
≥ 36	A & BL1	B & BL2	B & BL2	B & BL2	C & BL3	C & BL3	B & BL2	C & BL3	C & BL3			

1 The treatment component performance levels correspond with those established for treatment components under the product performance testing requirements in Table III in WCC 24.05.~~0110~~.100.

2 The horizontal separation indicated in Table X of this section is the distance between the soil dispersal component and the surface water, well, or spring. If the soil dispersal component is up-gradient of a surface water, well, or spring to be used as a potable water source, or beach where shellfish are harvested, the next higher treatment level shall apply unless treatment level A is already required.

3 On a site where there is a horizontal setback of 75-100 feet between an OSS dispersal component and an individual water well, individual spring, nonmarine surface water or surface water that is not a public water source and a vertical separation of greater than 12 inches, a conforming OSS that complies with WCC 24.05.~~0210~~.170 (4) shall be installed if feasible.

24.05.320 Minor repair of malfunctions.

The local health officer:

(1) Shall require the minor repair of a malfunction to a functioning state;

(2) May require a permit for a minor repair of a malfunction; and

(3) May require the OSS owner to submit information regarding minor repairs of a malfunction.

24.05.~~180~~ 330 Expansions.

~~A.~~ (1) The local health officer shall require an ~~on-site sewage system~~OSS and a reserve area in full compliance with the new ~~system~~ construction standards specified in this ~~regulation~~chapter for an OSS expansion ~~of a residence or other facility~~.

~~B. Any necessary permits for the sewage disposal system repair or construction must be issued prior to final building plan approval.~~

~~C. The~~(2) A local health officer may allow expansion of an existing ~~on-site sewage system adjacent to~~ OSS within 200 feet of a marine shoreline that does not meet the minimum horizontal separation between the soil dispersal component and the ordinary high-water mark required by WCC ~~24.05.100~~, 24.05.~~0210~~.170, Table ~~I~~IV, provided~~,~~ that:

~~1.~~ (a) The ~~system~~ OSS meets all requirements of WCC ~~24.05.120;~~ 24.05.~~0230~~.190, 24.05.~~0232~~.200, 24.05.~~0234~~.220, and 24.05.~~0238~~.230;

~~2.~~ (b) The ~~system~~ OSS complies with all other requirements of WCC ~~24.05.100 and~~ 24.05.~~0210~~.170 and this section;

~~3.~~ (c) Horizontal separation between the soil dispersal component and the ordinary high-water mark is 50 feet or greater; and

~~4.~~ (d) Vertical separation is two feet or greater~~.~~ (Ord. 2006-056 Exh. A).

(3) Any necessary permits for the sewage disposal system repair or construction must be issued prior to building permit application approval.

(4) Reserve drainfield designation is required to expand the footprint of the existing development for all previously permitted and unpermitted OSS.

24.05.~~190~~ 340 Abandonment.

Persons permanently abandoning a ~~septic~~ sewage tank, seepage pit, cesspool, or other sewage container ~~from service~~ shall:

~~A.~~ (1) Have the septage removed by an approved pumper; and

~~B.~~ (2) Perform one of the following:

(a) Remove and dispose of sewage tanks and other components in a manner approved by the local health officer; or

(b) Leave the sewage tanks and components in place. Remove or destroy the lid~~;~~ if possible and

~~C. Fill~~ fill the void with soil or gravel~~.~~; and

(3) Grade the site to the surroundings (Ord. 2006-056 Exh. A).

24.05.~~200~~350 Septage management.

~~A. An individual~~A person removing septage from an OSS shall obtain approval from the local health officer before removal and:

(1) Transport septage or sewage only in vehicles clearly identified with the name of the business and approved by the local health officer;

(2) Record and report septage removal as required by the local health officer; and

(3) Dispose of septage, or apply septage biosolids to land only in a manner consistent with applicable laws.

