

1 .Title

2 A RULE AND REGULATION relating to on-site sewage
3 treatment and disposal systems; amending R&R 3, Part
4 13, Section 1, as amended, and BOH 13.04.050, R&R 3,
5 Part 13, Section 3, as amended, and BOH 13.04.070,
6 R&R 99, Section 2 (part), as amended, and BOH
7 13.08.010, R&R 3, Part 1, Section 5, as amended, and
8 BOH 13.08.020, R&R 3, Part 1, Section 5 (part), as
9 amended, and BOH 13.08.140, R&R 99-01, Section 2
10 (part), as amended, and BOH 13.08.152, R&R 99-01,
11 Section 2 (part), and BOH 13.08.226, R&R 99-01,
12 Section 2 (part), as amended, and BOH 13.08.284, R&R
13 3, Part 1, Section 5 (part), as amended, and BOH
14 13.08.300, R&R 99-01, Section 2, and BOH 13.08.342,
15 R&R 3, Part 1, Section 5 (part), as amended, and BOH
16 13.08.350, R&R 3, Part 1, Section 5 (part), as amended,
17 and R&R 13.08.380, R&R 3, Part 1, Section 5 (part), as
18 amended, and BOH 13.08.490, R&R 3, Part 10, Section
19 2, as amended, and BOH 13.12.030, R&R 3, Part 10,
20 Section 3(B), as amended, and BOH 13.12.050, R&R 3,
21 Part 12, Section 1, as amended, and BOH 13.16.010,
22 R&R 3, Part 2, Section 1, as amended, and BOH

23 13.20.010, R&R 3, Part 2, Section 2(B), as amended, and
24 BOH 13.20.030, R&R 99-01, Section 2, as amended, and
25 BOH 13.20.035, R&R 3, Part 2, Section 3, as amended,
26 and BOH 13.20.040, R&R 3, Part 3, Section 1, and BOH
27 13.24.010, R&R 3, Part 3, Section 2, as amended, and
28 BOH 13.24.020, R&R 3, Part 3, Section 3, as amended,
29 and BOH 13.24.030, R&R 3, Part 3, Sections 1 and 4, as
30 amended, and BOH 13.28.010, R&R 3, Part 4, Section 2,
31 as amended, and BOH 13.28.020, R&R 3, Part 4, Section
32 3, as amended, and BOH 13.28.030, R&R 3, Part 4,
33 Section 7, as amended, and BOH 13.28.070, R&R 3, Part
34 5, Section 2(A), as amended, and BOH 13.36.010, R&R
35 3, Part 5, Section 3(C), and BOH 13.40.030, R&R 3, Part
36 5, Section 5, and BOH 13.48.010, R&R 3, Part 6, Section
37 1, as amended, and BOH 13.52.010, R&R 3, Part 7,
38 Section 5, and BOH 13.56.050, R&R 99-01, Section 2
39 (Part), as amended, and BOH 13.56.054, R&R 99-01,
40 Section 2 (part), as amended, and BOH 13.60.005, R&R
41 3, Part 8, Section 1, as amended, and BOH 13.60.010 ,
42 R&R 08-03, Section 145, and BOH 13.60.030, R&R 3,
43 Part 9, Section 1, as amended, and BOH 13.64.010, R&R
44 3, Part 9, Section 2, as amended, and BOH 13.64.020,

45 R&R 3, Part 11, Section 1, as amended, and BOH
46 13.68.010, R&R 3, Part 11, Section 2, as amended, and
47 BOH 13.68.020, R&R 3, Part 11, Section 3, as amended,
48 and BOH 13.68.030, and R&R 3, Part 11, Section 5, as
49 amended, and BOH 13.68.050, adding new sections to
50 BOH chapter 13.04, adding new sections to BOH chapter
51 13.08, recodifying BOH 13.08.226, repealing R&R 99-
52 01, Section 2 (part), and BOH 13.08.024, R&R 08-03,
53 Section 12, and BOH 13.08.055, R&R 3, Part 1, Section
54 5 (part), as amended, and BOH 13.08.060, R&R 3, Part 1,
55 Section 5 (part), as amended, and BOH 13.08.070, R&R
56 99-01, Section 2 (part), and BOH 13.08.072, R&R 99-01,
57 Section 2 (part), as amended, and BOH 13.08.084, R&R
58 3, Part 1, Section 5 (part), as amended, and BOH
59 13.08.090, R&R 99-01, Section 2 (part), as amended, and
60 BOH 13.08.114, R&R 08-03, Section 21, and BOH
61 13.08.115, R&R 08-03, Section 23, and BOH 13.08.117,
62 R&R 08-03, Section 27, and BOH 13.08.131, R&R 99-
63 01, Section 2 (part), as amended, and BOH 13.08.132,
64 R&R 99-01, Section 2 (part), and BOH 13.08.134, R&R
65 08-03, Section 30, and BOH 13.08.141, R&R 08-03,
66 Section 32, and BOH 13.08.151, R&R 08-03, Section 34,

67 and BOH 13.08.154, R&R 09-03, Section 37, and BOH
68 13.08.175, R&R 3, Part 1, Section 5 (part), as amended,
69 and BOH 13.08.180, R&R 3, Part 1, Section 5 (part), as
70 amended, and BOH 13.08.190, R&R 99-01, Section 2
71 (part), as amended, and BOH 13.08.202, R&R 08-03,
72 Section 40, and BOH 13.08.205, R&R 99-01, Section 2
73 (part), and BOH 13.08.212, R&R 08-03, Section 41, and
74 BOH 13.08.213, R&R 99-01, Section 2 (part), and BOH
75 13.08.226, R&R 08-03, Section 47, and BOH 13.08.257,
76 R&R 08-03, Section 49, and BOH 13.08.261, R&R 08-
77 03, Section 50, and BOH 13.08.263, R&R 3, Part 1,
78 Section 5 (part), as amended, and BOH 13.08.280, R&R
79 08-03, Section 55, and BOH 13.08.287, R&R 3, Part 1,
80 Section 5 (part), as amended, and BOH 13.08.290, R&R
81 08-03, Section 56, and BOH 13.08.305, R&R 3, Part 1,
82 Section 5 (part), as amended, and BOH 13.08.320,
83 R&R 08-03, Section 57, and BOH 13.08.3215, R&R 99-
84 01, Section 2 (part), as amended, and BOH 13.08.322,
85 R&R 99-01, Section 2 (part), as amended, and BOH
86 13.08.324, R&R 08-03, Section 60, and BOH 13.08.327,
87 2R&R 3, Part 1, Section 5 (part), as amended, and BOH
88 13.08.330, R&R 99-01, Section 2 (part), and BOH

89 13.08.341, R&R 08-03, Section 61, and BOH 13.08.346,
90 R&R 3, Part 1, Section 5, as amended, and BOH
91 13.08.350, R&R 99-01, Section 2 (part), as amended, and
92 BOH 13.08.372, R&R 99-01, Section 2 (part), and BOH
93 13.08.402, R&R 99-01, Section 2 (part), and BOH
94 13.08.406, R&R 3, Part 1, Section 5 (part), as amended,
95 and BOH 13.08.410, R&R 08-03, Section 69, and BOH
96 13.08.424, R&R 99-01, Section 2 (part), and BOH
97 13.08.426, R&R 08-03, Section 72, and BOH 13.08.465,
98 R&R 3, Part 1, Section 5, as amended, and BOH
99 13.08.470, R&R 99-01, Section 2 (part), as amended, and
100 BOH 13.08.472, R&R 08-03, Section 74, and BOH
101 13.08.477, R&R 08-03, Section 76, and BOH 13.08.482,
102 R&R 99-01, Section 2 (part), as amended, and BOH
103 13.08.484, R&R 09-03, Section 79, and BOH 13.08.493,
104 R&R 08-03, Section 80, and BOH 13.08.4934, R&R 08-
105 03, Section 81, and BOH 13.08.4937, R&R 99-01,
106 Section 2 (part), as amended, and BOH 13.08.496, R&R
107 3, Part 1, Section 5 (part), as amended, and BOH
108 13.08.500, R&R 08-03, Section 87, and BOH 13.08.505,
109 R&R 99-01, Section 2 (part), and BOH 13.08.512, R&R
110 99-01, Section 2 (part), and BOH 13.08.516, R&R 08-03,

111 Section 88, and BOH 13.08.520, prescribing penalties,
112 and establishing an effective date; enacted pursuant to
113 RCW 43.20.050 and 70.05.060, including the latest
114 amendments or revisions thereto.

115 ..Body

116 BE IT ADOPTED BY THE KING COUNTY BOARD OF HEALTH:

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

119 **State on-site sewage system regulations adopted.**

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

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

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

128 **Equity impact review.** Whenever the health officer performs review of an on-
129 site sewage system local management plan under WAC 246-272A-0015, the health
130 officer will conduct an equity impact review in accordance with King County Ordinance
131 16948 and report the results of the review to the King County Board of Health before
132 approving a revised local management plan.

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

135 **Connection to public sewer.**

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

145 B. For existing development located within (~~(or outside)~~) the Urban Growth Area
146 and which is within two hundred feet of a public sewer, where an on-site sewage system
147 is operating, the owner shall abandon the on-site sewage system in accordance with WAC
148 246-272A-0300 and connect the sanitary drainage system to the public sewer when the
149 sewer authority permits such connection and when:

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

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

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

161 D. Every plumbing fixture and every sanitary drainage system not connected to a
162 public sewer, or not required by law to be connected to a public sewer, shall be connected
163 to an on-site sewage system.

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

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

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

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

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

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

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

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

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

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

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

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

202 2. Water well protection covenant: The property owner shall establish a water
203 well protection sanitary control area by providing a recorded protective covenant
204 prohibiting, within a horizontal distance of not less than one hundred feet of the well,
205 potential sources of contamination as described in BOH 12.24.010 and WAC 173-160-
206 171.

207 3. Demonstrate adequate water quantity by:

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

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

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

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

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

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

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

230 C. A private spring on a lot five acres or greater or a lot created prior to May 18,
231 1972, that complies with all of the following conditions prior to application for OSS site
232 design approval:

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

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

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

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

247 1. The health officer finds that requiring connection of the plumbing system to
248 an approved public water source or to an approved private well would cause undue
249 hardship.

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

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

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

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

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

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

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

268 a. estimated daily and weekly and annual demand;

269 b. available catchment area and estimated annual rainwater capture;

270 c. roofing materials used;

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

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

275 f. operation and maintenance requirements.

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

279 6. Before using a rainwater catchment system source, the property owner shall
280 file in the county recorder's office a notice on title advising that the property is served by
281 a rainwater catchment system and including the following information:

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

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

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

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

291 SECTION 5. R&R 99, Section 2 (part), as amended, and BOH 13.08.010 are
292 hereby amended to read as follows:

293 **Abbreviations.**

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

295 B. "ATU" means Aerobic Treatment Unit.

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

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

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

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

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

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

305 J. ~~"NSF" means National Sanitation Foundation International.~~

306 ~~K. "O and G," means oil and grease, a component of sewage typically originating~~
307 ~~from foodstuffs, which are animal fats or vegetable oils, or consisting of compounds of~~
308 ~~alcohol or glycerol with fatty acids, which are soaps and lotions. The quantity of O and G~~
309 ~~is typically expressed in mg/L.~~

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

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

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

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

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

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

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

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

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

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

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

332 **Excessively permeable soils.** "Excessively permeable soils" means soils:

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

334 B. ~~((other))~~ With other textures as defined by the United States Department of

335 Agriculture standards and where conditions are such that the treatment potential is

336 ineffective in retaining or removing substances of public health significance to

337 underground sources of drinking water ~~((and soils with a percolation rate of one and one-~~

338 ~~half minutes per inch or faster))~~).

