

**Before the Board of Health
of
Island County, Washington**

IN THE MATTER OF ADOPTION OF NEW)	
ON-SITE SEWAGE SYSTEM)	
REGULATIONS, CHAPTER 8.07D, ISLAND)	ORDINANCE NO. HD- 29-07
COUNTY CODE)	C-72-07

WHEREAS, Chapter 70.05, Revised Code of Washington (RCW) states that each local Board of Health shall have supervision over all matters pertaining to the preservation of life and health of the people within its jurisdiction; and

WHEREAS, the Board of Health is empowered by RCW 70.05 to supervise the maintenance of all health and sanitary measures for the protection of the public health within Island County, provide for the control and prevention of any dangerous, contagious, or infectious disease within Island County, and provide for the prevention, control, and abatement of nuisances detrimental to the public health; and

WHEREAS, Chapter 246-272A WAC establishes standards for the siting, design, installation, and monitoring of on-site sewage disposal systems; and

WHEREAS, WAC 246-272A-0015 requires local boards of health of jurisdictions bordering Puget Sound to adopt and enforce local rules and regulations governing on-site sewage disposal systems with the regulations at least as stringent as the state regulations; and

WHEREAS, on June 15, 2007, the Island County Responsible Official for State Environmental Policy Act (SEPA) procedural review issued SEPA Determination of Nonsignificance No. ENV 267/07 regarding this Ordinance; and

WHEREAS, Chapter 8.07D, Island County Code, On-Site Sewage Systems, has been reviewed by the Island County Board of Health; and

WHEREAS, the Island County Board of Health has determined that adoption of these local rules is in the best interest of public health and safety in Island County;
NOW, THEREFORE,

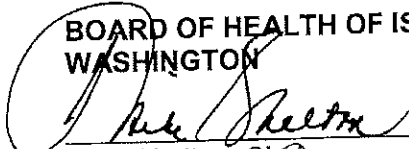
BE IT HEREBY ORDAINED that:

1. Chapter 8.07D, Island County Code, On-Site Sewage Systems attached hereto as Exhibit A is adopted by the Island County Board of Health; and

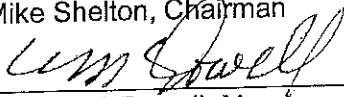
2. Chapter 8.07C, Island County Code, On-Site Sewage Systems, is superseded by Chapter 8.07D, Island County Code, On-Site Sewage Systems.

REVIEWED this 18TH day of JUNE, 2007 and set for public hearing on the 16TH day of JULY, 2007 at 1:30 p.m.

**BOARD OF HEALTH OF ISLAND COUNTY
WASHINGTON**




Mike Shelton, Chairman



Wm. L. McDowell, Member

ABSENT

John Dean, Member



Barbara Saugen, Member

ABSENT

Patricia Cohen, Member

Ordinance HD-29-07 is adopted this 16TH day of July, 2007 following public hearing.

**BOARD OF HEALTH OF ISLAND COUNTY
WASHINGTON**

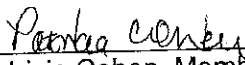

Mike Shelton, Chairman


VOTED 'NO'
Wm. L. McDowell, Member


John Dean, Member


Barbara Saugen, Member

ATTEST:


Patricia Cohen, Member


Roger S. Case, M.D.
Executive Secretary to
The Board of Health

Approved as to Form:

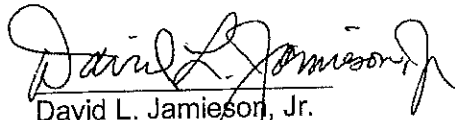

David L. Jamieson, Jr.
Deputy Prosecuting Attorney – Code Reviser

Exhibit A
Chapter 8.07D – On-site Sewage Systems

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On-site Sewage Systems

8.07D.010 Purpose, Objectives, and Authority

- A. The purpose of this chapter is to protect the public health by minimizing:
 - 1. The potential for public exposure to sewage from on-site sewage systems; and
 - 2. Adverse effects to public health that discharges from on-site sewage systems may have on ground and surface waters.
- B. This chapter regulates the location, design, installation, operation, maintenance, and monitoring of on-site sewage systems to:
 - 1. Achieve effective long-term sewage treatment and effluent dispersal; and
 - 2. Limit the discharge of contaminants to waters of the state.
- C. 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.
- 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 chapter 196-33 Washington Administrative Code (WAC).
- E. 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.
- F. The provisions of this chapter hereby constitute minimum requirements of the health department governing sewage disposal systems for individual homes or any other source of sewage waste. Limitations on the use of such systems have been established based on population density, lot size, soil characteristics, water table, and the availability of sanitary sewers. These regulations are intended to control the disposal of sewage and other environmental contaminants, which are responsible for health hazards and nuisances. The regulations do not apply, except as specifically noted, to public garbage collection, treatment, and disposal systems.

8.07D.020 Administration

The health officer and the Health Department shall administer this chapter under the authority and requirements of chapters 70.05, 70.08, 70.118, 70.46, and 43.70 RCW. RCW 70.05.060(7) authorizes the health officer to charge fees, authorized by the Island County Board of Health, for the administration of this chapter.

Chapter 8.07D -- On-site Sewage Systems

8.07D.030 Definitions

A. Acronyms used in this chapter:

"ANSI" means American National Standards Institute.

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

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

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

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

"NSF" means National Sanitation Foundation International.

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

"OSS" means on-site sewage system.

"RS&G" means recommended standards and guidance.

"SSAS" means a subsurface soil absorption system.

"TAC" means the technical advisory committee.

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

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

"USEPA" means United States Environmental Protection Agency.

B. Definitions used in this chapter:

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

"Administrative Penalty" means a fine imposed by the Health Officer against a Person in violation of a provision of this chapter.

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

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

"Aquifer" means a geological formation that contains sufficient saturated, permeable material to yield significant quantities of water to wells and springs.

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

"Board of Health" means the Board of Health of Island County pursuant to the provisions of Section 70.05, Revised Code of Washington.

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

"Certified Operation and Maintenance Specialists" means a person approved by the health officer to conduct inspections of on-site sewage systems or components.

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

"Chemical toilet" means fly- and vermin-tight building or structure housing toilet(s) and associated cover(s) with a means of disposal of human excrement by means of a suitable tank or vault containing a chemical, which will liquify said contents and destroy disease-producing organisms with a minimum amount of offensive odor.

"Commercial sewage system" means a sewage system receiving waste from some source other than a residence, or receiving non-domestic sewage waste.

"Community on-site sewage system" means any on-site sewage disposal system designed to serve more than two (2) residential housing units, or any nonresidential use with design flow exceeding one thousand (1000) gallons per day not including large on-site sewage disposal systems.

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

- 1) In full compliance with new construction requirements under this chapter; or
- 2) Approved, installed and operating in accordance with requirements of previous editions of this chapter; or
- 3) Permitted by the waiver process under ICC 8.07D.340 that assures public health protection by higher treatment performance or other methods.

"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.

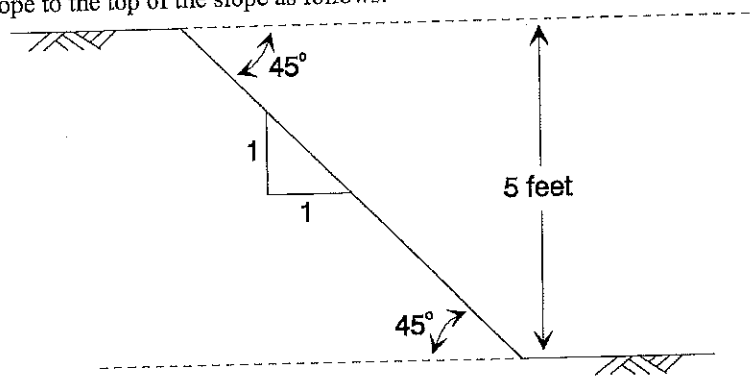
Chapter 8.07D – On-site Sewage Systems

"Conventional pressure distribution system" means an on-site sewage system consisting of a septic tank and a subsurface soil absorption system with pressure distribution of the effluent. Design, operation and maintenance, and performance monitoring are described by "Guidelines for Pressure Distribution Systems" by the Washington State Department of Health.

"Covenant" means a recorded agreement stating certain activities and/or practices are required or prohibited.

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

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



"Department" means the Washington State Department of Health.

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

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

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

"Disposal component" means a subsurface absorption system (SSAS) or other soil absorption system receiving septic tank or other pretreatment device effluent and transmitting it into original, undisturbed, unsaturated, permeable soil.

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

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

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

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

"Dwelling unit" means any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking, and sanitation, as required by the Uniform Building Code, for not more than one (1) family.

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

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

"Expansion" means a change in a residence, facility, site, or use. For example:

- 1) Causes the sewage quantity or quality to exceed the existing design flow of the on-site system, for example, when a residence is increased from two to three bedrooms or a change in use from an office to a restaurant; or
- 2) Reduces the treatment or dispersal capability of the existing on-site sewage system or the reserve area, for example, when a building is placed over a reserve area.

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

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

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

"Fill" means soil materials that have been displaced from the original location.

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

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

"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) Water seeping into or standing in an open excavation from the soil surrounding the

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excavation or monitoring ports.

- 2) 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 Department" means the Island County health department or local health jurisdiction.

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

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

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

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

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

"Large on-site sewage system" (LOSS) means an integrated arrangement of components for a residence, building, industrial establishment or other places not connected to a public sewer system which:

- 1) Conveys, stores, treat, and/or provides subsurface soil treatment and disposal on the property where it originates, or on adjacent or nearby property; and
- 2) Includes piping, treatment devices, other accessories, and soil underlying the disposal component of the initial and reserve areas; and
- 3) Have design flows, at any common point, greater than three thousand five hundred gallons per day.

"Local health officer" means the Island County health officer or a representative authorized by and under the direct supervision of the local health officer, as defined in chapter 70.05 RCW.

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

"Maintenance Provider" means a person or entity approved by the health officer to operate, monitor, and maintain sewage disposal systems.

"Marine Recovery Area" means those areas designated by the Health Officer under RCW 70.118A.030.

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"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.

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

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

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

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

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

- 1) The ordinary high-water mark adjoining marine water is the elevation at mean higher high tide; and
- 2) The ordinary high-water mark adjoining freshwater is the line of mean high water.

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

"Percolation test" means a soil test performed at the depth of a subsurface soil absorption system to estimate the water absorption capability of the soil. The results are normally expressed as the time (in minutes) in which one inch (1") of water is absorbed under saturated conditions.

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

"Planned residential development (PRD)" means a cluster residential project approved by the Board pursuant to Chapter 16.17 ICC. A PRD may include any type of dwelling allowed in the zone.

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

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

"Pre-Construction Meeting" means a meeting that occurs prior to grading or excavating at a construction site, and includes all parties involved in the design and/or installation of an on-site sewage disposal system (building contractor, on-site installer, on-site designer, homeowner, and the health officer). The purpose of the meeting is to determine that there is sufficient area and adequate soil for an on-site sewage disposal system. No changes to an approved sewage disposal permit or the approved building plot plans are allowed without the written approval of the on-site designer and the health officer and the Island County Planning and Community Development. It is the building contractor and owner's responsibility to coordinate with the on-site installer project construction access and construction staging areas. It is also the building contractor's and owner's responsibility to ensure that the entire proposed primary and reserve drainfield area is carefully cleared and is protected from grading, cutting or filling, vehicular traffic, burning, and any ground disturbing activities.

"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.

"Pressure distribution" means a system of small diameter pipes equally distributing effluent throughout a SSAS, as described in the department's *"Recommended Standards and Guidance for Pressure Distribution Systems,"* 2001. A subsurface drip system may be used wherever the chapter requires pressure distribution.

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

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

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

"Public sewer system" means a sewerage system:

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

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

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

"Registered water system" means a public water system found by the health officer to be in compliance with applicable standards in terms of quantity and quality of water.

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

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

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

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

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

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

"Sensitive Areas" means those areas designated by the Health Officer as possessing increasing risk of operating an OSS and represented by water quality information suggesting impairment in surface or groundwater quality.

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

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

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

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

"Sewage quality" means contents in sewage that include:

- 1) CBOD₅, TSS, and O&G;
- 2) Other parameters that can adversely affect treatment. Examples include pH, temperature, and dissolved oxygen;
- 3) Other constituents that create concerns due to specific site sensitivity. Examples include fecal coliform and nitrogen.

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

"Shall" means mandatory.

"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.

