File #: BOH24-05, **Version:** 2

A RULE AND REGULATION relating to on-site sewage treatment and disposal systems; amending R&R 3, Part 13, Section 1, as amended, and BOH 13.04.050, R&R 3, Part 13, Section 3, as amended, and BOH 13.04.070, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.018, R&R 3, Part 1, Section 5, as amended, and BOH 13.08.020, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.140, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.152, R&R 99-01, Section 2 (part), and BOH 13.08.226, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.284, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.300, R&R 99-01, Section 2, and BOH 13.08.342, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.350, R&R 3, Part 1, Section 5 (part), as amended, and R&R 13.08.380, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.490, R&R 3, Part 10, Section 2, as amended, and BOH 13.12.030, R&R 3, Part 10, Section 3(B), as amended, and BOH 13.12.050, R&R 3, Part 12, Section 1, as amended, and BOH 13.16.010, R&R 3, Part 2, Section 1, as amended, and BOH 13.20.010, R&R 3, Part 2, Section 2(B), as amended, and BOH 13.20.030, R&R 99-01, Section 2, as amended, and BOH 13.20.035, R&R 3, Part 2, Section 3, as amended, and BOH 13.20.040, R&R 3, Part 3, Section 1, and BOH 13.24.010, R&R 3, Part 3, Section 2, as amended, and BOH 13.24.020, R&R 3, Part 3, Section 3, as amended, and BOH 13.24.030, R&R 3, Part 3, Sections 1 and 4, as amended, and BOH 13.28.010, R&R 3, Part 4, Section 2, as

amended, and BOH 13.28.020, R&R 3, Part 4, Section 3, as amended, and BOH 13.28.030, R&R 3, Part 4, Section 7, as amended, and BOH 13.28.070, R&R 3, Part 5, Section 2(A), as amended, and BOH 13.36.010, R&R 3, Part 5, Section 3 (C), and BOH 13.40.030, R&R 3, Part 5, Section 5, and BOH 13.48.010, R&R 3, Part 6, Section 1, as amended, and BOH 13.52.010, R&R 3, Part 7, Section 5, and BOH 13.56.050, R&R 99-01, Section 2 (Part), as amended, and BOH 13.56.054, R&R 99-01, Section 2 (part), as amended, and BOH 13.60.005, R&R 3, Part 8, Section 1, as amended, and BOH 13.60.010 , R&R 08-03, Section 145, and BOH 13.60.030, R&R 3, Part 9, Section 1, as amended, and BOH 13.64.010, R&R 3, Part 9, Section 2, as amended, and BOH 13.64.020, R&R 3, Part 11, Section 1, as amended, and BOH 13.68.010, R&R 3, Part 11, Section 2, as amended, and BOH 13.68.020, R&R 3, Part 11, Section 3, as amended, and BOH 13.68.030, and R&R 3, Part 11, Section 5, as amended, and BOH 13.68.050, adding new sections to BOH chapter 13.04, adding new sections to BOH chapter 13.08, recodifying BOH 13.08.226, repealing R&R 99-01, Section 2 (part), and BOH 13.08.024, R&R 08-03, Section 12, and BOH 13.08.055, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.060, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.070, R&R 99-01, Section 2 (part), and BOH 13.08.072, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.084, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.090, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.114, R&R 08-03, Section 21, and BOH 13.08.115, R&R 08-03, Section 23, and BOH 13.08.117, R&R 08-03, Section 27, and BOH 13.08.131, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.132, R&R 99-01, Section 2 (part), and BOH 13.08.134, R&R 08-03, Section 30, and BOH

13.08.141, R&R 08-03, Section 32, and BOH 13.08.151, R&R 08-03, Section 34, and BOH 13.08.154, R&R 09-03, Section 37, and BOH 13.08.175, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.180, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.190, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.202, R&R 08-03, Section 40, and BOH 13.08.205, R&R 99-01, Section 2 (part), and BOH 13.08.212, R&R 08-03, Section 41, and BOH 13.08.213, R&R 99-01, Section 2 (part), and BOH 13.08.226, R&R 08-03, Section 47, and BOH 13.08.257, R&R 08-03, Section 49, and BOH 13.08.261, R&R 08-03, Section 50, and BOH 13.08.263, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.280, R&R 08-03, Section 55, and BOH 13.08.287, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.290, R&R 08-03, Section 56, and BOH 13.08.305, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.320, R&R 08-03, Section 57, and BOH 13.08.3215, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.322, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.324, R&R 08-03, Section 60, and BOH 13.08.327, 2R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.330, R&R 99-01, Section 2 (part), and BOH 13.08.341, R&R 08-03, Section 61, and BOH 13.08.346, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.372, R&R 99-01, Section 2 (part), and BOH 13.08.402, R&R 99-01, Section 2 (part), and BOH 13.08.406, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.410, R&R 08-03, Section 69, and BOH 13.08.424, R&R 99-01, Section 2 (part), and BOH 13.08.426, R&R 08-03, Section 72, and BOH 13.08.465, R&R 3, Part 1, Section 5, as amended, and BOH 13.08.470, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.472, R&R 08-03, Section 74, and BOH

13.08.477, R&R 08-03, Section 76, and BOH 13.08.482, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.484, R&R 09-03, Section 79, and BOH 13.08.493, R&R 08-03, Section 80, and BOH 13.08.4934, R&R 08-03, Section 81, and BOH 13.08.4937, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.496, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.500, R&R 08-03, Section 87, and BOH 13.08.505, R&R 99-01, Section 2 (part), and BOH 13.08.512, R&R 99-01, Section 2 (part), and BOH 13.08.516, R&R 08-03, Section 88, and BOH 13.08.520, prescribing penalties, and establishing an effective date; enacted pursuant to RCW 43.20.050 and 70.05.060, including the latest amendments or revisions thereto.

BE IT ADOPTED BY THE KING COUNTY BOARD OF HEALTH:

NEW SECTION. SECTION 1. There is hereby added a new section to BOH chapter 13.04 to read as follows:

State on-site sewage system regulations adopted.

A. Except as otherwise specifically provided in this title, chapter 246-272A WAC, Washington On-site Sewage System Regulations, as amended, are hereby adopted and by this reference made a part of this title.

B. If a provision or definition of chapter 246-272A WAC is inconsistent with a provision or definition otherwise established under this title, the more stringent provision shall apply.

NEW SECTION. SECTION 2. There is hereby added a new section to BOH chapter 13.04 to read as follows:

Equity impact review. Whenever the health officer performs review of an on-site sewage system local management plan under WAC 246-272A-0015, the health officer will conduct an equity impact review in accordance with King County Ordinance 16948 and report the results of the review to the King County Board of Health before approving a revised local management plan.

SECTION 3. R&R 3, Part 13, Section 1, as amended, and BOH 13.04.050 are hereby amended to read as follows:

Connection to public sewer.

A. The owner or occupant of lands or premises located within the Urban Growth Area, as defined in the King County Comprehensive Plan, undertaking new residential or nonresidential construction, short subdivision or subdivision from which sewage will originate shall connect the construction to a public sewer if the sewer utility permits such connection. Within unincorporated King County such connection shall be in accordance with ((King County Code Section)) K.C.C. 13.24.136. Within incorporated cities such connection shall be in accordance with the policies of that city or the local sewer utility. The connection shall be made by connecting the building drain with an approved side sewer, and the side sewer to the public sewer.

B. For existing development located within ((or outside)) the Urban Growth Area and which is within two hundred feet of a public sewer, where an on-site sewage system is operating, the owner shall abandon the on-site sewage system in accordance with WAC 246-272A-0300 and connect the sanitary drainage system to the public sewer when the sewering authority permits such connection and when:

1. Repair, modification or replacement of the on-site sewage system is necessary, or the existing on-site sewage system has failed and an on-site sewage system fully conforming to this title cannot be designed and installed; or

2. Additional construction which in any way affects the on-site sewage system is proposed.

C. The distances set forth in subsection B. of this section shall be calculated along the shortest route in road rights-of-way and easements((, consistent with the comprehensive planning and sewer extension practices of the sewer utility involved,)) from the existing sewer to the nearest point of the lands or premises to be served , consistent with the jurisdictional comprehensive plan and sewer extension practices of the sewer utility involved.

D. Every plumbing fixture and every sanitary drainage system not connected to a public sewer, or not

required by law to be connected to a public sewer, shall be connected to an on-site sewage system.

E. The health officer is authorized to grant waivers from specific requirements of this section in accordance with WAC 246-272A-0420, as amended.

SECTION 4. R&R 3, Part 13, Section 3, as amended, and BOH 13.04.070 are hereby amended to read as follows:

Domestic water supply source. No on-site sewage system may be constructed or expanded if the plumbing fixtures draining to the system are not supplied with water from an approved source. An approved water source consists of one of the following:

A. Public water source: A public water source currently in compliance with chapter 246-290 or 246-291 WAC and BOH Title 12.

B. Private individual well source: A private well on a lot five acres or greater in size or a lot created prior to May 18, 1972, which complies with all of the following conditions:

1.a. Well location approval: Any proposed new or replacement individual private well location shall be submitted to the health officer and receive approval prior to construction of the well.

((a. All private water system development in the urban growth area or in the rural area as defined by the King County Comprehensive Plan is subject to the provisions of King County Code Sections 13.24.140 and 13.24.138, respectively.))

b. Proposed new initial well locations shall be accurately specified upon an OSS site design application and shall be submitted for review by the health officer in conjunction with evaluation of the proposed OSS design. If the protective well radius is within ten feet of any lot line, easement line or any source of contamination, the health officer may require the well site to be surveyed.

c. Application for replacement well locations shall be made on forms obtained from the health officer and shall be accompanied by a review fee as specified in the fee schedule.

d. The new or replacement well location shall be clearly identified at the site.

e. Information shall be provided as part of the well location application to include, at minimum, a completely dimensioned plot plan, drawn to a scale not smaller than one inch equals one hundred feet accurately showing the location of the proposed water well relative to property boundary lines, existing and proposed OSS components including OSS reserve area, existing and proposed structures, roads and driveways, surface water, direction of surface drainage, a designated well protection sanitary control area, and any other features relevant to the siting of a water well location.

f. A water well site approval is valid for ((two)) three years from the date of approval or until the expiration of a building permit issued by the building official for construction of the primary structure to be served by the new well, whichever period is longer.

2. Water well protection covenant: The property owner shall establish a water well protection sanitary control area by providing a recorded protective covenant prohibiting, within a horizontal distance of not less than one hundred feet of the well, potential sources of contamination as described in BOH 12.24.010 and WAC 173-160-171.

3. Demonstrate adequate water quantity by:

a. Drilling, in known or suspected areas of low production, the well and conducting a four hour pump test that demonstrates that the proposed well is capable of providing water to a residential dwelling in the amount of not less than four hundred gallons per day. This pump test may be required to be performed during the months of August, September, or October at the health officer's discretion; or

b. Providing, in all other areas, adequate information to the satisfaction of the health officer to demonstrate the aquifer's capability to provide four hundred gallons per day. This information may include well logs or pumping reports from neighboring wells utilizing the same aquifer. The neighboring well or wells shall be shown on a map of the surrounding area identifying both the subject property and the location of the well or wells identified as neighboring. The map shall be included with the OSS site design application submittal.

4. Demonstrate adequate water quality by submitting results of all tests taken for the following and showing:

a. Bacteriological analysis from at least two raw source water samples from the well indicating no presence of coliform bacteria; and

b. At least one chemical test for nitrate and arsenic from the well water described in table 2, WAC 246-291-170, which does not exceed the primary maximum contaminant level under WAC 246-291-170.

5. Provide a copy of well driller's report under WAC 173-160-141.

6. Construction of the well must meet Washington state Department of Ecology's construction standards under chapter 173-160 WAC.

C. A private spring on a lot five acres or greater or a lot created prior to May 18, 1972, that complies with all of the following conditions prior to application for OSS site design approval:

1. Application for an individual private spring water source shall be made on forms provided by the health officer and shall be accompanied by a fee as specified in the fee schedule.

2. The application shall include: a recorded protective covenant of no less than two hundred feet up slope and one hundred feet down slope from the spring prohibiting any potential sources of contamination as described in BOH 13.04.070 B.2., a spring location plot plan, a detailed spring construction plan, and information demonstrating acceptable water quality and quantity as specified in BOH 12.20.040 and chapter 246-291 WAC.

3. Within thirty days of receiving a complete application the health officer shall approve, deny or notify the applicant that the application is pending. Reasons for denial or pendency of the application shall be stated in writing.

D. A rainwater catchment system that serves as the only source of drinking water for a single family residence and that complies with each of the following conditions:

1. The health officer finds that requiring connection of the plumbing system to an approved public

water source or to an approved private well would cause undue hardship.

2. Application for a rainwater catchment system source approval shall be submitted for review on forms provided by the health officer. The applicant shall pay to the health officer the rainwater catchment system review fee as specified in the fee schedule, payable after completion of the application review.

3. Application for a rainwater catchment system source approval shall be prepared by any one or more of the following:

a. a professional engineer authorized under a current, valid license to practice in Washington state;

b. an environmental health professional holding a current, valid registration from either the Washington State Environmental Health Association or the National Environmental Health Association;

c. a King County licensed water system designer holding a current, valid license to design water systems in King County; and

d. a rainwater system designer holding a current, valid accreditation from the American Rainwater Catchment System Association.

4. Rainwater catchment system design shall conform to chapter 51-56 WAC, Uniform Plumbing Code, as amended, and shall include, at a minimum, the following information:

a. estimated daily and weekly and annual demand;

b. available catchment area and estimated annual rainwater capture;

c. roofing materials used;

d. storage capacity of and materials used in the construction of the rainwater catchment system;

e. treatment specifications including filtrations and disinfection system specifications; and

f. operation and maintenance requirements.

5. Composite or shake shingles or other materials determined by the health officer to present a risk of contamination may not be approved or used as roofing materials for a rainwater catchment system source.

6. Before using a rainwater catchment system source, the property owner shall file in the county

recorder's office a notice on title advising that the property is served by a rainwater catchment system and including the following information:

a. the estimated daily, weekly and annual water supply furnished by the rainwater catchment system;

b. that the water supply from the rainwater catchment system may be limited due to variations in rainfall or usage; and

c. that regular maintenance of the treatment system and components is required in order to minimize the risk of consuming contaminated water,

E. Lot area designated in whole or in part as a critical area may be included in the computation of the minimum five-acre lot size required under ((S))subsections B. and C. of this section.

SECTION 5. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.018 are hereby amended to read as follows:

Abbreviations.

A. "ASTM" means American Society of Testing Materials.

B. "ATU" means Aerobic Treatment Unit.

C. (("BOD5" means biochemical oxygen demand, typically expressed in mg/L.

D. "CBOD5" means carbonaceous biochemical oxygen demand, typically expressed in mg/L. For purposes of approximate conversion from BOD5 to CBOD5, multiply the BOD5 by 0.83.

E.)) "CEU" means continuing education unit.