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

341 **Failure.** "Failure" means a condition of an on-site sewage system or ~~((side~~
342 ~~sewer))~~ component that threatens the public health by inadequately treating sewage or by

343 creating a potential for direct or indirect ~~((human))~~ contact between sewage and the

344 public. Examples of failure include:

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

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

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

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

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

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

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

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

360 ~~((Limited))~~ **Minor repair.** "~~((Limited))~~ Minor repair" means the replacement,
361 addition or alteration of ~~((a))~~ any of the following broken or malfunctioning ~~((building~~
362 ~~sewer pipe, sewage tank lid, sewage tank baffles, sewage tank pumps, pump control~~
363 ~~floats, pipes connecting multiple sewage tanks and drainfield inspection boxes and ports))~~
364 OSS components where the subsurface soil absorption system is not failing:

365 A. Building sewer pipe;

366 B. Sewage tank lids and risers;

367 C. Sewage tank baffles;

368 D. Sewage tank pumps;

369 E. Pump control floats;

370 F. Pipes connecting multiple sewage tanks;

371 G. Drainfield inspection boxes and ports;

372 H. Control panels and timers;

373 I. Components of a proprietary treatment unit;

374 J. UV disinfection units; or

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

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

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

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

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

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

392 **Pumper. A.** "Pumper" means a qualified person approved by the health officer
393 and holding a certificate~~((s))~~ or certificates of competency ~~((pursuant to))~~ as classified

394 under BOH ((C))chapter 13.68 ((of this title,)) and this section to perform ~~((one or more~~
395 ~~of the following activities: May also be referred to as a "sludge hauler."))~~ activities as an
396 OSS pumper, portable toilet pumper, watercraft sewage tank pumper, grease trap or
397 interceptor pumper, or miscellaneous sewage pumper.

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

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

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

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

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

415 SECTION 15. R&R 3, Part 1, Section 5 (part), as amended, and R&R 13.08.350

416 are hereby amended to read as follows:

417 **Repair.** "Repair" means the ~~((replacement, reconstruction or relocation of, or~~
418 ~~addition or alteration to, a sewage tank, distribution box, tight line, or other~~
419 ~~appurtenances of an existing OSS, and including any replacement, reconstruction or~~
420 ~~relocation of, or addition or alteration to a soil absorption system)) relocation,~~
421 replacement, or reconstruction of a failed OSS or any failed component of an OSS, other
422 than a minor repair, in order to restore the OSS to nonfailure status.

423 SECTION 16. R&R 3, Part 1, Section 5 (part), as amended, and R&R 13.08.380

424 are hereby amended to read as follows:

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

429 NEW SECTION. SECTION 17. There is hereby added a new section to BOH

430 chapter 13.08 to read as follows:

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

434 SECTION 18. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.490

435 are hereby amended to read as follows:

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

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

445 **Public meetings—Procedure.**

446 A. Meetings shall be held on the call of the health officer, and shall be held with
447 sufficient frequency that no more than (~~((forty (40)))~~) ninety days shall elapse from the
448 time an appeal for reconsideration is commenced until a recommendation is returned to
449 the health officer by the committee, except that if a continuance is granted at the request
450 of an appellant the committee shall return its recommendation within a reasonable time.
451 The filing of any technical report or other exhibit subsequent to the commencement of an
452 appeal shall be deemed a request for a continuance.

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

456 C. Notice of all meetings of the committee shall be given not less than three
457 (~~((3))~~) days prior thereto to any appellant and to any other person (~~((which))~~) that had

458 previously made known a desire to affect the disposition of the order or decision of the
459 health officer which is the subject of the appeal for reconsideration.

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

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

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

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

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

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

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

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

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

- 505 1. A King County department of natural resources and parks representative;
506 2. A Washington state Department of Ecology representative.
507 3. A Washington state Department of Health representative; and
508 4. A United States Department of Agriculture, Natural Resource Conservation
509 Service representative.

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

512 **Permits -- general.**

513 A. Unless otherwise specified in this title, it is unlawful to construct, install,
514 repair, or modify an OSS without an approved OSS (~~(construction)~~) installation permit.

515 Any person, other than the owner of the property where the OSS is located, who
516 constructs, installs, repairs, or modifies any part of an OSS without an approved OSS
517 installation permit, including but not limited to replacing a drainfield, will be subject to
518 the assessment of civil penalty fines of up to one thousand dollars per day, not to exceed
519 a total of fifteen thousand dollars per violation. The owner of the property where the
520 OSS is located will be subject to the assessment of civil penalty fines of up to one
521 thousand dollars per day, not to exceed a total of five thousand dollars per violation for
522 performing the work without an approved OSS installation permit. The health officer

523 may reduce or waive the penalty assessed against the property owner under this section
524 after a permitted OSS installation or repair has been completed and the health officer has
525 approved the installation or repair. Such permit shall be posted on the building or
526 premises where the work permitted is being done, before the work is begun, and unless
527 revoked, shall not be removed until such work has been finally approved by the health
528 officer.

529 B. The application submitted for an OSS (~~(construction)~~) installation permit shall
530 be accompanied by an approved site design application or approved repair proposal. The
531 permit application for a new OSS to serve a building shall be accompanied by evidence
532 that the responsible building official has issued a building permit authorizing construction
533 of that building.

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

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

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

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

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

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

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

560 **Installer certification.**

561 A. Except as provided in BOH 13.20.035 and 13.20.040, it is unlawful to install,
562 modify or repair OSS without a currently valid installer's certificate of competency.

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

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

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

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

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

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

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

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

588 master or associate installer's certificate of competency shall submit payment of the
589 examination fee as set forth in the fee schedule and attain a passing score on the
590 applicable certification examination; and

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

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

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

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

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

612 4.) 1. A master or associate installer submitting the renewal application after
613 January 15 of the year following expiration shall, in addition to the applicable certificate
614 fee, pay a late fee of twenty five percent of the renewal amount, and provide evidence of
615 completion of at least one CEU credit during the previous calendar year; and

616 2. A master or associate installer submitting the renewal application more than
617 twenty-four months after certificate expiration shall, in addition to the applicable
618 certificate fee, pay the applicable examination fee and must retake and obtain a passing
619 score on the certification examination specified in this section as a condition of renewal.

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

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

631 ~~retaken~~) the installer retakes and attains a passing score on the applicable examination
632 under this section.

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

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

640 **Maintainer certification.**

641 A. ~~((Unless))~~ Except as otherwise specified in this title, including BOH
642 13.20.040 and 13.60.010 relating to homeowners, it is unlawful to conduct performance
643 monitoring inspections ~~((of and/or perform))~~, preventive maintenance service, ~~((to~~
644 ~~include making limited))~~ or minor repairs to on-site sewage systems~~((,))~~ without a
645 currently valid OSM certificate of competency.

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

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

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

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

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

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

667 C.~~(1-)~~) As a condition of certification ~~((the))~~;

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

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

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

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

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

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

689 ~~b. the applicant submits evidence of bonding as specified by BOH~~
690 ~~13.20.035.C.1; and~~

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

693 ~~4. The on-site system))~~ A maintainer may not conduct performance monitoring
694 inspections or perform preventive maintenance of on-site sewage systems after December
695 31, unless the certification has been renewed.

696 ~~((5-))~~ E. A maintainer may renew the OSM certificate of competency on or
697 before January 15 of the year following expiration upon submittal, to the health officer,
698 of a completed renewal application, accompanied by evidence that at least one CEU
699 credit has been earned by the maintainer during the previous calendar year, and fee
700 payment as specified under BOH chapter 2.18, except that:

701 1. An applicant submitting the renewal application after January 15 of the year
702 following expiration shall, in addition to the applicable certificate fee, pay a late fee of
703 twenty five percent of the renewal amount, and submit evidence that the applicant has
704 earned at least one CEU credit during the previous calendar year; and

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

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

712 G. The health officer may hold informational~~((/))~~ or educational meetings for all
713 holders of OSM certificates of competency. A minimum of four weeks' notice of the
714 meeting time and location shall be sent to each maintainer. Unless otherwise specified by
715 the health officer, attendance at the meeting shall be mandatory for all maintainers.
716 Failure to attend the required meetings without prior approval of the health officer shall
717 be cause for the health officer to withhold recertification until ~~((an OSM examination is~~

718 ~~successfully completed~~) the maintainer retakes and attains a passing score on the
719 certification examination specified in this section.

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

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

727 **Resident owner design, construction and monitoring.**

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

731 1. The area where the drainfield and reserve area are to be located has a
732 minimum of four feet of original permeable soil, and a minimum vertical separation of
733 three feet is maintained((=));

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

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

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

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

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

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

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

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

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

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

753 D. A resident owner of a single-family residence may monitor the performance of
754 and perform prescribed preventive maintenance services, including minor repairs, for a
755 gravity OSS ~~((and for))~~ or the septic tank component of an alternative OSS₁ or, upon
756 approval from the health officer₁, for a low-pressure distribution system.

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

759 **Application.**

760 A. Application for subdivision or short subdivision approval shall be made to the
761 health officer on forms provided for this purpose, shall be accompanied by a fee as set

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

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

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

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

784 **Determination of minimum lot size.**

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

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

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

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

797 1. Availability of public sewers, as determined by the King County

798 Comprehensive Plan;

799 2. Soil type and depth;

800 3. Area drainage and lot drainage;

801 4. Protection of surface and ground water;

802 5. Setbacks from property lines, water supplies, rights of way and easements,

803 including but not limited to easements for drainfields, utilities and telecommunications;

804 6. Source of domestic water;

805 7. Topography, geology and ground cover;

- 806 8. Climatic conditions;
- 807 9. Activity or land use, present and anticipated;
- 808 10. Growth patterns;
- 809 11. Individual and accumulated gross effects on water quality;
- 810 12. Availability of a one hundred percent reserve area for system replacement;
- 811 13. Anticipated sewage volume - as determined by number of lots and
- 812 development;
- 813 14. Effect on other properties;
- 814 15. Compliance with zoning, critical area development restrictions including the
- 815 critical aquifer recharge area requirements under K.C.C. 21A.24.316, as amended, and
- 816 other code requirements of the governing agency as applicable.
- 817 C. The minimum lot size requirement for creating subdivisions involving single-
- 818 family residences or mobile home parks shall be determined by the soil type as outlined
- 819 in Table 13.24-1.