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

"**Soil type**" means one of seven numerical classifications of fine earth particles and rock fragments as described in ICC 8.07D.130 (D)(3).

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

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

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

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

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

"**Surface water**" means any body of water, whether fresh or marine, flowing or contained in natural or artificial unlined depressions for significant periods of the year, including natural and artificial lakes, ponds, springs, rivers, streams, swamps, marshes, irrigation canals and tidal waters.

"**Table IX Repair**" means a repair or replacement of an existing on-site sewage system which, because of site limitations, must utilize treatment standards shown in Table IX in lieu of compliance with new construction requirements for vertical separation and/or horizontal set back from surface waters or drinking water wells or springs.

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

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

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

- 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

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testing entities.

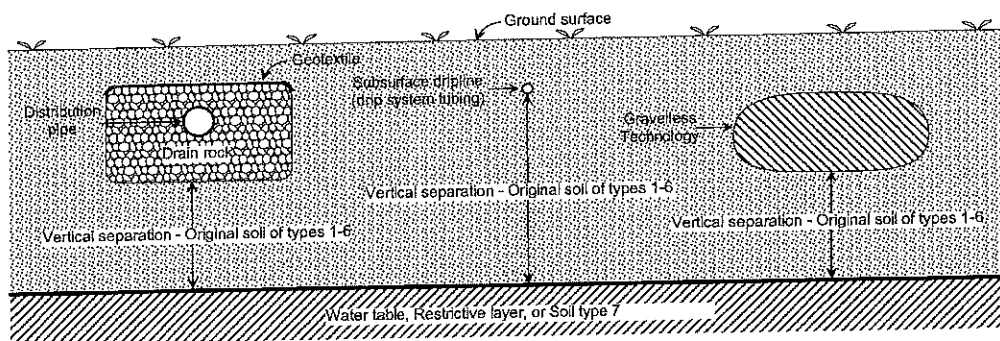
"Treatment sequence" means any series of treatment components that discharges treated sewage to the soil dispersal component.

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

"Unit volume of sewage" means:

- 1) Flow from a single-family residence;
- 2) Flow from a mobile home site in a mobile home park; or
- 3) Four hundred fifty gallons of sewage per day where the proposed development is not single-family residences or a mobile home park.

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



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

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

"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 for agricultural, municipal, industrial, domestic, or commercial use. Excluded are:

- 1) A temporary observation or monitoring well used to determine the depth to a water table for locating an OSS;
- 2) An observation or monitoring well used to measure the effect of an OSS on a water table; and
- 3) An interceptor or curtain drain constructed to lower a water table.

"Wet season" means that period of time usually extending from January 1 to April 1 except where special conditions are noted by the health officer.

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8.07D.040 Applicability

- A. The health officer:
 - 1. Shall apply this chapter to OSS treating sewage and dispersing effluent from residential sources with design flows up to three thousand five hundred 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. The department shall apply this chapter for the registration of proprietary treatment and distribution products.
- C. A valid sewage system design approval, or installation permit issued prior to the effective date of these regulations:
 - 1. Shall be acted upon in accordance with regulations in force at the time of issuance;
 - 2. Shall have a maximum validity period of three years from the date of issuance; and
 - 3. May be modified to include additional requirements if the health officer determines that a serious threat to public health exists.
- D. This chapter does not apply to facilities regulated as reclaimed water use under chapter 90.46 RCW.
- E. The health officer has authority and approval over any Large On-site Sewage System (LOSS) for which jurisdiction has been transferred to Island County from the Washington State Department of Health by contract.
- F. The Washington State Department of Ecology has authority and approval over:
 - 1. Domestic or industrial wastewater under chapter 173-240 WAC or hereafter amended; and
 - 2. Sewage systems using mechanical treatment, or lagoons, with ultimate design flows above 3,500 gallons per day.
- G. The Washington State Department of Health, pursuant to WAC 246-272A or hereafter amended, has authority and approval over:
 - 1. Systems 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 the Washington State Department of Health under conditions of memorandum of agreement with the Washington State Department of Ecology.
- H. Where this chapter conflicts with chapters 90.48 RCW, Water Pollution Control, the requirements under those statutes apply.

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8.07D.050 Adequate Sewage Disposal

- A. Every residence, place of business, or other building or place where persons congregate, reside, or are employed shall be provided with an adequate sewage disposal system by the owner or agent of the premises. Said sewage disposal system is to be built or rebuilt, constructed and maintained in such manner as to meet the requirements of construction and maintenance as prescribed by the health officer in accordance with minimum requirements and standards in these rules and regulations. Violation of the laws or regulations of the State of Washington or the Board of Health is a misdemeanor.
- B. Failing systems. Any existing or proposed side sewer or sewage disposal system is considered failing and in violation of these rules and regulations if the contents and/or discharge to or from the side sewer or sewage disposal system include:
1. Sewage on the surface of the ground;
 2. Sewage backing up into a structure caused by slow soil absorption of septic tank effluent;
 3. Sewage leaking from a septic tank, pump chamber, holding tank, or collection system;
 4. Cesspools or seepage pits;
 5. Inadequately treated effluent contaminating ground water or surface water.
 6. Noncompliance with standards stipulated on the permit.
 7. Violates any laws or regulations of Washington State governing water pollution or the disposal of sewage or liquid-borne waste;
 8. Creates a health hazard by the contents or effluent being accessible to people, animals, insects, or other possible carriers of disease; and
 9. Gives rise to a nuisance due to odor or unsightly appearance.
- C. Commercial and industrial waste products and by-products other than human waste are not to be disposed of in subsurface sewage disposal systems.

8.07D.060 No discharge to water or ground surface

- A. Effluent from any on-site sewage disposal system shall not be discharged directly or indirectly to surface water or upon the surface of the ground, except where expressly permitted by the health department or by the Washington State Department of Ecology.
- B. Subsurface sewage disposal systems shall not be permitted in areas where a minimum separation of three (3) feet between the bottom of the disposal field and the maximum seasonal groundwater elevation or impermeable layer cannot be maintained, except where specifically permitted in chapter 8.07D. (See Alternative systems and Proprietary Devices and Experimental Systems). The health officer shall require such greater vertical separation as needed to protect health when the aquifer is used for a potable water supply.
- C. Subsurface sewage disposal systems shall not be permitted in areas of fractured rock or excessively permeable material where it is likely that action of the soil profile will be ineffective in retaining and removing substances having an adverse effect on ground or surface waters. Properly designed on-site sewage disposal systems using appropriate guidelines

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assuring enhanced treatment in excessively permeable soils may allow permit issuance.

8.07D.070 Licensing

- A. It shall be unlawful for any individual to practice or offer to practice the design of on-site wastewater treatment systems unless licensed in accordance with chapter 18.210 RCW or licensed as a professional engineer under chapter 18.43 RCW. It shall be unlawful for any person to install, repair or perform maintenance on sewage waste disposal systems in Island County who does not possess a valid license issued from the health department. Application for such license shall be made to the health department. The health officer will deny such license if the applicant is not qualified to install, repair or perform maintenance on sewage disposal systems in accordance with these rules and regulations. Professional Engineers registered with the state of Washington Board of Registration for Professional Engineering and Land Surveyors and employees of such engineers covered under RCW 18.43.130(4) when the design and site registration applications are submitted by such engineer are exempt from health department license requirements for sewage system designs. A licensed designer, or a professional civil or sanitary engineer with expertise in on-site sewage disposal, or such engineer's employees covered under RCW 18.43.130(4), must be present on the site during all phases of soil testing. An Island County health department licensed installer or a professional civil or sanitary engineer with expertise in on-site sewage disposal, or such engineer's employees covered under RCW 18.43.130(4) must be present on the site during all phases of system installation.
- B. **Testing and experience.** The health officer will require the applicant to:
1. Take a written and/or field examination to determine the applicant's knowledge of OSS evaluation and sewage treatment theory, and/or hydraulics, and current Washington State and Island County sewage regulations. If the applicant scores below 70 percent (70%), a license shall not be granted, and a waiting period of at least thirty (30) days is required before retaking the examination and paying the examination fee; and
 2. Present written proof of satisfactory experience in the field of OSS installation and/or OSS operation, maintenance, and monitoring.
- C. **Bond required.** Prior to the issuance of a license, the applicant must provide a surety bond, approved as to form by the prosecuting attorney of Island County, in a sum of thirty-thousand dollars (\$30,000) for an installer license or in a sum of thirty-thousand dollars (\$30,000) for a maintenance service provider license, running to the health department and for the use and benefit of all persons who may be injured or aggrieved by the wrongful act or default of such installer or operation and maintenance specialist which results in public health hazard, executed by a surety company authorized to do business in the state of Washington. In the case of a licensed installer who also a licensed maintenance service provider, only one bond will be required. The bond shall be conditioned that the holder of the license and his agents, in performing work governed by these rules and regulations, shall exercise all reasonable care and skill and shall comply with all the terms and conditions of these rules and regulations. The bond must be kept in effect during the period of time for which the license is issued, and cancellation of the bond shall automatically suspend the license. The bond shall run for a period of thirty-six (36) months following termination of the license.
- D. The license shall be issued for the calendar year.

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- E. The license shall be non-transferable.
- F. **Continuing education.** Every license holder is required to obtain at least eight (8) hours of approved classroom training pertaining to wastewater treatment and disposal each calendar year. The health department shall maintain the record of certification of such training.
- G. Licensed installers shall conform to all Washington state regulations regarding contractors. License holders shall conform to state regulations regarding sewer system installers or operation and maintenance specialist whichever is applicable.
- H. All license renewal applications, along with the required bond, renewal fee, and verifications of continuing education, shall be submitted to the health officer by December 15. The license shall not be issued or renewed if the applicant is found by the health officer to be out of compliance or in violation of the provisions of this chapter.
- I. **Alternative system endorsement.** Alternative systems shall be installed only by licensed installers endorsed by the health officer for the installation of alternative systems.
- J. **Revocation of license.** Following an administrative hearing before the health officer or his representative, any license issued pursuant to these rules and regulations may be revoked for incompetence, negligence, misrepresentation, giving fraudulent information in making application for a license, certification, or permit, failure to comply with the requirements of these rules and regulations or standards authorized by these rules and regulations, Washington state rules and regulations regarding contractors or sewage disposal, or revocation or cancellation of the bond as required herein.
- K. **Grievance.** Any person feeling aggrieved because of the revocation or denial of his license by the health officer may, within ten (10) days of the revocation or denial, appeal to the Board of Health, and the Board of Health will grant a hearing.
- L. **Resident owner exemption.** Nothing herein contained shall prohibit any person from designing, installing, or making repairs on a sewage disposal system serving their own single-family residence, provided that the resident property owner applies for and secures a permit and/or completes the work required under the standards herein outlined, subject to inspection and approval by the health officer. This owner exemption does not apply to builders of homes constructed for resale, secondary residences, rentals, nor does it apply to the design or installation of alternative systems and conventional pressure systems. The work in designing, installing, or repairing an on-site sewage disposal system by a resident owner shall be totally performed by the resident owner. This includes design work as well as machinery operation. Owner installer permits shall be nontransferable. Additional inspections may be required. Nothing herein contained shall prohibit a resident or non-resident homeowner from conducting, or performing operation, maintenance, and monitoring of their on-site sewage disposal system and reporting the findings of the operation, maintenance or monitoring of their on-site sewage system to the health department so long as the health department has authorized the homeowner to conduct the inspection.
- M. **License types:**
 1. **Designer.** On-site sewage system designers shall be licensed to perform such work pursuant to chapter 18.210 RCW. Site evaluations and sewage system design work may be performed under this license. A designer license does not authorize its holder to perform any construction or repair of sewage systems.
 2. **Installer.** The installer shall be qualified to construct or install sewage disposal systems. Qualifying testing and experience must demonstrate abilities and knowledge in regard to

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sewage system construction. Sewage system installation of approved and permitted designs is permitted under this license. An installer's license does not authorize its holder to perform any sewage system design work or to install un-permitted sewage system components. An alternative sewage system endorsement is required to construct alternative and conventional pressure sewage systems.

3. **Maintenance Service Provider.** The maintenance service provider shall be qualified to operate, monitor, and maintain sewage disposal systems. Qualifying testing and experience must demonstrate abilities and knowledge of all onsite system components and operations. A maintenance service provider license does not allow the holder to design or install onsite septic systems, but does allow the holder to make minimum modifications as defined in ICC 8.07D.110.B. Certified maintenance service providers must complete the evaluation of the OSS except that;
 - a) An OSS owner may complete the evaluation of the OSS components for systems consisting solely of a septic tank and gravity SSAS after completion of a training program approved by the Health Officer and not associated with a property sale; and,
 - b) An OSS owner may complete the evaluation of the OSS components for systems consisting solely of a septic tank, pump chamber, and pressurized SSAS after completion of a training program approved by the Health Officer in those areas that are not Marine Recovery Areas or Sensitive Areas, and not associated with a property sale.