((F. "DDES")) D. "DLS" means King County Department of ((development and environmental)) Local Services.

((G.)) E. "DOH" means the Washington state Department of Health.

((I. "mg/L" means milligrams per liter.

J. "NSF" means National Sanitation Foundation International.

K. "O and G," means oil and grease, a component of sewage typically originating from foodstuffs,

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which are animal fats or vegetable oils, or consisting of compounds of alcohol or glycerol with fatty acids, which are soaps and lotions. The quantity of O and G is typically expressed in mg/L.

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

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

N.)) F. ">" means greater than.

((O.)) G. "<" means less than.

((P.)) H. "OSM" means certified on-site system maintainer.

SECTION 6. R&R 3, Part 1, Section 5, as amended, and BOH 13.08.020 are hereby amended to read as follows:

Accessory living quarters. "Accessory living quarters" means living quarters ((within an)) accessory ((building)) to a single-family residence and for the sole use of the family or persons employed on the premises or for the temporary use of guests of the occupants of the premises. Such quarters have no kitchen facilities and are not rented or otherwise used as a separate dwelling unit.

NEW SECTION. SECTION 7. There is hereby added a new section to BOH chapter 13.08 to read as follows:

Bedroom. "Bedroom" means a room used for sleeping and that includes a window, a door, and a closet. "Bedroom" does not include a room smaller than seventy square feet in area with a closet, or an entry way with a closet. For the purposes of this

title, "window" includes a means of egress, other than a door, under section R310.1 of the International Residential Code, 2018 edition.

SECTION 8. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.140 are hereby amended to read as follows:

Excessively permeable soils. "Excessively permeable soils" means soils:

A. ((with)) With a soil texture type 1; or

B. ((other)) With other textures as defined by the United States Department of Agriculture standards and where conditions are such that the treatment potential is ineffective in retaining or removing substances of public health significance to underground sources of drinking water ((and soils with a percolation rate of one and one-half minutes per inch or faster)).

SECTION 9. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.152 are hereby amended to read as follows:

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

A. Sewage((, septage or effluent)) on the surface of the ground;

B. Sewage((, septage or effluent)) backing up into a structure caused by slow soil absorption of septic tank effluent;

C. Sewage((, septage of effluent)) leaking from a ((septic tank, pump chamber, holding tank, conveyance)) sewage tank or collection system;

D. Cesspools((,)) or seepage pits ((and pit privies)) where evidence of groundwater or surface water quality degradation exists;

E. Inadequately treated effluent contaminating ground water or surface water; ((and)) or

F. ((Failure to meet conditions)) Noncompliance with standards stipulated on the permit.

SECTION 10. BOH 13.08.226 is hereby recodified as a new section to follow BOH 13.08.260.

SECTION 11. R&R 99-01, Section 2 (part), and BOH 13.08.226 are hereby amended to read as follows:

((Limited)) Minor repair. "((Limited)) Minor repair" means the replacement, addition or alteration of ((a)) any of the following broken or malfunctioning ((building sewer pipe, sewage tank lid, sewage tank baffles,

sewage tank pumps, pump control floats, pipes connecting multiple sewage tanks and drainfield inspection boxes and ports)) OSS components where the subsurface soil absorption system is not failing:

A. Building sewer pipe;

B. Sewage tank lids and risers;

C. Sewage tank baffles;

D. Sewage tank pumps;

E. Pump control floats;

F. Pipes connecting multiple sewage tanks;

G. Drainfield inspection boxes and ports;

H. Control panels and timers;

I. Components of a proprietary treatment unit;

J. UV disinfection units; or

K. Jetting of pressure distribution pipes or hard plastic or polyvinyl chloride pipes in a gravity OSS.

SECTION 12. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.284 are hereby amended to read as follows:

On-site system maintainer. "On-site system maintainer" ((())or "OSM"(())) means a qualified person approved by the health officer to conduct performance monitoring inspections of, diagnose causes of malfunction and failure of, or perform preventive maintenance on and make ((limited)) minor repairs to on-site sewage systems.

SECTION 13. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.300 are hereby amended to read as follows:

Original permeable soil. "Original permeable soil" means the naturally occurring soil of soil texture types 1 through ((5)) 6 overlying any impermeable layer, any cemented layer overlying the groundwater table, or the elevation of groundwater during the wet season, with a percolation rate not greater than fifty-nine (((59)))

minutes per inch.

SECTION 14. R&R 99-01, Section 2, and BOH 13.08.342 are hereby amended to read as follows:

Pumper. A. "Pumper" means a qualified person approved by the health officer and holding a certificate(((s))) or certificates of competency ((pursuant to)) as classified under BOH ((C))chapter 13.68 ((of this title,)) and this section to perform ((one or more of the following activities: May also be referred to as a "sludgehauler.")) activities as an OSS pumper, portable toilet pumper, watercraft sewage tank pumper, grease trap or interceptor pumper, or miscellaneous sewage pumper.

((A.)) B. An OSS pumper removes sewage and((/or)) septage from sewage holding tanks, portable toilet units and OSS wastewater tanks and transports the contents to an approved disposal site, and conducts routine monitoring and performance inspections of gravity OSS.

((B. Portable)) C. A portable toilet pumper removes sewage from only portable((/)) or chemical toilet units and transports the contents to an approved disposal site.

((C. Vessel (boat))) D. A watercraft sewage tank pumper removes sewage from holding tanks on ((vessels (boats))) watercraft and transports the contents to an approved disposal site.

((D. Grease trap/interceptor)) E. A grease trap or interceptor pumper removes animal and vegetable fats, oils, and greases from either grease traps ((and/))or grease interceptor tanks, or both, and transports the contents to a recycling or approved disposal site.

F. A miscellaneous sewage pumper removes sewage and sewage-contaminated wastes from sewer lines, lift stations, or other sources of sewage or sewage-contaminated wastes and transports the contents to an approved disposal site.

SECTION 15. R&R 3, Part 1, Section 5 (part), as amended, and R&R 13.08.350 are hereby amended to read as follows:

Repair. "Repair" means the ((replacement, reconstruction or relocation of, or addition or alteration to, a sewage tank, distribution box, tight line, or other appurtenances of an existing OSS, and including any

replacement, reconstruction or relocation of, or addition or alteration to a soil absorption system)) relocation, replacement, or reconstruction of a failed OSS or any failed component of an OSS, other than a minor repair, in order to restore the OSS to nonfailure status.

SECTION 16. R&R 3, Part 1, Section 5 (part), as amended, and R&R 13.08.380 are hereby amended to read as follows:

Restrictive layer. "Restrictive layer" means a stratum impeding the vertical movement of water, air, and growth of plant roots. Examples of such layers or conditions are groundwater tables, hardpans, claypans, fragipans, some compacted soil, bedrock, caliche, and ((clayey)) unstructured clay soil.

NEW SECTION. SECTION 17. There is hereby added a new section to BOH chapter 13.08 to read as follows:

Shoreline. "Shoreline" means the land area directly bordering marine waters, rivers with a mean annual flow exceeding twenty cubic feet per second, lakes larger than twenty acres, or wetlands.

SECTION 18. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.490 are hereby amended to read as follows:

Surface water. "Surface water" means any body of water, whether fresh or marine, which either flows or is contained in natural or artificial unlined depressions or drainage course and contains water for forty-eight (((48))) continuous hours during any of the months of May through October, or is identified by King County department of natural resources and parks as a significant drainage feature. Such bodies include, but are not limited to, natural and artificial lakes, ponds, drinking water springs, rivers, streams, swamps, marshes, tidal water, and wetlands.

SECTION 19. R&R 3, Part 10, Section 2, as amended, and BOH 13.12.030 are hereby amended to read as follows:

Public meetings-Procedure.

A. Meetings shall be held on the call of the health officer, and shall be held with sufficient frequency

that no more than ((forty (40))) ninety days shall elapse from the time an appeal for reconsideration is commenced until a recommendation is returned to the health officer by the committee, except that if a continuance is granted at the request of an appellant the committee shall return its recommendation within a reasonable time. The filing of any technical report or other exhibit subsequent to the commencement of an appeal shall be deemed a request for a continuance.

B. The committee may make recommendations to the health officer concerning the health officer's decision or determination that is the subject of the appeal for reconsideration acting in an advisory capacity only.

C. Notice of all meetings of the committee shall be given not less than three (((3))) days prior thereto to any appellant and to any other person ((which)) that had
previously made known a desire to affect the disposition of the order or decision of the health officer which is the subject of the appeal for reconsideration.

D. All meetings of the committee shall be open to the public. Verbal testimony may be given to the committee during the meeting.

SECTION 20. R&R 3, Part 10, Section 3(B), as amended, and BOH 13.12.050 are hereby amended to read as follows:

Appeal for reconsideration-Filing. The appeal for reconsideration shall be in writing, submitted on one or more forms prescribed by the health officer, and shall be filed with the health officer not later than 5:00 p.m. of the ((sixtieth (60th))) ninetieth calendar day following the date of the decision or order that is the subject of the appeal. The appeal shall cite with particularity the decision or order appealed from, and shall contain a statement of the reason for the appeal and what relief is sought. The appeal shall be accompanied by any technical reports or other exhibits, prepared at the appellant's own expense, which the appellant wishes the committee and the health officer to consider.

SECTION 21. R&R 3, Part 12, Section 1, as amended, and BOH 13.16.010 are hereby amended to read

as follows:

Membership. There is established an on-site wastewater treatment and disposal ((stakeholders)) technical advisory committee.

A. Membership of the advisory committee shall consist of at least ((nine)) twelve members, including the health officer, ex officio, and any ((eight)) eleven or more of the following voting members appointed by the health officer:

1. Sanitary, agricultural or civil engineer licensed by the state of Washington;
2. On-site sewage system designer;
3. Seattle Master Builders Association representative;
4. Seattle-King County Board of Realtors representative;
5. A representative of a nonprofit, nonpartisan public affairs or environmental affairs organization;
6. On-site sewage system maintainer;
7. A consumer representing the King County Unincorporated Area Councils;
8. Representative of incorporated cities;
9. Representative of a sewer utility district;
10. On-site sewage system installer;
11. On-site sewage system pumper; ((and))
12. Field Sanitarian;
13. A representative of a federally recognized tribe or an organization under Title 26 U.S.C. Sec. 501 (c)(3) of the Federal Internal Revenue Code of 1986, as amended, registered in Washington that serves American Indian and Alaska Native people and provides services within King County;
14. A consumer representing users of OSS within the Urban Growth Area of King County;
15. A consumer representing users of OSS within a Marine Recovery Area or Shellfish Protection District within King County; and

16. A consumer representing users of OSS serving commercial properties in King County.

B. In addition to the voting members, any combination of the following may be appointed by the health officer to serve as ex officio members of the committee:

1. A King County department of natural resources and parks representative;

2. A Washington state Department of Ecology representative.

3. A Washington state Department of Health representative; and

4. A United States Department of Agriculture, Natural Resource Conservation Service representative.

SECTION 22. R&R 3, Part 2, Section 1, as amended, and BOH 13.20.010 are hereby amended to read as follows:

Permits -- general.

A. Unless otherwise specified in this title, it is unlawful to construct, install, repair, or modify an OSS without an approved OSS ((construction)) installation permit. Any person, other than the owner of the property where the OSS is located, who constructs, installs, repairs, or modifies any part of an OSS without an approved OSS installation permit, including but not limited to replacing a drainfield, will be subject to the assessment of civil penalty fines of up to one thousand dollars per day, not to exceed a total of fifteen thousand dollars per violation. The owner of the property where the OSS is located will be subject to the assessment of civil penalty fines of up to one thousand dollars per day, not to exceed a total of five thousand dollars per violation for performing the work without an approved OSS installation permit. The health officer may reduce or waive the penalty assessed against the property owner under this section after a permitted OSS installation or repair has been completed and the health officer has approved the installation or repair. Such permit shall be posted on the building or premises where the work permitted is being done, before the work is begun, and unless revoked, shall not be removed until such work has been finally approved by the health officer.

B. The application submitted for an OSS ((construction)) installation permit shall be accompanied by an approved site design application or approved repair proposal. The permit application for a new OSS to serve

a building shall be accompanied by evidence that the responsible building official has issued a building permit authorizing construction of that building.

C. The fee for an OSS ((construction)) installation permit shall be as set forth in the fee schedule.

D. OSS ((construction)) installation permits shall expire ((two)) three years from date of issue.

E. Unless otherwise provided in this title, the applicant for an OSS ((construction)) installation permit shall be a certified master installer and shall be responsible for all work done under that permit.

F. The applicant for an OSS ((construction)) installation permit may not also be the designer named on the site application unless the work to be done consists solely of OSS failure repair.

G. Application for an OSS ((construction)) installation permit shall be made in writing in a manner prescribed by the health officer and shall be accompanied by a fee as set forth in the fee schedule. The health officer may deny the application if in the health officer's judgment operation of the system will result in a public health hazard. The health officer may consider any relevant health and safety factors in making such a determination. If an application is denied on the grounds of a hazard to public health, the health officer at the time of the denial shall inform the applicant in writing of the reasons for the denial and the applicant's right to appeal the denial.

H. Each ((construction)) installation permit issued pursuant to this title for an OSS installation or repair is nontransferable and is valid only for the designer or installer named thereon and for the type of OSS construction or repair for which the permit has been issued. A new ((construction)) installation permit shall be obtained in the event of change of designer or installer performing the work, or in the type of OSS for which a permit has previously been issued.

SECTION 23. R&R 3, Part 2, Section 2(B), as amended, and BOH 13.20.030 are hereby amended to read as follows:

Installer certification.

A. Except as provided in BOH 13.20.035 and 13.20.040, it is unlawful to install, modify or repair OSS

without a currently valid installer's certificate of competency.

B. ((1. Application)) An applicant for a master installer's or associate installer's certificate of competency shall ((be made)) submit the application to the health officer and shall ((be accompanied by a)) include the following with the application:

1. Payment of the installer certificate of competency fee as set forth in the fee schedule under BOH chapter 2.18((.));

2. ((The application shall be accompanied by e))Evidence of successful completion within the previous twelve months of a health officer-recognized course of instruction in the basics of OSS and installation of OSS((.));

3. ((The health officer shall examine the applicant, shall charge an exam fee as set forth in the fee schedule and may deny the application if in the health officer's judgment the applicant is for any reason, including previous finding of negligence, incompetence, misrepresentation or failure to comply with this title, not qualified to install on-site sewage systems)) Evidence of two years of full-time equivalent employment with relevant OSS experience within the five-year period preceding application submittal, except that associate installer is not required to provide this evidence; and

4. A signed attestation that the applicant for a new or renewal certificate of competency is familiar with and agrees to perform all OSS services in accordance with the requirements of this title and the King County OSS code of performance and ethics.