(4) A company owner shall be approved by the health officer as a qualified pumper before removing septage from an OSS. Licensed pumpers shall meet all requirements of WCC ~~24.05.220~~(24.05.0385~~0~~ (2~~B~~).

~~B.~~ (5) Persons removing septage from an OSS shall:

~~1.~~ (a) Assure that the truck septage tank will be fully closed and watertight. The tank outlet device shall have a locking device properly placed to ensure sanitary dumping and to prevent any spillage or leakage of sewage. The suction hose shall be constructed of readily cleanable material and shall be kept in a clean and sanitary condition.

~~2. Assure that each vehicle used by a licensed pumper for servicing OSS systems shall be identified with a sign reading, "Whatcom County Health Department license No. _____." The letters and numbers of said sign shall be affixed on both sides of each vehicle, at least one inch in height and in a contrasting color to the vehicle color.~~

~~3.~~ (b) Record and report septage removal to the health officer by the 5th business day of each month on a WCHCS approved form. Septage removal records shall be made available to the health officer upon request to verify volumes of septage pumped in Whatcom County.

~~4.~~ (c) Dispose of septage at permitted facilities, or apply septage biosolids to land at permitted facilities, only in a manner consistent with applicable laws.

~~5.~~ (6) Intermediate septage holding tanks shall meet the permit requirements of WCC ~~24.05.090.~~ 24.05.~~0200~~.160.

~~6.~~ (a) Annual operational permits shall be required for intermediate septage holding tanks.

(7) Non-compliance with this section may result in license suspension or revocation.

(Ord. 2006-056 Exh. A).

24.05.~~210~~360 Developments, subdivisions, and minimum land area requirements.

~~A. A person proposing the development shall obtain approval from the health officer prior to any development where the use of OSS is proposed.~~

~~B. The health officer shall require the following prior~~(1) Prior to approving any development, the local health officer shall:

~~1. Site evaluations as required under WCC 24.05.110;~~

~~2. Where a subdivision with individual wells is proposed:~~

~~a. Configuration of each lot to allow a 100-foot-radius water supply protection zone to fit within the lot lines; or~~

~~b. Establishment of a 100-foot protection zone around each existing and proposed well site;~~

~~3. Where preliminary approval of a subdivision is requested, provision of~~ (a) Require site evaluations under WCC 24.05.~~0220~~.180;

(i) Provide at least ~~one~~two soil ~~log~~logs per proposed lot~~, unless the health officer determines existing soils~~;

(b) Require information ~~allows fewer soil logs;~~

~~4. Determination of the minimum lot size or minimum~~consisting of field data, plans, and reports supporting a conclusion that the proposed land area is sufficient to:

(i) Install conforming OSS;

(ii) Preserve reserve areas for proposed and existing OSS; and

(iii) Properly treat and dispose of the sewage;

(c) Require information demonstrating that the proposed development will minimize adverse public health effects from the accumulation of contaminants in groundwater and surface water;

(d) Determine the minimum land area required for the development using ~~method I and/or method II:~~Table XI of this section, or the alternative methodology in Table XII of this section. The local health officer may require larger lot sizes than the minimum standards established in Table XI or Table XII of this section;

~~a. Method I. Table VIII, single-family residence minimum lot size or minimum land area required per unit volume of sewage, shows the minimum lot size required per single-family residence. For developments other than single-family residences, the minimum land areas shown are required for each unit volume of sewage. The health officer may require larger lot sizes where the health officer~~

~~has identified nitrogen as a concern either through planning activities described in WCC 24.05.050 or another process.~~

Table XI

Minimum Land Area Requirement for Each Single-Family Residence or Unit Volume of Sewage and Minimum Usable Land Area

~~Table VIII – Minimum Land Area Requirement – Single-Family Residence or Unit Volume of Sewage~~