820 **Table 13.24-1**

821 **Minimum Land Area Requirement**

822 **Single-Family Residence or**

823 **Unit Volume of Sewage**

Type of Water Supply	Soil Type					
	1	2	3	4	5	6

Public Water System	0.5 acre	((12,500)) <u>13,000</u> sq. ft.	((15,000)) <u>16,000</u> sq. ft.	((18,000)) <u>19,000</u> sq. ft.	((20,000)) <u>21,000</u> sq. ft.	((22,000)) <u>23,000</u> sq. ft.
Individual/Private Well*	5 acres	5 acres	5 acres	5 acres	5 acres	5 acres
Minimum Usable Land Area	<u>2,000</u> sq. ft.	<u>2,000</u> sq. ft.	<u>2,500</u> sq. ft.	<u>3,333</u> sq. ft.	<u>5,000</u> sq. ft.	<u>10,000</u> sq. ft.

824 * Requirements for public wells may preclude use of private wells in certain instances. See RCW
825 19.27.097.

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

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

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

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

- 837 1. A vicinity map providing precise directions to the parcel or parcels;
- 838 2. Signage or flagging at the identified entry point to the parcel or parcels;

839 3. Critical area review, including critical aquifer recharge area classification,
840 with all buffers and setbacks shown on the plot plan;

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

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

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

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

856 2. A scaled plot plan identifying sufficient area for a drainfield and a contiguous
857 one hundred percent reserve area for each lot shall be submitted after road cuts have been
858 made, any plat development site grading affecting the OSS area completed, and drainage
859 plan completed. Such a plot plan shall also include any soil log locations, road cuts,

860 wells, surface water features, utility easements, storm and surface water retention and
861 disposal facilities and other features relevant to the design and installation of an OSS((-));

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

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

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

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

870 ~~c. the continued operation of the system does not pose a threat to public health
871 or groundwater quality)) For lots with existing homes, the health officer will review all~~

872 applications to determine the compatibility of the proposed subdivision or short

873 subdivision with the existing OSS. Factors that the health officer may consider include,

874 but are not limited to, the following:

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

876 b. size of SSAS in relation to proposed use;

877 c. condition of the existing OSS;

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

880 e. ultimate purpose of the remodeling; and

881 f. approved source of water.

882 SECTION 29. R&R 3, Part 3, Sections 1 and 4, as amended, and BOH 13.28.010

883 are hereby amended to read as follows:

884 **Application submittal, review, approval.**

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

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

895 C. After review of a site design application, the health officer may deny the
896 application if in the health officer's judgment the physical features of the property on
897 which it is proposed to locate the OSS, or the design of the proposed OSS, are not
898 adequate for effective operation of such a system.

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

902 SECTION 30. R&R 3, Part 4, Section 2, as amended, and BOH 13.28.020 are

903 hereby amended to read as follows:

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

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

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

914 a. approximate address of property;

915 b. parcel number and legal description of property;

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

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

918 e. size of the parcel;

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

922 g. designation of an approved domestic water supply source;

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

- 926 i. the presence of critical area or areas, including critical aquifer recharge
927 areas, to be delineated on the scaled plot plan;
- 928 j. date of testing;
- 929 k. original signature in blue ink and Washington state Department of Licensing
930 certificate of competency number of designer or professional engineer's registration
931 number; and
- 932 1. all other information requested on the site application for on-site sewage
933 disposal system form((:));
- 934 2. Results of a soil and site evaluation conducted by the designer. The designer
935 shall:
- 936 a. provide soil logs that accurately describe subsurface soil conditions present
937 within the primary and reserve soil absorption areas;
- 938 b. use soil and site evaluation procedures and terminology in accordance with
939 Chapter 3 and Appendix A of the Design Manual: On-Site Wastewater Treatment and
940 Disposal Systems, United States Environmental Protection Agency, EPA-625/1-80-012,
941 October, 1980 or as amended, except where modified by, or in conflict, with this title;
- 942 c. use the soil names and particle size limits of the United States Department of
943 Agriculture Soil Conservation Service classification system;
- 944 d. determine texture, structure, compaction and other soil characteristics that
945 affect the treatment and water movement potential of the soil by using either normal field
946 ~~((and/))~~ or laboratory procedures, or both, such as particle size analysis;
- 947 e. classify the soil as in Table 13.28-3, Soil Textural Classification;

- 948 f. describe ground water conditions, including the date of the observation or
949 observations, and the probable maximum water table height;
- 950 g. describe existence of structurally deficient soils, such as slide zones and
951 dunes, or those soils subject to major wind or water erosion events;
- 952 h. describe the existence and location of critical areas, for example designated
953 flood plains and incorporate into design drawings; and
- 954 i. describe the location of any encumbrances affecting system placement, such
955 as:
- 956 (1) wells, other water sources and water supply lines;
- 957 (2) surface water and storm water infiltration areas;
- 958 (3) abandoned wells;
- 959 (4) outcrops of bedrock and restrictive layers;
- 960 (5) buildings;
- 961 (6) property lines and lines of easements;
- 962 (7) drainage structures such as footing drains, curtain drains, and drainage
963 ditches;
- 964 (8) cuts, banks, and fills;
- 965 (9) driveways and parking areas;
- 966 (10) existing OSS; and
- 967 (11) underground utilities((-));
- 968 3. A completely dimensioned overall parcel plot plan, drawn to a one inch
969 equals twenty feet scale, or the largest scale that will allow the parcel plot plan to be

- 970 presented on a single page, no smaller than eight and one-half by eleven inches and no
971 larger than eleven by seventeen inches, accurately showing:
- 972 a. site drainage characteristics including direction of surface drainage;
 - 973 b. an arrow indicating north;
 - 974 c. topographical contours at two foot intervals over the OSS area and all other
975 areas containing features relevant to the design and installation of an adequate and
976 efficient OSS;
 - 977 d. maximum building footprints, wastewater tanks and primary and reserve
978 soil absorption system locations;
 - 979 e. all locations of and routes to soil log excavations, with such locations and
980 routes clearly identified by appropriate signage or flagging on the property;
 - 981 f. locations of and routes to potable water sources near property lines (drilled
982 wells within one hundred feet and all other sources within two hundred feet, and all well
983 heads, with such locations and routes clearly identified by appropriate signage or flagging
984 on the property;
 - 985 g. location of property and easement lines;
 - 986 h. location and description of design control point or points within the
987 designated drainfield area; and
 - 988 i. the boundaries of the SSAS detail drawing((-));
- 989 4. Construction plans and specifications showing:
- 990 a. plumbing stub elevation; and

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

997 5. An SSAS detail drawing scaled one inch equals twenty feet (or one inch
998 equals thirty feet on larger lots) depicting design control point or points, the dimensions
999 and location of all components of the proposed primary and reserve systems including
1000 trench widths, lengths and horizontal separations. If the location of the reserve area is at
1001 an elevation above the outlet of the septic tank, the design shall include all tanks, dosing
1002 chambers and piping necessary to allow distribution of the effluent to the reserve area
1003 with a minimum of disruption to the original subsurface field and other property of the
1004 owner. The health officer may require the installation of the dosing chamber, pressure
1005 lines and distribution box/inspection box where the future access to the reserve area will
1006 be severely limited. Drawings may be submitted electronically in a format acceptable to
1007 and with the prior agreement of the health officer((-));

1008 6. Location of a pump tank controls in plain view of the pump tank shall be
1009 included on the design drawings.

1010 7. Construction details for and location of any proposed footing drains, curtain
1011 drains and interceptor drains((-));

1012 8. Calculations and observations supporting the proposed design, including:

1013 a. soil type; and

1014 b. hydraulic loading rate in the soil absorption component.

1015 9. An accurate vicinity location sketch and route map to the property, including
1016 written directions to the property from the last named street or road. Signage shall be
1017 displayed at the entrance to the property and include the names of the designer and
1018 applicant. A cleared and flagged route to the soil log and well site locations must be
1019 provided from the property entrance((-));

1020 10. Proof of availability of an approved domestic water supply source((-));

1021 11. One or more recorded easements describing the locations of all potable
1022 water lines connected to a well, spring, rain water catchment system, or water meter on
1023 the property and extending to service connections beyond the property boundary. The
1024 health officer may require each such easement to include, as applicable, provision for
1025 location of water storage reservoirs, well housing, pressure tanks, and any other facilities
1026 and equipment associated with the water source; and

1027 12. Such other information as the health officer may require.

1028 B. Additional requirements for an application for an OSS serving buildings other
1029 than or in addition to single-family residences:

1030 1. Information to establish that the sewage is not industrial wastewater;

1031 2. Information to establish that the sewage effluent applied to the infiltrative
1032 surface does not exceed typical residential effluent characteristics by providing waste
1033 strength characteristics and parameters;

1034 3. For all commercial developments not classified as community on-site
1035 systems, recorded covenants declaring that the owner or owners of the property or
1036 properties served by the OSS are responsible for the operation, monitoring, and
1037 maintenance of the OSS in accordance with this title; and

1038 4. Proof of a system operation monitoring and maintenance plan in accordance
1039 with requirements of BOH chapter 13.60.

1040 SECTION 31. R&R 3, Part 4, Section 3, as amended, and BOH 13.28.030 are
1041 hereby amended to read as follows:

1042 **General design requirements.**

1043 A. Collection systems will be designed to comply with criteria set forth in
1044 Criteria for Sewage Works Design, Washington state Department of Ecology, November
1045 2007 or as thereafter amended.

1046 B. ~~((Maximum Slopes—1-))~~ OSS shall not be allowed on slopes exceeding forty
1047 percent.

1048 ~~((2-))~~ On slopes exceeding thirty percent, the SSAS shall be pressure
1049 distribution and have a maximum SSAS trench width of two feet.

1050 C. SSAS reserve area or areas shall be designated equal to at least one hundred
1051 percent of the primary SSAS area. One or more areas may be designated as SSAS
1052 reserve areas. If more than one area is designated or if access is limited, at the discretion
1053 of the health officer the reserve system may be required to be installed along with the
1054 primary SSAS. At least two soil log excavations shall be installed in each designated

1055 reserve area. Construction plans for the SSAS reserve area may be required by the health
1056 officer.

1057 D. OSS for lots created after July 1, 1984, shall be located on the same lot as the
1058 buildings they are designed to serve. Any existing OSS which is failing and for which
1059 there is insufficient area on the lot to repair the system may be replaced by an OSS
1060 located off-site provided proof of easements is submitted to the health officer. Proof of
1061 lot creation date must be provided when requesting use of a drainfield easement for new
1062 construction. All drainfield easements shall be surveyed and permanently marked, and
1063 the soils within the easements protected against disturbance. Approval shall be subject to
1064 such additional conditions as deemed necessary by the health officer to protect public
1065 health.

1066 E. Any application for site design approval for OSS in a critical area shall include
1067 documentation from the applicable jurisdictional authority indicating critical area review
1068 has been completed. All critical areas and their buffers shall be identified and drawn to
1069 scale on the design drawing submittals. OSS shall not be located on landforms that are
1070 unstable.

1071 F. Where any type of drain is to be installed for the purpose of intercepting
1072 subsurface water and channeling, concentrating, focusing or directing its flow onto a
1073 downstream property not under the ownership or agency of the applicant or King County,
1074 a release of damages holding King County and its employees harmless for any
1075 subsequent erosion or loss or limitation of use of such property must be executed and

1076 filed with the King County records and elections division and which shall run with the
1077 land, prior to approval of any site application.