C. ((1.)) As a condition of certification ((the)):

1. A master installer ((applicant)) shall submit evidence of and maintain at all times compliance with state of Washington minimum performance bonding requirements as stated in chapter 18.27 RCW((.)), as amended;

2. ((The health officer may suspend or revoke any master or associate installer's certificate of competency, pursuant to BOH chapter 1.08)) A first-time applicant for a master or associate installer's

certificate of competency shall submit payment of the examination fee as set forth in the fee schedule and attain a passing score on the applicable certification examination; and

3. A master or associate installer shall consistently demonstrate reasonable care and skill in performing work governed by this title, meet the requirements of the OSS code of performance and ethics, and comply with all the terms and conditions of these and all other applicable rules and regulations.

D. The master or associate installer's certificate of competency shall expire December 31 of each year. ((The)) An installer may not obtain installation permits or construct or repair any OSS after December 31 unless the ((certification)) certificate has been renewed. ((The holder of such a certificate))

E. An installer may renew the certificate ((on or before January 15 of the year following expiration without taking the examination specified by this section, but only if)) upon submittal, to the health officer, of a completed renewal application and fee payment as specified in the fee schedule under BOH chapter 2.18, accompanied by evidence that at least one CEU credit has been earned by the master or associate installer during the previous calendar year, except that:

((a. A renewal application accompanied by a fee as specified in the fee schedule in BOH chapter 2.18 is submitted to the health officer. A late fee of twenty five percent of the renewal amount will be charged by the health officer for renewal applications received after January 15; and

b. The applicant provides evidence that at least one CEU credit has been earned by the master installer applicant and the associate installer applicant during the previous calendar year.

4.)) 1. A master or associate installer submitting the renewal application after January 15 of the year following expiration shall, in addition to the applicable certificate fee, pay a late fee of twenty five percent of the renewal amount, and provide evidence of completion of at least one CEU credit during the previous calendar year; and

2. A master or associate installer submitting the renewal application more than twenty-four months after certificate expiration shall, in addition to the applicable certificate fee, pay the applicable examination fee

and must retake and obtain a passing score on the certification examination specified in this section as a condition of renewal.

F. The health officer may deny any application for an installer's or associate installer's certificate of competency if in the health officer's judgment the applicant is for any reason, including previous findings of negligence, incompetence, misrepresentation or failure to comply with this title, not qualified to install on-site sewage systems.

G. The health officer may hold, as necessary, informational((/)) or educational meetings for all holders of installer's certificates of competency. A minimum of four weeks' notice of the meeting time and location shall be sent to each installer. Except as provided by the health officer attendance at the meetings shall be mandatory for all installers. Failure to attend the required meetings, without prior approval of the health officer, shall be cause for the health officer to withhold recertification until ((an examination administered under the provisions of subsection B. of this section is retaken)) the installer retakes and attains a passing score on the applicable examination under this section.

H. The health officer may assess civil penalty fines of up to one-thousand dollars per violation per day against any holder of a master or associate installer's certificate of competency, or institute probationary requirements, or suspend or revoke a master or associate installer's certificate of competency for the installer's failure to comply with this title or the King County OSS code of performance and ethics.

SECTION 24. R&R 99-01, Section 2, as amended, and BOH 13.20.035 are hereby amended to read as follows:

Maintainer certification.

A. ((Unless)) Except as otherwise specified in this title, including BOH 13.20.040 and 13.60.010 relating to homeowners, it is unlawful to conduct performance monitoring inspections ((of and/or perform)), preventive maintenance service, ((to include making limited)) or minor repairs to on-site sewage systems((,)) without a currently valid OSM certificate of competency.

B.((1. Application)) An applicant for an OSM certificate of competency shall ((be made)) submit the application to the health officer and shall ((be accompanied by a)) include the following with the application:

1. Payment of the OSM certificate of competency fee as set forth in the fee schedule under BOH chapter 2.18((.));

2. ((The application shall be accompanied by evidence of two years of relevant OSS experience.

3. The application shall be accompanied by evidence)) Evidence of successful completion within the previous twelve months of a health officer-recognized course of instruction in the operation, monitoring and maintenance of on-site sewage systems((.));

((4. The health officer shall examine the applicant except that the health officer may waive the examination for the designer who is performing monitoring of only these systems designed by that person. The health officer may deny the application if in the health officer's judgment the applicant is for any reason, including previous findings of negligence, incompetence, misrepresentation or failure to comply with this title, not qualified to monitor and maintain on-site sewage systems)) 3. Evidence of two years of full-time equivalent employment with relevant OSS experience within the five-year period preceding application submittal; and

4. A signed attestation that the applicant for a new or renewal certificate of competency is familiar with and agrees to perform all OSS services in accordance with the requirements of this title and the King County OSS code of performance and ethics.

C.((1.)) As a condition of certification ((the)):

1. A maintainer shall ((a.)) submit evidence of and maintain at all times compliance with state of Washington minimum performance bonding requirements as stated in chapter 18.27 RCW, as amended; ((and))

((b.)) 2. A first-time applicant for an OSM certificate of competency shall pay the examination fee as set forth in the fee schedule and attain a passing score on the certification examination, except that the health officer may waive the examination for a designer who performs monitoring of only those systems designed by

that person; and

3. A maintainer shall consistently demonstrate reasonable care and skill in performing work governed by this title, meet the requirements of the King County OSS code of performance and ethics, and ((shall)) comply with all the terms and conditions of these and all other applicable rules and regulations.

((2. The health officer may suspend or revoke any OSM certificate of competency, pursuant to BOH chapter 1.08.

3.)) D. The OSM certificate of competency shall expire December 31 of each year. ((The holder of such certificate may renew the certificate on or before January 15 of the year following expiration without taking the examination specified by this section, but only if:

a. a renewal application accompanied by a fee as specified in the fee schedule I submitted to the health officer. A late fee of twenty-five percent of the renewal amount will be charged by the health officer for renewal applications received after January 15; and

b. the applicant submits evidence of bonding as specified by BOH 13.20.035.C.1; and

c. the applicant submits evidence that at least one CEU credit has been earned by the OSM applicant during the previous calendar year.

4. The on-site system)) A maintainer may not conduct performance monitoring inspections or perform preventive maintenance of on-site sewage systems after December 31, unless the certification has been renewed.

((5.)) E. A maintainer may renew the OSM certificate of competency on or before January 15 of the year following expiration upon submittal, to the health officer, of a completed renewal application, accompanied by evidence that at least one CEU credit has been earned by the maintainer during the previous calendar year, and fee payment as specified under BOH chapter 2.18, except that:

1. An applicant submitting the renewal application after January 15 of the year following expiration shall, in addition to the applicable certificate fee, pay a late fee of twenty five percent of the renewal amount,

and submit evidence that the applicant has earned at least one CEU credit during the previous calendar year; and

2. An applicant submitting the renewal application more than twenty-four months after certificate expiration must retake and obtain a passing score on the certification examination specified in this section.

F. The health officer may deny any application for an OSS maintainer's certificate of competency if in the health officer's judgment the applicant is for any reason, including previous findings of negligence, incompetence, misrepresentation or failure to comply with this title, not qualified to install on-site sewage systems.

G. The health officer may hold informational((/)) or educational meetings for all holders of OSM certificates of competency. A minimum of four weeks' notice of the meeting time and location shall be sent to each maintainer. Unless otherwise specified by the health officer, attendance at the meeting shall be mandatory for all maintainers. Failure to attend the required meetings without prior approval of the health officer shall be cause for the health officer to withhold recertification until ((an OSM examination is successfully completed)) the maintainer retakes and attains a passing score on the certification examination specified in this section.

H. The health officer may assess civil penalty fines of up to one-thousand dollars per violation per day against any holder of an OSS maintainer's certificate of competency, or institute probationary requirements, or suspend or revoke a maintainer's certificate of competency for the maintainer's failure to comply with this title or the King County OSS code of performance and ethics.

SECTION 25. R&R 3, Part 2, Section 3, as amended, and BOH 13.20.040 are hereby amended to read as follows:

Resident owner design, construction and monitoring.

A. A resident owner may personally design a system for the resident owner's own single-family residence, but only if the site application submitted by the homeowner demonstrates that:

1. The area where the drainfield and reserve area are to be located has a minimum of four feet of

original permeable soil, and a minimum vertical separation of three feet is maintained((.));

2. Not more than one system is designed in any twelve-month period((.));

3. A gravity soil absorption system is proposed; ((and))

4. The property is not adjacent to a ((marine)) shoreline;

5. The design includes a soil evaluation performed by a state of Washington licensed on-site sewage system designer or professional engineer, or a soil scientist as defined under chapter 246-272A WAC; and

6. The design describes a system fully conforming with this title.

B. A resident owner may personally construct, install, or repair a gravity system for the resident owner's own single-family dwelling, but only if:

1. The area where the drainfield and reserve area are located has a minimum of four feet of original permeable soil and a minimum vertical separation of three feet is maintained;

2. The resident owner constructs and installs not more than one system in any twelve-month period; and

3. The property is not adjacent to a ((marine)) shoreline.

C. The requirement for soil depths as required in ((this subsection B. and)) subsections A. and B. of this section may be waived by the health officer when the resident owner is making repairs or additions to an existing gravity system or repairing or replacing the building sewer component of an alternative system.

D. A resident owner of a single-family residence may monitor the performance of and perform prescribed preventive maintenance services, including minor repairs, for a gravity OSS ((and for)) or the septic tank component of an alternative OSS, or, upon approval from the health officer, for a low-pressure distribution system.

SECTION 26. R&R 3, Part 3, Section 1, and BOH 13.24.010 are hereby amended to read as follows:

Application.

A. Application for subdivision or short subdivision approval shall be made to the health officer on

forms provided for this purpose, shall be accompanied by a fee as set forth in the fee schedule and shall be in sufficient detail to allow evaluation of the suitability of the proposed means of on-site sewage treatment and disposal. The application shall be made by a licensed designer or professional engineer as defined under this title. If a community on-site system is proposed, the preliminary report and plans and specifications shall be in accordance with BOH 13.28.040. ((If any soils work is required or evaluation of an existing OSS is necessary the application must be submitted to the health officer by a licensed septic system designer or qualified professional engineer.))

B. Department review is not required for those subdivisions within the urban growth area where group A public water and public sewer service will be used for all of the resultant lots.

C. The application for any development, including but not limited to subdivisions, short subdivisions, mobile home parks, multi-family housing, and commercial establishments, shall include evidence that suitable site and soil conditions as required by this title, to adequately treat and dispose of sewage on-site are present. The applicant for development in a critical aquifer recharge area shall include, in the application, evidence of compliance with K.C.C. 21A.24.316, as amended, including evidence of compliance with the critical aquifer recharge area requirements. After review of the proposed development, the health officer shall either approve, deny, or hold the proposal pending submittal of additional information.

SECTION 27. R&R 3, Part 3, Section 2, as amended, and BOH 13.24.020 are hereby amended to read as follows:

Determination of minimum lot size.

A. The minimum lot size when creating new lots utilizing OSS shall be established by the health officer on the basis of the information submitted and any on-site inspections by the health officer.

1. All lots created must be at least ((twelve thousand five hundred)) thirteen thousand square feet and shall not exceed a maximum flow density of ((one thousand five hundred seventy gallons of sewage per acre per day)) 3.35 unit volumes of sewage per day for public water supply and 1 unit volume of sewage per acre

per day for private water supply.

2. Lots utilizing an individual private water source shall be at least five acres.

B. Factors that may be considered when determining type of on-site system, connection to sewers, or establishing minimum lot size area include but are not limited to the following:

1. Availability of public sewers, as determined by the King County Comprehensive Plan;

2. Soil type and depth;

3. Area drainage and lot drainage;

4. Protection of surface and ground water;

5. Setbacks from property lines, water supplies, rights of way and easements, including but not limited to easements for drainfields, utilities and telecommunications;

6. Source of domestic water;

7. Topography, geology and ground cover;

8. Climatic conditions;

9. Activity or land use, present and anticipated;

10. Growth patterns;

11. Individual and accumulated gross effects on water quality;

12. Availability of a one hundred percent reserve area for system replacement;

13. Anticipated sewage volume - as determined by number of lots and development;

14. Effect on other properties;

15. Compliance with zoning, critical area development restrictions including the critical aquifer recharge area requirements under K.C.C. 21A.24.316, as amended, and other code requirements of the governing agency as applicable.

C. The minimum lot size requirement for creating subdivisions involving single-family residences or mobile home parks shall be determined by the soil type as outlined in Table 13.24-1.

Table 13.24-1

Minimum Land Area Requirement

Single-Family Residence or

Unit Volume of Sewage

Type of Water Supply	**Soil Type**					
	1	**2**	**3**	**4**	**5**	**6**
Public Water System	0.5 acre	((12,500 13,000 s ft.	((15,000 16,000 s ft.	((18,000 19,000 s ft.	((20,000 21,000 s ft.	((22,000 23,000 s ft.
Individual/ Private Well*	5 acres	5 acres	5 acres	5 acres	5 acres	5 acres
Minimum Usable Land Area	2,000 sq ft.	2,000 sq ft.	2,500 sq ft.	3,333 sq ft.	5,000 sq ft.	10,000 s ft.

*** Requirements for public wells may preclude use of private wells in certain instances. See RCW 19.27.097.**

NOTE: Well location and construction must be consistent with the King County Comprehensive Plan, as amended.

SECTION 28. R&R 3, Part 3, Section 3, as amended, and BOH 13.24.030 are hereby amended to read as follows:

Evaluation process. The applicant for subdivision or short subdivision approval shall obtain the health officer's review of the development proposal in accordance with this section.

A. The applicant shall obtain the health officer's preapplication or preliminary review before submitting the development proposal to ((DDES)) DLS or other building official, as applicable, and shall include the following information in the application submittal:

1. A vicinity map providing precise directions to the parcel or parcels;
2. Signage or flagging at the identified entry point to the parcel or parcels;
3. Critical area review, including critical aquifer recharge area classification, with all buffers and

setbacks shown on the plot plan;

4. A minimum of two soil logs per proposed lot shall be provided prior to department preliminary review. Such soil logs shall be excavated in accordance with the requirements of BOH 13.28.050. The soil log or logs must clearly show that within the lot area designated for the OSS the vertical separation specified in Table 13.28-1, and minimum lot sizes specified in Table 13.24-1 are provided((.)); and

5. A scaled plot plan of the proposed subdivision depicting the land area proposed for an initial on-site system and a contiguous one hundred percent (100%) system reserve area and soil log locations. The plot plan shall also identify any wells, surface water bodies and other features relevant to the siting of an on-site sewage system on the proposed and adjacent parcels.