~~Type of Water Supply~~		Soil Type (defined by WCC ~~24.05.110~~).24.05.~~0220~~.180)					
		1	2	3	4	5	6
Minimum Land Area	Public Water Supply	~~0.~~21,780 sq. ft. (.5 acre)	~~12,500~~ 13,000 sq. ft.	~~15~~16,000 sq. ft.	~~18~~19,000 sq. ft.	~~20~~21,000 sq. ft.	~~22~~23,000 sq. ft.
		2.5 acres[1]					
	Nonpublic Water Supply	1.0 acre	1.0 acre	1.0 acre	1.0 acre	2.0 acres	2.0 acres
		2.5 acres[1]					
Minimum Usable Land Area		2,000 sq. ft.	2,000 sq. ft.	2,500 sq. ft.	3,333 sq. ft.	5,000 sq. ft.	10,000 sq. ft.

[1]OSS consisting of only sewage tanks and gravity SSAS must have a minimum land area of 2.5 acres per WCC 24.05.~~0234~~.220 (6).

~~b. Method II. A~~ **Table XII**

Maximum Allowable Total Nitrogen (TN) Load Per Day by Type of Water Supply, Soil Type, and Land Area[1]

Water Supply Type	Maximum Daily TN Load	Soil Type[2]					
		1	2	3	4	5	6
Public	mg per sq. ft.	3.8	6.3	5.1	4.3	3.9	3.6
	lb per acre	0.36	0.60	0.49	0.41	0.37	0.34
Nonpublic	mg per sq. ft.	1.9	1.9	1.9	1.9	0.9	0.9
	lb per acre	0.18	0.18	0.18	0.18	0.09	0.09

[1]Based on 60 mg/L TN and 360 gal/day OSS effluent.

[2]As defined in Table V in WCC 24.05.~~0220~~.180.

(e) Require all proposals not meeting the minimum land area ~~proposal using method II is acceptable only when the designer:~~

~~i. Justifies~~requirements in Table XI of this section to demonstrate the ~~proposal through a written analysis of the~~proposed development:

~~(A) Soil type and depth;~~

~~(B) Area drainage and/or lot drainage;~~

~~(C) Public~~ (i) Minimizes adverse impacts to public health ~~impact on ground and~~, surface water, or groundwater quality;

~~(D) Setbacks from property lines, water supplies, etc.;~~

~~(E) Source of domestic water;~~

~~(F)~~ (ii) Considers:

(A) Topography, geology, and ground cover;

~~(G)~~ (B) Climatic conditions;

~~(H)~~ (C) Availability of public sewers; and

~~(I) Activity or land use, present~~ (D) Present and anticipated~~;~~

~~(J) Growth~~ land use and growth patterns;

~~(K) Reserve areas for additional subsurface treatment and disposal;~~

~~(L) Anticipated sewage volume;~~

~~(M) Compliance~~ (iii) Complies with current planning and zoning requirements;

~~(N) Possible use of alternative systems or designs including the use of systems designed for removal of~~ (iv) Does not exceed the nitrogen~~;~~

~~(O) Existing encumbrances, such as listed in WCC 24.05.110(B)(1)(g) and 24.05.120(G)(7)(n);~~

~~(P) Estimated nitrogen loading from OSS effluent to existing ground and surface water; and~~

~~(Q) Any other information required by the health officer.~~

~~ii. Shows development with public water supplies having:~~

~~(A) At least 12,500 square foot lot sizes per single family residence;~~

~~(B) No more than three and one half unit volumes of sewage per day per acre for developments other than single family residences; and~~

~~(C) Shows development with individual water supplies having at least one acre per unit volume of sewage; and~~

~~(D) Shows~~ limit per land area ~~under surface water is not included in the minimum land area calculations~~as identified in Table XII of this section; and

~~5. Regardless of which method is used for determining required minimum lot sizes or minimum land area, submittal to the health officer of information consisting of field data, plans, and reports supporting a conclusion the land area provided is sufficient to:~~

~~a. Install conforming OSS;~~

~~b. Assure preservation of reserve areas for proposed and existing OSS;~~

~~c. Properly treat and dispose of the sewage; and~~

~~d. Minimize public health effects from the accumulation of contaminants in surface and ground water.~~