All evaluations of OSS shall be reported to the Health Officer on forms approved by the Health Officer.

8.07D.080 Connection to public sewer system

- A. When adequate public sewer services are available within two hundred feet of the residence or facility, the health officer, upon the failure of an existing on-site sewage system may:
 1. Require hook-up to a public sewer system; or
 2. Permit the repair or replacement of the on-site sewage system only if a conforming system can be designed and installed.
- B. Except as noted in subsection (1) of this section, the owner of a failure shall abandon the OSS under ICC 8.07D.310 and connect the residence or other facility to a public sewer system when:
 1. The distance between the residence or other facility and an adequate public sewer is two hundred feet or less as measured along the usual or most feasible route of access; and
 2. The sewer utility allows the sewer connection.
- ~~C. The owner of a residence or other facility served by a system meeting the requirements of Table IX of this chapter shall abandon the OSS according to the requirements specified in ICC 8.07D.310, and connect the residence or other facility to a public sewer system when:~~
 - ~~1. Connection is deemed necessary to protect public health by the health officer;~~
 - ~~2. An adequate public sewer becomes available within two hundred feet of the residence or other facility as measured along the usual or most economically feasible route of access; and~~

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- ~~3. The sewer utility allows the sewer connection.~~
- D. The Health Officer may require a new development to connect to a public sewer system to protect public health.
- ~~E. The Health Officer shall require new development or a development with a failing system to connect to a public sewer system if it is required by the comprehensive land use plan or development regulations.~~

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8.07D.090 Sewage Products and Technologies

Washington Administration Code Sections 246-272A-0100 through 246-272A-0175 (Sewage Products and Technologies) are hereby adopted by reference.

8.07D.100 Permits for OSS

- A. No person shall install a septic tank, subsurface soil absorption system, or any other part or portion of an on-site sewage disposal system, or perform alterations, extensions, or relocations to an existing system or part thereof without first obtaining a valid permit issued by the health officer except for those specific modification and repair activities identified in ICC 8.07D.110 that are exempted from permit requirements. Application of such permit shall be made in writing in a manner prescribed by these rules and regulations on forms provided by the health officer. All permit applications shall be completed and signed by the licensed designer prior to permit issuance, except as provided by ICC 8.07D.070.L and 8.07D.140.A.1. All applications for new construction shall be accompanied by an approved site registration.
- B. A permit to construct or alter a sewage disposal system shall be valid for three (3) years from the date of issuance. Permits are transferable with property ownership, provided new owners accept the permitted plan by written notification to the health officer or propose a new plan which conforms to these regulations. Owner/installer permits shall be nontransferable. If the system is not installed before the permit expires, a new permit may be applied for based on current standards. A permit to repair a sewage disposal system shall be valid for one hundred eighty (180) days, or may be extended at the discretion of the health officer.
- C. Changes in use of an existing subsurface sewage disposal system may be authorized by the health officer. If the proposed changes in use of an existing sewage disposal system will, in the opinion of the health officer, increase the projected daily sewage flows beyond the capacity of the sewage disposal system, a permit to alter the sewage disposal system shall be obtained prior to authorization.
- D. No permit will be issued until an approved means of water supply is identified. If the water is to be supplied by a public water system, such system shall be registered with the health officer, and such connection shall be in accordance with any approved water system plans and shall not cause the water system to exceed its approved number of service connections. Private wells must maintain the minimum distance separations mentioned for wells in Table IV, ICC 8.07D.120. These minimum distances shall separate wells from the proposed sewage system, existing sewage systems, and permitted sewage systems. Individual water system wells must meet the requirements of ICC 8.09.060(D).

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8.07D.110 Permit requirements

- A. Prior to beginning the construction process, a person proposing the installation, repair, modification, connection to, or expansion of an OSS, shall report the following and obtain a permit from the health officer:
1. General information including:
 - a) Name and address of the property owner and the applicant at the head of each page of submission;
 - b) Parcel number and if available, the address of the site;
 - c) Source of drinking water supply;
 - d) Identification if the property is within the boundaries of a recognized sewer utility;
 - e) Size of the parcel;
 - f) Type of permit for which application is being made, for example, new installation, repair, expansion, modification, or operational;
 - g) Source of sewage, for example, residence, restaurant, or other type of business;
 - h) Location of utilities;
 - i) Name of the site evaluator;
 - j) Name, signature and stamp of the designer;
 - k) Date of application; and
 - l) Name and signature of the fee simple owner, the contract purchaser of the property or the owner's authorized agent.
 2. The soil and site evaluation as specified under ICC 8.07D.130.
 3. A dimensioned site plan of the proposed initial system, the reserve area and those areas immediately adjacent that contain characteristics impacting design including:
 - a) Designated areas for the proposed initial system and the reserve area;
 - b) The location of all soil logs and other soil tests for the OSS;
 - c) General topography and/or slope;
 - d) Drainage characteristics;
 - e) The location of existing and proposed encumbrances affecting system placement, including legal access documents if any component of the OSS is not on the lot where the sewage is generated; and
 - f) An arrow indicating north.
 4. A detailed system design meeting the requirements under ICC 8.07D.140, 8.07D.150, 8.07D.160, and 8.07D.230 including:
 - a) 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;

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- b) Vertical cross-section drawings showing:
 - (i) The depth of the soil dispersal component, the vertical separation, and depth of cover material; and
 - (ii) Other new OSS components constructed at the site.
 - c) Calculations and assumptions supporting the proposed design, including:
 - (i) System operating capacity and design flow;
 - (ii) Soil type; and
 - (iii) Hydraulic loading rate in the soil dispersal component; and
 - d) A requirement for a pre-construction meeting, if requested, when limited area exists on the property.
 - e) A plot plan drawing of the OSS design that includes the level of detail necessary for septic system installation using a scale (1"=20'), unless specifically waived by the health officer.
5. Any additional information as deemed necessary by the health officer.
- B. A Sewage Disposal System permit is not required for a resident/owner performing work on their own OSS or a certified operation, maintenance and monitoring specialist performing replacement, addition, or modification of broken or malfunctioning building sewers, risers and lids, sewage tank lids, sewage tank baffles, sewage tank pumps (same make and model or equivalent replacement pump), 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. However, it is the resident/owner's and the maintenance specialist's responsibility to ensure that the appropriate permits are obtained from WA State Labor and Industries for all electrical work, and that all alterations to an OSS are consistent with the rules contained herein, the intent of the rules, and all associated OSS guidelines. The health officer may require the owner to submit information regarding these activities for recordkeeping purposes.
- C. The health officer may develop the information required in subsection (1) of this section if authorized by these regulations.
- D. The health officer shall:
- 1. Respond to an application within thirty days as required in RCW 70.05.074.
 - 2. Permit only public domain technologies that have departmental RS&G. Permit only proprietary products that are registered by the department. During the period of transition 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.
 - 3. Issue a permit when the information submitted under subsection (1) of this section meets the requirements contained in this chapter and in local regulations;
 - 4. Identify the permit as a new installation, repair, expansion, modification, or operational permit;
 - 5. Specify the expiration date on the permit. The expiration date may not exceed three years from the date of permit issuance;
 - 6. Include a reminder on the permit application of the applicant's right of appeal; and

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7. If requiring an operational permit, state the period of validity and the date and conditions of renewal.
 8. Require a pre-construction meeting, if requested, when limited area exists on the property.
- E. The health officer may revoke or deny a permit for just cause. Examples include, but are not limited to:
1. Construction or continued use of an OSS that threatens the public health;
 2. Misrepresentation or concealment of material fact in information submitted to the health officer; or
 3. Failure to meet conditions of the permit, this chapter or any local regulations.
 4. Changes or alterations to the site such as grading, filling, clearing, or burning operations that render the site un-useable for the installation of a conforming OSS.
- F. Before the health officer issues a permit for the installation of an OSS to serve more than one development, the applicant shall show:
1. An approved public entity owning or managing the OSS in perpetuity; or
 2. A management arrangement acceptable to the health officer, recorded in covenant, lasting until the on-site system is no longer needed, and containing, but not limited to:
 - a) A recorded easement allowing 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.
- G. The health officer shall not delegate the authority to issue permits.
- H. The health officer may stipulate additional requirements for a particular permit if necessary for public health protection.

8.07D.120 Location

- A. Persons shall design and install OSS to meet the minimum horizontal separations shown in Table IV, Minimum Horizontal Separations:

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Table IV
Minimum Horizontal Separations

Items Requiring Setback	From edge of soil dispersal component and reserve area	From sewage tank and distribution box	From building sewer, and nonperforated distribution pipe
Well or suction line	100 ft.	50 ft.	50 ft.
Public drinking water well	100 ft.	100 ft.	100 ft.
Public drinking water spring measured from the ordinary high-water mark	200 ft.	200 ft.	100 ft.
Spring or surface water used as drinking water source measured from the ordinary high-water mark ¹	100 ft.	50 ft.	50 ft.
Pressurized water supply line	10 ft.	10 ft.	10 ft.
Decommissioned well (decommissioned in accordance with chapter 173-160 WAC)	10 ft.	N/A	N/A
Surface water measured from the ordinary high-water mark	100 ft.	50 ft.	10 ft.
Building foundation/in-ground swimming pool	10 ft.	5 ft.	2 ft.
Property or easement line	5 ft.	5 ft.	N/A
Interceptor/curtain drains/foundation drains/drainage ditches			
Down-gradient ² :	30 ft.	5 ft.	N/A
Up-gradient ² :	10 ft.	N/A	N/A
Other site features that may allow effluent to surface			
Down-gradient ² :	30 ft.	5 ft.	N/A
Up-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
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 dispersal components/subsurface storm water infiltration systems	10 ft.	N/A	N/A

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

²The 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.

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- B. If any condition indicates a greater potential for contamination or pollution, the health officer may increase the minimum horizontal separations. Examples of such conditions include excessively permeable soils, unconfined aquifers, shallow or saturated soils, dug wells, and improperly abandoned wells.
- C. The health officer may allow a reduced horizontal separation to not less than two feet where the property line, easement line, in-ground swimming pool, or building foundation is up-gradient.
- D. The horizontal separation between an OSS dispersal component and an individual water well, individual spring, or surface water that is not a public water source can be reduced to a minimum of seventy-five feet, by the health officer, and be described as a conforming system upon signed approval by the health officer if the applicant demonstrates:
 - 1. Adequate protective site-specific conditions, such as physical settings with low hydro-geologic susceptibility from contaminant infiltration. Examples of such conditions include evidence of confining layers and/or aquatards separating potable water from the OSS treatment zone, excessive depth to ground water, down-gradient contaminant source, or outside the zone of influence; or
 - 2. Design and proper operation of an OSS system assuring enhanced treatment performance beyond that accomplished by meeting the vertical separation and effluent distribution requirements described in ICC 8.07D.140 Table VI; or
 - 3. Evidence of protective conditions involving both (a) and (b) of this subsection.
- E. Persons shall design and/or install a soil dispersal component only if:
 - 1. The slope is less than forty-five percent (twenty-four degrees);
 - 2. The area is not subject to:
 - a) Encroachment by buildings or construction such as placement of power poles and underground utilities;
 - b) Cover by impervious material;
 - c) Vehicular traffic; or
 - d) Other activities adversely affecting the soil or the performance of the OSS.
 - 3. Sufficient reserve area for replacement exists to treat and dispose one hundred percent of the design flow;
 - 4. The land is stable; and
 - 5. Surface drainage is directed away from the site.
- F. Drainfields installed on slopes of 30 percent (30%) or greater may be subject to a maximum loading rate of 0.5 gallons/ft²/day, at the discretion of the health officer.
- G. The health officer may approve a sewer transport line within ten feet of a water supply line if the sewer line is constructed in accordance with section C1-9 of the department of ecology's "*Criteria For Sewage Works Design*," Revised on October 2006.

8.07D.130 Soil and site evaluation

- A. Only professional engineers, designers, or the health officers may perform soil and site evaluations. Soil scientists may only perform soil evaluations.