B. The applicant shall submit the following information to the health officer and obtain the health officer's final approval of the development proposal:

1. A minimum of four soil logs per proposed lot shall be provided. Such soil logs shall be excavated in accordance with BOH 13.28.050. Each soil log shall clearly show that the vertical separation specified in Table 13.28-1 is provided((.));

2. A scaled plot plan identifying sufficient area for a drainfield and a contiguous one hundred percent reserve area for each lot shall be submitted after road cuts have been made, any plat development site grading affecting the OSS area completed, and drainage plan completed. Such a plot plan shall also include any soil log locations, road cuts, wells, surface water features, utility easements, storm and surface water retention and disposal facilities and other features relevant to the design and installation of an OSS((.));

3. The applicant shall submit site designs for those proposed lots where the health officer determines that it is unclear that there is sufficient area for an on-site system and one hundred percent reserve area((.)); and

4. ((If existing homes are on any of the proposed lots then the applicant must demonstrate all of the following:

a. the existing OSS is in substantial conformance with this title;

b. there is adequate reserve area available for repair or replacement of the system in accordance with this title; and

c. the continued operation of the system does not pose a threat to public health or groundwater quality)) For lots with existing homes, the health officer will review all applications to determine the compatibility of the proposed subdivision or short subdivision with the existing OSS. Factors that the health officer may consider include, but are not limited to, the following:

a. location of SSAS in relation to foundation and existing improvements;

b. size of SSAS in relation to proposed use;

c. condition of the existing OSS;

d. potential for reconstruction and repair of the existing on-site sewage disposal system;

e. ultimate purpose of the remodeling; and

f. approved source of water.

SECTION 29. R&R 3, Part 3, Sections 1 and 4, as amended, and BOH 13.28.010 are hereby amended to read as follows:

Application submittal, review, approval.

A. Application for site design approval for a proposed new OSS installation, repair or replacement of an existing failed soil absorption system, or modification, connection to or expansion of an OSS shall be made on forms provided by the health officer and be accompanied by 1. a plan review fee as set forth in the fee schedule and 2. a plan that demonstrates that the standards required in this title are met.

B. Approval of plans shall expire ((two)) three years from date of approval unless a valid building permit application has been accepted for review by the building official for construction of the building for which the OSS has been designed. Upon expiration of plan approval or building permit the applicant shall submit a complete new application with fees for review and approval by the health officer.

C. After review of a site design application, the health officer may deny the application if in the health

officer's judgment the physical features of the property on which it is proposed to locate the OSS, or the design of the proposed OSS, are not adequate for effective operation of such a system.

D. Each site application denial or withdrawal of a previously issued approval shall be in writing citing the reason or reasons and shall include a notice of the applicant's right to appeal for reconsideration pursuant to this title.

SECTION 30. R&R 3, Part 4, Section 2, as amended, and BOH 13.28.020 are hereby amended to read as follows:

Design support materials. Design of OSS shall be in accordance with this title and shall accommodate all sewage from the buildings and premises to be served. The type of system required shall be determined by a soil and site evaluation conducted by the designer, which shall include location, soil type, vertical separation and other relevant conditions. All design control ((panels)) points shall be located with the designated drainfield areas and remain in place until the health officer has issued final approval for the installed OSS.

A. The OSS site design application shall include the following:

1. A completed site design application form for the individual OSS that includes the following information:

a. approximate address of property;

b. parcel number and legal description of property;

c. type and size of building the system will support;

d. name and address of property owner, applicant and system designer;

e. size of the parcel;

f. whether the property is within the urban area or rural area as designated by the King County Comprehensive Plan; and, if located within the urban area, the distance of the nearest property line to the closest public sewer line;

g. designation of an approved domestic water supply source;

h. type of development for which site design application is being made, for example: single-family, multi-family or commercial; and type of permit, for example: new installation((,)) or repair((, or limited repair)) of an existing OSS;

i. the presence of critical area or areas, including critical aquifer recharge areas, to be delineated on the scaled plot plan;

j. date of testing;

k. original signature in blue ink and Washington state Department of Licensing certificate of competency number of designer or professional engineer's registration number; and

l. all other information requested on the site application for on-site sewage disposal system form((.));

2. Results of a soil and site evaluation conducted by the designer. The designer shall:

a. provide soil logs that accurately describe subsurface soil conditions present within the primary and reserve soil absorption areas;

b. use soil and site evaluation procedures and terminology in accordance with Chapter 3 and Appendix A of the Design Manual: On-Site Wastewater Treatment and Disposal Systems, United States Environmental Protection Agency, EPA-625/1-80-012, October, 1980 or as amended, except where modified by, or in conflict, with this title;

c. use the soil names and particle size limits of the United States Department of Agriculture Soil Conservation Service classification system;

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

e. classify the soil as in Table 13.28-3, Soil Textural Classification;

f. describe ground water conditions, including the date of the observation or observations, and the probable maximum water table height;

g. describe existence of structurally deficient soils, such as slide zones and dunes, or those soils subject to major wind or water erosion events;

h. describe the existence and location of critical areas, for example designated flood plains and incorporate into design drawings; and

i. describe the location of any encumbrances affecting system placement, such as:

(1) wells, other water sources and water supply lines;

(2) surface water and storm water infiltration areas;

(3) abandoned wells;

(4) outcrops of bedrock and restrictive layers;

(5) buildings;

(6) property lines and lines of easements;

(7) drainage structures such as footing drains, curtain drains, and drainage ditches;

(8) cuts, banks, and fills;

(9) driveways and parking areas;

(10) existing OSS; and

(11) underground utilities((.));

3. A completely dimensioned overall parcel plot plan, drawn to a one inch equals twenty feet scale, or the largest scale that will allow the parcel plot plan to be presented on a single page, no smaller than eight and one-half by eleven inches and no larger than eleven by seventeen inches, accurately showing:

a. site drainage characteristics including direction of surface drainage;

b. an arrow indicating north;

c. topographical contours at two foot intervals over the OSS area and all other areas containing features relevant to the design and installation of an adequate and efficient OSS;

d. maximum building footprints, wastewater tanks and primary and reserve soil absorption system

locations;

e. all locations of and routes to soil log excavations, with such locations and routes clearly identified by appropriate signage or flagging on the property;

f. locations of and routes to potable water sources near property lines (drilled wells within one hundred feet and all other sources within two hundred feet, and all well heads, with such locations and routes clearly identified by appropriate signage or flagging on the property;

g. location of property and easement lines;

h. location and description of design control point or points within the designated drainfield area; and

i. the boundaries of the SSAS detail drawing((.));

4. Construction plans and specifications showing:

a. plumbing stub elevation; and

b. vertical section detail drawings depicting dimensions of wastewater tank details to include minimum and maximum elevation of installation, maximum depth of cover over tanks, acceptable seasonal groundwater table elevation at all tank locations, and depth of required bedding material. For drainfields, minimum and maximum drainfield width and depth, vertical separation and amount of cover material and placement if any, and any other OSS components to be constructed at the site((.));

5. An SSAS detail drawing scaled one inch equals twenty feet (or one inch equals thirty feet on larger lots) depicting design control point or points, the dimensions and location of all components of the proposed primary and reserve systems including trench widths, lengths and horizontal separations. If the location of the reserve area is at an elevation above the outlet of the septic tank, the design shall include all tanks, dosing chambers and piping necessary to allow distribution of the effluent to the reserve area with a minimum of disruption to the original subsurface field and other property of the owner. The health officer may require the installation of the dosing chamber, pressure lines and distribution box/inspection box where the future access to the reserve area will be severely limited. Drawings may be submitted electronically in a format acceptable to

and with the prior agreement of the health officer((.));

6. Location of a pump tank controls in plain view of the pump tank shall be included on the design drawings.

7. Construction details for and location of any proposed footing drains, curtain drains and interceptor drains((.));

8. Calculations and observations supporting the proposed design, including:

a. soil type; and

b. hydraulic loading rate in the soil absorption component.

9. An accurate vicinity location sketch and route map to the property, including written directions to the property from the last named street or road. Signage shall be displayed at the entrance to the property and include the names of the designer and applicant. A cleared and flagged route to the soil log and well site locations must be provided from the property entrance((.));

10. Proof of availability of an approved domestic water supply source((.));

11. One or more recorded easements describing the locations of all potable water lines connected to a well, spring, rain water catchment system, or water meter on the property and extending to service connections beyond the property boundary. The health officer may require each such easement to include, as applicable, provision for location of water storage reservoirs, well housing, pressure tanks, and any other facilities and equipment associated with the water source; and

12. Such other information as the health officer may require.

B. Additional requirements for an application for an OSS serving buildings other than or in addition to single-family residences:

1. Information to establish that the sewage is not industrial wastewater;

2. Information to establish that the sewage effluent applied to the infiltrative surface does not exceed typical residential effluent characteristics by providing waste strength characteristics and parameters;

3. For all commercial developments not classified as community on-site systems, recorded covenants declaring that the owner or owners of the property or properties served by the OSS are responsible for the operation, monitoring, and maintenance of the OSS in accordance with this title; and

4. Proof of a system operation monitoring and maintenance plan in accordance with requirements of BOH chapter 13.60.

SECTION 31. R&R 3, Part 4, Section 3, as amended, and BOH 13.28.030 are hereby amended to read as follows:

General design requirements.

A. Collection systems will be designed to comply with criteria set forth in Criteria for Sewage Works Design, Washington state Department of Ecology, November 2007 or as thereafter amended.

B. ((Maximum Slopes. 1.)) OSS shall not be allowed on slopes exceeding forty percent.

((2.)) On slopes exceeding thirty percent, the SSAS shall be pressure distribution and have a maximum SSAS trench width of two feet.

C. SSAS reserve area or areas shall be designated equal to at least one hundred percent of the primary SSAS area. One or more areas may be designated as SSAS reserve areas. If more than one area is designated or if access is limited, at the discretion of the health officer the reserve system may be required to be installed along with the primary SSAS. At least two soil log excavations shall be installed in each designated reserve area. Construction plans for the SSAS reserve area may be required by the health officer.

D. OSS for lots created after July 1, 1984, shall be located on the same lot as the buildings they are designed to serve. Any existing OSS which is failing and for which there is insufficient area on the lot to repair the system may be replaced by an OSS located off-site provided proof of easements is submitted to the health officer. Proof of lot creation date must be provided when requesting use of a drainfield easement for new construction. All drainfield easements shall be surveyed and permanently marked, and the soils within the easements protected against disturbance. Approval shall be subject to such additional conditions as deemed

necessary by the health officer to protect public health.

E. Any application for site design approval for OSS in a critical area shall include documentation from the applicable jurisdictional authority indicating critical area review has been completed. All critical areas and their buffers shall be identified and drawn to

scale on the design drawing submittals. OSS shall not be located on landforms that are unstable.

F. Where any type of drain is to be installed for the purpose of intercepting subsurface water and channeling, concentrating, focusing or directing its flow onto a downstream property not under the ownership or agency of the applicant or King County, a release of damages holding King County and its employees harmless for any subsequent erosion or loss or limitation of use of such property must be executed and filed with the King County records and elections division and which shall run with the land, prior to approval of any site application.

G. All types of drains installed for the purpose of affecting vertical separation shall be verified as effective during the winter water table season as outlined in BOH 13.28.060.C.

H. No downspout or footing drain shall be directly or indirectly connected to an OSS and the OSS shall be so constructed and installed that surface water or groundwater will not interfere with the operation of the system.

I. Seepage pits shall not be used for the disposal of septic tank effluent.

J. The installation and use of cesspools and pit privies for disposal of sewage is not permitted.

K. When grease traps are used, the design and installation will comply with criteria set forth in the Uniform Plumbing Code, ((2006)) 2021 Edition, International Association of Plumbing and Mechanical Officials, as amended. In addition the design application shall include a grease trap maintenance schedule.

L. When siphon systems are used, they shall comply with Recommended Standards and Guidance for Pressure Distribution Systems, Washington State Department of Health, July 1, 2007.

M. The connection of an accessory dwelling unit as defined under K.C.C. Title 21A or accessory living

quarters as defined in this title to an OSS ((is)) designed for or in use by a single-family residence or commercial structure may be permitted provided that public health and groundwater quality are not affected, and the OSS is designed for the anticipated increased flow. For the purposes of this title, including the determination of required absorption areas, loading rates, and minimum capacities for septic tanks, each bedroom in an accessory dwelling unit or accessory living quarter shall be included in the total number of bedrooms to be served by the OSS in addition to the bedrooms in the primary residence. An accessory dwelling unit or accessory living quarter with no bedroom shall be deemed equivalent to one bedroom within the single-family primary residence associated with the accessory dwelling unit or accessory living quarter. In medical hardship cases as described in K.C.C. 21A.32.170, the health officer may allow the temporary connection of a mobile home or temporary dwelling to an existing OSS designed only for a single-family residence provided that neither public health nor groundwater quality are negatively affected.

N. Pump lines shall be installed at a depth which precludes disruption or damage by installation of other utilities or freezing.

O. No part of an OSS shall be constructed in the ((zero rise)) FEMA floodway of a flood hazard area as described by K.C.C. Title 21A. New OSS to serve new subdivisions shall be located outside the limits of a flood hazard area. The installation of new OSS within the flood fringe area of the one-hundred-year flood plain, as determined by ((DDES)) DLS or the local building official, may be allowed if the applicant demonstrates that:

1. The proposed building parcel is an existing legal building site;
2. No feasible alternative site outside the flood hazard area is available;
3. Wastewater tanks and electrical components will be flood-proofed to the flood protection elevation;
4. A conforming subsurface soil absorption system can be installed; and
5. ((DDES)) DLS or the local building official permits the development which is proposed to be served by the OSS.

P. No part of a SSAS including the drainrock shall be located in fill material or disturbed soils.

Q. SSAS shall be constructed with observation ports terminating within utility boxes adjustable to final grade over the ends of the drainfield pipes, or other methods of drainfield detection approved by the health officer to aid in the future locating of these components.

R. OSS shall not be permitted where a minimum vertical separation of three feet of permeable soil below the infiltrative surface cannot be maintained except as provided in Table 13.28-1. The health officer may require greater vertical separation as needed to protect public health when the aquifer is used for a potable water supply.

Table 13.28-1

Minimum Treatment Level, Bacteria Level, and Effluent Distribution Method Required by Various Soil Types, Vertical Separation, and Original Soil Depth Conditions

Vertical Separation (in inches)	**Soil Type**			
	1	**2**	**3-4**	**5-6** [3]
	Minimum Treatment Level, Bacteria Level, and Effluent Distribution Method			
12<18 [1, 2]	**A** & BL1 - pressure with timed dosing	**B** & BL2 - pressure with timed dosing	**B** & BL2 - pressure with timed dosing	**B** & BL2 - pressure with timed dosing
((>18≤24)) ≥18<24	**B** & BL2 - pressure with timed dosing	**B** & BL2 - pressure with timed dosing	**B** & BL2 - pressure with timed dosing	**B** & BL2 - pressure with timed dosing
((>24≤36)) ≥24<36	**B** & BL2 - pressure with timed dosing	**C** & BL3 - pressure with timed dosing	**E**-pressure wit timed dosing	**E**-pressure wit timed dosing
((>36≤60)) ≥36<60	**B** & BL2 - pressure with timed dosing	**E**-pressure wit timed dosing	**E**-((pressure with timed dosing))gravit	**E**-((pressure with timed dosing))gravit
((>)) [3]60	**C** & BL2 - pressure with timed dosing	**E**-gravity	**E**-gravity	**E**-((pressure with timed dosing))gravit

Table 13.28-1 Explanatory Notes

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1. Except as provided in footnote 2, the minimum required original, undisturbed, permeable soil depth is eighteen inches.