~~C. The health officer shall require lot areas of 12,500~~ (v) Does not allow new lots smaller than 13,000 square feet if served by nonpublic water supplies;

(f) Require minimum land area of 13,000 square feet or larger, except when a ~~person proposes~~proposal includes:

~~1.~~ (i) OSS within the boundaries of a recognized sewer utility having a finalized assessment roll; or

~~2.~~ (ii) A planned unit development with~~:~~

~~a. A~~ signed, notarized, and recorded deed covenant restricting any development of lots or parcels above the approved density with the overall density meeting the minimum land area requirements of (d) or (e) of this subsection ~~(B)(4) of this section;~~in perpetuity or until the OSS is no longer needed as identified in WCC 24.05~~.0200~~.160 (6);

~~b. A~~ (g) Require that developments other than single-family residences:

(i) Meet the minimum land areas required for each unit's volume of sewage;

(ii) Do not exceed 3.35 unit volumes of sewage per day per acre if served by public ~~entity responsible for operation~~water supplies; and ~~maintenance of the OSS, or a single individual owning~~

(iii) Do not exceed 1.0 unit volume of sewage per day per acre for nonpublic water supplies; and

(h) Require that the ~~OSS;~~use of a reduced-sized dispersal component does not result in a reduction of the minimum land area requirements established in this section.

~~c. Management requirements under Chapter 246-272B WAC when installing a LOSS; and~~

~~d. Extinguishment of the deed covenant and higher density development allowed only when the development connects to public sewers.~~

~~D. The~~ (2) The local health officer shall require the following prior to approving any subdivision:

(a) A recommendation for approval as required by RCW 58.17.150;

(b) Where a subdivision with nonpublic wells are proposed:

(i) Configuration of each lot line to allow a supply protection zone to fit within the lot lines; or

(ii) Water supply protection zones on more than one lot when the person proposing the subdivision or development provides a copy of a recorded restrictive covenant to each property that is sited partially or completely within the water supply protection zone;

(iii) Water supply protection zone of at least 100 foot radius for each existing or proposed well site.

(3) The local health officer may:

~~1. Allow inclusion of the area to the centerline of a road or street right-of-way in a method II determination under subsection (B)(4)(b) of this section to be included in the minimum land area calculation if:~~

(a~~. The dedicated road or street rights-of-way are along the perimeter of the development;~~

~~b. The road or street rights-of-way are dedicated as part of the proposed development; and~~

~~c. Lots are at least 12,500 square feet in size;~~

~~2.~~) Require detailed ~~plot~~site plans and OSS designs prior to final approval of subdivision proposals;

~~3.~~ (b) Require larger land areas or lot sizes to achieve public health protection;

~~4.~~ (c) Prohibit development on individual lots within the boundaries of an approved subdivision if the proposed OSS design does not ~~protect public health by meeting~~meet the requirements of ~~these regulations~~this chapter; and

~~5.~~ (d) Permit the installation of an OSS, where the minimum land area requirements or lot sizes in Table XI of this section or maximum total nitrogen in Table XII of this section cannot be met, only when ~~all of~~ the following criteria are met:

~~a.~~ (i) The lot is registered as a legal lot of record created prior to the effective date of the ~~ordinance codified in this chapter~~rule;

~~b.~~ (ii) The lot is ~~outside~~not within an area identified ~~by~~in the local management plan developed under WCC ~~24.05.050~~ 24.05.~~0015~~.070 where minimum land area ~~has been~~is listed as a design parameter necessary for public health protection; and

~~c.~~ (iii) The proposed ~~system~~OSS meets all requirements of this chapter ~~other than minimum land area.~~

~~E. The~~without the use of a ~~reduced-size SSAS does not provide for a reduction in the minimum land area requirements. Site development incorporating reduced-size SSAS must meet the minimum land area requirements established in this chapter.~~ (waiver under WCC 24.05.~~0420~~.410.(Ord. 2006-056 Exh. A).