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- B. The person evaluating the soil and site shall:
1. Submit to the health department a site registration report consisting of an accurate plot plan, drawn to scale, which includes but is not limited to the following information:
 - a) A sufficient number of soil logs to evaluate conditions within:
 - (i) The initial soil dispersal component; and
 - (ii) The reserve area.
 - b) The ground water conditions, the date of the observation, and the probable maximum height;
 - c) The topography of the proposed initial system, the reserve area, and those areas immediately adjacent that contain characteristics impacting the design;
 - d) The drainage characteristics of the proposed initial system, the reserve area and those areas immediately adjacent that contain characteristics impacting the design;
 - e) The existence of structurally deficient soils subject to major wind or water erosion events such as slide zones and dunes;
 - f) The existence of designated flood plains and other areas identified in the local management plan required under WAC 246-272A-0015 and
 - g) The location of existing features affecting system placement, such as, but not limited to:
 - (i) Wells and suction lines;
 - (ii) Water sources and supply lines;
 - (iii) Surface water and stormwater infiltration areas;
 - (iv) Abandoned wells;
 - (v) Outcrops of bedrock and restrictive layers;
 - (vi) Buildings;
 - (vii) Property lines and lines of easement;
 - (viii) Interceptors such as footing drains, curtain drains, and drainage ditches;
 - (ix) Cuts, banks, and fills;
 - (x) Driveways and parking areas;
 - (xi) Existing OSS;
 - (xii) Underground utilities;
 - h) Scale Used (1"=20' recommended) shall be appropriate to the complexity of the site;
 - i) Each soil log shall have two dimensions of distance measured from a reference point or stationary object or distance and direction established from a reference point or stationary object. If necessary, a property survey must be performed to establish reference points.
 - j) North arrow.
 2. Use the soil and site evaluation procedures and terminology in accordance with Chapter 5 of

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the *On-site Wastewater Treatment Systems Manual*, EPA 625/R-00/008, February 2002 except where modified by, or in conflict with, this chapter (available upon request to the department);

3. Use the soil names and particle size limits of the United States Department of Agriculture Natural Resources Conservation Service classification system;
4. 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. Classify the soil as in Table V, Soil Type Descriptions:

TABLE V
Soil Type Descriptions

Soil Type *	Soil Textural Classifications
1	Gravelly and very gravelly coarse sands, all extremely gravelly soils excluding soil types 5 and 6; 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 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.

* Site registrations approved prior to these regulations that are used as a basis to design an on-site sewage disposal system or to designate a reserve area must use the soil textural classifications described above to determine the current soil type and loading rate.

- C. A site registration report shall be made on a health department approved form by the individual who performed the soil test or in the case when an employee of a professional engineer does the soil testing, the professional engineer must make the report. The report shall be submitted to the health department, with the appropriate fee, for review within twenty (20) working days of the date the tests were completed.
- D. The owner of the property or his agent shall:
 1. Prepare the soil log excavation to:
 - a) Allow examination of the soil profile in its original position by:
 - (i) Excavating pits of sufficient dimensions to enable observation of soil characteristics by visual and tactile means to a depth three feet deeper than the

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- anticipated infiltrative surface at the bottom of the soil dispersal component; or
- (ii) Stopping at a shallower depth if a water table or restrictive layer is encountered;
- b) Allow determination of the soil's texture, structure, color, bulk density or compaction, water absorption capabilities or permeability, and elevation of the highest seasonal water table; and
2. Assume responsibility for constructing and maintaining the soil log excavation in a manner to prevent injury as required by chapter 296-155 WAC.
3. Schedule a site evaluation with the health department during a wet season, if the site is denied due to insufficient information to determine the winter water table.
- E. The health officer:
1. Shall render a decision on the height of the water table within twelve months of receiving the application under precipitation conditions typical for the region;
2. May require water table measurements to be recorded during months of probable high-water table conditions, if insufficient information is available to determine the highest seasonal water table;
3. May require any other soil and site information affecting location, design, or installation; and
4. May reduce the required number of soil logs for OSS serving a single-family residence if adequate soils information has previously been developed.
- F. Unless specifically waived by the health officer, all soil logs for the purpose of securing a sewage disposal permit must be witnessed and verified by the health officer.
- G. Any on-site sewage disposal system not located entirely on the property originating the sewage must be secured by appropriate easements filed with the Island County Auditor.
- H. The health officer must be notified of the time and place of the soil tests a minimum of one (1) working day before the tests are performed.
- I. The health officer may require such further testing as is necessary to determine the adequacy of a site for on-site sewage disposal.

8.07D.140 Design requirements--General

- A. On-site sewage systems may only be designed by professional engineers, licensed under chapter 18.43 RCW or on-site sewage treatment system designers, licensed under chapter 18.210 RCW, except:
1. The health officer may allow a resident owner of a single-family residence not adjacent to a marine shoreline to design a conventional system for their residence; or
2. If the health officer performs the soil and site evaluation, the health officer is allowed to design a system.
- B. The designer shall use the following criteria when developing a design for an OSS:
1. All sewage from the building served is directed to the OSS;

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2. Sewage tanks have been reviewed and approved by the department;
3. Drainage from the surface, footing drains, roof drains, subsurface storm-water infiltration systems, and other non-sewage drains is prevented from entering the OSS, the area where the OSS is located, and the reserve area;
4. The detailed design and construction of all on-site sewage systems shall conform to the "Design Manual: On-Site Wastewater Treatment Systems Manual," United States Environmental Protection Agency, EPA 625/R-00/008, February 2002, except where modified by, or in conflict with these regulations.
5. The OSS is designed to treat and disperse the sewage volume as follows:
 - a) For single-family residences:
 - (i) The operating capacity is based on 45 gpd per capita with two people per bedroom.
 - (ii) The minimum design flow per bedroom per day is the operating capacity of ninety gallons multiplied by 1.33. This results in a minimum design flow of one hundred twenty gallons per bedroom per day, except that designs utilizing glendon biofilters, mounds, intermittent sand filters, recirculating sandfilters, stratified sandfilters, or sub-surface drip irrigation shall utilize a design flow of 150 gallons per bedroom per day.
 - (iii) A factor greater than 0.33 to account for surge capacity may be required by the health officer.
 - (iv) The health officer may require an increase of the design flow for dwellings with anticipated greater flows, such as larger dwellings.
 - (v) Thresholds for sewage system sizing:
 - (1) Sewage flows for new construction and/or replacement, additions, or remodels to any residence shall be based upon the number of bedrooms. The number of bedrooms will be derived by one of the following methods. Whichever method yields the largest number will be used.
 - (2) The first one thousand (1,000) square feet of dwelling unit is considered one (1) bedroom. Any additional square footage of dwelling unit in one thousand (1000) square foot increments is considered an additional bedroom. For example, 1,001 to 2,000 square feet of dwelling unit is considered a two bedroom, and 2,001 to 3,000 square feet of dwelling unit is considered a three bedroom.
 - (3) The number of bedrooms that physically exist.
 - (4) The number of bedrooms indicated on proposed plans including any existing bedrooms, except that the sewage system design may be for fewer bedrooms than determined by the above methods if a document signed by the property owner is filed and recorded with the Island County Auditor, so as to be discovered during a title search, which declares the maximum capacity in bedrooms of the sewage system. Nothing herein shall be construed as requiring a sewage system upgrade if existing rooms are remodeled or expanded without changing the water use of the residence. However, such a remodel or expansion cannot be performed to eliminate the reserve area of the

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sewage system.

- (5) Sewage flows for new commercial: structures, remodels, additions, or replacements shall be determined as specified in the *"Design Manual: On-Site Wastewater Treatment and Disposal Systems,"* United States Environmental Protection Agency, EPA 625/R-00/008, February 2002, or by appropriate comparable water use data, except where modified or in conflict with these regulations.
 - (vi) The minimum design flow is two hundred forty gallons per day.
 - b) For other facilities, the design flows noted in *"On-site Wastewater Treatment Systems Manual,"* USEPA, EPA-625/R-00/008, February 2002 shall 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. Facilities with high strength wastewater (CBOD₅ > 125 mg/l, Total Suspended Solids > 80 mg/l and Total Oil and Grease > 20 mg/l) must include adequate pretreatment. If the type of facility is not listed in the EPA design manual, design flows from one of the following documents are used:
 - (i) *"Design Standards for Large On-site Sewage Systems,"* 1993, Washington State Department of Health; or
 - (ii) *"Criteria for Sewage Works Design,"* revised October 2006, Washington State Department of Ecology.
6. The OSS is designed to address sewage quality as follows:
- a) For all systems, the designer shall consider:
 - (i) CBOD₅, TSS, and O&G;
 - (ii) Other parameters that can adversely affect treatment anywhere along the treatment sequence. Examples include pH, temperature and dissolved oxygen;
 - (iii) 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 under WAC 246-272A-0015.
 - (iv) Nitrogen contributions. Where nitrogen has been identified as a contaminant of concern by the local management plan required under WAC 246-272A-0015, it shall be addressed through lot size and/or treatment.
 - (v) Use: Seasonal or permanent residence. This issue is especially important in the selection and design of alternative OSS.
 - b) For OSS treating sewage from a nonresidential source, the designer shall provide the following information:
 - (i) Information to show the sewage is not industrial wastewater;
 - (ii) Information regarding the sewage quality and identifying chemicals found in the sewage that are not found in sewage from a residential source; and
 - (iii) A site-specific design providing the treatment level equal to that required of sewage from a residential source;

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7. The vertical separation to be used to establish the treatment levels and application rates. The selected vertical separation shall be used consistently throughout the design process.
- a) Treatment levels:
- (i) Requirements for matching treatment component and method of distribution with soil conditions of the soil dispersal component are listed in Table VI. The treatment levels correspond with those established for treatment components under the product performance testing requirements in Table III of WAC 246-272A-0110. The method of distribution applies to the soil dispersal component.

TABLE VI
Treatment Component Performance Levels and Method of Distribution¹

Vertical Separation in inches	Soil Type		
	1	2	3-6
12 < 18	A - pressure with timed dosing	B - pressure with timed dosing	B - pressure with timed dosing
≥18 < 24	B - pressure with timed dosing	B - pressure with timed dosing	B - pressure with timed dosing
≥24 < 36	B - pressure with timed dosing	C - pressure with timed dosing	D - pressure with timed dosing
≥36 < 60	B - pressure with timed dosing	E - pressure with timed dosing	E - gravity
≥ 60	C - pressure with timed dosing	E - gravity	E - gravity

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

- (ii) Disinfection may not be used to achieve the fecal coliform requirements to meet:
- (1) Treatment levels A or B in Type 1 soils; or
 - (2) Treatment level C.
- C. The coarsest textured soil within the vertical separation selected by the designer shall determine the minimum treatment level and method of distribution.
- D. The health officer shall not approve designs for:
1. Cesspools; or
 2. Seepage pits.
- E. The 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.

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8.07D.150 Design requirements--Septic Tank and Pump Chamber Design, Construction and Installation

- A. Pursuant to WAC 246-272A, the Washington State Department of Health has responsibility for:
1. Develop and maintain design and construction standards for septic tanks, pump chambers, and holding tanks.
 2. Review septic tanks, pump chambers, and holding tanks, approving those satisfying the design and construction standards developed by the Washington State Department of Health.
 3. Require an annual report from the manufacturers or distributors of all products on the approved list under subsection (B)(2) of this section, which assures that the product still meets the standards defined in this section, before relisting the product.
 4. Maintain a list of approved septic tanks, pump chambers, holding tanks that meet design and construction standards.
 5. Make periodic checks of products approved under this subsection.
- B. Persons desiring to manufacture or distribute septic tanks, pump chambers, holding tanks for use in an OSS shall:
1. Certify the product meets standards for subsection (A)(1) of this section and submit the required documentation to the Washington State Department of Health for approval when:
 - a) The manufacturer or distributor needs initial departmental review and listing to allow permitting by the health officer or Washington State Department of Health;
 - b) The Washington State Department of Health amends the applicable criteria or standards; or
 - c) The manufacturer or distributor alters the product.
 2. Submit an annual report acceptable to the Washington State Department of Health to retain departmental approval; and
 3. Pay required fees to the Washington State Department of Health.
- C. Septic tanks, pump chambers, and holding tanks:
1. Are included on the approved list under subsection (A)(4) of this section;
 2. Have clean-out and inspection accesses with secured lids at or above finished grade; and
 3. Are designed in accordance with ASTM C-1227-94 specifications to assure protection against floatation, ground water intrusion, and surface water inflow in high ground water areas.