2. For existing lots of record where the original undisturbed soil depth above a restrictive layer is between 12 and 18 inches the following is required:

a. Minimum lot size is 5 acres. Any lot area placed into a separate sensitive area protection tract in accordance with King County Code Section 21A.24.180 may also be included in the computation of the minimum five (5) acre lot size required by this section.

b. The owner shall file a covenant with the King County records and elections division agreeing not to subdivide the parcel utilizing the OSS to less than 5 acres until public sewer service is provided.

c. A water table study shall be conducted during a time of high seasonal water table to establish available soil depth.

d. A system meeting treatment level A, or two treatment level B systems in combination meeting treatment level A without the use of disinfection, such as a mound preceded by an intermittent sandfilter, shall be used.

3. SSAS in soil type 6 must utilize pressure distribution with timed dosing.

S. Disinfection may not be used:

1. To achieve ((the fecal coliform requirements to meet treatment levels A or B in Type 1 soils; or treatment level C)) BL1 or BL2 in Type 1 soils; or

2. To achieve BL3; or

3. On lots with less than eighteen inches of soil; or

((3.)) 4. In a critical aquifer recharge area.

T. The coarsest textured soil within the vertical separation selected determines the minimum treatment level and method of distribution.

U. Based upon the treatment capacity and design flow the designer of an OSS shall establish the

operational capacity of the system. This information shall be included with the design application and record drawing submission.

V. Any reduction in horizontal separation for a pressure sewer line crossing a surface water source shall meet the requirements of the publication, Granting Waivers from State On-site Sewage System Regulations, chapter 246-272A WAC, as amended, published by the Washington state Department of Health.

W. All OSS must comply with the applicable treatment levels contained in Table 13.28-1 and applicable setbacks contained in Table 13.28-2; though the health officer may grant any setback reduction authorized under Table 13.28-2 only in response to a written request for such reduction from the designer of record if the request includes all reasons for the proposed reduction and describes all mitigation measures required under this title or as may be required by the health officer in the exercise of reasonable discretion for the protection of the public health.

X. In preparing any OSS site design application, the designer shall consider:

1. CBOD5, TSS and O and G;

2. Other parameters that can adversely affect treatment anywhere along the treatment sequence. Examples include pH, temperature and dissolved oxygen;

3. The sensitivity of the site where the OSS will be installed, such as shellfish growing areas, designated swimming areas, and other areas identified in the management plan.

Y. ((Nitrogen contributions, where nitrogen has been identified as a contaminant of concern by the management plan, shall be addressed through either lot size or treatment, or both.)) The applicant for development in a critical aquifer recharge area shall include, in the application, evidence of compliance with K.C.C. 21A.24.316, as amended, including evidence of compliance with the critical aquifer recharge area requirements.

Z. Design and installation of OSS with electrical components shall include a readily accessible control panel exterior to the structure served by the OSS and meeting the following standards:

1. Located in an external location between three and five feet in elevation above finished grade, meeting state of Washington Department of Labor and Industry's electrical safety requirements;

2. Includes an electrical power control switch to enable power shutoff to the OSS for maintenance or repair without the need for access to any circuit breaker panels or other power controls within the structure served by the OSS;

3. Connected to dedicated electrical circuits with the alarm and pump circuits independent of one another;

4. Contains audible and visual alarms to alert the owner or occupant of a system deficiency or malfunction; and

5. Includes a remote notification device for the alarm system when the OSS alarm notification device is located over 100 feet from the building it serves, such as an auto-dialer or telemetry notification system, to notify the respective monitoring and maintenance service provider or the property owner or occupant of alarm events.

Table 13.28-2

Minimum Horizontal Separations

(Setbacks)

	MEASURE FROM		
Items Requiring Setback	**Edge of soil dispe component trench reserve area**	**Septic tank, holdi tank, containmen vessel, pump chamber, and distribution box**	**Building sewer, collection, and nonperforated distribution line [1]**
Potable Water Source [2]			
-- Private well	100 ft.	100 ft.	100 ft.
-- Public drinking water well	100 ft.	100 ft.	100 ft.
-- Drinking water spring/dug well [3]	200 ft.	200 ft.	200 ft.
Non-potable water source [2]	100 ft	100 ft	100 ft

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Pressurized water supply line [4]	10 ft.	10 ft.	10 ft.
Properly decommissioned well [5]	10 ft.	10 ft.	N/A
Surface water [2, 6, 7]	100ft.	50 ft.	10 ft.
Seasonal water [2, 7]	30 ft.	15 ft.	
Swimming Pools			
A. Down-gradient [8]	A. 15ft + height o cut. Need not exc ft.	5 ft.	2 ft.
B. Up-gradient [8]	B. 10 ft.	5 ft.	2 ft.
C. If underdrains are present, either down-gradient or up-gradient	C. 30 ft.	N/A	N/A
Building foundation:			
A. Down-gradient [8]	A. 15 ft. + height o foundation cut. N exceed 30 ft. [8, 9]	5 ft.	2 ft.
B. Up-gradient [8]	B. 10 ft.	5 ft.	2 ft.
Property or easement line	10 ft. [10, 11]	5 ft.	N/A
Decks (first floor) with post and pier supports	5 ft.	5 ft.	N/A [15]
Decks - post and block (2nd Floor at least 6 ft. high)	2 ft. Outside a line any pier supports	Not under any pier supports	N/A
Decks Cantilevered (at least 6 ft. high)	0 ft.	0 ft.	N/A
Septic tanks, pump tanks, treatment tanks, sandfilter containment vessels			
A. Down-gradient [8]	A. 15 ft. + height o excavation. Need exceed 30 ft. [9]	N/A	N/A
B. Up-gradient [8]	B. 5 ft.		
Interceptor/curtain drains/footing drains.			
-- Down-gradient [8]	30 ft.	5 ft.	N/A
-- Up-gradient [8]	10 ft.	N/A	N/A
Lined[16] stormwater detention pond[17]			
-- Down-gradient	100 ft[18]	N/A	N/A
-- Up-gradient	100 ft[19]	N/A	N/A

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Unlined[16] stormwater infiltration pond[17]	100 ft.	50 ft.	10 ft.
Irrigation canal or irrigation pond[17]	100 ft.	50 ft.	10 ft.
Subsurface stormwater infiltration or dispersion component[17]			
-- Down-gradient	100 ft[18]	10 ft.	N/A
-- Up-gradient	100 ft[18]	10 ft.	N/A
((Infiltration and Dispersion Trenches			
A. Down-gradient	30 ft.	10 ft.	5 ft.
B. Up-gradient	100 ft. [14]	30 ft.	5 ft.))
Down-gradient cuts or banks 5 ft. or less in vertical height	15 ft. + height of b [13]		
Down-gradient cuts or banks greater than 5 ft. in vertical height with at least 5 ft of original, undisturbed soil above a restrictive layer due to a structural or textural change [8]	15 ft. + height of b but shall not be les 25 ft. [9, 12]	N/A	N/A
Down-gradient cuts or banks greater than 5 ft. in vertical height with less than 5 ft. of original, undisturbed soil above a restrictive layer due to a structural or textural change [8]	15 ft. + height of b but shall not be les 50 ft. [12]	N/A	N/A

Table 13.28-2 Explanatory Notes

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

2. With excessively permeable soils or other sites where conditions indicate a greater potential for ground or surface water contamination or pollution such as unconfined aquifers, shallow or saturated soils, dug wells, and improperly abandoned wells, the distance from any water supply or surface water may be increased

by the health officer.

3. Setbacks from private or public springs and from shallow wells without intact casings or those wells which are not constructed in accordance with chapter 173-160 WAC and are utilized as a source of drinking water shall comply with BOH 13.04.070.C.

4. The health officer may approve a sewer transport line crossing a water supply line (([if the sewer line)) when there is no other reasonable means to keep them from crossing and if the sewer line is constructed ((])) in accordance with Section 2.4 of the Department of Ecology's Criteria for Sewage Works Design, revised November 2007 or equivalent.

5. Before any component may be placed within one hundred feet of a well, the designer shall submit a "decommissioned water well report" completed by a licensed well driller, which verifies that appropriate decommissioning procedures noted in chapter 173-160 WAC were followed.

6. Setback measured from ordinary high water mark of surface water. Greater setback may be required to prevent pollution. The health officer will state reasons for greater setback to applicant in writing.

7. This separation may not be reduced by culverting of streams without prior written approval for the culverting from King County or applicable building official, but in no case shall this separation be less than fifteen feet plus the height of the excavation which contains the culvert. Need not exceed thirty feet.

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

9. May be reduced to ten feet by the health officer when bottom of infiltrative surface is downgradient from the base of the foundation cut or wastewater tank excavation, or there is at least five feet of original undisturbed unsaturated soil above a restrictive layer formed due to a structural or textural change.

10. May be reduced five feet by the health officer in repairs to existing systems, in setbacks to easements or where a confirmed property line is up-gradient from the soil absorption component. A survey

may be required by the health officer to ensure compliance with setback requirements.

11. This distance may be increased to thirty feet by the health officer where cuts or construction on neighboring properties may affect the system.

12. Need not exceed one hundred feet.

13. May be reduced to ten feet when the bottom of the infiltrative surface is below the base of the cut or bank and no restrictive layer or layer formed due to a structural or textural change is intersected or there is at least five feet of original, undisturbed soil above a restrictive layer or layer due to a structural change.

14. The health officer may reduce this setback to thirty feet if the soil depth is four feet or greater and is soil type 1, 2 or 3.

15. Any sewer clean-out shall be accessible for OSS maintenance or repair.

16. "Lined" means any component that has the intended function of detaining the stormwater with no intention of dispersal into surrounding soil.

17. Infiltration or discharge from stormwater management facilities must be located downgradient of the primary and reserve drainfield areas unless the site design application submitted to the health officer clearly demonstrates that site topography prevents discharged flows from stormwater management facilities from intersecting the OSS drainfield and the design is consistent with local stormwater management authority rules and policies.

18. The health officer may reduce this setback to not less than 30 feet upon finding that the OSS site design application clearly demonstrates that the setback reduction presents no increased risk of effluent from the OSS entering any component of a stormwater management system.

19. The health officer may reduce this setback to not less than 10 feet upon finding that the OSS site design application clearly demonstrates that the setback reduction presents no increased risk of effluent from the OSS entering any component of a stormwater management system.

SECTION 32. R&R 3, Part 4, Section 7, as amended, and BOH 13.28.070 are hereby amended to read

as follows:

Required absorption area.

A. Single-family dwellings.

1. For design purposes a minimum design flow of one hundred fifty gallons((/)) per bedroom((/)) per day shall be utilized in determining unit volume with a minimum of three bedrooms.

2. For each additional bedroom OSS designs must use at least an additional one hundred ((twenty)) fifty gallons((/)) per bedroom((/)) per day.

3. For single-family residences with additional accessory dwelling units or accessory living quarters served by the same OSS, the minimum design flow for each additional dwelling is one hundred fifty gallons per bedroom per day.

4. For accessory dwelling units or accessory living quarters served by their own OSS not connected to the OSS serving the primary single-family residence, a minimum design flow of one hundred fifty gallons per bedroom per day shall be utilized in determining unit volume with a minimum of two bedrooms.

5. Loading rates shall be determined according to soil texture type as outlined in Table 13.28-4. The finest textured soil in the selected vertical separation establishes the loading rate.

Table 13.28-4

Maximum Hydraulic Loading Rate for Residential Sewage[1]

Soil Type	Soil Textural Classification Description	Loading Rate for Residential Effluent Using Gravity or Pressure Distribution (gal./sq.ft./day)[5]
1	Gravelly and very gravelly[2] course sands, all extremely gravelly[3] soils excluding Soil types 5 & 6, all soil type with greater than or equal to 90% rock fragments	1.0[4]
2	Coarse sands	1.0
3	Medium sands, loamy coarse sands, loamy medium sands.	0.8

4	Fine sands, loamy fine sands, sandy loams, loams.	0.6[6]
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]
6	Other silt loams, sandy clay loams, clay loams, silty clay loams.	0.2[6, 7]
7	Sandy 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

Table 13.28-4 Explanatory Notes

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

2. Very Gravelly = >35% and <60% gravel and coarse fragments, by volume.

3. Extremely Gravelly = ((>60%)) ≥60% gravel and coarse fragments, by volume.

4. Due to the highly permeable nature of type 1 soil, only systems ((which)) that meet or exceed the treatment levels required in Table 13.28-1 may be installed.

5. The loading rate listed for the soil type present in the nongravel portion is to be used for calculating the minimum absorption area required. The value is to be determined from this table.

6. OSS installed in soil texture type 4, type 5, or type 6 shall be constructed during dry weather (defined as at least two consecutive weeks without appreciable rainfall) and dry soil conditions to minimize compaction and smearing during excavation, as verified at the site.

7. SSAS in soil type 6 must utilize pressure distribution.

B. Buildings other than single-family residences.

1. Soil dispersal components having daily design flow between one thousand and three thousand five hundred gallons of sewage per day shall:

a. be located only on soil types 1 through 5;

b. be located only on slopes of less than thirty percent, or seventeen degrees; and

c. have pressure distribution and timed dosing.

2. Schools with OSS and who use laboratories and shop facilities shall have plumbing drains for these facilities directed to holding tanks separate from the common wastewater drains to the OSS.

3. For OSS treating sewage from a nonresidential source, the designer shall provide the following:

a. information showing that none of the chemicals or other materials listed in BOH 13.04.058 will be introduced into the OSS; and

b. a site-specific design providing the treatment level equal to or greater than the treatment level required of sewage from a residential source.

4. The owner of an OSS for a commercial development not classified as a community on-site system shall file a covenant declaring that the owner is responsible for the operation, monitoring, and maintenance of the OSS in accordance with this title.

5. Required absorption area must be determined by using one of the following methods:

a. by using the figures given in Table 13.28-5, or the Onsite Wastewater Treatment Systems Manual, EPA/625/R-00/008, as amended, then using the appropriate application rate from Table 13.28-4; or

b. by determining average water meter readings for one year from at least three similar establishments and adding a minimum safety factor of fifty percent. Both operating capacity and surge capacity must be determined.