24.05.370 Approval of installers, pumpers, and maintenance service providers.

(1) OSS installers, pumpers, and maintenance service providers shall obtain approval from the local health officer prior to providing services including, but not limited to, conducting inspections in accordance with WCC 24.05.~~0260~~.260 and 24.05.~~0270~~.280, within a local health jurisdiction.

(2) The local health officer shall establish procedures for approving OSS installers, pumpers, and maintenance service providers no later than February 1, 2025. These procedures must include, but are not limited to, conducting inspections in accordance with WCC 24.05.~~0260~~.260 and 24.05.~~0270~~.280. The local health officer may approve OSS installers, pumpers, and maintenance service providers through reciprocity by other Washington local health jurisdictions.

(3) The local health officer may establish a homeowner OSS inspection certification process.

24.05.~~220~~380 Licensing.

(1) ~~A.~~ The applicant for an installer's license shall provide the following:

(a~~1~~). Application for an installer's license shall be made on forms provided by the health officer. Application fees shall be paid at the time of application.

(b~~2~~). The health officer shall determine by written and/or oral examination the applicant's knowledge of public health problems involved in the treatment and dispersal of sewage and necessary standards of design, construction and installation. If the applicant does not receive a passing mark of ~~70~~75 percent in any such examination, the applicant shall be denied a license and cannot retake the exam for 1 month.

(c~~3~~). The installer's license shall expire on December 31st. Fees are not prorated. The applicant shall apply for renewal on forms provided by the health officer.

(d~~4~~). ~~Three~~One continuing education ~~units~~unit shall be required ~~every three years~~annually for license renewal. The applicant shall provide proof to the health officer that continuing education courses were attended either by the license holder ~~or a designated qualified professional employee~~.

(e~~5~~). Before the issuance of an installer's license, the applicant shall file with the health officer satisfactory evidence demonstrating that said installer is a registered contractor as provided by Chapter ~~18.27~~18.27 RCW and has the required surety bond. In the event the installer's contractor registration shall lapse for any reason or the contractor's bond shall become impaired, then licensing by the health officer of said installer shall be suspended until the installer's registration as a contractor is reinstated and the contractor's bond is unimpaired.

(f~~6~~). The health officer may suspend, revoke or ~~revoke~~refuse any installer's license if there has been a finding of incompetency, negligence, ~~wilful~~willful misrepresentation, or failure to comply with this chapter or other applicable laws, rules and regulations. The installation of a sewage disposal system for which a permit has not been obtained shall be cause for the suspension or revocation of an installer's license.

(g7). An installer whose license has been revoked shall be ineligible to reapply for recertification until 60 days have passed from the date of revocation of the certificate.

(2) B. The applicant for a pumper's license shall provide the following:

(a1). Application for a pumper's license shall be made on forms provided by the health officer. Application fees shall be paid at the time of application.

(b2). The health officer shall determine by written and/or oral examination the applicant's knowledge of public health problems arising from the handling of sewage and the safe disposal of the cleanings of sewage disposal systems. If the applicant does not receive a passing mark of 7075 percent, the applicant shall be denied a license and cannot retake the exam for 1 month.

(c3). Before the issuance of a pumper's license, the applicant shall file with the WCHDWCHCS a surety bond issued by a surety insurer in a form acceptable to the health officer running to WCHDWCHCS. Said bond shall be conditioned that the applicant will pay all amounts that may be adjudged against the applicant by reason of negligent or improper work or breach of contract. The bond shall be conditioned that the holder of the license and his or her agents in performing work shall exercise reasonable care and skill and comply with this chapter. The surety upon the bond shall not be liable in an aggregate amount in excess of the amount named in the bond. The bond shall be kept in effect during the period of time for which the license is issued. In the event the bond is cancelledcanceled or any final judgment shall impair the liability of the surety upon the bond so furnished so that there shall not be in effect a bond undertaking in the full amount of $2,000, the health officer shall suspend the license of such pumper until the full bond liability has been restored.