1078 G. All types of drains installed for the purpose of affecting vertical separation
1079 shall be verified as effective during the winter water table season as outlined in BOH
1080 13.28.060.C.

1081 H. No downspout or footing drain shall be directly or indirectly connected to an
1082 OSS and the OSS shall be so constructed and installed that surface water or groundwater
1083 will not interfere with the operation of the system.

1084 I. Seepage pits shall not be used for the disposal of septic tank effluent.

1085 J. The installation and use of cesspools and pit privies for disposal of sewage is
1086 not permitted.

1087 K. When grease traps are used, the design and installation will comply with
1088 criteria set forth in the Uniform Plumbing Code, ((2006)) 2021 Edition, International
1089 Association of Plumbing and Mechanical Officials, as amended. In addition the design
1090 application shall include a grease trap maintenance schedule.

1091 L. When siphon systems are used, they shall comply with Recommended
1092 Standards and Guidance for Pressure Distribution Systems, Washington State Department
1093 of Health, July 1, 2007.

1094 M. The connection of an accessory dwelling unit as defined under K.C.C. Title
1095 21A or accessory living quarters as defined in this title to an OSS ((is)) designed for or in
1096 use by a single-family residence or commercial structure may be permitted provided that
1097 public health and groundwater quality are not affected, and the OSS is designed for the

1098 anticipated increased flow. For the purposes of this title, including the determination of
1099 required absorption areas, loading rates, and minimum capacities for septic tanks, each
1100 bedroom in an accessory dwelling unit or accessory living quarter shall be included in the
1101 total number of bedrooms to be served by the OSS in addition to the bedrooms in the
1102 primary residence. An accessory dwelling unit or accessory living quarter with no
1103 bedroom shall be deemed equivalent to one bedroom within the single-family primary
1104 residence associated with the accessory dwelling unit or accessory living quarter. In
1105 medical hardship cases as described in K.C.C. 21A.32.170, the health officer may allow
1106 the temporary connection of a mobile home or temporary dwelling to an existing OSS
1107 designed only for a single-family residence provided that neither public health nor
1108 groundwater quality are negatively affected.

1109 N. Pump lines shall be installed at a depth which precludes disruption or damage
1110 by installation of other utilities or freezing.

1111 O. No part of an OSS shall be constructed in the (~~zero-rise~~) FEMA floodway of
1112 a flood hazard area as described by K.C.C. Title 21A. New OSS to serve new
1113 subdivisions shall be located outside the limits of a flood hazard area. The installation of
1114 new OSS within the flood fringe area of the one-hundred-year flood plain, as determined
1115 by (~~DDES~~) DLS or the local building official, may be allowed if the applicant
1116 demonstrates that:

- 1117 1. The proposed building parcel is an existing legal building site;
- 1118 2. No feasible alternative site outside the flood hazard area is available;

1119 3. Wastewater tanks and electrical components will be flood-proofed to the
 1120 flood protection elevation;

1121 4. A conforming subsurface soil absorption system can be installed; and

1122 5. ((~~DDES~~)) DLS or the local building official permits the development which
 1123 is proposed to be served by the OSS.

1124 P. No part of a SSAS including the drainrock shall be located in fill material or
 1125 disturbed soils.

1126 Q. SSAS shall be constructed with observation ports terminating within utility
 1127 boxes adjustable to final grade over the ends of the drainfield pipes, or other methods of
 1128 drainfield detection approved by the health officer to aid in the future locating of these
 1129 components.

1130 R. OSS shall not be permitted where a minimum vertical separation of three feet
 1131 of permeable soil below the infiltrative surface cannot be maintained except as provided
 1132 in Table 13.28-1. The health officer may require greater vertical separation as needed to
 1133 protect public health when the aquifer is used for a potable water supply.

1134 **Table 13.28-1**

1135 **Minimum Treatment Level, Bacteria Level, and Effluent Distribution Method**
 1136 **Required by Various Soil Types, Vertical Separation, and Original Soil Depth**
 1137 **Conditions**

Vertical Separation (in inches)	Soil Type
---------------------------------	-----------

	1	2	3-4	5-6 ³
	<u>Minimum Treatment Level, Bacteria Level, and Effluent Distribution</u>			
	<u>Method</u>			
$12 < 18^{1,2}$	<u>A & BL1</u> - pressure with timed dosing	<u>B & BL2</u> - pressure with timed dosing	<u>B & BL2</u> - pressure with timed dosing	<u>B & BL2</u> - pressure with timed dosing
$((>18 \leq 24)) \geq 18 < 24$	<u>B & BL2</u> - pressure with timed dosing	<u>B & BL2</u> - pressure with timed dosing	<u>B & BL2</u> - pressure with timed dosing	<u>B & BL2</u> - pressure with timed dosing
$((>24 \leq 36)) \geq 24 < 36$	<u>B & BL2</u> - pressure with timed dosing	<u>C & BL3</u> - pressure with timed dosing	E-pressure with timed dosing	E-pressure with timed dosing
$((>36 \leq 60)) \geq 36 < 60$	<u>B & BL2</u> - pressure with timed dosing	E-pressure with timed dosing	E-(pressure with timed dosing)) gravity	E-(pressure with timed dosing)) gravity
$((>)) \geq 60$	<u>C & BL2</u> - pressure with timed dosing	E-gravity	E-gravity	E-(pressure with timed dosing)) gravity

1138 **Table 13.28-1 Explanatory Notes**

1139 1. Except as provided in footnote 2, the minimum required original, undisturbed, permeable soil
1140 depth is eighteen inches.

1141 2. For existing lots of record where the original undisturbed soil depth above a restrictive layer is
1142 between 12 and 18 inches the following is required:

1143 a. Minimum lot size is 5 acres. Any lot area placed into a separate sensitive area protection
1144 tract in accordance with King County Code Section 21A.24.180 may also be included in the computation of
1145 the minimum five (5) acre lot size required by this section.

1146 b. The owner shall file a covenant with the King County records and elections division
1147 agreeing not to subdivide the parcel utilizing the OSS to less than 5 acres until public sewer service is
1148 provided.

1149 c. A water table study shall be conducted during a time of high seasonal water table to establish
1150 available soil depth.

1151 d. A system meeting treatment level A, or two treatment level B systems in combination
1152 meeting treatment level A without the use of disinfection, such as a mound preceded by an intermittent
1153 sandfilter, shall be used.

1154 3. SSAS in soil type 6 must utilize pressure distribution with timed dosing.

1155 S. Disinfection may not be used:

1156 1. To achieve ~~((the fecal coliform requirements to meet treatment levels A or B~~
1157 ~~in Type 1 soils; or treatment level C)) BL1 or BL2 in Type 1 soils; or~~

1158 2. To achieve BL3; or

1159 3. On lots with less than eighteen inches of soil; or

1160 ~~((3-))~~ 4. In a critical aquifer recharge area.

1161 T. The coarsest textured soil within the vertical separation selected determines
1162 the minimum treatment level and method of distribution.

1163 U. Based upon the treatment capacity and design flow the designer of an OSS
1164 shall establish the operational capacity of the system. This information shall be included
1165 with the design application and record drawing submission.

1166 V. Any reduction in horizontal separation for a pressure sewer line crossing a
1167 surface water source shall meet the requirements of the publication, Granting Waivers
1168 from State On-site Sewage System Regulations, chapter 246-272A WAC, as amended,
1169 published by the Washington state Department of Health.

1170 W. All OSS must comply with the applicable treatment levels contained in Table
1171 13.28-1 and applicable setbacks contained in Table 13.28-2; though the health officer
1172 may grant any setback reduction authorized under Table 13.28-2 only in response to a
1173 written request for such reduction from the designer of record if the request includes all
1174 reasons for the proposed reduction and describes all mitigation measures required under
1175 this title or as may be required by the health officer in the exercise of reasonable
1176 discretion for the protection of the public health.

1177 X. In preparing any OSS site design application, the designer shall consider:

1178 1. CBOD5, TSS and O and G;

1179 2. Other parameters that can adversely affect treatment anywhere along the
1180 treatment sequence. Examples include pH, temperature and dissolved oxygen;

1181 3. The sensitivity of the site where the OSS will be installed, such as shellfish
1182 growing areas, designated swimming areas, and other areas identified in the management
1183 plan.

1184 Y. ~~((Nitrogen contributions, where nitrogen has been identified as a contaminant
1185 of concern by the management plan, shall be addressed through either lot size or
1186 treatment, or both.))~~ The applicant for development in a critical aquifer recharge area
1187 shall include, in the application, evidence of compliance with K.C.C. 21A.24.316, as
1188 amended, including evidence of compliance with the critical aquifer recharge area
1189 requirements.

1190 Z. Design and installation of OSS with electrical components shall include a
1191 readily accessible control panel exterior to the structure served by the OSS and meeting
1192 the following standards:

1193 1. Located in an external location between three and five feet in elevation above
1194 finished grade, meeting state of Washington Department of Labor and Industry's
1195 electrical safety requirements;

1196 2. Includes an electrical power control switch to enable power shutoff to the
1197 OSS for maintenance or repair without the need for access to any circuit breaker panels
1198 or other power controls within the structure served by the OSS;

1199 3. Connected to dedicated electrical circuits with the alarm and pump circuits
1200 independent of one another;

1201 4. Contains audible and visual alarms to alert the owner or occupant of a system
1202 deficiency or malfunction; and

1203 5. Includes a remote notification device for the alarm system when the OSS
1204 alarm notification device is located over 100 feet from the building it serves, such as an
1205 auto-dialer or telemetry notification system, to notify the respective monitoring and
1206 maintenance service provider or the property owner or occupant of alarm events.

1207 **Table 13.28-2**

1208 **Minimum Horizontal Separations**

1209 **(Setbacks)**

	MEASURE FROM
--	---------------------

Items Requiring Setback	Edge of soil dispersal component trench or reserve area	Septic tank, holding tank, containment 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.
<u>Non-potable water source ²</u>	<u>100 ft</u>	<u>100 ft</u>	<u>100 ft</u>
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 of the cut. Need not exceed 30 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 of foundation cut. Need not 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 from 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 of excavation. Need not 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
<u>Lined¹⁶ stormwater detention pond¹⁷</u>			
-- <u>Down-gradient</u>	<u>100 ft¹⁸</u>	<u>N/A</u>	<u>N/A</u>

-- <u>Up-gradient</u>	<u>100 ft</u> ¹⁹	<u>N/A</u>	<u>N/A</u>
<u>Unlined</u> ¹⁶ <u>stormwater infiltration pond</u> ¹⁷	<u>100 ft.</u>	<u>50 ft.</u>	<u>10 ft.</u>
<u>Irrigation canal or irrigation pond</u> ¹⁷	<u>100 ft.</u>	<u>50 ft.</u>	<u>10 ft.</u>
<u>Subsurface stormwater infiltration or dispersion component</u> ¹⁷			
-- <u>Down-gradient</u>	<u>100 ft</u> ¹⁸	<u>10 ft.</u>	<u>N/A</u>
-- <u>Up-gradient</u>	<u>100 ft</u> ¹⁸	<u>10 ft.</u>	<u>N/A</u>
((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 bank ^{9, 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 bank but shall not be less than 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 bank but shall not be less than 25 ft. ¹²	N/A	N/A
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1210

Table 13.28-2 Explanatory Notes

1211

1. "Building sewer" as defined by the most current edition of the Uniform Plumbing Code.