6. The minimum SSAS area must be not less than two hundred square feet.

Table 13.28-5

Type of Establishment[1]	**Gallons Per Person Per Day**
Multiple Family Dwelling (per person - 2 per bedroom - Minimum of 2 bedrooms per unit)	75
Factories, office buildings, etc. (add 100 gallons/day for each utility sink per shift; food establishment not included)	20
Food Establishments - with food preparation	50 (gallons per seat)

Taverns - no food preparation (estimate patrons per day and add 15 gallons/employee)	5
Mobile Home Parks (figure minimum 3 bedrooms, 2 people per bedroom)	75
Resort Camps	50
Work or Construction Camps	50
Day Camps (no meals served)	15
Swimming Pools and Bathhouse (sanitary facilities only)	15
Country Clubs (per member present, add 15 gallons/day per employee)	130
Motels with kitchen (figure 2 persons per bed space)	50
Motels (figure 2 persons per bed space)	40
Theaters (per auditorium seat)	5
Airports (per passenger)	5
Retail Stores (per toilet room for customer use)	650
Retail Stores (per employee per shift - add 100 gallons/day for each utility sink)	15
Service Stations (per vehicle served)	15
Churches without kitchen (seating capacity)	5
Churches with kitchen (seating capacity)	15
Recreational Vehicle Parks (without sewer and water hookups - with central toilets and showers - per space)	50
Recreational Vehicle Parks (with sewer and water hookups - with central toilets and showers - per space)	100
Boarding Houses (per person)	50
Campgrounds (with central comfort station - with flush toilets and showers - per space)	50
Campground (with central comfort station - without showers - per space)	25
Picnic Parks (flush toilets only - per person)	5
Picnic Parks (with flush toilets - bathhouse and showers - per person)	10
For uses not listed in this table, the upper range values in Onsite Wastewater Treatment Systems Manual, February 2002, EPA/625/R-00/008, as amended, United States Environmental Protection Agency, shall be used. If the type of facility is not listed in the EPA design manual, design flows from one of the following shall be used: (A) Design Standards for Large On-site Sewage Systems, 1993, Washington State Department of Health (available upon request to the department); or (B) Criteria for Sewage Works Design, revised November 2007, Washington State Department of Ecology (available online).	

[1]For buildings other than single-family residences the requirements of Section 13.28.020(B) shall be met.

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SECTION 33. R&R 3, Part 5, Section 2(A), as amended, and BOH 13.36.010 are hereby amended to read as follows:

Design standards.

A. No septic tank, effluent pump tank, sewage holding tank, grease trap or any other sewage tank may be installed in King County unless:

1. The tank is included on the DOH publication, List of Approved On-site Sewage Tanks;

2. The tank conforms to the DOH publication, Recommended Standards and Guidance for Performance, Application, Design, Construction, Installation and Testing On-site Sewage System Tanks, July 1, 2007, as amended; and

3. The health officer has approved plans for the tank installation. Such plans shall show all dimensions, reinforcing, structural details and other pertinent data as required by the health officer. Upon approval by the health officer, the plans will be assigned an official number.

B. ((Tanks made of materials other than concrete shall be approved by the secretary prior to approval by the health officer.

C.)) No pre-cast wastewater tank may be installed except those which are included on the registered list and have been clearly and legibly marked on the upper surface of the lid showing the number assigned by the health officer, name of the manufacturer, tank model number, tank capacity in gallons and date of manufacture.

((D.)) C. No metal septic tanks shall be installed in areas under the jurisdiction of the department.

((E.)) D. All septic tanks, whether they are installed or used singly, in series or in a divided system, must be designed according to waste load and in no case shall have a total capacity of less than one thousand five hundred gallons, except by written permission of the health officer.

Minimum Capacities for

Single-Family Residence Septic Tanks

Number of Bedrooms	**Minimum Liquid Capacity Below Outlet Invert (Gallons)**
4 or less	1500
Each additional bedroom, add	250
Garbage grinder installed, add	250

1. Use of garbage grinders increases settleable and floatable solids accumulations in the septic tank, increases wastewater strength and thus increases the potential for system failure especially if frequent and regular tank monitoring and maintenance is not performed. Therefore, use of garbage grinders is not recommended (See Section 13.60.005(a)(3)).

((F.)) E. No septic tank with a compartment smaller than two hundred fifty gallons liquid capacity may be installed.

((G.)) F. A septic tank designed to service any facility except a single-family residence or multiple family housing shall have a liquid capacity at least equal to three times the projected design flow, with a minimum of one thousand five hundred gallons. Septic tanks serving multiple family housing shall have a minimum liquid capacity equal to two times the projected design flow but not less than one thousand five hundred gallons.

((H.)) G. All septic tanks or combinations of tanks installed shall provide at least two compartments. No wastewater tanks may be joined below the normal inverts unless otherwise preapproved by the health officer.

((I.)) H. When multi-compartment tanks or two or more tanks in series are used, the first compartment or tank shall have a liquid capacity of two-thirds to three quarters of total required liquid capacity.

((J.)) I. The minimum liquid capacity of a tank receiving intermittent use shall be determined from the maximum expected daily waste load, but shall in no case be less than one thousand five hundred gallons.

((K.)) J. The plan review fee shall be as specified in the fee schedule, payable at the time of initial plan submission. In addition to the initial plan review fee, a revision review fee shall be assessed as specified in the

fee schedule, payable at the time of completion of the plan review, for review of any resubmissions, corrections, or additions required.

SECTION 34. R&R 3, Part 5, Section 3(C), and BOH 13.40.030, are hereby amended to read as follows:

Size requirement. The dosing tank shall be of sufficient size so as to provide the total volume required ((one day's total dosing gallonage plus one day's estimated waste volume but)) for two days of the design flow and shall not be less than one thousand five hundred gallons.

SECTION 35. R&R 3, Part 5, Section 5, and BOH 13.48.010 are hereby amended to read as follows:

Specifications.

A. No OSS may be constructed unless there has first been a soil evaluation for the site completed in the manner described in BOH 13.28.050 to determine type, size and location of the OSS. SSAS design and construction shall be in accordance with the following:

1. Maximum bottom width of trenches shall be twenty-four inches except a maximum width of up to thirty-six inches may be allowed provided that:

a. for soil types 1 through 4 the SSAS is at least pressure distribution in accordance with BOH 13.48.060 (pressure distribution systems); and

b. for soil types 5 and 6 the effluent shall meet the next higher treatment level as indicated in table 13.28-1 unless treatment level B is already required prior to discharge to the SSAS; and

c. the slope does not exceed thirty percent.

2. Beds are allowed only in excessively permeable soils consisting of very gravelly coarse sands or coarser, extremely gravelly soils. SSAS installed in beds must be pressure distribution and meet treatment level B or greater.

3. The maximum depth of soil cover over the top of SSAS drainrock shall not exceed twenty-four inches except by written permission of the health officer. The infiltrative surface or bottom of the drainfield

shall not be deeper than thirty-six inches below the finished grade.

4. The minimum depth of soil cover over drainrock shall not be less than twelve inches unless otherwise authorized by the health officer.

5. Minimum depth of drainrock under drainfield lines shall not be less than six inches.

6. The amount of drainrock over drainfield lines shall not be less than two inches.

7. Drainrock shall be clean, washed, uniformly graded, nondeteriorating gravel, size ((three-eighths inches to seven-eighths inches or three-quarters inches to one-and-)) three-fourths of an inch to two and one-half inches with no visible fine particles adhering to gravel surfaces and with the percent by weight passing the U.S. No. 200 sieve not greater than 0.5 percent.

8. Minimum separation between drainfield trench side walls shall not be less than four feet of undisturbed soil ((for soil texture types 1, 2, and 3 and shall not be less than six feet for soil texture type 4, 5 and 6)).

9. Individual laterals greater than one hundred feet in length must use pressure distribution.

10. No gravelless drainfield system may be installed unless it satisfies the requirements of BOH 13.52.054.

11. The designer shall specify, in the OSS design, the SSAS cover material to be used and shall verify, in the record drawing, that the cover material used conforms with the design specifications.

B. Horizontal separations shall be maintained in accordance with BOH 13.28.030W and Table 13.28- 2.

C. No drainfield pipes shall be installed unless all fittings are rigidly joined together in accordance with the pipe manufacturer's directions.

D. Approved rigid drainfield pipe, such as PVC, shall be used, but only if stakes are placed in the trench center at not more than five-foot intervals to maintain grade and a transit level laser or equally accurate instrument shall be used to assure that proper grade is maintained.

E. No drainfield shall be installed that requires a change in grade and earth cover unless terracing is

accomplished by the use of a suitable plastic or concrete drop box or by use of rigid plastic pipe with glued joints (overflow stepdown). Such installation shall have an earth dam twenty-four inches thick preceding terracing. Earth dams shall consist of original undisturbed soil.

F. Not less than one drainfield trench monitoring port of at least four inches in diameter, which is anchored, with an easily removable cover that extends to finished grade, shall be installed down to the infiltrative surface in each drainfield lateral.

G. No OSS shall be installed unless the pipe lines between the building and the septic tank, the septic tank and the distribution box, under paved areas, and within ten feet of any buildings, shall be constructed of plastic, or cast-iron pipe laid with watertight joints. The pipe materials shall conform to material specifications of the Uniform Plumbing Code.

H. No drainfield shall be installed that, after installation of the gravel over the pipe, is not then covered with a geotextile barrier material that meets the specifications of Section 5, Design Standards for Large On-site Sewage Systems, December 1993, amended July 1994, Washington State Department of Health, as amended.

I. No drainfield shall be installed under driveways, roadways, parking areas, paved areas or under areas subject to compaction by vehicular traffic.

J. Pipe used for construction of gravity drainfield lines shall be a minimum of four inches inside diameter and constructed of rigid materials conforming with ASTM F481-02, as amended.

K. Pipe used for construction of tightline must comply with the current Uniform Plumbing Code.

L. SSAS shall be installed in undisturbed native soil. Trees or tree stumps greater than eighteen inches in diameter, when measured two feet above grade, shall be left standing, cut at ground level, burned in place, or managed by other methods acceptable to the health officer that will avoid disturbing the soil.

SECTION 36. R&R 3, Part 6, Section 1, as amended, and BOH 13.52.010 are hereby amended to read as follows:

Holding tanks.

A. Sewage holding tanks may be permitted only for controlled, nonresidential usage or as an interim method to handle emergency situations or to correct existing problem systems; provided, that an on-site system management program satisfactory to the health officer has been established to assure on-going operation and maintenance.

B. ((In addition, t))The applicant ((must)) for a holding tank shall provide a no-protest agreement with the sewering authority or a signed petition supporting formation of a ULID if the property is within a sewer service area.

C. ((Design plans shall be submitted)) The applicant shall submit holding tank design plans in conformance with this title to the health officer for review. The ((design and)) owner shall ensure that holding tank maintenance and operation ((shall be in accordance)) conform with this title and with Guidelines for Holding Tank Sewage Systems, July 2007, Washington State Department of Health, as amended. The application shall include specifications for the anticipated daily sewage load, the tank capacity, the alarm device, the overflow elevation, the location of the tank, and any other information pertinent to the installation.

D. ((A minimum bond of five thousand dollars must be filed with the health officer or management authority to guarantee cleanup in case of accidental spill and/or repair of the system.

E. A copy of a pumping contract with a certified OSS pumper must be filed with the department)) The owner shall enter into an active pumping contract with a certified OSS pumper and file a copy of the contract with the health officer. The owner shall maintain the contract at all times until the holding tank has been decommissioned. The pumper shall notify the health officer if the contract is at any time canceled or not renewed by either party to the contract.

F. The owner or applicant shall obtain ((A))an OSS installation permit ((must be obtained)) prior to installation of the tank.

G. ((Monitoring)) The owner shall cause monitoring and maintenance ((shall)) of the tank to be performed in accordance with BOH 13.60.010. The owner shall ensure that pumping of the holding tank

occurs at least as frequently as specified under the approved holding tank design, or, alternatively, that the holding tank installation includes technology to monitor septage levels in the tank and notify the owner and contracted pumper if ninety percent of the tank capacity is exceeded.

SECTION 37. R&R No. 3, Part 7, Section 5, and BOH 13.56.050 are each hereby amended to read as follows:

Record drawing.

A. ((Whenever a designer approves an installation,)) Within thirty days after approving an OSS installation and notifying the health officer of system completion, the designer shall prepare, sign, and submit electronically to the health officer a completely scaled and dimensioned record drawing and certification of the approved OSS ((shall be prepared in triplicate by the designer of the system on forms provided by the health officer. These forms shall then be signed by the designer and within thirty days of notifying the health officer of system completion all three complete copies shall be submitted)). Where an installation, alteration or repair is undertaken without a design prepared by a designer, the installer or OSM performing the installation, alteration or repair shall provide a reconciled ((record drawing)) site sketch to the health officer and the OSS owner at the time of final inspection.

B. The following details are required for all record drawings:

1. An accurate plot plan, with measurements and directions accurate to within one-half of one foot, showing the locations of the essential components of the OSS including:

a. all sewage tanks, tank pump out lids, tank inspection access ports and depth of tank burial.

b. all plumbing stub outlets.

c. building sewer line between building and septic tank.

d. effluent transport line between septic tank and distribution box or inspection box.

e. the ends, and all changes in direction, of installed and found buried pipes and electrical cables that

are part of the OSS.

f. the distribution/inspection box.

g. all soil absorption system laterals and permanent visible marker locations. The length and width of each individual drainfield lateral shall be shown to scale and the total number of lineal feet and square footage of laterals specified on the drawing. A dimensioned reserve soil absorption system area shall be included. h.

h. the location of any unusual construction features such as step downs((,)) in the drainfield laterals ((,)) must be clearly indicated.

i. distance between any drainfield laterals and the edges of any fill soils, cuts, banks, terraces, foundations, property lines, lakes, streams, wells or other water sources, water lines, driveways and impermeable surfaces.

j. the location and detail of soil absorption system inspection ports.

k. location and depth of permeable cover added after installation.

l. if ((a pump system)) the OSS contains a pump, the pump size, manufacturer, model, pump cycle duration, dose in gallons/cycle and pump timer settings.

m. location, size, shape, and placement of all buildings on the building site showing their relation to the OSS and to any easements, underground oil storage tanks, utility lines and property lines.

n. location, direction of flow, and discharge point of all ground and/or surface water interceptor drains and on-site stormwater infiltration systems.

o. orientation of drawing with north direction by arrow.

p. location of private water supply (well, spring, etc.).

q. location of design control point.

2. Clearly Indicated Scale using the appropriate scaled increments shown on a typical engineering scale. Recommended scale of one inch equals twenty feet. Scales utilizing ratios smaller than one inch equals

thirty feet are not acceptable.

3. One copy of an OSS owner's operating, maintenance and technical specifications manual which includes:

a. system performance specifications, including initial settings of electrical or mechanical devices needed to operate the system as intended by the designer and installer;

b. system operating instructions, including((, for proprietary products,)) manufacturer's standard product literature for proprietary products;

c. system preventive maintenance instructions and service schedule;

d. make, model and/or performance specifications of all system components; ((and))

e. check list and schedule for routine monitoring inspections, effluent sampling and reports((.)); and

f. record that materials and equipment meet the specifications contained in the design.

4. Copy of recorded "notice on title" required by BOH 13.56.054, and an operation and maintenance services agreement as applicable.