(d4). The applicant's equipment shall meet the requirements of WCC 24.05.200(B)(1) and (2 24.05.0310.350 (5)(a) before a license may be issued.

(e5). The pumper's license shall expire on December 31st. Fees are not prorated. Application for renewal shall be made on forms provided by the health officer.

(f6). The health officer may suspend or, revoke or refuse any pumper's license if there has been a finding of incompetency, negligence, wilfulwillful misrepresentation or failure to comply with this chapter or other applicable laws, rules and regulations.

(g7). A pumper whose license has been revoked shall be ineligible to reapply for a license until 60 calendar days shall have passed from the date of this license revocation.

(h8). ThreeOne continuing education unitsunit shall be required every three yearsannually for license renewal. The applicant shall provide proof to the health officer that continuing education courses were attended either by the license holder or a designated qualified professional employee.

(3) C. The applicant for an operation and maintenance specialist license shall provide the following:

(a~~1~~). Application for an operation and maintenance specialist license shall be made on forms provided by the health officer. Application fees shall be paid at the time of application.

(b~~2~~). The health officer shall determine by written and/or oral examination the applicant's knowledge of the operation and maintenance of on-site sewage systems. If the applicant does not receive a passing mark of ~~70~~75 percent, the applicant shall be denied a license and cannot retake the exam for 1 month.

(c~~3~~). The operation and maintenance specialist license shall expire on December 31st. Fees are not prorated. The operation and maintenance license is not transferable. Application for renewal shall be made on forms provided by the health officer.

(d4). Before the issuance of an operation and maintenance specialist license, the applicant shall file with the ~~WCHD~~WCHCS a surety bond issued by a surety insurer in a form acceptable to the health officer running to ~~WCHD~~WCHCS. Said bond shall be conditioned that the applicant will pay all amounts that may be adjudged against the applicant by reason of negligent or improper work or breach of contract. The bond shall be conditioned that the holder of the license shall exercise reasonable care and skill and comply with this chapter. The surety upon the bond shall not be liable in an aggregate amount in excess of the amount named in the bond. The bond shall be kept in effect during the period of time for which the license is issued. In the event the bond is ~~cancelled~~canceled or any final judgment shall impair the liability of the surety upon the bond so furnished so that there shall not be in effect a bond undertaking in the full amount of $2,000, the health officer shall suspend the license of such operation and maintenance specialist until the full bond liability has been furnished.

(e) The health officer may suspend, revoke or refuse any operation and maintenance specialist's license if there has been a finding of incompetency, negligence, willful misrepresentation or failure to comply with this chapter or other applicable laws, rules and regulations.

(f) An operation and maintenance specialist's whose license has been revoked shall be ineligible to reapply for a license until 60 calendar days shall have passed from the date of this license revocation.

(g) One continuing education unit shall be required annually for license renewal. The applicant shall provide proof to the health officer that continuing education courses were attended either by the license holder or a designated qualified professional employee.

24.05.390 Technical advisory group (TAG).

The department shall:

(1) Maintain a TAG to advise the department regarding:

(a) OSS design and siting;

(b) Public domain technologies, DS&G for product use; and

(c) Testing and design standards used for proprietary product registration and DS&G for use of proprietary products.

(2) Select members for the TAG for three-year terms that have technical or scientific knowledge applicable to OSS from agencies, professions, and organizations including:

(a) Local health jurisdictions;

(b) Engineering firms;

(c) The Washington department of ecology;

(d) Land sales, development and building industries;

(e) Public sewer utilities;

(f) OSS:

(i) Designers;

(ii) Installers;

(iii) Maintenance service providers;

(iv) Product manufacturers;

(g) Environmental organizations;

(h) University and college academic communities;

(i) Certified professional soil scientists; and

(j) Other interested organizations or groups.