1212

"Nonperforated distribution" also includes pressure sewer transport lines.

1213

2. With excessively permeable soils or other sites where conditions indicate a greater potential for

1214

ground or surface water contamination or pollution such as unconfined aquifers, shallow or saturated soils,

1215

dug wells, and improperly abandoned wells, the distance from any water supply or surface water may be

1216

increased by the health officer.

1217

3. Setbacks from private or public springs and from shallow wells without intact casings or those wells

1218

which are not constructed in accordance with chapter 173-160 WAC and are utilized as a source of drinking

1219

water shall comply with BOH 13.04.070.C.

1220

4. The health officer may approve a sewer transport line crossing a water supply line (~~if the sewer~~

1221

~~line~~) when there is no other reasonable means to keep them from crossing and if the sewer line is

1222

constructed(~~(3)~~) in accordance with Section 2.4 of the Department of Ecology's Criteria for Sewage Works

1223

Design, revised November 2007 or equivalent.

1224

5. Before any component may be placed within one hundred feet of a well, the designer shall submit a

1225

"decommissioned water well report" completed by a licensed well driller, which verifies that appropriate

1226

decommissioning procedures noted in chapter 173-160 WAC were followed.

1227

6. Setback measured from ordinary high water mark of surface water. Greater setback may be required

1228

to prevent pollution. The health officer will state reasons for greater setback to applicant in writing.

1229 7. This separation may not be reduced by culverting of streams without prior written approval for the
1230 culverting from King County or applicable building official, but in no case shall this separation be less than
1231 fifteen feet plus the height of the excavation which contains the culvert. Need not exceed thirty feet.

1232 8. The item is down-gradient when liquid will flow toward it upon encountering a water table or a
1233 restrictive layer. The item is up-gradient when liquid will flow away from it upon encountering a water table
1234 or restrictive layer.

1235 9. May be reduced to ten feet by the health officer when bottom of infiltrative surface is downgradient
1236 from the base of the foundation cut or wastewater tank excavation, or there is at least five feet of original
1237 undisturbed unsaturated soil above a restrictive layer formed due to a structural or textural change.

1238 10. May be reduced five feet by the health officer in repairs to existing systems, in setbacks to easements
1239 or where a confirmed property line is up-gradient from the soil absorption component. A survey may be
1240 required by the health officer to ensure compliance with setback requirements.

1241 11. This distance may be increased to thirty feet by the health officer where cuts or construction on
1242 neighboring properties may affect the system.

1243 12. Need not exceed one hundred feet.

1244 13. May be reduced to ten feet when the bottom of the infiltrative surface is below the base of the cut
1245 or bank and no restrictive layer or layer formed due to a structural or textural change is intersected or there
1246 is at least five feet of original, undisturbed soil above a restrictive layer or layer due to a structural change.

1247 14. The health officer may reduce this setback to thirty feet if the soil depth is four feet or greater and
1248 is soil type 1, 2 or 3.

1249 15. Any sewer clean-out shall be accessible for OSS maintenance or repair.

1250 16. "Lined" means any component that has the intended function of detaining the stormwater with no
1251 intention of dispersal into surrounding soil.

1252 17. Infiltration or discharge from stormwater management facilities must be located downgradient of
1253 the primary and reserve drainfield areas unless the site design application submitted to the health
1254 officer clearly demonstrates that site topography prevents discharged flows from stormwater

1255 management facilities from intersecting the OSS drainfield and the design is consistent with local
1256 stormwater management authority rules and policies.

1257 18. The health officer may reduce this setback to not less than 30 feet upon finding that the OSS site
1258 design application clearly demonstrates that the setback reduction presents no increased risk of effluent
1259 from the OSS entering any component of a stormwater management system.

1260 19. The health officer may reduce this setback to not less than 10 feet upon finding that the OSS site
1261 design application clearly demonstrates that the setback reduction presents no increased risk of effluent
1262 from the OSS entering any component of a stormwater management system.

1263 SECTION 32. R&R 3, Part 4, Section 7, as amended, and BOH 13.28.070 are

1264 hereby amended to read as follows:

1265 **Required absorption area.**

1266 A. Single-family dwellings.

1267 1. For design purposes a minimum design flow of one hundred fifty gallons((/))
1268 per bedroom((/)) per day shall be utilized in determining unit volume with a minimum of
1269 three bedrooms.

1270 2. For each additional bedroom OSS designs must use at least an additional one
1271 hundred ((~~twenty~~)) fifty gallons((/)) per bedroom((/)) per day.

1272 3. For single-family residences with additional accessory dwelling units or
1273 accessory living quarters served by the same OSS, the minimum design flow for each
1274 additional dwelling is one hundred fifty gallons per bedroom per day.

1275 4. For accessory dwelling units or accessory living quarters served by their own
1276 OSS not connected to the OSS serving the primary single-family residence, a minimum

1277 design flow of one hundred fifty gallons per bedroom per day shall be utilized in
 1278 determining unit volume with a minimum of two bedrooms.

1279 5. Loading rates shall be determined according to soil texture type as outlined in
 1280 Table 13.28-4. The finest textured soil in the selected vertical separation establishes the
 1281 loading rate.

1282 **Table 13.28-4**

1283 **Maximum Hydraulic Loading Rate for Residential Sewage¹**

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 coarse 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
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1284

Table 13.28-4 Explanatory Notes

1285

1. Compacted soils, cemented soils, and/or poor soil structure may require a reduction of the

1286

loading rate or render the soil unsuitable for OSS.

1287

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

1288

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

1289

4. Due to the highly permeable nature of type 1 soil, only systems (~~which~~) that meet or exceed

1290

the treatment levels required in Table 13.28-1 may be installed.

1291

5. The loading rate listed for the soil type present in the nongravel portion is to be used for

1292

calculating the minimum absorption area required. The value is to be determined from this table.

1293

6. OSS installed in soil texture type 4, type 5₁ or type 6 shall be constructed during dry weather

1294

(defined as at least two consecutive weeks without appreciable rainfall) and dry soil conditions to minimize

1295

compaction and smearing during excavation, as verified at the site.

1296

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

1297

B. Buildings other than single-family residences.

1298

1. Soil dispersal components having daily design flow between one thousand

1299

and three thousand five hundred gallons of sewage per day shall:

1300

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

1301

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

1302 and

1303

c. have pressure distribution and timed dosing.

Type of Establishment¹	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).	

1326 ¹For buildings other than single-family residences the requirements of Section 13.28.020(B) shall be met.

1327 SECTION 33. R&R 3, Part 5, Section 2(A), as amended, and BOH 13.36.010 are
 1328 hereby amended to read as follows:

1329 **Design standards.**

1330 A. No septic tank, effluent pump tank, sewage holding tank, grease trap or any
1331 other sewage tank may be installed in King County unless:

1332 1. The tank is included on the DOH publication, List of Approved On-site
1333 Sewage Tanks;

1334 2. The tank conforms to the DOH publication, Recommended Standards and
1335 Guidance for Performance, Application, Design, Construction, Installation and Testing
1336 On-site Sewage System Tanks, July 1, 2007, as amended; and

1337 3. The health officer has approved plans for the tank installation. Such plans
1338 shall show all dimensions, reinforcing, structural details and other pertinent data as
1339 required by the health officer. Upon approval by the health officer, the plans will be
1340 assigned an official number.

1341 B. ~~((Tanks made of materials other than concrete shall be approved by the
1342 secretary prior to approval by the health officer.~~

1343 C.)) No pre-cast wastewater tank may be installed except those which are
1344 included on the registered list and have been clearly and legibly marked on the upper
1345 surface of the lid showing the number assigned by the health officer, name of the
1346 manufacturer, tank model number, tank capacity in gallons and date of manufacture.

1347 ~~((D.))~~ C. No metal septic tanks shall be installed in areas under the jurisdiction of
1348 the department.

1349 ~~((E.))~~ D. All septic tanks, whether they are installed or used singly, in series or in
1350 a divided system, must be designed according to waste load and in no case shall have a

1351 total capacity of less than one thousand five hundred gallons, except by written
 1352 permission of the health officer.

1353 **Minimum Capacities for**
 1354 **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 ¹	250

1355 1. Use of garbage grinders increases settleable and floatable solids accumulations in the septic tank,
 1356 increases wastewater strength and thus increases the potential for system failure especially if frequent and
 1357 regular tank monitoring and maintenance is not performed. Therefore, use of garbage grinders is not
 1358 recommended (See Section 13.60.005(a)(3)).

1359 ~~((F.))~~ E. No septic tank with a compartment smaller than two hundred fifty
 1360 gallons liquid capacity may be installed.

1361 ~~((G.))~~ F. A septic tank designed to service any facility except a single-family
 1362 residence or multiple family housing shall have a liquid capacity at least equal to three
 1363 times the projected design flow, with a minimum of one thousand five hundred gallons.
 1364 Septic tanks serving multiple family housing shall have a minimum liquid capacity equal
 1365 to two times the projected design flow but not less than one thousand five hundred
 1366 gallons.

1367 ~~((H.))~~ G. All septic tanks or combinations of tanks installed shall provide at least
 1368 two compartments. No wastewater tanks may be joined below the normal inverts unless
 1369 otherwise preapproved by the health officer.

1370 ~~((F))~~ H. When multi-compartment tanks or two or more tanks in series are used,
1371 the first compartment or tank shall have a liquid capacity of two-thirds to three quarters
1372 of total required liquid capacity.

1373 ~~((G))~~ I. The minimum liquid capacity of a tank receiving intermittent use shall be
1374 determined from the maximum expected daily waste load, but shall in no case be less
1375 than one thousand five hundred gallons.

1376 ~~((K))~~ J. The plan review fee shall be as specified in the fee schedule, payable at
1377 the time of initial plan submission. In addition to the initial plan review fee, a revision
1378 review fee shall be assessed as specified in the fee schedule, payable at the time of
1379 completion of the plan review, for review of any resubmissions, corrections, or additions
1380 required.

1381 SECTION 34. R&R 3, Part 5, Section 3(C), and BOH 13.40.030, are hereby
1382 amended to read as follows:

1383 **Size requirement.** The dosing tank shall be of sufficient size so as to provide the
1384 total volume required ~~((one day's total dosing gallonage plus one day's estimated waste~~
1385 ~~volume but))~~ for two days of the design flow and shall not be less than one thousand five
1386 hundred gallons.

1387 SECTION 35. R&R 3, Part 5, Section 5, and BOH 13.48.010 are hereby
1388 amended to read as follows:

1389 **Specifications.**

1390 A. No OSS may be constructed unless there has first been a soil evaluation for
1391 the site completed in the manner described in BOH 13.28.050 to determine type, size and

1392 location of the OSS. SSAS design and construction shall be in accordance with the
1393 following:

1394 1. Maximum bottom width of trenches shall be twenty-four inches except a
1395 maximum width of up to thirty-six inches may be allowed provided that:

1396 a. for soil types 1 through 4 the SSAS is at least pressure distribution in
1397 accordance with BOH 13.48.060 (pressure distribution systems); and

1398 b. for soil types 5 and 6 the effluent shall meet the next higher treatment level
1399 as indicated in table 13.28-1 unless treatment level B is already required prior to
1400 discharge to the SSAS; and c. the slope does not exceed thirty percent.