5. Copy of OSS installation permit.

6. Documentation describing the waste strength range within which the OSS is designed to operate.

SECTION 38. R&R 99-01, Section 2 (Part), as amended, and BOH 13.56.054 are hereby amended to read as follows:

Notice on title.

A. New Systems. The owner shall record a notice on title with the King County records and election division. This notice shall include all of the owner's responsibilities described in BOH 13.60.005 and Table 13.60-1.

B. Existing systems.

1. Prior to sale or transfer of property ownership, if the building is served by an OSS and the notice on title required by this section has not been recorded, then the owner shall record the notice as set forth in BOH

13.56.054.A. At the time of sale the seller shall obtain the buyer's signature acknowledging receipt of a copy of this recorded notice.

2. At the time of sale or transfer of property ownership, the buyer or transferee of a property served by an OSS shall forward to the health officer a fee as set forth in the fee schedule and submit a signed copy of the notice on title as set forth in BOH 13.56.054.A.

((3. At the time a building is remodeled or expanded, if it is not connected to public sewer and the notice on title required by this section has not been recorded, then the owner shall record the notice as set forth in BOH 13.56.054.A.))

SECTION 39. R&R 99-01, Section 2 (part), as amended, and BOH 13.60.005 are hereby amended to read as follows:

Operation and maintenance.

A. The OSS owner is responsible for the continuous proper operation and maintenance of the OSS, and shall:

1. Determine the level of solids and scum in the septic tank at least once every three years for residential systems with no garbage grinder and once every year if a garbage grinder is installed and, unless otherwise provided in writing by the health officer, once every year for commercial systems((.));

2. Employ an approved pumper to remove the septage from the tank when the level of solids and scum indicates that removal is necessary((.));

3. Cause preventive maintenance/system performance monitoring inspections to be conducted and any indicated service to be performed by an approved person at a minimum frequency in accordance with Table 13.60-1 unless otherwise established by the health officer((.));

4. Secure and renew contracts, as needed, to fulfill the OSS operation and maintenance requirements of Table 13.60-1((.));

5. Operate and maintain all OSS in accordance with this title, with pertinent alternative system

guidelines issued by the DOH and with the approved OSS owner's operating and maintenance instruction manual((.));

6. Protect the OSS area including the reserve area from:

a. cover by structures or impervious material;

b. surface drainage;

c. soil compaction, for example, by vehicular traffic or livestock; and

d. damage by soil removal and grade alteration((.));

7. Maintain the flow of sewage to the OSS at or below the approved operating capacity and sewage quality standards for residential strength waste water((.));

8. Direct drains, such as footing or roof drains away from the area where the OSS is located((.));

9. At time of property transfer, provide the buyer with 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

10. Ensure that all tank access lids are secured to minimize risk of injury or unauthorized access.

B. The owner shall not allow:

1. Use or introduction of strong bases, strong acids or organic solvents into an OSS for the purpose of system cleaning;

2. Use of a sewage system additive unless it is specifically approved by the DOH; or

3. Use of an OSS to dispose of waste components atypical of residential wastewater, for example, but not limited to, petroleum products, paints, solvents, or pesticides.

SECTION 40. R&R 3, Part 8, Section 1, as amended, and BOH 13.60.010 are hereby amended to read as follows:

Monitoring of residential, community or commercial systems.

A. The owner shall cause ((monitoring of the)) performance monitoring and preventive maintenance

inspections of any OSS at a frequency and by a qualified person as specified in Table 13.60-1.

B. For all system types, service access and monitoring ports to finished grade are required for all system components. Specific component requirement include the following:

1. Septic tanks shall have service access maintenance ports and monitoring ports for the inlet and outlet. If effluent filters are used, access to the filter at finished grade is required;

2. Surge, flow equalization or other sewage tanks shall be accessible for monitoring and maintenance;

3. All pretreatment units shall have service access maintenance ports and monitoring ports;

4. Pump chambers, tanks and vaults shall have service access maintenance ports;

5. Disinfection units shall have service access and be installed to facilitate complete maintenance and cleaning;

6. Soil dispersal components shall have monitoring ports for both distribution devices such as valves or other controls and the infiltrative surface; and

7. Any person providing service to an OSS shall secure tank access lids after servicing the OSS or provide clearly visible marking and notification to the property owner and occupants before leaving the site.

C. Systems using pumps shall have accessible controls and warning devices.

D. To facilitate maintenance and safety, control panels shall be located in line of sight of the pump tank.

E. OSS serving food establishments require, at a minimum, an annual performance monitoring and preventive maintenance inspection and periodic pumping as needed.

F. ((Operation and maintenance)) Performance monitoring and preventive maintenance inspections of any OSS in a marine recovery area shall be performed by a licensed OSS maintainer and at a frequency determined by the health officer based upon type, size, age, system condition, and system location, but not less than once per year. If no accurate record drawing for the OSS has been prepared and filed with the department, the licensed OSS maintainer performing the ((maintenance and performance monitoring)) inspection shall prepare and submit to the health officer a reconciled ((record drawing)) site sketch together with the ((system))

operation and performance monitoring report required under this chapter.

Table 13.60-1

Minimum Frequency of ((Preventive Maintenance/)) Performance Monitoring and Preventive Maintenance Inspections

	Gravity System without Pump[4]	Public Domain Technology[2]	Proprietary Technology[3,5]	Commercial and Food Establishment	Non-Discharging Toilets[6]
Initial[1] Inspection	6 months	6 months	45 days	45 days	N/A
Regular Inspection frequency	Every 3 years	Annually	((Every 6 months)) Annually	Annually ((or 6 months depending on Technology used))	Annually
Who May Perform the Inspection	Owner or Licensed Maintainer or Licensed OSS Pumper	Licensed Maintainer	Licensed Maintainer	Licensed Maintainer	Owner

Table 13.60-1 Explanatory Notes

1. The initial inspection is to be performed at the time interval indicated following occupancy.

2. Public domain technology includes such systems as((:)) mounds, intermittent sand filters, and pressure distribution.

3. Proprietary Technology includes such systems as((:)) ATUs, Glendon up-flow filters, Advantex pack bed filters, and subsurface drip.

4. ((At least an annual septic tank maintenance check is required if the structure served is equipped with a garbage grinder waste disposal unit.)) If a screened outlet baffle is present an annual ((check)) cleaning is recommended. ((Pumpers shall report each pumping event to the health officer in accordance with BOH chapter 13.68.))

5. Table 13.60-1 specifies the minimum required monitoring frequency. A more stringent monitoring

frequency shall be used if recommended by the manufacturer.

6. This monitoring is in addition to that required for the OSS receiving the building's nontoilet liquid waste.

G. The person conducting the ((maintenance and)) performance monitoring and preventive maintenance inspection shall submit ((a system)) an operation and ((maintenance/)) performance monitoring report, on forms provided by the health officer,

to the owner at the time of the inspection and to the health officer accompanied by a filing fee as specified in the fee schedule within thirty days of the inspection.

H. Any person holding a King County OSS certificate of competency or Washington state on-site sewage system designer or professional engineer license who observes effluent surfacing from an OSS component or sewage backing up into a structure shall report the failure on forms provided by the health officer within five business days of observing the failure.

I. The fee for each ((OSS monitoring/performance inspection)) monitoring report required by the health officer shall be in accordance with the fee schedule.

((I. Preventive maintenance and monitoring)) J.1. For any commercial development using OSS, performance monitoring and preventive maintenance inspection of the OSS ((performance and)), including quality of effluent, shall be required ((for any commercial development using OSS)).

((1.)) 2. The minimum frequency and the type of inspection required shall be in accordance with Table 13.60-1 unless otherwise established by the health officer.

((2.)) 3. At least an annual inspection of OSS serving food establishments shall be conducted.

((J.)) K. For properties where required performance monitoring and((/or)) preventive maintenance inspections are at least thirty days overdue the health officer may notify the owner that the OSS is not in compliance with these rules. The health officer may, in addition to provisions of BOH chapter 1.08 of this code, cause a notice of noncompliance to be recorded with the real property records for the subject lot.

SECTION 41. R&R 08-03, Section 145, and BOH 13.60.030 are hereby amended to read as follows:

Operation and maintenance at time of sale.

A. The seller or grantor of any single-family or multiple family residential property served by an OSS shall, prior to transfer of title to the property, have a property transfer monitoring and performance inspection performed by a licensed OSM. The licensed OSM shall file with the department an on-site system report and applicable fee in accordance with the fee schedule.

((1.)) B. If no record drawing is on file with the department, the OSM shall prepare a ((record drawing)) site sketch and include it with the O&M report submitted to the department.

((2.)) C. If a record drawing is on file with the department but does not accurately depict the OSS, the OSM shall prepare a ((reconciled record drawing)) site sketch and include it with the O&M report submitted to the department.

((3.)) D. A property transfer monitoring and performance inspection is not required if such an inspection was performed within the previous ((6 months.)) twelve months, provided the property has not been transferred since the most recent inspection.

((4.)) E. At the time of property transfer, the owner shall 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.

SECTION 42. R&R No. 3, Part 9, Section 1, as amended, and BOH 13.64.010 are each hereby amended to read as follows:

Repairs of failing OSS.

A. This title shall be applied to the maximum extent permitted by the site for any repair necessitated by the failure of an existing OSS. The health officer may waive compliance with these requirements if a conforming repair is not feasible and if in the health officer's judgment the repaired system will not have an adverse effect on public health, but the repaired system shall not discharge onto the surface of the ground, into surface waters, or otherwise fail.

B. The health officer ((may)) shall require a site design in accordance with BOH chapter 13.28 for the repair or replacement of a failing soil absorption component ((and if deemed necessary)) or for a ((limited)) repair. Prior to designing the repair system, the designer shall consider the contributing factors of the failure to enable the repair to address identified causes of the failure, and shall include this information in any design or repair proposal to the department. ((The health officer shall require a site design in accordance with chapter 13.28 for the repair or replacement of a failing soil absorption component and if deemed necessary for a limited repair.))

C. It is unlawful to repair an OSS without ((an)) a department approved OSS ((limited)) repair permit, except that a permit is not required for a minor repair as defined under BOH chapter 13.08.

Table 13.64-1

Minimum Treatment Level and Bacteria Level Required for Repair or Replacement of Soil Absorption Components on Sites not Meeting Vertical and/or Horizontal Separation Requirements of this Title

Vertical Separation (in inches)	**Horizontal Separation[1]**											
	((<25)) < 30 feet[2,3]			**((25 < 50)) ≥30 < 50 feet[2,3]**			**((50 < 100)) ≥ 50 < 100 feet[2,3]**			**((> 100)) ≥ 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**
	Minimum Treatment Level and Bacteria Level											
< 12	A & BL1	A & BL1	A & BL1	A & BL1	A & BL1	A & BL1	A & BL1	A & BL1	((B)) A & BL1	B & BL2	B & BL2	B & BL2
((>12 < 18)) ≥ 12 < 18	A & BL1	A & BL1	A & BL1	A & BL1	B & BL2	B & BL2	A & BL1	B & BL2	B & BL2	Conforming Systems		
((> 18 < 24)) ≥ 18 < 24	A & BL1	A & BL1	A & BL1	A & BL1	B & BL2	B & BL2	A & BL1	B & BL2	((C)) B & BL2			

((> 24 < 36)) ≥ 24 < 36	A & BL1	B & BL2	B & BL2	B & BL2	((C)) B & BL2	((C)) B & BL2	B & BL2	((C)) B & BL2	C & BL3	
((> 36)) ≥ 36	A & BL1	B & BL2	B & BL2	B & BL2	C & BL3	C & BL3	B & BL2	C & BL3	((E))C & BL3	

Table 13.64-1 Explanatory Notes

The horizontal separation indicated in this table 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 and BL1 is already required.

1. The Treatment Levels refer to effluent quality achieved before discharge to unsaturated subsurface soil.

2. Alternative systems which meet the Treatment Level without disinfection are required when the repair OSS is adjacent to fresh water bodies.

3. When adjacent to fresh surface water bodies the next higher Treatment Level ((A)) shall be provided unless Treatment Level A and BL1 is already provided.

D. The treatment level required for repair or replacement of soil absorption components of an existing failed OSS when conforming vertical separation and conforming horizontal separation to surface water and/or to individual private wells is not possible shall be in accordance with Table 13.64-1.

E. Alterations or repairs to an OSS shall be documented in a repair record drawing submitted to the health officer for final approval at time of final inspection, unless a full design application was submitted for the repair.

F. ((The owner receiving a Table 13.64-1 repair permit where treatment Level A or B is required shall:

1. Immediately report any OSS failure to the health officer;

2. Continuously operate, maintain and monitor the OSS performance in accordance with the

appropriate recommended standards and guidance for the technology in use; and

3. Report the results of the OSS maintenance and monitoring to the health officer quarterly when Treatment Level A is required and annually when Treatment Level B is required.

G.)) The owner receiving a permit shall file a "notice on title" in accordance with 13.56.054 and the notice shall include:

1. A notarized agreement to comply with the conditions of BOH 13.64.010.F above; and

2. A disclosure that a nonconforming OSS has been installed to correct a failure because a conforming OSS is not feasible due to site and soil limitations and that due to the OSS nonconformity the system is not authorized to support new building construction or expansions or major alterations of the existing structure.

((H.)) G. The health officer may authorize in writing a horizontal separation of not less than seventy-five feet between an OSS dispersal component and an individual private drilled well, but only if:

1. ((t))The well is located on the same parcel as the property served by the OSS;

2. ((t))The OSS is designed and operated to provide treatment level A or treatment performance beyond that accomplished by meeting the vertical separation and effluent distribution requirements described in Table 13.64-1; and

3. ((t))The owner monitors drinking water quality for coliform and nitrate and periodically submits drinking water quality reports to the health officer at least annually.

((I.)) H. For any designed repair, the designer shall include, on the record drawing document, the operating capacity of the repaired OSS and provide a copy of the record drawing document to the owner.

((J.)) I. For any repair required to be performed in accordance with Table 13.64-1 of this title, disinfection may not be used to achieve the fecal coliform requirements to meet:

1. Treatment levels ((A or B)) BL1 or BL2 where there is less than eighteen inches of vertical separation((:)); or

2. Treatment levels ((A or B)) BL1 or BL2 in type 1 soils; or

3. Treatment level ((C)) BL3.

((K.)) J. Except as provided in BOH 13.20.040, OSS repairs shall be supervised by an OSS master installer certified pursuant to BOH 13.20.020 and 13.20.030.

((L.)) K. When the work of repairing an existing OSS has been completed, but before it is closed and covered, the installer shall notify the owner and the person who designed the repair ((and owner shall be notified)) that the work has been completed. The person who designed the repair shall then proceed as described in BOH 13.56.030((, subsections)) B. and C. The person designing the repair shall then call for the health officer to inspect the system.

L. For a ((limited)) minor repair, the installer or maintainer shall submit a ((limited)) minor repair report to the health officer within five working days after completing the repair with a site sketch documenting any changes in OSS components.