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D. Approved septic tanks:

1. Have the following minimum liquid capacities:
 - a) For a single-family residence use Table VII, Required Minimum Liquid Volumes of Septic Tanks:

**TABLE VII
REQUIRED MINIMUM LIQUID VOLUMES OF SEPTIC TANKS**

Number of bedrooms	Required minimum liquid tank volume in gallons
1-4	1000
Each additional bedroom	250

- b) For facilities handling residential sewage, other than one single-family residence, two hundred fifty gallons per bedroom with a minimum of 1000 gallons.
 - c) For OSS treating sewage from a nonresidential source, three times the design flow.
2. 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.
3. Have an inlet baffle or sanitary tee installed which extends below the liquid level of the tank a minimum of eight (8) inches to allow adequate space for scum storage;
4. Have outlet baffles or sanitary tees installed on the outlet end of both the first and second compartments. These baffles or tees shall extend below the liquid surface of the tank a distance approximately equal to forty percent (40%) of the liquid depth. Effluent screening acceptable to state TRC guidelines and the health department shall be installed on the second outlet of all septic tanks;
5. Have a tee or "L" shall be installed on the inlet side of the second compartment extending a minimum of six (6) inches below the liquid level; and
6. Have at least a one-inch (1") space between the baffles or sanitary tees and the top of the tank.

8.07D.160 Design requirements--Soil dispersal components

- A. All soil dispersal components, except one using a subsurface dripline product, shall be designed to meet the following requirements:
 1. Maximum hydraulic loading rates shall be based on the rates described in Table VIII:

**TABLE VIII
Maximum Hydraulic Loading Rate**

Soil Type	Soil Textural Classification Description	Loading Rate for Residential Effluent Using Gravity or Pressure Distribution (gal./sq. ft./day)
1	Gravelly and very gravelly coarse sands, all extremely gravelly soils excluding Soil types 5 & 6, all soil types with greater than or equal to 90% rock fragments.	1.0
2	Coarse sands.	1.0
3	Medium sands	0.8
	Loamy coarse sands, loamy medium sands.	0.64
4	Fine sands	0.6
	Loamy fine sands, sandy loams, loams.	0.48
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
6	Other silt loams, sandy clay loams, clay loams, silty clay loams.	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

Compacted soils, cemented soils, and/or poor soil structure may require a reduction of the loading rate or make the soil unsuitable for conventional OSS systems.

2. Calculation of the absorption area is based on:
 - a) The design flow in ICC 8.07D.140(B); and
 - b) Loading rates equal to or less than those in Table VIII 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.
3. Requirements for the method of distribution shall correspond to those in Table VI.
4. Soil dispersal components having daily design flow between one thousand and three thousand five hundred gallons of sewage per day shall:
 - a) Only be located in soil types 1-5;

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- b) Only be located on slopes of less than thirty percent, or seventeen degrees; and
 - c) Have pressure distribution including time dosing.
- B. All soil dispersal components using a subsurface dripline product must be designed to meet the following requirements:
- 1. Calculation of the absorption area is based on:
 - a) The design flow in ICC 8.07D.140(B);
 - b) Loading rates that are dependent on the soil type, other soil and site characteristics, and the spacing of dripline and emitters;
 - 2. The dripline must be installed a minimum of six inches into original, undisturbed soil;
 - 3. Timed dosing; and
 - 4. Soil dispersal components having daily design flows greater than one thousand gallons of sewage per day may:
 - a) Only be located in soil types 1-5;
 - b) Only be located on slopes of less than thirty percent, or seventeen degrees.
 - 5. An undisturbed minimum distance of 4.5 feet shall be required between the primary and reserve drainfield absorption areas other than beds where a greater minimum distance is required per Washington State Department of Health Recommended Standards and Guidance documents.
- C. All SSAS shall meet the following requirements:
- 1. The infiltrative surface may not be deeper than three feet below the finished grade, except under special conditions approved by the health officer. The depth of such system shall not exceed ten feet from the finished grade;
 - 2. A minimum of six inches of sidewall must be located in original undisturbed soil (as measured at the lowest elevation of each trench);
 - 3. Beds are only designed in soil types 1, 2, 3 or in fine sands with a width not exceeding ten feet;
 - 4. Individual laterals greater than one hundred feet in length must use pressure distribution;
 - 5. A layer of between six and twenty-four inches of cover material; and
 - 6. Other features shall conform to the "*On-site Wastewater Treatment Systems Manual*," United States Environmental Protection Agency EPA-625/R-00/008 February 2002 except where modified by, or in conflict with this section or WAC 246-272A.
- D. For SSAS with drainrock and distribution pipe:
- 1. A minimum of two inches of drainrock is required above the distribution pipe;
 - 2. The sidewall below the invert of the distribution pipe is located in original undisturbed soil.
 - 3. Persons shall design and install OSS to meet the subsurface soil absorption construction details specified in Figure 1.

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Figure 1
SUBSURFACE SOIL ABSORPTION
SYSTEM FIELD CONSTRUCTION DETAILS

<u>Item</u>	<u>Unit</u>	<u>Maximum</u>	<u>Minimum</u>
Spacing of Lateral Trenches	Feet	None	4.5
Length of Trenches (equal) ¹	Feet	100	--
Width of Trenches ²	Inches	36	12
Width of Beds	Feet	10	>3
Depth of Trench to Trench Bottom	Inches	120	6
Slope of Drainfield Lines	In/100 ft	½ +/-	Level
Depth of Drainrock:			
Under pipe:	Inches	--	6
Over pipe:	Inches	--	cover
Depth of Cover over Drainrock	Inches	24	6

¹ Unless pressure distribution is utilized.

² Three-foot trenches may be used in *soil types 1-4*. For Class 5 and 6 soils, maximum trench width shall be twenty-four (24) inches.

- E. The health officer may allow the infiltrative surface area in 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 twelve inches per year.
- F. The health officer may permit systems consisting solely of a septic tank and a gravity SSAS in soil type 1 if all the following criteria are met:
 1. The system serves a single-family residence;
 2. The lot size is greater than two and one-half acres;
 3. Annual precipitation in the region is less than twenty-five inches per year as described by "*Washington Climate*" published jointly by the Cooperative Extension Service, College of Agriculture, and Washington State University (available for inspection at Washington state libraries);
 4. The system is located outside the twelve counties bordering Puget Sound; and
 5. The geologic conditions beneath the dispersal component must satisfy the minimum unsaturated depth requirements to ground water as determined by the health officer. The method for determination is described by "*Design Guideline for Gravity Systems in Soil Type I*" (available upon request to the department).
- G. The health officer may increase the loading rate in Table VIII up to a factor of two for soil types 1-4 and up to a factor of 1.5 for soil types 5 and 6 if a product tested to meet treatment level D is used. This reduction may not be combined with any other SSAS size reductions.
- H. The primary and reserve areas must be sized to at least one hundred percent of the loading rates listed in Table VIII.

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1. However, the health officer may allow a legal lot of record created prior to the effective date of this chapter that cannot meet this primary and reserve area requirement for at least a two (2) bedroom residence to be developed if all the following conditions are met:
 - a) The lot cannot meet the minimum primary and reserve area requirements due to the loading rates for medium sand, fine sand and very fine sand listed in Table VIII of this chapter;
 - b) The primary and reserve areas are sufficient to allow installation of a SSAS using maximum loading rates of 1.0 gallons/square foot per day for medium sand, 0.8 gallons/square foot/day for fine sand, and 0.6 gallons/square foot/day for very fine sand; and
 - c) A treatment product meeting at least Treatment Level D and pressure distribution with timed-dosing is used.
- I. The disposal trench bottom or bed bottom shall be level;
- J. Clean gravel, covered with an approved geotextile; and
- K. Absorption lines shall be spaced a minimum of four and one-half (4-1/2) feet apart from edge of trench to edge of trench. Pressure beds shall be spaced a minimum of ten (10) feet edge to edge.
- L. Trench bottoms shall be kept three (3) feet above any underlying impermeable layer, cemented layer, underlying groundwater table, or elevation of a groundwater table during the wet season, unless otherwise specifically permitted by the health officer. The health officer may permit a lesser separation only when the proposal utilizes *Washington State Department of Health Recommended Standards and Guidance documents for OSS design*, or when the proposal involves a repair of a sewage disposal system
- M. All conventional, gravel-filled, gravity SSAS shall be equipped with at least one monitoring port in each trench located in the center of the trench.
- N. Effluent from the septic tank shall be conducted to the absorption field or pump station through a watertight line with a grade of at least one-eighth (1/8) inch per foot. Tight line from house to septic tank shall have a grade of one-fourth (1/4) inch per foot.
- O. Tees, wyes, or other distributing devices may be used. Where perforated plastic pipe is used, the pipe shall be laid level.
- P. If a distribution box is used, it shall be of sufficient size to accommodate the necessary field lateral lines. The design of the distribution box shall provide for equal distribution to all laterals.
- Q. Fields in sloping ground. In locations where the ground over the absorption field area slopes, a distribution box will be used to distribute the effluent equally to each line in the drainfield unless the health officer approves other distribution methods.
- R. Pressure systems shall be designed and constructed in compliance with the *Washington State Department of Health Recommended Standards and Guidance documents for OSS design* as they now exist or shall be modified for pressure distribution systems.
- S. All large, community and alternative on-site sewage disposal systems shall utilize pressure distribution except where specifically allowed in *Washington State Department of Health Recommended Standards and Guidance documents for OSS design*.

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8.07D.170 Pipe Specifications

- A. The standards in this section apply only to conventional gravity systems.
- B. Pipe used from building plumbing stub out to septic tank and from septic tank to distribution point shall be 4" PVC gravity sewer pipe (ASTM D-3034 or equivalent), and such section shall not be considered in determining the effective absorption area. Plastic perforated drainfield pipe and fittings shall meet the following standards:
 - 1. The pipe shall meet ASTM (American Society for Testing Material) specifications, ASTM D2729-72 (PVC), or ASTM F405-74 (polyethylene), or ASTM F810 and the chemical resistance section of USDC Commercial Standard 228-61, sections 5.5 and 7.8, or equivalent.
 - 2. The pipe shall pass a deflection test withstanding 350/pound/foot without cracking when tested in accordance with the method outlined in ASTM 2411.
 - 3. There shall be two (2) rows of holes, 120 degrees apart or 60 degrees upon each side from the bottom centerline. The hole shall be a minimum of not less than one-half (1/2) inch to a maximum of three-fourths (3/4) inch in diameter and on minimum centers of not less than three (3) inches nor more than five (5) inches.
 - 4. To ensure proper alignment of holes, a line of contrasting color shall be provided on the top center of the pipe. The line may be incorporated in or as part of the other marking requirements.
- C. Pipe used in pressure distribution systems shall be as prescribed by the *Washington State Department of Health Recommended Standards and Guidance documents for OSS design*.

8.07D.180 Interceptor trench specifications

- A. Drainpipe shall be sized according to the highest possible water flow.
- B. Trench shall be installed a minimum of six (6) inches into a restrictive layer.
- C. Trench shall be minimum twelve (12) inches wide.
- D. Trench bottom should be dug with a constant gradient that has a minimum fall of one- eighth (1/8) inch per foot.
- E. Pipe shall be four (4) inch corrugated drainage tubing, or four (4) inch PVC ASTM 2729 or an approved equivalent.
- F. Gravel shall be clean washed rock.
- G. Gravel fill shall be brought to the level of finished grade.
- H. Trench shall be installed no closer than thirty (30) feet to a drainfield when the drainfield is upslope from the trench, and no closer than ten (10) feet when the drainfield is downslope from the trench.
- I. Prior to digging an interceptor trench it is the property owner's responsibility to ensure:
 - 1. The collected drainage water can be discharged in a legal manner.

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2. That if the property is associated with a wetland, a geologically hazardous area, a slope of forty (40) percent or greater, near a shoreline, lake, creek, a critical drainage area, any other regulated critical area, an archaeologically or historically sensitive area, or critical area buffer, the proper permits and approvals are obtained from Island County Planning and Community Development, and Island County Public Works prior to constructing the drainage system.
3. That a reasonable search is completed to locate all adjacent existing sewage disposal systems, and the proposed interceptor trench location meets the minimum required setbacks.

8.07D.190 Alternative systems and proprietary devices

- A. Alternative permit applications utilizing alternative system design shall be consistent with guidelines developed pursuant to WAC 246-272A-0100 and as hereinafter amended, except where modified by or in conflict with these regulations. Final approval of any alternative system is vested with the health officer.
- B. Alternative systems shall be allowed only for single-family, residential use and low-water use non-residential establishments which, in the opinion of the health officer, are not likely to create a potential health hazard or groundwater contamination, and where volume of use is less than one thousand (1000) gallons of water used per day. The health officer may allow higher water use establishments to use alternative systems if, in his opinion, public health and environmental protection will be provided for.