1401 2. Beds are allowed only in excessively permeable soils consisting of very
1402 gravelly coarse sands or coarser, extremely gravelly soils. SSAS installed in beds must
1403 be pressure distribution and meet treatment level B or greater.

1404 3. The maximum depth of soil cover over the top of SSAS drainrock shall not
1405 exceed twenty-four inches except by written permission of the health officer. The
1406 infiltrative surface or bottom of the drainfield shall not be deeper than thirty-six inches
1407 below the finished grade.

1408 4. The minimum depth of soil cover over drainrock shall not be less than twelve
1409 inches unless otherwise authorized by the health officer.

1410 5. Minimum depth of drainrock under drainfield lines shall not be less than six
1411 inches.

1412 6. The amount of drainrock over drainfield lines shall not be less than two
1413 inches.

1414 7. Drainrock shall be clean, washed, uniformly graded, nondeteriorating gravel,
1415 size (~~((three eighths inches to seven eighths inches or three quarters inches to one and~~)
1416 three-fourths of an inch to two and one-half inches with no visible fine particles adhering
1417 to gravel surfaces and with the percent by weight passing the U.S. No. 200 sieve not
1418 greater than 0.5 percent.

1419 8. Minimum separation between drainfield trench side walls shall not be less
1420 than four feet of undisturbed soil (~~((for soil texture types 1, 2, and 3 and shall not be less~~
1421 ~~than six feet for soil texture type 4, 5 and 6)).~~

1422 9. Individual laterals greater than one hundred feet in length must use pressure
1423 distribution.

1424 10. No gravelless drainfield system may be installed unless it satisfies the
1425 requirements of BOH 13.52.054.

1426 11. The designer shall specify, in the OSS design, the SSAS cover material to be
1427 used and shall verify, in the record drawing, that the cover material used conforms with
1428 the design specifications.

1429 B. Horizontal separations shall be maintained in accordance with BOH
1430 13.28.030W and Table 13.28- 2.

1431 C. No drainfield pipes shall be installed unless all fittings are rigidly joined
1432 together in accordance with the pipe manufacturer's directions.

1433 D. Approved rigid drainfield pipe, such as PVC, shall be used, but only if stakes
1434 are placed in the trench center at not more than five-foot intervals to maintain grade and a

1435 transit level laser or equally accurate instrument shall be used to assure that proper grade
1436 is maintained.

1437 E. No drainfield shall be installed that requires a change in grade and earth cover
1438 unless terracing is accomplished by the use of a suitable plastic or concrete drop box or
1439 by use of rigid plastic pipe with glued joints (overflow stepdown). Such installation shall
1440 have an earth dam twenty-four inches thick preceding terracing. Earth dams shall consist
1441 of original undisturbed soil.

1442 F. Not less than one drainfield trench monitoring port of at least four inches in
1443 diameter, which is anchored, with an easily removable cover that extends to finished
1444 grade, shall be installed down to the infiltrative surface in each drainfield lateral.

1445 G. No OSS shall be installed unless the pipe lines between the building and the
1446 septic tank, the septic tank and the distribution box, under paved areas, and within ten
1447 feet of any buildings, shall be constructed of plastic, or cast-iron pipe laid with watertight
1448 joints. The pipe materials shall conform to material specifications of the Uniform
1449 Plumbing Code.

1450 H. No drainfield shall be installed that, after installation of the gravel over the
1451 pipe, is not then covered with a geotextile barrier material that meets the specifications of
1452 Section 5, Design Standards for Large On-site Sewage Systems, December 1993,
1453 amended July 1994, Washington State Department of Health, as amended.

1454 I. No drainfield shall be installed under driveways, roadways, parking areas,
1455 paved areas or under areas subject to compaction by vehicular traffic.

1456 J. Pipe used for construction of gravity drainfield lines shall be a minimum of
1457 four inches inside diameter and constructed of rigid materials conforming with ASTM
1458 F481-02, as amended.

1459 K. Pipe used for construction of tightline must comply with the current Uniform
1460 Plumbing Code.

1461 L. SSAS shall be installed in undisturbed native soil. Trees or tree stumps greater
1462 than eighteen inches in diameter, when measured two feet above grade, shall be left
1463 standing, cut at ground level, burned in place, or managed by other methods acceptable to
1464 the health officer that will avoid disturbing the soil.

1465 SECTION 36. R&R 3, Part 6, Section 1, as amended, and BOH 13.52.010 are
1466 hereby amended to read as follows:

1467 **Holding tanks.**

1468 A. Sewage holding tanks may be permitted only for controlled, nonresidential
1469 usage or as an interim method to handle emergency situations or to correct existing
1470 problem systems; provided, that an on-site system management program satisfactory to
1471 the health officer has been established to assure on-going operation and maintenance.

1472 B. ~~((In addition, t))~~ The applicant ((must)) for a holding tank shall provide a no-
1473 protest agreement with the sewerage authority or a signed petition supporting formation
1474 of a ULID if the property is within a sewer service area.

1475 C. ~~((Design plans shall be submitted))~~ The applicant shall submit holding tank
1476 design plans in conformance with this title to the health officer for review. The ~~((design~~
1477 ~~and))~~ owner shall ensure that holding tank maintenance and operation ~~((shall be in~~

1478 ~~accordance))~~ conform with this title and with Guidelines for Holding Tank Sewage
1479 Systems, July 2007, Washington State Department of Health, as amended. The
1480 application shall include specifications for the anticipated daily sewage load, the tank
1481 capacity, the alarm device, the overflow elevation, the location of the tank, and any other
1482 information pertinent to the installation.

1483 D. ~~((A minimum bond of five thousand dollars must be filed with the health
1484 officer or management authority to guarantee cleanup in case of accidental spill and/or
1485 repair of the system.~~

1486 E. ~~A copy of a pumping contract with a certified OSS pumper must be filed with
1487 the department))~~ The owner shall enter into an active pumping contract with a certified
1488 OSS pumper and file a copy of the contract with the health officer. The owner shall
1489 maintain the contract at all times until the holding tank has been decommissioned. The
1490 pumper shall notify the health officer if the contract is at any time canceled or not
1491 renewed by either party to the contract.

1492 F. The owner or applicant shall obtain ~~((A))~~ an OSS installation permit ~~((must be
1493 obtained))~~ prior to installation of the tank.

1494 G. ~~((Monitoring))~~ The owner shall cause monitoring and maintenance ~~((shall))~~ of
1495 the tank to be performed in accordance with BOH 13.60.010. The owner shall ensure
1496 that pumping of the holding tank occurs at least as frequently as specified under the
1497 approved holding tank design, or, alternatively, that the holding tank installation includes
1498 technology to monitor septage levels in the tank and notify the owner and contracted
1499 pumper if ninety percent of the tank capacity is exceeded.

1500 SECTION 37. R&R No. 3, Part 7, Section 5, and BOH 13.56.050 are each hereby
1501 amended to read as follows:

1502 **Record drawing.**

1503 A. (~~Whenever a designer approves an installation,~~) Within thirty days after
1504 approving an OSS installation and notifying the health officer of system completion, the
1505 designer shall prepare, sign, and submit electronically to the health officer a completely
1506 scaled and dimensioned record drawing and certification of the approved OSS (~~shall be~~
1507 ~~prepared in triplicate by the designer of the system on forms provided by the health~~
1508 ~~officer. These forms shall then be signed by the designer and within thirty days of~~
1509 ~~notifying the health officer of system completion all three complete copies shall be~~
1510 ~~submitted~~). Where an installation, alteration or repair is undertaken without a design
1511 prepared by a designer, the installer or OSM performing the installation, alteration or
1512 repair shall provide a reconciled (~~record drawing~~) site sketch to the health officer and
1513 the OSS owner at the time of final inspection.

1514 B. The following details are required for all record drawings:

1515 1. An accurate plot plan, with measurements and directions accurate to within
1516 one-half of one foot, showing the locations of the essential components of the OSS
1517 including:

1518 a. all sewage tanks, tank pump out lids, tank inspection access ports and depth
1519 of tank burial.

1520 b. all plumbing stub outlets.

1521 c. building sewer line between building and septic tank.

1522 d. effluent transport line between septic tank and distribution box or inspection
1523 box.

1524 e. the ends, and all changes in direction, of installed and found buried pipes
1525 and electrical cables that are part of the OSS.

1526 f. the distribution/inspection box.

1527 g. all soil absorption system laterals and permanent visible marker locations.

1528 The length and width of each individual drainfield lateral shall be shown to scale and the
1529 total number of lineal feet and square footage of laterals specified on the drawing. A
1530 dimensioned reserve soil absorption system area shall be included. h.

1531 h. the location of any unusual construction features such as step downs((∅)) in
1532 the drainfield laterals((∅)) must be clearly indicated.

1533 i. distance between any drainfield laterals and the edges of any fill soils, cuts,
1534 banks, terraces, foundations, property lines, lakes, streams, wells or other water sources,
1535 water lines, driveways and impermeable surfaces.

1536 j. the location and detail of soil absorption system inspection ports.

1537 k. location and depth of permeable cover added after installation.

1538 l. if ~~((a pump system))~~ the OSS contains a pump, the pump size, manufacturer,
1539 model, pump cycle duration, dose in gallons/cycle and pump timer settings.

1540 m. location, size, shape, and placement of all buildings on the building site
1541 showing their relation to the OSS and to any easements, underground oil storage tanks,
1542 utility lines and property lines.

1543 n. location, direction of flow, and discharge point of all ground and/or surface
1544 water interceptor drains and on-site stormwater infiltration systems.

1545 o. orientation of drawing with north direction by arrow.

1546 p. location of private water supply (well, spring, etc.).

1547 q. location of design control point.

1548 2. Clearly Indicated Scale using the appropriate scaled increments shown on a
1549 typical engineering scale. Recommended scale of one inch equals twenty feet. Scales
1550 utilizing ratios smaller than one inch equals thirty feet are not acceptable.

1551 3. One copy of an OSS owner's operating, maintenance and technical
1552 specifications manual which includes:

1553 a. system performance specifications, including initial settings of electrical or
1554 mechanical devices needed to operate the system as intended by the designer and
1555 installer;

1556 b. system operating instructions, including ~~((, for proprietary products,))~~
1557 manufacturer's standard product literature for proprietary products;

1558 c. system preventive maintenance instructions and service schedule;

1559 d. make, model and/or performance specifications of all system components;

1560 ~~((and))~~

1561 e. check list and schedule for routine monitoring inspections, effluent sampling
1562 and reports ~~((-))~~; and

1563 f. record that materials and equipment meet the specifications contained in the
1564 design.

1565 4. Copy of recorded "notice on title" required by BOH 13.56.054, and an
1566 operation and maintenance services agreement as applicable.

1567 5. Copy of OSS installation permit.

1568 6. Documentation describing the waste strength range within which the OSS is
1569 designed to operate.