24.05.400 Policy advisory group.

The department shall:

(1) Maintain a policy advisory group to:

(a) Make recommendations concerning OSS departmental policy and rules;

(b) Review OSS program services; and

(c) Provide input to the department regarding the OSS program;

(2) Select members for three-year terms from agencies, professions, organizations having knowledge and interest in OSS, and communities which are affected by this chapter

24.05.~~230~~410 Waivers.

(1) The local health officer may grant a waiver from specific requirements ~~in~~of this chapter ~~if:~~

. A. The waiver request is evaluatedfor waiver must be:

(a) Evaluated by the local health officer on an individual, site-by-site basis.;

B. The health officer determines that the waiver is consistent (b) Consistent with the standards in and the intentpurposes of this chapter.

C. On a(2) The local health officer must submit quarterly basis, the health officer will forwardreports to the department any showing waivers approved or denied waivers for their records.. (Ord. 2006-056 Exh. A).

(a) Upon review, if the department finds that the waivers previously granted are inconsistent, consistent with the purposes of this chapter, and DS&G for granting waivers, the department shall provide technical assistance to the local health officer to correct the inconsistency, and may notify the local and state boards of health of the department's concerns.

(b) If upon further review, the department finds waivers previously granted continue to be inconsistent with the purposes of this chapter and DS&G, the department may suspend the authority of the local health officer to grant waivers under this section until such inconsistencies have been corrected.

(3) The department shall maintain and update guidance to assist local health officers in the application of waivers.

(4) The department shall publish an annual report summarizing the waivers issued over the previous year.

24.05.420 Required review of rules.

The department shall review this chapter to evaluate the effectiveness of the rules, determine where revisions may be necessary, and make recommendations to the state board of health and all local health officers by September 2026 and every four years thereafter.

24.05.240 430 Enforcement.

A. The(1) When an OSS is out of compliance with any law or rule regulating OSS and administered by the department or the local health officer, the department or the local health officer may initiate enforcement action or refer cases within their jurisdiction to the prosecutor's office. Enforcement action may include, but is not necessarily limited to:

B. When a person violates the provisions under this chapter, the health officer or prosecutor's office may initiate enforcement or disciplinary actions, or any other legal proceeding authorized by law, including but not limited to any one or a combination of the following:

1. Informal administrative conferences, convened(a) A notice of correction describing the condition that is not in compliance and the text of the specific section or subsection of the

applicable state or federal law or rule, a statement of what is required to achieve compliance, and the date by which compliance is to be achieved;

(b) A notice of violation with or without a civil penalty;

(c) An order requiring specific actions or ceasing unacceptable activities within a designated time period;

(d) Suspension, revocation, or modification or denial of permits, licenses, approvals and certifications as authorized by RCW 43.70.115;

(e) Civil action per WCC 24.07 or criminal penalties authorized under chapter 70.05 RCW and RCW 43.70.190;

(2) An informal conference may be held at the request of ~~the health officer or owner, to explore facts and~~ any party to resolve ~~problems;~~

~~2. Orders directed to the owner and/or operator of the OSS and/or person causing or responsible for the violation of the rules of this chapter;~~

~~3. Denial, suspension, modification, or revocation of permits, approvals, or certification; and~~

~~4. Civil action as per Chapter 24.07 WCC or criminal action.~~

~~C. Orders authorized under this section include the following:~~

~~1. Orders requiring corrective measures necessary to effect compliance with this chapter which may include a compliance schedule; and~~

~~2. Orders to stop work and/or refrain~~disputes arising from ~~using any OSS or portion of the OSS or improvements to the OSS until all permits, certifications, and approvals required by rule or statute are obtained~~enforcement of this chapter.