8.07D.200 Commercial systems

- A. Commercial (non-residential) systems shall be designed and constructed in accordance with "*On-site Wastewater Treatment Systems Manual*," United States Environmental Protection Agency EPA-625/R-00/008 February 2002, except where modified by or in conflict with these regulations or Washington State regulations or guidelines.
- B. Commercial and industrial waste products and by-products other than human waste are not to be disposed of in subsurface sewage disposal systems.
- C. The health officer shall require each individual business to have its own separate water meter on its water supply line.
- D. Design of commercial (non-residential) sewage disposal systems with a proposed daily flow between 1000 and 3,500 gallons/day shall utilize WAC 246-272B LOSS Guidelines.
- E. The owner or operator of a commercial system where any change in use is proposed must have the change reviewed by the health officer. Changes in commercial uses that increase waste generation or result in the production of high strength wastewater may require OSS upgrades.

8.07D.210 Community and Large On-site Septic Systems (LOSS)

- A. Community on-site sewage systems as defined in this chapter shall be designed in accordance with the site evaluation, design, maintenance, and management criteria as set forth in WAC 246-272B, or as they may be hereafter amended.
- B. Community on-site sewage systems or LOSS shall not exceed the minimum land area requirements described in section ICC 8.07D.320.

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- C. All community or large on-site sewage disposal systems shall be equipped with a water meter unless the health officer determines this to be unnecessary.

8.07D.220 Requirements for Temporary Sewage Disposal Units

- A. No temporary sewage disposal system may be constructed, installed, or used until plans for such facility have been submitted to the health officer and a permit has been issued.
 - 1. However, chemical toilets may be installed without a permit from the health officer under the following conditions:
 - a) Chemical toilets shall be provided for workers at building sites as required by Washington State Department of Labor and Industries and for agricultural workers as required by Washington State Department of Agriculture.
 - b) Chemical toilets and hand-washing stations provided at concerts, street fairs, festivals, and recreational events, as required by the health officer.
 - c) Chemical toilets may be used in emergency or disaster situations or used to temporarily supplement a residential on-site sewage system to reduce the impact of a large gathering.
- B. Chemical toilets may not be used as a long-term method for sewage disposal.
- C. The installation and use of temporary sewage disposal systems shall comply with all state and local regulations and shall be discontinued whenever it becomes unlawful due to change in state or local regulations, when it becomes a health hazard, or when it becomes a public nuisance.
- D. All other liquid wastes shall be disposed of in a manner approved by the health officer.
- E. Pumpers of chemical toilets shall comply with ICC 8.06.050 and ICC 8.08B as they are now written or hereafter amended.

8.07D.230 Design requirements--Facilitate operation, monitoring and maintenance

- A. The OSS must be designed to facilitate operation, monitoring and maintenance according to the following criteria:
 - 1. For gravity systems, septic 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 health officer may allow access for maintenance and inspection of a system consisting of a septic 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.
 - 2. For all other systems, service access and monitoring ports at finished grade are required for all system components. Specific component requirements include:
 - a) Septic tanks must have service access manholes and monitoring ports for the inlet and outlet. If effluent filters are used, access to the filter at finished grade is required;
 - b) Surge, flow equalization or other sewage tanks must have service access manholes;
 - c) Other pretreatment units (such as aerobic treatment units and packed-bed filters) must have service access manholes and monitoring ports;

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- d) Pump chambers, tanks and vaults must have service access manholes;
 - e) Disinfection units must have service access and be installed to facilitate complete maintenance and cleaning; and
 - f) Soil dispersal components shall have monitoring ports for both distribution devices and the infiltrative surface.
3. For systems using pumps, clearly accessible controls and warning devices are required including:
- a) Process controls such as float and pressure activated pump on/off switches, pump-run timers and process flow controls;
 - b) 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
 - c) 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.
- B. 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 health officer.

8.07D.240 Holding tank sewage systems

- A. 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) of this section.
- B. The health officer may approve installation of holding tank sewage systems only:
1. For permanent uses limited to controlled, part-time, commercial usage situations, such as recreational vehicle parks and trailer dump stations;
 2. For interim uses limited to handling of emergency situations; or
 3. For repairs as permitted under ICC 8.07D.290(A)(3)(a).
- C. A person proposing to use a holding tank sewage system shall:
1. Follow design criteria established by the department;
 2. Submit a management program to the health officer assuring ongoing operation, monitoring and maintenance before the health officer issues the installation permit; and
 3. Use a holding tank reviewed and approved by the department.

8.07D.250 Installation

- A. Only Island County licensed installers may construct OSS (including tanks, transport lines, drainfields, etc.), except as noted under subsection (B) of this section.
- B. The health officer may allow the resident owner of a single family residence, not adjacent to a marine shoreline, to install the OSS for that single family residence when:
1. The OSS is located on the same lot as the residence.
 2. The OSS is a conventional gravity system design.

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- C. The installer described by either (A) or (B) of this section shall notify the health department, within one working day prior to commencement of system construction, of the intent to install the system. This shall be done by means of a start card provided by the health department, to be submitted at locations designated by the health department, or by notifying the health department by phone of the date the system will be started, the permit number of the system, and the designer of the system.
- D. The installer described by either subsection (A) or (B) of this section shall:
1. Follow the approved design;
 2. Require a pre-construction meeting, if requested, when limited area exists on the property.
 3. Have the approved design in possession during installation;
 4. Make no changes to the approved design without the prior authorization of the designer and written approval of the health officer;
 5. Only install septic tanks, pump chambers, and holding tanks approved by the department;
 6. Be on the site at all times during the excavation and construction of the OSS;
 7. Install the OSS to be watertight, except for the soil dispersal component;
 8. Cover the installation only after the health officer has given approval to cover; and
 9. Back fill with six to twenty-four inches of cover material and grade the site to prevent surface water from accumulating over any component of the OSS.

8.07D.260 Inspection

- A. For all activities requiring a permit, the health officer shall:
1. Visit the OSS site during the site evaluation, construction, or final construction inspection;
 2. Either inspect the OSS before cover or allow the designer of the OSS to perform the inspection before cover if the designer is not also named as installer of the system.
 3. Keep the record drawings on file with the approved design documents.
- B. The person responsible for the final construction inspection shall assure the OSS meets the approved design.
- C. All work done in the installation, repair, or alteration of sewage waste disposal systems shall be subject to inspection by the health officer or his authorized representative. If upon inspection, any work being done or materials being used do not conform to the provisions of these rules and regulations, the necessary changes shall be ordered to make the same conform. Any material, fixtures, or devices, which are defective, unsanitary, or are not in conformity with the provisions of these rules and regulations shall be repaired, replaced, or removed. If the nonconformance with the provisions of these rules and regulations is not corrected within the time fixed by the health officer or his authorized representative, the sewage waste disposal system will be condemned and its use prohibited.
- D. All electrical work, equipment, and materials shall comply with the requirements of the current Washington State Electrical Code. The installer shall test and time pump operation on systems utilizing pressure distribution after wiring has been completed.
- E. It shall be the installer's responsibility to assure that all materials used in construction of the

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sewage disposal system meet applicable standards and codes.

8.07D.270 Record drawings

- A. Upon completion of the new construction, alteration or repair of the OSS, a complete and detailed record drawing shall be submitted to both the health officer and the OSS owner that includes at a minimum the following:
1. Measurements and directions accurate to +/- 1/2 foot, drawn to a scale (1"=20' Recommended) that assures the following parts of the OSS can be easily located, unless otherwise determined by the health officer:
 - 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;
 - c) Stub outs;
 - d) Valve or distribution boxes; and
 - e) Any other OSS component which, in the judgment of the health officer or the designer, must be accessed for observation, maintenance, or operation;
 2. Location and dimensions of reserve area;
 3. Record that materials and equipment meet the specifications contained in the design;
 4. Initial settings of electrical or mechanical devices (float setting, total gallons/dose, number of doses per day, etc.) that must be known to operate the system in the manner intended by the designer or installer; and
 5. For proprietary products, manufacturer's standard product literature, including performance specifications and maintenance recommendations needed for operation, monitoring, maintenance or repair of the OSS.
 6. North direction indicated;
 7. Driveway (proposed);
 8. Building(s) size, shape, and placement;
 9. Water line(s) and water line easements(s) location. In the event a waterline is installed after the record drawing is submitted, the record drawing will show a proposed waterline location;
 10. Slope(s) - direction and percent;
 11. Cuts, banks, terraces;
 12. Foundations;
 13. Property and easement lines with dimensions indicated;
 14. Bodies of water; lakes, springs, wells (100' pollution control radius), etc.;
 15. Plan view of drainfield;
 16. Setback distances;

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17. Installers signature and date of installation on as-builts; and
 18. Any other pertinent information.
- B. The record drawing plan shall be signed by the installer and submitted to the health officer no later than twenty (20) working days after completion of the installation and inspection. No new permits for installation of the sewage disposal system shall be issued to an installer who is delinquent in submitting an as-built plan.
- C. Record drawing certification
1. The health officer may require a drawing of existing septic system components not known to the health department as part of approval in the change in use of a property or associated with another permitted activity.
 2. Only a licensed installer, designer, or professional engineer may draw and submit record drawings and must have a certification for those systems, except that a resident owner/installer may submit a record drawing for which they were the installer.

8.07D.280 Operation, monitoring, and maintenance--Owner responsibilities

- A. The OSS owner is responsible for operating, monitoring, and maintaining the OSS to minimize the risk of failure, and to accomplish this purpose, shall:
1. Obtain approval from the health officer before repairing, altering or expanding an OSS;
 2. Secure and renew contracts for periodic maintenance where required by the health jurisdiction;
 3. Obtain and renew operation permits if required by the health officer;
 4. Assure a complete evaluation of the system components and/or property to determine functionality, maintenance needs and compliance with regulations and any permits:
 - a) At least once every three years for all systems consisting solely of a septic tank and gravity SSAS;
 - b) Annually for all other systems unless more frequent inspections are specified by the health officer;
 - c) At the time of property sale where the property is served by an OSS and an inspection has not been completed within the most recent compliance period;
 - d) ~~Prior to the issuance of any other development permits for the property served by an OSS when an inspection has not been completed within the most recent compliance period. Development permits include, but are not limited to, building permits, land use permits, or other related development permits;~~
 - e) Certified maintenance service providers must complete the evaluation of the OSS except that;
 - (i) A OSS owner may complete the evaluation of the OSS components for systems consisting solely of a septic tank and gravity SSAS after completion of a training program approved by the health officer and not associated with a property sale; and,

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- (ii) A OSS owner may complete the evaluation of the OSS components for systems consisting solely of a septic tank, pump chamber, and pressurized SSAS after completion of a training program approved by the health officer in those areas that are not Marine Recovery Areas or Sensitive Areas, and not associated with a property sale.
 - f) All evaluations of OSS shall be reported to the health officer on forms approved by the health officer.
5. Employ an approved pumper to remove the septage from the tank when the level of solids and scum indicates that removal is necessary. The septic tank shall be pumped when the total amount of solids equals or exceeds one-third (1/3) the volume of the tank. The pump and/or siphon chamber(s) shall be pumped when any solids are present;
 6. Provide maintenance and needed repairs to promptly return the system to a proper operating condition;
 7. Protect the OSS area and the reserve area from:
 - a) Cover by structures or impervious material;
 - b) 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) Soil compaction, for example by vehicular traffic or livestock;
 - d) Damage by soil removal and grade alteration; and
 - e) Encroachment by buildings or construction such as placement of swimming pools, power poles, underground irrigation systems, and underground utilities.
 8. Keep the flow of sewage to the OSS at or below the approved operating capacity and sewage quality;
 9. Operate and maintain systems as directed by the health officer;
 10. Request assistance from the health officer upon occurrence of a system failure or suspected system failure;
 11. At the time of property transfer, provide to the buyer, maintenance records, if available, in addition to the completed seller disclosure statement in accordance with chapter 64.06 RCW for residential real property transfers; and
 12. The health officer may, when there is evidence of a suspected imminent failure, require installation of observation ports in each individual lateral or bed, which extend from the bottom of the gravel to the finished grade for monitoring OSS performance.
- B. 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 the department; or
 3. Use an OSS to dispose of waste components atypical of sewage from a residential source.
- C. Off-site drainfields:
1. The off-site property owner(s) served by the OSS shall be responsible for the care and maintenance of the on-site sewage disposal system and its components as outlined in

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section ICC 8.07D.280.A, above.