1570 SECTION 38. R&R 99-01, Section 2 (Part), as amended, and BOH 13.56.054 are
1571 hereby amended to read as follows:

1572 **Notice on title.**

1573 A. New Systems. The owner shall record a notice on title with the King County
1574 records and election division. This notice shall include all of the owner's responsibilities
1575 described in BOH 13.60.005 and Table 13.60-1.

1576 B. Existing systems.

1577 1. Prior to sale or transfer of property ownership, if the building is served by an
1578 OSS and the notice on title required by this section has not been recorded, then the owner
1579 shall record the notice as set forth in BOH 13.56.054.A. At the time of sale the seller
1580 shall obtain the buyer's signature acknowledging receipt of a copy of this recorded notice.

1581 2. At the time of sale or transfer of property ownership, the buyer or transferee
1582 of a property served by an OSS shall forward to the health officer a fee as set forth in the
1583 fee schedule and submit a signed copy of the notice on title as set forth in BOH
1584 13.56.054.A.

1585 ~~((3. At the time a building is remodeled or expanded, if it is not connected to~~
1586 ~~public sewer and the notice on title required by this section has not been recorded, then~~
1587 ~~the owner shall record the notice as set forth in BOH 13.56.054.A.))~~

1588 SECTION 39. R&R 99-01, Section 2 (part), as amended, and BOH 13.60.005 are
1589 hereby amended to read as follows:

1590 **Operation and maintenance.**

1591 A. The OSS owner is responsible for the continuous proper operation and
1592 maintenance of the OSS, and shall:

1593 1. Determine the level of solids and scum in the septic tank at least once every
1594 three years for residential systems with no garbage grinder and once every year if a
1595 garbage grinder is installed and, unless otherwise provided in writing by the health
1596 officer, once every year for commercial systems((-));

1597 2. Employ an approved pumper to remove the septage from the tank when the
1598 level of solids and scum indicates that removal is necessary((-));

1599 3. Cause preventive maintenance/system performance monitoring inspections to
1600 be conducted and any indicated service to be performed by an approved person at a
1601 minimum frequency in accordance with Table 13.60-1 unless otherwise established by
1602 the health officer((-));

1603 4. Secure and renew contracts, as needed, to fulfill the OSS operation and
1604 maintenance requirements of Table 13.60-1((-));

- 1605 5. Operate and maintain all OSS in accordance with this title, with pertinent
1606 alternative system guidelines issued by the DOH and with the approved OSS owner's
1607 operating and maintenance instruction manual((-));
- 1608 6. Protect the OSS area including the reserve area from:
- 1609 a. cover by structures or impervious material;
- 1610 b. surface drainage;
- 1611 c. soil compaction, for example, by vehicular traffic or livestock; and
- 1612 d. damage by soil removal and grade alteration((-));
- 1613 7. Maintain the flow of sewage to the OSS at or below the approved operating
1614 capacity and sewage quality standards for residential strength waste water((-);
- 1615 8. Direct drains, such as footing or roof drains away from the area where the
1616 OSS is located((-);
- 1617 9. At time of property transfer, provide the buyer with maintenance records, if
1618 available, in addition to the completed seller disclosure statement in accordance with
1619 chapter 64.06 RCW for residential real property transfers; and
- 1620 10. Ensure that all tank access lids are secured to minimize risk of injury or
1621 unauthorized access.
- 1622 B. The owner shall not allow:
- 1623 1. Use or introduction of strong bases, strong acids or organic solvents into an
1624 OSS for the purpose of system cleaning;
- 1625 2. Use of a sewage system additive unless it is specifically approved by the
1626 DOH; or

1627 3. Use of an OSS to dispose of waste components atypical of residential
1628 wastewater, for example, but not limited to, petroleum products, paints, solvents, or
1629 pesticides.

1630 SECTION 40. R&R 3, Part 8, Section 1, as amended, and BOH 13.60.010 are
1631 hereby amended to read as follows:

1632 **Monitoring of residential, community or commercial systems.**

1633 A. The owner shall cause (~~(monitoring of the)~~) performance monitoring and
1634 preventive maintenance inspections of any OSS at a frequency and by a qualified person
1635 as specified in Table 13.60-1.

1636 B. For all system types, service access and monitoring ports to finished grade are
1637 required for all system components. Specific component requirement include the
1638 following:

1639 1. Septic tanks shall have service access maintenance ports and monitoring ports
1640 for the inlet and outlet. If effluent filters are used, access to the filter at finished grade is
1641 required;

1642 2. Surge, flow equalization or other sewage tanks shall be accessible for
1643 monitoring and maintenance;

1644 3. All pretreatment units shall have service access maintenance ports and
1645 monitoring ports;

1646 4. Pump chambers, tanks and vaults shall have service access maintenance
1647 ports;

1648 5. Disinfection units shall have service access and be installed to facilitate
1649 complete maintenance and cleaning;

1650 6. Soil dispersal components shall have monitoring ports for both distribution
1651 devices such as valves or other controls and the infiltrative surface; and

1652 7. Any person providing service to an OSS shall secure tank access lids after
1653 servicing the OSS or provide clearly visible marking and notification to the property
1654 owner and occupants before leaving the site.

1655 C. Systems using pumps shall have accessible controls and warning devices.

1656 D. To facilitate maintenance and safety, control panels shall be located in line of
1657 sight of the pump tank.

1658 E. OSS serving food establishments require, at a minimum, an annual
1659 performance monitoring and preventive maintenance inspection and periodic pumping as
1660 needed.

1661 F. ~~((Operation and maintenance))~~ Performance monitoring and preventive
1662 maintenance inspections of any OSS in a marine recovery area shall be performed by a
1663 licensed OSS maintainer and at a frequency determined by the health officer based upon
1664 type, size, age, system condition, and system location, but not less than once per year. If
1665 no accurate record drawing for the OSS has been prepared and filed with the department,
1666 the licensed OSS maintainer performing the ~~((maintenance and performance monitoring))~~
1667 inspection shall prepare and submit to the health officer a reconciled ~~((record drawing))~~
1668 site sketch together with the ~~((system))~~ operation and performance monitoring report
1669 required under this chapter.

1670

Table 13.60-1

1671

Minimum Frequency of ((~~Preventive Maintenance~~)) Performance Monitoring and

1672

Preventive Maintenance Inspections

	Gravity System <u>without Pump</u> ⁴	Public Domain Technology ²	Proprietary Technology ^{3,5}	Commercial and Food Establishment	Non-Discharging Toilets ⁶
Initial¹ Inspection	6 months	6 months	45 days	45 days	N/A
Regular Inspection frequency	Every 3 years	Annually	((Every 6 months)) <u>Annually</u>	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

1673

Table 13.60-1 Explanatory Notes

1674

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

1675

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

1676

1677

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

1678

1679 4. ~~((At least an annual septic tank maintenance check is required if the structure served is equipped~~
1680 ~~with a garbage grinder waste disposal unit.))~~ If a screened outlet baffle is present an annual ~~((check))~~
1681 cleaning is recommended. ~~((Pumpers shall report each pumping event to the health officer in~~
1682 ~~accordance with BOH chapter 13.68.))~~

1683 5. Table 13.60-1 specifies the minimum required monitoring frequency. A more stringent monitoring
1684 frequency shall be used if recommended by the manufacturer.

1685 6. This monitoring is in addition to that required for the OSS receiving the building's nontilet liquid
1686 waste.

1687 G. The person conducting the ~~((maintenance and))~~ performance monitoring and
1688 preventive maintenance inspection shall submit ~~((a system))~~ an operation and
1689 ~~((maintenance/))~~ performance monitoring report, on forms provided by the health officer,
1690 to the owner at the time of the inspection and to the health officer accompanied by a
1691 filing fee as specified in the fee schedule within thirty days of the inspection.

1692 H. Any person holding a King County OSS certificate of competency or
1693 Washington state on-site sewage system designer or professional engineer license who
1694 observes effluent surfacing from an OSS component or sewage backing up into a
1695 structure shall report the failure on forms provided by the health officer within five
1696 business days of observing the failure.

1697 I. The fee for each ~~((OSS monitoring/performance inspection))~~ monitoring report
1698 required by the health officer shall be in accordance with the fee schedule.

1699 ~~((I. Preventive maintenance and monitoring))~~ J.1. For any commercial
1700 development using OSS, performance monitoring and preventive maintenance inspection

1701 of the OSS (~~(performance and)~~), including quality of effluent, shall be required (~~(for any~~
1702 ~~commercial development using OSS)~~).

1703 ~~((1-))~~ 2. The minimum frequency and the type of inspection required shall be in
1704 accordance with Table 13.60-1 unless otherwise established by the health officer.

1705 ~~((2-))~~ 3. At least an annual inspection of OSS serving food establishments shall
1706 be conducted.

1707 ~~((1-))~~ K. For properties where required performance monitoring and ~~((/or))~~
1708 preventive maintenance inspections are at least thirty days overdue the health officer may
1709 notify the owner that the OSS is not in compliance with these rules. The health officer
1710 may, in addition to provisions of BOH chapter 1.08 of this code, cause a notice of
1711 noncompliance to be recorded with the real property records for the subject lot.

1712 SECTION 41. R&R 08-03, Section 145, and BOH 13.60.030 are hereby
1713 amended to read as follows:

1714 **Operation and maintenance at time of sale.**

1715 A. The seller or grantor of any single-family or multiple family residential
1716 property served by an OSS shall, prior to transfer of title to the property, have a property
1717 transfer monitoring and performance inspection performed by a licensed OSM. The
1718 licensed OSM shall file with the department an on-site system report and applicable fee
1719 in accordance with the fee schedule.

1720 ~~((1-))~~ B. If no record drawing is on file with the department, the OSM shall
1721 prepare a ~~((record drawing))~~ site sketch and include it with the O&M report submitted to
1722 the department.

1723 ~~((2-))~~ C. If a record drawing is on file with the department but does not
1724 accurately depict the OSS, the OSM shall prepare a ~~((reconciled record drawing))~~ site
1725 sketch and include it with the O&M report submitted to the department.

1726 ~~((3-))~~ D. A property transfer monitoring and performance inspection is not
1727 required if such an inspection was performed within the previous ~~((6 months-))~~ twelve
1728 months, provided the property has not been transferred since the most recent inspection.

1729 ~~((4-))~~ E. At the time of property transfer, the owner shall provide, to the buyer,
1730 maintenance records, if available, in addition to the completed seller disclosure statement
1731 in accordance with chapter 64.06 RCW for residential real property transfers.

1732 SECTION 42. R&R No. 3, Part 9, Section 1, as amended, and BOH 13.64.010
1733 are each hereby amended to read as follows:

1734 **Repairs of failing OSS.**

1735 A. This title shall be applied to the maximum extent permitted by the site for any
1736 repair necessitated by the failure of an existing OSS. The health officer may waive
1737 compliance with these requirements if a conforming repair is not feasible and if in the
1738 health officer's judgment the repaired system will not have an adverse effect on public
1739 health, but the repaired system shall not discharge onto the surface of the ground, into
1740 surface waters, or otherwise fail.