M. Unless otherwise directed by the health officer, OSS repairs shall not be covered until the health officer has given approval.

SECTION 43. R&R 3, Part 9, Section 2, as amended, and BOH 13.64.020 are hereby amended to read as follows:

Remodeling - approval required.

A. Existing buildings or structures to which additions, alterations, or improvements which would impact the operation of the OSS are made after the effective date of this title shall be served by an OSS complying with this title((; provided, however)), except that the health officer may waive compliance with these requirements for existing buildings or structures when the addition, alterations, repairs, or improvements to the building or structure are compatible with and do not adversely impact the OSS including the potential reserve area, do not affect the adequacy of the system to treat the sewage over the remaining useful life of the building or structure, and do not adversely affect the ability of the continued operation of the system to protect public health, surface water quality, or groundwater quality.

B. Applications for approval by the health officer of existing OSS serving existing buildings undergoing addition, alteration, repair, or improvement shall be made as provided in this section. The application shall be made on forms furnished by the health officer.

C.1. The health officer will review all applications to determine the compatibility of the proposed addition, alteration, repair, or improvement with the existing OSS.

((1.)) 2. Factors that the health officer may consider include, but are not limited to, the following:

a. location of SSAS in relation to foundation and existing improvements;

b. size of SSAS in relation to proposed use;

c. condition of the existing OSS;

d. ((useful anticipated life of the existing on-site sewage disposal system;

e.)) potential for reconstruction and repair of the existing on-site sewage disposal system;

((f.)) e. ultimate purpose of the remodeling; and

((g.)) f. approved source of water.

((2.)) 3. The health officer may require the applicant to furnish such exhibits and information as may be deemed relevant and necessary to the application.

D. Any applicant ((for a permit for a change)) changing ((of)) use in a commercial structure served by an OSS, or for a change of use from residential to commercial in a structure served by an OSS, shall obtain the health officer's review and approval of the OSS before the OSS may be utilized to serve the new use in the structure. Any such applicant for a change in use approval for the continued use of the OSS shall ((submit a written)) cause the application for approval by the health officer to be submitted by a licensed OSS designer or professional engineer on forms provided by the health officer. The application shall include information detailing the anticipated wastewater strength of the proposed use and any processes or uses which may impact the wastewater characteristics and flows of the existing OSS.

E. The nonrefundable fee for such a review shall be as specified in the fee schedule, payable to the

department. No charge shall be made for applications for projects that are determined to be categorically exempt by the health officer.

SECTION 44. R&R 3, Part 11, Section 1, as amended, and BOH 13.68.010 are hereby amended to read as follows:

Pumper certification requirements.

A. It is unlawful for any person to carry on or engage in the business of pumping out the contents of septic tanks, cesspools, grease traps, seepage pits, vault privies, portable toilets, and other receptacles of human sewage or to transport over the highways or to dispose of the contents therefrom in King County unless the pumper business operator and in addition, each employee of the OSS pumper who engages in OSS pumping activities, holds a valid certificate of competency and each vehicle has an annual inspection tab issued by the health officer in accordance with this title for conducting such business. The following liquid waste pumper's certificate of competency classifications are established:

1. OSS pumper;
2. Grease trap((/)) or interceptor pumper;
3. ((Vessel)) Watercraft sewage holding tank pumper;
4. Portable toilet pumper; and
5. Miscellaneous sewage pumper.

B. All persons holding a valid pumper registration on the effective date of these regulations will be classified by the health officer in accordance with subsection((s)) A.1. through ((A))4. of this section.

C. A holder of an OSS pumper classification certificate of competency may, in addition to the pumping and transporting activity under this section, conduct routine preventive maintenance and performance monitoring inspections of gravity OSS, except that an OSS inspection at time of property sale under BOH 13.60.030 shall be performed by a licensed OSS maintainer. A liquid waste pumper of any classification may not perform minor repairs on any OSS component other than lids, risers, baffles, and building sewer tightlines.

D. An applicant may be issued a certificate under such terms, conditions orders and direction as the health officer may deem necessary for the protection of public health. The health officer may waive any specific condition required by this chapter for certification when, in the opinion of the health officer, the condition duplicates a requirement of another regulatory agency and which the applicant has fulfilled.

E. As a condition of certification, a pumper shall consistently demonstrate reasonable care and skill in performing work governed by this title, meet the requirements of the King County OSS code of performance and ethics, and comply with all the terms and conditions of these and all other applicable rules and regulations.

SECTION 45. R&R 3, Part 11, Section 2, as amended, and BOH 13.68.020 are hereby amended to read as follows;

Application. ((All applications for pumper certification under this title shall be submitted)) An applicant for a pumper certificate of competency shall submit the application to the health officer((. The application shall state the applicant's name in full; if a partnership, then the names of the partners, the relation of the applicant to the firm or partnership; the name of the corporation if a corporation; the place of business and place of residence of the applicant; each of the partners in the business, if a partnership; and the place of business of the corporation, if a corporation. The applicant shall also provide)) and shall include the following with the application:

A. If an individual, the applicant's name in full, signature, place of residence, and name and place of business;

B. If a partnership or corporation, the names of the partners or officers, the relation of the applicant to the partnership or corporation, the signature of the managing partner or authorized officer, and the name and primary place of business of the partnership or corporation;

C. ((t))The number and identification of all vehicles to be used;

D. ((t))The type, location and name of all the sites that the applicant will use to dispose of the contents of septic tanks, cesspools, grease traps, grease interceptors, seepage pits, vault privies, portable toilets and other

receptacles of human sewage; ((and))

E. A valid disposal site letter of authorization including the name and address of the person, firm, or corporation who is responsible for the operation of each disposal site((. A valid disposal site letter of authorization must accompany the application. The application shall be signed by the authorized officer of the corporation, if a corporation, or by the managing partner, if a partnership, or by the individual owner, if owned by an individual, and by the individual applicant)); and

F. A signed attestation that the applicant for a new or renewal pumper certificate of competency is familiar with and agrees to perform all OSS services in accordance with the requirements of this title and the King County OSS code of performance and ethics.

SECTION 46. R&R 3, Part 11, Section 3, as amended, and BOH 13.68.030 are hereby amended to read as follows:

Examination and inspection.

A. Except as described in BOH 13.68.010.B., a pumper's certificate of competency and((/or)) vehicle inspection tab, as applicable, shall be issued to the applicant only after:

1. Completion of a course of instruction given by ((a)) one or more qualified ((person(s))) persons acceptable to the health officer and which covers, as applicable to the certificate of competency classification, basic sanitation principles affecting public health, on-site sewage concepts, details of proper servicing of sewage tanks ((or other receptacles of human sewage)) and all components of a gravity OSS, and the transporting and disposing of sewage, septage, sludge, or fats, oils and grease;

2. Satisfactory completion of an examination relevant to the pumper certificate of competency classification, which may include but not necessarily be limited to the applicant's knowledge of sanitation principles affecting public health, ((knowledge of principles of on-site sewage system)) OSS operations, ((knowledge of)) sewage tanks ((and/or portable toilet)) and all components of a gravity OSS, servicing procedures, and knowledge of regulations governing disposal of septage, sewage, and((/or)) fats, oils, and

grease((, and)). The examination may also include an assessment of the reliability of the applicant in observing sanitation laws, regulations, and directions, plus other pertinent information as deemed necessary by the health officer. ((except that the grease)) Grease trap((/)) or interceptor pumpers, ((vessel)) watercraft sewage holding tank pumpers, ((and)) portable toilet pumpers, and miscellaneous sewage pumpers may be exempted from such examination upon satisfactory completion of an industry certification((/)) or training program, or both, acceptable to the health officer. The fee for such an examination or evaluation of training documentation shall be as specified in the fee schedule payable in advance and nonrefundable;

3. Annual inspection and approval of the applicant's equipment to be used in the performance of the business;

4. The business operator provides the health officer with evidence of compliance with state of Washington minimum bonding requirements as stated in chapter 18.27 RCW and contractor's liability insurance for at least fifty thousand dollars; and

5. Business operators, other than OSS pumpers, sign and provide to the health officer a statement certifying that all employees working in contact with equipment potentially contaminated by sewage have successfully completed a course of instruction given by a qualified person or persons acceptable to the health officer which covers basic sanitation principles affecting public health.

B. Certificate of competency and vehicle inspection fees shall be as specified in the fee schedule.

C. After certification has been approved by the health officer, the applicant will be issued a certification of competency registration number. The business owner shall permanently affix said number preceded by the letters "KC No." on each of the applicant's collection vehicles. ((Said)) The numbers must be in a contrasting color to that of the vehicle and in letters at least three inches high and placed along with the annual wastewater vehicle tab in a conspicuous place designated by the health officer. In addition, the name of the operating firm shall be conspicuously displayed on both sides of the truck.

D.1. Certificates shall expire December 31((st)) of each year.

((1.)) 2. The health officer may renew certificates of competency provided that the applicant submits not later than December 31((st)) a complete renewal application accompanied by((:)) a fee as set forth in the fee schedule, authorization for continued use of all disposal sites, a completed annual vehicle inspection report, and proof of minimum bonding and insurance requirements((; and)).

((2.)) 3. Complete applications for renewal submitted after January 15 shall be subject to a late fee in the amount of one-half the renewal fee, after January 31 double the renewal fee and after February 10 a renewal shall not be granted without passing a competency examination.

SECTION 47. R&R 3, Part 11, Section 5, as amended, and BOH 13.68.050 are hereby amended to read as follows:

Revocation of certificate of competency and inspection certificates. ((Any certificate of competency and inspection certificate issued under this title may be suspended or revoked for cause by the health officer pursuant to)) The health officer may assess civil penalty fines of up to one-thousand dollars per violation per day against any holder of an OSS pumper's certificate of competency, or institute probationary requirements, or suspend or revoke a pumper's certificate of competency for the pumper's failure to comply with this title or the King County OSS code of performance and ethics.

SECTION 48. R&R 99-01, Section 2 (part), and BOH 13.08.024 are hereby repealed.

SECTION 49. R&R 08-03, Section 12, and BOH 13.08.055 are hereby repealed.

SECTION 50. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.060 are hereby repealed.

SECTION 51. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.070 are hereby repealed.

SECTION 52. R&R 99-01, Section 2 (part), and BOH 13.08.072 are hereby repealed.

SECTION 53. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.084 are hereby repealed.

SECTION 54. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.090 are hereby repealed.

SECTION 55. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.114 are hereby repealed.

SECTION 56. R&R 08-03, Section 21, and BOH 13.08.115 are hereby repealed.

SECTION 57. R&R 08-03, Section 23, and BOH 13.08.117 are hereby repealed.

SECTION 58. R&R 08-03, Section 27, and BOH 13.08.131 are hereby repealed.

SECTION 59. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.132 are hereby repealed.

SECTION 60. R&R 99-01, Section 2 (part), and BOH 13.08.134 are hereby repealed.

SECTION 61. R&R 08-03, Section 30, and BOH 13.08.141 are hereby repealed.

SECTION 62. R&R 08-03, Section 32, and BOH 13.08.151 are hereby repealed.

SECTION 63. R&R 08-03, Section 34, and BOH 13.08.154 are hereby repealed.

SECTION 64. R&R 09-03, Section 37, and BOH 13.08.175 are hereby repealed.

SECTION 65. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.180 are hereby repealed.

SECTION 66. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.190 are hereby repealed.

SECTION 67. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.202 are hereby repealed.

SECTION 68. R&R 08-03, Section 40, and BOH 13.08.205 are hereby repealed.

SECTION 69. R&R 99-01, Section 2 (part), and BOH 13.08.212 are hereby repealed.

SECTION 70. R&R 08-03, Section 41, and BOH 13.08.213 are hereby repealed.

SECTION 71. R&R 99-01, Section 2 (part), and BOH 13.08.226 are hereby repealed.

SECTION 72. R&R 08-03, Section 47, and BOH 13.08.257 are hereby repealed.

SECTION 73. R&R 08-03, Section 49, and BOH 13.08.261 are hereby repealed.

SECTION 74. R&R 08-03, Section 50, and BOH 13.08.263 are hereby repealed.

SECTION 75. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.280 are hereby repealed.

SECTION 76. R&R 08-03, Section 55, and BOH 13.08.287 are hereby repealed.

SECTION 77. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.290 are hereby repealed.

SECTION 78. R&R 08-03, Section 56, and BOH 13.08.305 are hereby repealed.

SECTION 79. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.320 are hereby repealed.

SECTION 80. R&R 08-03, Section 57, and BOH 13.08.3215 are hereby repealed.

SECTION 81. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.322 are hereby repealed.

SECTION 82. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.324 are hereby repealed.

SECTION 83. R&R 08-03, Section 60, and BOH 13.08.327 are hereby repealed.

SECTION 84. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.330 are hereby repealed.

SECTION 85. R&R 99-01, Section 2 (part), and BOH 13.08.341 are hereby repealed.

SECTION 86. R&R No. 08-03, Section 61, and BOH 13.08.346 are hereby repealed.

SECTION 87. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.372 are hereby repealed.

SECTION 88. R&R 99-01, Section 2 (part), and BOH 13.08.402 are hereby repealed.

SECTION 89. R&R 99-01, Section 2 (part), and BOH 13.08.406 are hereby repealed.

SECTION 90. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.410 are hereby repealed.

SECTION 91. R&R 08-03, Section 69, and BOH 13.08.424 are hereby repealed.

SECTION 92. R&R 99-01, Section 2 (part), and BOH 13.08.426 are hereby repealed.

SECTION 93. R&R No. 08-03, Section 72, and BOH 13.08.465 are hereby repealed.

SECTION 94. R&R No. 3, Part 1, Section 5, as amended, and BOH 13.08.470 are hereby repealed.

SECTION 95. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.472 are hereby repealed.

SECTION 96. R&R 08-03, Section 74, and BOH 13.08.477 are hereby repealed.

SECTION 97. R&R 08-03, Section 76, and BOH 13.08.482 are hereby repealed.

SECTION 98. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.484 are hereby repealed.

SECTION 99. R&R 09-03, Section 79, and BOH 13.08.493 are hereby repealed.

SECTION 100. R&R 08-03, Section 80, and BOH 13.08.4934 are hereby repealed.

SECTION 101. R&R 08-03, Section 81, and BOH 13.08.4937 are hereby repealed.

SECTION 102. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.500 are hereby repealed.

SECTION 103. R&R 08-03, Section 87, and BOH 13.08.505 are hereby repealed.

SECTION 104. R&R 99-01, Section 2 (part), and BOH 13.08.512 are hereby repealed.

SECTION 105. R&R 99-01, Section 2 (part), and BOH 13.08.516 are hereby repealed.

SECTION 106. R&R 08-03, Section 88, and BOH 13.08.520 are hereby repealed.

SECTION 107. **Effective date.** This rule takes effect April 1, 2025.

SECTION 108. **Severability.** If any provision of this rule or its application to any person or circumstance is held invalid, the remainder of the rule or the application of the provision to other persons or circumstances is not affected.