2. Permanent surveyed monuments marking the easement area are required.
- D. Mobile home parks and recreational vehicle parks:
1. The property owner(s) shall be responsible for the care and maintenance of the sewage disposal system and its components as outlined in section ICC 8.07D.280.A.
 2. Inspections of the septic tank, pump chamber, and/or siphon chamber and all other components shall be done, at minimum, annually.
 3. The septic tank shall be pumped when the total amount of solids equals or exceeds one-third (1/3) the liquid volume of the tank. The pump and/or siphon chamber(s) shall be pumped when the septic tank is pumped.
 4. The mobile home or recreational vehicle park owner whose park is serviced by an on-site sewage disposal system(s) shall submit an annual sewage system maintenance report to the health department. The report shall be submitted between December 15 and December 31 of each year on forms provided by the health department.
- E. Food service establishments
1. The owner of the food service establishment shall be responsible for the care and maintenance of the sewage disposal system and its components as outlined in section ICC 8.07D.280.A.
 2. Inspections of the septic tank, pump chamber, and/or siphon chamber, and all other components shall be done, at minimum, semi-annually. In the case of low water use food service establishments [less than five-hundred (500) gallons per day], the inspection schedule shall be once every year.
 3. Inspection of grease traps shall be done monthly.
 4. Septic tanks and grease traps shall be pumped when the total amount of solids equals or exceeds one-third (1/3) the liquid volume of the tank or trap. The pump and/or siphon chamber(s) shall be pumped when any solids are present.
 5. The owner shall submit an annual sewage system maintenance report to the health department. The report shall be submitted between December 15 and December 31 of each year on forms provided by the health department. No food service establishment permit will be issued to an establishment whose owner has not submitted an annual report.
- F. Community on-site sewage systems or large on-site sewage systems shall be operated and maintained in accordance with the permit authorizing their construction. In the case where the construction permit does not address maintenance and operation, they will be operated, at minimum, to the level prescribed in section ICC 8.07D.280.D, the *Washington State Department of Health Guidelines*, and WAC 246-272A, Washington State Regulations.

8.07D.290 Repair of failures

- A. When an OSS failure occurs, the OSS owner shall:
1. Repair or replace the OSS with a conforming system or component, or a system meeting the requirements of Table IX either on the:

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- a) Property served; or
- b) Nearby or adjacent property if easements are obtained; or
2. Connect the residence or facility to a:
 - a) Publicly owned LOSS;
 - b) Privately owned LOSS where it is deemed economically feasible; or
 - c) Public sewer; or
3. Perform one of the following when requirements in (1) and (2) of this subsection are not feasible:
 - a) Use a holding tank (subject to a permit approved by the health officer); or
 - b) 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 system owner only when the health officer determines:
 - c) An OSS is not feasible; and
 - d) The only realistic method of final dispersal of treated effluent is discharge to the surface of the land or into surface water; or
 - e) Abandon the property.
- B. Prior to repairing the soil dispersal component, the OSS owner shall develop and submit information required under ICC 8.07D.110.
- C. The health officer shall permit a system that meets the requirements of Table IX only if the following are not feasible:
 1. Installation of a conforming system or component; and
 2. Connection to either an approved LOSS or a public sewer.
- D. The person responsible for the design shall locate and design repairs to:
 1. Meet the requirements of Table IX 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 ICC 8.07D.120. Pressure distribution with timed dosing in the soil dispersal component is required in all cases where a conforming system is not feasible.
 2. Protect drinking water sources and shellfish harvesting areas;
 3. Minimize nitrogen discharge in areas where nitrogen has been identified as a contaminant of concern in the local plan under WAC 279-272A-0015;
 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 ICC 8.07D.120 to public drinking water sources;
 6. Meet other requirements of this chapter to the maximum extent permitted by the site; and
 7. Maximize the:
 - a) Vertical separation;

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- b) Distance from a well, spring, or suction line; and
 - c) Distance to surface water.
 - d) Treatment level
- 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 twelve 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 IX, disinfection may not be used to achieve the fecal coliform requirements to meet:
- 1. Treatment levels A or B where there is less than eighteen inches of vertical separation;
 - 2. Treatment levels A or B in type 1 soils; or
 - 3. Treatment level C.
- H. The health officer shall identify repair permits meeting the requirements of Table IX for the purpose of tracking future performance.
- I. An OSS owner receiving a repair permit for a system meeting the requirements of Table IX from the health officer shall:
- 1. Immediately report any failure to the health officer;
 - 2. Comply with all local and state requirements stipulated on the permit.

TABLE IX
Treatment Component Performance Levels for Repair of OSS Not Meeting Vertical and Horizontal Separations¹

Vertical Separation (in inches)	Horizontal Separation ²											
	< 25 feet			25 < 50 feet			50 < 100 feet ³			≥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	A	A	A	A	A	A	A	B	B	B	B
≥12 < 18	A	A	A	A	B	B	A	B	B	Conforming Systems		
≥18 < 24	A	A	A	A	B	B	A	B	C			
≥24 < 36	A	B	B	B	C	C	B	C	C			
≥36	A	B	B	B	C	C	B	C	E			

¹The treatment component performance levels correspond with those established for treatment components under the product performance testing requirements in Table III of WAC 246-272A-0110.

² The horizontal separation indicated in Table IX 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 twelve inches, a conforming system that complies with ICC 8.07D.120(D) shall be installed if feasible.

ICC 8.07D.300 Expansions

- A. The health officer shall require an OSS and a reserve area in full compliance with the new system construction standards specified in this chapter for an expansion of a residence or other facility. A Table IX repair is not in full compliance with the new construction standards specified in this chapter.
- B. A health officer may allow expansion of an existing on-site sewage system adjacent to a marine shoreline that does not meet the minimum horizontal separation between the soil dispersal component and the ordinary high-water mark required by WAC 246-272A-0210, Table IV, provided that:
 1. The system meets all requirements of ICC 8.07D.140, 8.07D.150, 8.07D.160, and 8.07D.230;
 2. The system complies with all other requirements of ICC 8.07D.120 and this section;

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3. Horizontal separation between the soil dispersal component and the ordinary high-water mark is fifty feet or greater; and
4. Vertical separation is two feet or greater.

8.07D.310 Abandonment

- A. Persons permanently abandoning a septic tank, seepage pit, cesspool, or other sewage container shall:
 1. Have the septage removed by an approved pumper;
 2. Remove or destroy the lid; and
 3. Fill the void with soil or gravel.
 4. Provide written notification to the health officer upon completion of abandonment.

8.07D.320 Developments, subdivisions, and minimum land area requirements

- A. A person proposing a subdivision where the use of OSS is planned shall obtain a recommendation for approval from the health officer as required by RCW 58.17.150.
- B. The health officer shall require the following prior to approving any development:
 1. Site evaluations as required by ICC 8.07D.130.
 2. Where a subdivision is proposed:
 - a) A site registration shall be approved by the health officer and filed for each proposed parcel showing an area for each parcel to be suitable for installation of an on-site sewage disposal system to serve a minimum of a three (3) bedroom residence, in compliance with these regulations; or, alternatively, plans to construct or enlarge a community sewage disposal system or large on-site sewage system or sanitary sewer must be approved by the appropriate agency;
 2. Where a subdivision with individual wells is proposed:
 - a) Configuration of each lot to allow a one hundred-foot radius water supply protection zone to fit within the lot lines; or
 - b) Establishment of a one hundred-foot protection zone around each existing and proposed well site;
 3. Where preliminary approval of a subdivision is requested:

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An area for each proposed parcel in the subdivision must be shown to be suitable for on-site sewage disposal by a minimum of three (3) soil log holes of sufficient size and depth to allow delineation and description of the soil horizons must be conducted in the area of the proposed drainfield(s). Soil testing Soil analysis shall be performed and reported by an Island County licensed design/installer, an Island County licensed designer, a Washington state licensed professional engineer, or employee of such engineer covered under RCW 18.43.130(4) when the site registration application is submitted by such engineer or soil scientist. Soil testing may be required to be done during the wet season. Alternatively, sufficient area of suitable soils must be shown for a community drainfield or the appropriate sewer district or municipality must accept proposed connection to a sanitary sewer. The health officer may impose additional soil testing requirements. All soil and site information must be recorded with the health department on an approved form;

4. Determination of the minimum lot size or minimum land area required for the development using Method I and/or Method II:

METHOD I. Table X, 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. However, the health officer may require larger lot sizes where the health officer has identified nitrogen as a concern either through planning activities described under WAC 246-272A-0015 or another process.

**TABLE X
Minimum Land Area Requirement
Single-Family Residence or Unit Volume of Sewage**

Type of Water Supply	Soil Type (defined by WAC 246-272A-0220)					
	1	2	3	4	5	6
Public	0.5 acre	12,500 sq. ft.	15,000 sq. ft.	18,000 sq. ft.	20,000 sq. ft.	22,000 sq. ft.
	2.5 acre ¹					
Individual, on each lot	1.0 acre	1 acre	1 acre	1 acre	2 acres	2 acres
	2.5 acres ¹					

¹ See ICC 8.07D.160(F).

METHOD II. A minimum land area proposal using Method II is acceptable only when the applicant:

- a) Justifies the proposal through a written analysis of the:
 - (i) Soil type and depth;
 - (ii) Area drainage, and/or lot drainage;
 - (iii) Public health impact on ground and surface water quality;

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- (iv) Setbacks from property lines, water supplies, etc.;
 - (v) Source of domestic water;
 - (vi) Topography, geology, and ground cover;
 - (vii) Climatic conditions;
 - (viii) Availability of public sewers;
 - (ix) Activity or land use, present, and anticipated;
 - (x) Growth patterns;
 - (xi) Reserve areas for additional subsurface treatment and dispersal;
 - (xii) Anticipated sewage volume;
 - (xiii) Compliance with current planning and zoning requirements;
 - (xiv) Types of proposed systems or designs, including the use of systems designed for removal of nitrogen;
 - (xv) Existing encumbrances, such as those listed in ICC 8.07D.110 (A)(3)(e) and 8.07D.130 (B)(1)(g); and
 - (xvi) Estimated nitrogen loading from OSS effluent to existing ground and surface water;
 - (xvii) Any other information required by the health officer.
- b) Shows development with public water supplies having:
 - (i) At least twelve thousand five hundred square feet lot sizes per single-family residence;
 - (ii) No more than 3.5 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 land area under surface water is not included in the minimum land area calculation; 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 department shall develop guidelines for the application of Method II by July 1, 2008.
- D. The health officer shall require lot areas of twelve thousand five hundred square feet or larger except when a person proposes:

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1. OSS within the boundaries of a recognized sewer utility having a finalized assessment roll;
or
 2. 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 subsection (B)(5) of this section;
 - b) A public entity responsible for operation and maintenance of the OSS, or a single individual owning the OSS;
 - 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.
- E. The 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)(5) of this section to be included in the minimum land area calculation if:
 - a) The dedicated road or street right of ways are along the perimeter of the development;
 - b) The road or street right of ways are dedicated as part of the proposed development;
and
 - c) Lots are at least twelve thousand five hundred square feet in size.
 2. Require detailed plot plans and OSS designs prior to final approval of subdivision proposals;
 3. Require larger land areas or lot sizes to achieve public health protection;
 4. Prohibit development on individual lots within the boundaries of an approved subdivision if the proposed OSS design does not protect public health by meeting requirements of these regulations; and
 5. Permit the installation of an OSS, where the minimum land area requirements or lot sizes cannot be met, only when all of the following criteria are met:
 - a) The lot is registered as a legal lot of record created prior to the effective date of this chapter;
 - b) The lot is outside an area identified by the local plan developed under WAC 246-272A-0015 where minimum land area has been listed as a design parameter necessary for public health protection; and
 - c) The proposed system meets all requirements of these regulations other than minimum land area.
- F. The use of a reduced-sized SSAS does not provide for a reduction in the minimum land area requirements established in this section. Site development incorporating reduced-sized SSAS must meet the minimum land area requirements established in state and local codes.

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8.07D.330 Certification of installers, pumpers, and maintenance service providers

- A. OSS installers, maintenance service providers, and pumpers must obtain approval and a license from the health officer prior to providing services within Island County.
- B. The health officer will establish programs and requirements for approving maintenance service providers.