~~D. Enforcement~~ (3) Notices and orders ~~issued~~ under this section ~~shall~~must:

~~1.~~ (a) Be in writing;

~~2.~~ (b) Name the person or persons to whom the order is directed;

~~3.~~ (c) Briefly describe each action or inaction constituting a violation of the rules of ~~this~~ chapter 24.05 WCC, or applicable local rules;

~~4.~~ (d) Specify any required corrective action, if applicable;

~~5.~~ (e) Specify the effective date of the order ~~and a period of 30 days for correction of the violation,~~ with time or times of compliance;

~~6.~~ (f) Provide notice of the consequences of failure to comply or repeated violation, as appropriate. ~~Such notices may include a statement that continued or repeated violation may subject the violator to:~~

~~a. Denial, suspension, or revocation of a permit approval, or certification if violations are not corrected within 90 days; and/or~~

~~b. Referral to the office of the county prosecutor; and/or~~

~~c. Other appropriate remedies;~~

~~7. Provide the name, business address, and phone number of an appropriate staff person who may be contacted regarding an order.~~

~~E.~~(4) Enforcement orders shall be personally served in the manner of service of a summons in a civil action or in ~~a~~ another manner showing proof of receipt.

~~F.~~(5) The ~~health officer~~department shall have cause to deny the application or reapplication for ~~an operational~~ a permit or to revoke, suspend, or modify a required ~~operational~~ permit of any person who has:

~~1.~~ (a) Failed or refused to comply with the provisions of ~~this~~ chapter 24.05 WCC, or any other statutory provision or rule regulating the operation of an OSS; or

~~2.~~ (b) Obtained or attempted to obtain a permit or any other required certificate or approval by misrepresentation.

~~G. For~~(6) The health officer shall have the ~~purposes~~right of ~~subsection F of this section, a "person" is defined~~entry to ~~include:~~inspect any sewage disposal system.

~~1. Applicant;~~

~~2. Re-applicant;~~

~~3. Permit holder; or~~

~~4. Any individual associated with subsection (G)(1), (2) or (3) of this section including, but not limited to:~~

~~a. Board members;~~

~~b. Officers;~~

~~c. Managers;~~

~~d. Partners;~~

~~e. Association members;~~

~~f. Agents;~~

~~g. Third persons acting with the knowledge of such persons.~~

~~H.~~(7) Should any person refuse to allow the health officer to enter onto property for the purpose of enforcing these rules and regulations, the health officer may, with the assistance of the prosecuting attorney, present an affidavit, naming the person so refusing, the property involved and the reason entry is necessary, to the Whatcom County district court, from which an authorizing warrant may issue.

~~I.~~(8) Any violation of this chapter, or as amended, is a misdemeanor as defined by RCW 9A.04.040.

~~J. The health officer shall have the right of entry to inspect any sewage disposal system.~~ (Ord. 2006-056 Exh. A).

~~24.05.250 Appeals.~~

24.05.440 Notice of decision—Adjudicative proceeding.

(1) All local boards of health shall:

(a) Maintain an adjudicative process to resolve procedural and technical conflicts arising from the administration of local regulations; and

(b) Establish rules for conducting hearings requested to contest a local health officer's actions.

(2) The department shall provide notice of the department's denial, suspension, modification or revocation of a permit, certification, or approval consistent with RCW 43.70.115, chapter 34.05 RCW, and chapter 246-10 WAC.

(3) A person contesting a departmental decision regarding a permit, certificate, or approval may file a written request for an adjudicative proceeding consistent with chapter 246-10 WAC.

(4) Department actions are governed by chapter 34.05 RCW, RCW 43.70.115, this chapter, and chapter 246-10 WAC.

(5) An aggrieved party may appeal any permit decision, including approval, modification, waiver, decision, denial, suspension or revocation, in accordance with WCC 24.07.090, Hearing and appeals. (Ord. 2006-056 Exh. A).

24.05.~~260~~450 Severability.

If any provision of this chapter or its application to any person or circumstances is held invalid, the remainder of this chapter or the application of the provision to other persons or circumstances shall not be affected. (Ord. 2006-056 Exh. A).

24.05.~~270~~460 Fees.

Fees shall be set and renewed ~~annually~~ by the county council and posted in a fee schedule. (Ord. 2006-056 Exh. A).