8.07D.340 Waiver of state regulations

- A. The health officer may grant a waiver from specific requirements of this chapter if:
 - 1. The waiver request is evaluated by the health officer on an individual, site-by-site basis;
 - 2. The health officer determines that the waiver is consistent with the standards in, and the intent of, these rules;
 - 3. The health officer determines that these regulations are unattainable without a waiver;
 - 4. The health officer submits quarterly reports to the department regarding any waivers approved or denied; and
 - 5. Based on review of the quarterly reports, if the department finds that the waivers previously granted have not been consistent with the standards in, and the intent of these rules, the department shall provide technical assistance to the health officer to correct the inconsistency, and may notify the local and state boards of health of the department's concerns. If upon further review of the quarterly reports, the department finds that the inconsistency between the waivers granted and the state board of health standards has not been corrected, the department may suspend the authority of the health officer to grant waivers under this section until such inconsistencies have been corrected.
- B. The department shall develop guidance to assist local health officers in the application of waivers.

8.07D.350 General Provisions and Penalties

General provisions and penalties shall be in accordance with Island County Code Chapter 8.01.

8.07D.360 Fee Schedule

The Board of Health shall set fees by resolution.

8.07D.370 Enforcement

- A. The department or the health officer:
 - 1. Shall enforce the rules of chapter ICC 8.07D; or

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2. May refer cases within the jurisdiction to the local prosecutor's office or office of the attorney general, as appropriate.
- B. When a person violates the provisions under this chapter, the department, health officer, local prosecutor's office, or office of the attorney general 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 at the request of the department or owner, to explore facts and 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 chapter ICC 8.07D;
 3. Denial, suspension, modification, or revocation of permits, approvals, registrations, or certification;
 4. The penalties under chapter 70.05 RCW and RCW 43.70.190; and
 5. Civil or criminal action.
- C. Penalties: It shall be unlawful and punishable with an Administrative Penalty for any Person to violate or refuse to or fail to comply with any of the provisions of this chapter.
1. All violations of this chapter are hereby declared to be detrimental to the public health, safety and welfare and are hereby declared to be Public Nuisances. If the Health Officer has reason to believe that a violation of this chapter has occurred or is occurring, the Health Officer may cause verbal or written notice of violation to be served upon the alleged violator and the facts alleged to constitute a violation thereof.

The Health Officer shall initiate enforcement action as herein provided and at the option of the Health Officer may commence any and all reasonable and lawful means to rectify a violation as provided by law.
 2. The Health Officer, with or subsequent to the verbal or written notice of violation, may do any or all of the following:
 - a) Order immediate cessation of the alleged violation.
 - b) Order the abatement of the alleged violation and establish an abatement schedule to be met.
 - c) Seek judicial authorization to abate the violation or cause the violation to be abated if the abatement schedule established in Subsection (C)(2)(b) of this Section is not met.
 - d) Abate the violation or cause the violation to be abated if the abatement schedule established in Subsection (C)(2)(b) of this Section is not met.
 - e) Assess an Administrative Penalty. Low-risk violations (for example: failure to report or inspect) shall be penalized in the amount of \$25/day. High-risk violations (for example: failure to correct a failing or problem on-site septic system) shall be penalized in the amount of \$250/day. The assessment of an Administrative Penalty for the failure to inspect or report an inspection of an on-site sewage system consistent with the requirements of this chapter shall occur only after the provision of three notices issued over a ninety (90) day period to the OSS owner.
 - f) Assess all costs incurred by the county associated with the violation including abatement costs, Disposal costs, site remediation costs, and sampling costs.

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- g) Order the remediation of any land or water where Septage or Sewage has been deposited.
 - h) Require evidence of proper Disposal of Septage or Sewage involved in the violation such as receipts from Permitted Disposal Facilities.
 - i) In the case of a Permitted On-Site Sewage System, order the suspension or revocation of an On-Site Sewage System Permit.
3. Service of all notices, orders, Administrative Penalties, and assessed costs shall be in person or by certified mail to the alleged violator's and/or property owner's last known place of residence. Date of service shall be the date personally served or the date the certified mail was correctly deposited in the U.S. mail.
 4. All notices, orders, Administrative Penalties, or assessed costs issued shall include a copy of ICC 8.07D.390, Hearings and Appeals.
 5. If a Person continues to violate the provisions of this chapter after being duly informed in writing by the Health Officer that the Person is in violation of these provisions and that the Person shall cease and desist from such violations, the Health Officer may make a written request to the Prosecuting Attorney to bring injunctive action against a violator of this chapter in order to prevent further violation until such time as the violator's case is processed in the courts through and including any appeals.
 6. Failure to respond as required in Subsection (B) of this Section shall constitute prima facie violation of this chapter and the Health Officer may initiate immediate legal action.
 7. Each violation of this chapter shall be a separate and distinct offense and, in the case of a continuing violation, each day's continuance shall be a separate and distinct violation.
 8. Adjudication of a violation shall not excuse the violation or allow the continuation of the violation.
 9. Administrative Penalties and/or assessed costs shall become due and payable within thirty (30) days of the Health Officer's service of the Administrative Penalty and assessed costs. All Administrative Penalties collected pursuant to this regulation shall be deposited in the Island County Health Department, Environmental Health Section expense fund. If the Administrative Penalty and/or assessed costs is not paid within thirty (30) days to the Island County Health Department, the county shall have the right to collect the Administrative Penalty and/or assessed costs through appropriate legal action, to include charging the costs as a lien against the property as detailed in ICC 8.07D.380, Public Health and Safety Liens. The Prosecuting Attorney may bring action to recover such Administrative Penalty, assessed costs, plus court costs in the court of appropriate jurisdiction.
- D. Enforcement Authority. The Island County Health Officer, the Health Services Director, and the Environmental Health Director are enforcement officers within the meaning of Chapter 7.80 RCW and this chapter.
- ~~E. The department shall have cause to deny the application or reapplication for an operational permit or to revoke, suspend, or modify a required operational permit of any person who has:~~
- ~~1. Failed or refused to comply with the provisions of chapter ICC 8.07D, or any other statutory provision or rule regulating the operation of an OSS; or~~
 - ~~2. Obtained or attempted to obtain a permit or any other required certificate or approval by misrepresentation.~~

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8.07D.380 Public Health and Safety Liens

In addition to any other remedy provided herein or by law, the Health Officer may require any Person, who creates or maintains a violation of any On-Site Sewage System regulation, to commence corrective work and to complete the work within such time as the Health Officer determines reasonable under the circumstances. If the required corrective work is not commenced or completed within the time specified, the Health Officer may proceed to abate the violation and cause the work to be done. The cost thereof will be charged as a public health and safety lien against the property and as a joint and separate Personal obligation of each Person who is in violation. A separate judgment lien may be claimed by the Health Officer in the Island County Superior Court for the Administrative Penalties and other costs associated with the violation.

- A. Lien Authorized. The Health Officer may seek authorization from the Board of Island County Commissioners to have a lien, authorized under RCW 36.32.120(10), for the cost of abatement work, and/or its administrative costs conducted pursuant to this chapter, against the real property on which the abatement work was performed. The Health Officer may also seek authorization for a separate judgment lien for the “Administrative Penalties” in the Island County Superior Court.
- B. Liens and Personal Obligation Authorized. The cost of abatement and/or administrative costs are also joint and separate personal obligations of any Person in violation of this chapter.
- C. Notice Lien May Be Claimed. The notice and order of the Health Officer pursuant to this chapter shall give notice to the owner that a lien for the cost of abatement, and/or administrative costs may be claimed by the Health Department. The notice and order of the Health Officer shall also give notice to the owner that a separate judgment lien for “Administrative Penalties” may also be claimed by the Health Officer in Island County Superior Court.
- D. Priority. The public health and safety lien shall be subordinate to all existing special assessment liens previously imposed upon the same property and shall be paramount to all other liens except for state and county taxes with which it shall be on a parity.
- E. Claim of Lien. The Health Officer may cause a claim of lien to be filed for record with the Island County Auditor.
 1. Contents. The claim of lien shall include the following:
 - a) The authority for imposing costs to abate the violation;
 - b) A brief description of the abatement work including the time the work was commenced and completed and the name of the persons or organizations performing the work;
 - c) A description of the property to be charged with the lien;
 - d) The name of the known owner or reputed owner,
 - e) The amount, including lawful and reasonable costs, for which the lien is claimed.
 2. Verification. The Health Officer or her/his authorized representative shall sign and verify the claim by oath to the effect that the affiant believes the claim is just.
 3. Amendment. The claim of lien may be amended in case of action brought to foreclose same,

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by order of the court, insofar as the interests of third parties shall not be detrimentally affected by amendment.

4. Recording. The Island County Auditor shall record and index the claims and notices described in this chapter.
5. Foreclosure:
 - a) Parties. The lien may be foreclosed by a civil action in Island County Superior Court. A judgment of lien for any “Administrative Penalties” associated with the abatement may also be foreclosed by a civil action in Island County Superior Court.
 - b) Joinder. All persons who have legally filed claims of liens against the same property prior to commencement of the action shall be joined as parties, either plaintiff or defendant.
 - c) Actions Saved. Dismissal of an action to foreclose a lien at the instance of a plaintiff shall not prejudice another party to the suit who claims a lien.

8.07D.390 Hearings and Appeals

- A. Persons aggrieved by a notice of violation, or other order, Administrative Penalty, or assessed costs issued pursuant to this chapter may request a hearing with the Health Officer for the purpose of disputing or requesting a stay or modification of such notice, order, Administrative Penalty, or assessed costs.
- B. A request for hearing before the Health Officer shall be made in writing and served to the Health Officer within ten (10) working days of the serving of the Health Officer’s notice, order, Administrative Penalty, or assessed costs. The request shall be made by fully completing and submitting a request for hearing form supplied by the Health Officer.
- C. The Health Officer shall hold a hearing not less than twenty (20) days nor more than thirty (30) days from the serving of the notice, order, Administrative Penalty, or assessed costs unless mutually agreed upon in writing by the Health Officer and requestor.
- D. Notice of the hearing shall be given the requester and the property owner, if different from the requester, via personal service at least three (3) days prior to the hearing date or via certified mail at least ten (10) days prior to the hearing date.
- E. Upon holding the hearing requested, the Health Officer shall provide written notice of his or her decision regarding the order, Administrative Penalty, or assessed costs not less than ten (10) working days prior to the hearing. Notice shall be served personally or via certified mail to the requester and property owner.
- F. Person(s) aggrieved by the Health Officer may appeal to the Board of Health pursuant to the appeals procedure under ICC 8.01.120.
- G. The filing of a request for hearing or appeal pursuant to this Section shall operate as a stay from the requirement to perform corrective action ordered by the Health Officer, except there shall be no stay from the requirement for immediate compliance with an emergency order issued by the Health Officer, or from the requirement for compliance with an order of immediate cessation of work or activity or occupancy.

8.07D.400 Settlement of Disputes for Collection of Administrative Penalties

The Health Officer may enter into negotiations with a party named in a dispute under this chapter and/or their legal representatives for the purposes of negotiating a settlement to such a dispute. This negotiation shall be in the best interests of the county and protection of public health and the environment and may include a compromise regarding the collection of Administrative Penalties. If the party named in a dispute is not engaged in good faith and remediating the public health violation, then the Health Department reserves all rights to impose any and all applicable penalties.

8.07D.410 Other Powers Reserved-Alternative Remedies and Emergency Orders

Nothing in this chapter shall limit the authority for the Health Department or the Health Officer to act under any other legal authority. The powers conferred by this chapter shall be in addition to and supplemental to the powers conferred by any other law. If the Health Officer determines immediate action is necessary to protect the public health and safety or the environment, such action may be taken or be ordered to be taken and any Person to whom such an order is directed shall comply immediately.

8.07D.420 Imminent Hazard

Notwithstanding any provisions of these rules and regulations, the Health Officer may take immediate action as necessary to prevent or abate an imminent and substantial danger to the public health resulting from the failure of an on-site sewage system.

8.07D.430 Notice of decision--Adjudicative proceeding

- A. The Island County board of health shall:
 - 1. Maintain an administrative appeals process to consider procedural and technical conflicts arising from the administration of these regulations; and
 - 2. Establish rules for conducting hearings requested to contest a health officer's actions.
- B. 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.
- C. 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.
- D. Department actions are governed under the Administrative Procedure Act chapter 34.05 RCW, RCW 43.70.115, this chapter, and chapter 246-10 WAC.

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8.07D.440 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.