1741 B. The health officer may require a site design in accordance with BOH chapter
1742 13.28 for the repair or replacement of a failing soil absorption component ~~((and if~~
1743 ~~deemed necessary))~~ or for a ~~((limited))~~ repair. Prior to designing the repair system, the
1744 designer shall consider the contributing factors of the failure to enable the repair to

1745 address identified causes of the failure, and shall include this information in any design or
 1746 repair proposal to the department. ~~((The health officer shall require a site design in
 1747 accordance with chapter 13.28 for the repair or replacement of a failing soil absorption
 1748 component and if deemed necessary for a limited repair.))~~

1749 C. It is unlawful to repair an OSS without ~~((an))~~ a department approved OSS
 1750 ~~((limited))~~ repair permit, except that a permit is not required for a minor repair as defined
 1751 under BOH chapter 13.08.

1752 **Table 13.64-1**

1753 **Minimum Treatment Level and Bacteria Level Required for Repair or Replacement**
 1754 **of Soil Absorption Components on Sites not Meeting Vertical and/or Horizontal**
 1755 **Separation Requirements of this Title**

Vertical Separation (in inches)	Horizontal Separation ¹											
	<25 feet ^{2,3}			25<50 feet ^{2,3}			50 < 100 feet ^{2,3}			> 100 feet		
	Soil Type			Soil Type			Soil Type			Soil Type		
	1	2	3-6	1	2	3-6	1	2	3-6	1	2	3-6
	<u>Minimum Treatment Level and Bacteria Level</u>											
< 12	A & <u>BL1</u>	A & <u>BL1</u>	A & <u>BL1</u>	A & <u>BL1</u>	A & <u>BL1</u>	A & <u>BL1</u>	A & <u>BL1</u>	A & <u>BL1</u>	((B)) A & <u>BL1</u>	B & <u>BL2</u>	B & <u>BL2</u>	B & <u>BL2</u>
((>12<18)) ≥ 12 < 18	A & <u>BL1</u>	A & <u>BL1</u>	A & <u>BL1</u>	A & <u>BL1</u>	B & <u>BL2</u>	B & <u>BL2</u>	A & <u>BL1</u>	B & <u>BL2</u>	B & <u>BL2</u>	Conforming Systems		

$(\geq 18 < 24)$	A & <u>BL1</u>	A & <u>BL1</u>	A & <u>BL1</u>	A & <u>BL1</u>	B & <u>BL2</u>	B & <u>BL2</u>	A & <u>BL1</u>	B & <u>BL2</u>	((C)) B & <u>BL2</u>
$(\geq 24 < 36)$	A & <u>BL1</u>	B & <u>BL2</u>	B & <u>BL2</u>	B & <u>BL2</u>	((C)) B & <u>BL2</u>	((C)) B & <u>BL2</u>	B & <u>BL2</u>	((C)) B & <u>BL2</u>	C & <u>BL3</u>
(≥ 36)	A & <u>BL1</u>	B & <u>BL2</u>	B & <u>BL2</u>	B & <u>BL2</u>	C & <u>BL3</u>	C & <u>BL3</u>	B & <u>BL2</u>	C & <u>BL3</u>	((E)) C & <u>BL3</u>

Table 13.64-1 Explanatory Notes

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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 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 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.

1771 E. Alterations or repairs to an OSS shall be documented in a repair record
1772 drawing submitted to the health officer for final approval at time of final inspection,
1773 unless a full design application was submitted for the repair.

1774 F. ~~((The owner receiving a Table 13.64-1 repair permit where treatment Level A
1775 or B is required shall:~~

1776 ~~1. Immediately report any OSS failure to the health officer;~~

1777 ~~2. Continuously operate, maintain and monitor the OSS performance in
1778 accordance with the appropriate recommended standards and guidance for the technology
1779 in use; and~~

1780 ~~3. Report the results of the OSS maintenance and monitoring to the health
1781 officer quarterly when Treatment Level A is required and annually when Treatment Level
1782 B is required.~~

1783 G.)) The owner receiving a permit shall file a "notice on title" in accordance with
1784 13.56.054 and the notice shall include:

1785 1. A notarized agreement to comply with the conditions of BOH 13.64.010.F
1786 above; and

1787 2. A disclosure that a nonconforming OSS has been installed to correct a failure
1788 because a conforming OSS is not feasible due to site and soil limitations and that due to
1789 the OSS nonconformity the system is not authorized to support new building construction
1790 or expansions or major alterations of the existing structure.

1791 ~~((H.))~~ G. The health officer may authorize in writing a horizontal separation of
1792 not less than seventy-five feet between an OSS dispersal component and an individual
1793 private drilled well, but only if:

- 1794 1. ~~((†))~~The well is located on the same parcel as the property served by the OSS;
- 1795 2. ~~((†))~~The OSS is designed and operated to provide treatment level A or
1796 treatment performance beyond that accomplished by meeting the vertical separation and
1797 effluent distribution requirements described in Table 13.64-1; and
- 1798 3. ~~((†))~~The owner monitors drinking water quality for coliform and nitrate and
1799 periodically submits drinking water quality reports to the health officer at least annually.

1800 ~~((H.))~~ H. For any designed repair, the designer shall include, on the record
1801 drawing document, the operating capacity of the repaired OSS and provide a copy of the
1802 record drawing document to the owner.

1803 ~~((J.))~~ I. For any repair required to be performed in accordance with Table 13.64-1
1804 of this title, disinfection may not be used to achieve the fecal coliform requirements to
1805 meet:

- 1806 1. Treatment levels ~~((A or B))~~ BL1 or BL2 where there is less than eighteen
1807 inches of vertical separation~~((:))~~; or
- 1808 2. Treatment levels ~~((A or B))~~ BL1 or BL2 in type 1 soils; or
- 1809 3. Treatment level ~~((C))~~ BL3.

1810 ~~((K.))~~ J. Except as provided in BOH 13.20.040, OSS repairs shall be supervised
1811 by an OSS master installer certified pursuant to BOH 13.20.020 and 13.20.030.

1812 (~~L.~~) K. When the work of repairing an existing OSS has been completed, but
1813 before it is closed and covered, the installer shall notify the owner and the person who
1814 designed the repair (~~and owner shall be notified~~) that the work has been completed.
1815 The person who designed the repair shall then proceed as described in BOH 13.56.030(~~(;~~
1816 ~~subsections~~)) B. and C. The person designing the repair shall then call for the health
1817 officer to inspect the system.

1818 L. For a (~~limited~~) minor repair, the installer or maintainer shall submit a
1819 (~~limited~~) minor repair report to the health officer within five working days after
1820 completing the repair with a site sketch documenting any changes in OSS components.

1821 M. Unless otherwise directed by the health officer, OSS repairs shall not be
1822 covered until the health officer has given approval.

1823 SECTION 43. R&R 3, Part 9, Section 2, as amended, and BOH 13.64.020 are
1824 hereby amended to read as follows:

1825 **Remodeling – approval required.**

1826 A. Existing buildings or structures to which additions, alterations, or
1827 improvements which would impact the operation of the OSS are made after the effective
1828 date of this title shall be served by an OSS complying with this title (~~(; provided,~~
1829 ~~however~~)), except that the health officer may waive compliance with these requirements
1830 for existing buildings or structures when the addition, alterations, repairs, or
1831 improvements to the building or structure are compatible with and do not adversely
1832 impact the OSS including the potential reserve area, do not affect the adequacy of the
1833 system to treat the sewage over the remaining useful life of the building or structure, and

1834 do not adversely affect the ability of the continued operation of the system to protect
1835 public health, surface water quality, or groundwater quality.

1836 B. Applications for approval by the health officer of existing OSS serving
1837 existing buildings undergoing addition, alteration, repair, or improvement shall be made
1838 as provided in this section. The application shall be made on forms furnished by the
1839 health officer.

1840 C.1. The health officer will review all applications to determine the compatibility
1841 of the proposed addition, alteration, repair, or improvement with the existing OSS.

1842 ~~((1.))~~ 2. Factors that the health officer may consider include, but are not limited
1843 to, the following:

1844 a. location of SSAS in relation to foundation and existing improvements;

1845 b. size of SSAS in relation to proposed use;

1846 c. condition of the existing OSS;

1847 d. ~~((useful anticipated life of the existing on-site sewage disposal system;~~

1848 e.)) potential for reconstruction and repair of the existing on-site sewage
1849 disposal system;

1850 ~~((f.))~~ e. ultimate purpose of the remodeling; and

1851 ~~((g.))~~ f. approved source of water.

1852 ~~((2.))~~ 3. The health officer may require the applicant to furnish such exhibits and
1853 information as may be deemed relevant and necessary to the application.

1854 D. Any applicant ~~((for a permit for a change))~~ changing ~~((of))~~ use in a
1855 commercial structure served by an OSS, or for a change of use from residential to

1856 commercial in a structure served by an OSS, shall obtain the health officer's review and
1857 approval of the OSS before the OSS may be utilized to serve the new use in the structure.
1858 Any such applicant for a change in use approval for the continued use of the OSS shall
1859 ~~((submit a written))~~ cause the application for approval by the health officer to be
1860 submitted by a licensed OSS designer or professional engineer on forms provided by the
1861 health officer. The application shall include information detailing the anticipated
1862 wastewater strength of the proposed use and any processes or uses which may impact the
1863 wastewater characteristics and flows of the existing OSS.

1864 E. The nonrefundable fee for such a review shall be as specified in the fee
1865 schedule, payable to the department. No charge shall be made for applications for
1866 projects that are determined to be categorically exempt by the health officer.

1867 SECTION 44. R&R 3, Part 11, Section 1, as amended, and BOH 13.68.010 are
1868 hereby amended to read as follows:

1869 **Pumper certification requirements.**

1870 A. It is unlawful for any person to carry on or engage in the business of pumping
1871 out the contents of septic tanks, cesspools, grease traps, seepage pits, vault privies,
1872 portable toilets, and other receptacles of human sewage or to transport over the highways
1873 or to dispose of the contents therefrom in King County unless the pumper business
1874 operator and in addition, each employee of the OSS pumper who engages in OSS
1875 pumping activities, holds a valid certificate of competency and each vehicle has an
1876 annual inspection tab issued by the health officer in accordance with this title for

1877 conducting such business. The following liquid waste pumper's certificate of
1878 competency classifications are established:

- 1879 1. OSS pumper;
- 1880 2. Grease trap(~~(/)~~) or interceptor pumper;
- 1881 3. (~~(Vessel)~~) Watercraft sewage holding tank pumper;
- 1882 4. Portable toilet pumper; and
- 1883 5. Miscellaneous sewage pumper.

1884 B. All persons holding a valid pumper registration on the effective date of these
1885 regulations will be classified by the health officer in accordance with subsection(~~(s)~~) A.1.
1886 through (~~(A)~~)4. of this section.

1887 C. A holder of an OSS pumper classification certificate of competency may, in
1888 addition to the pumping and transporting activity under this section, conduct routine
1889 preventive maintenance and performance monitoring inspections of gravity OSS, except
1890 that an OSS inspection at time of property sale under BOH 13.60.030 shall be performed
1891 by a licensed OSS maintainer. A liquid waste pumper of any classification may not
1892 perform minor repairs on any OSS component other than lids, risers, baffles, and building
1893 sewer tightlines.

1894 D. An applicant may be issued a certificate under such terms, conditions orders
1895 and direction as the health officer may deem necessary for the protection of public health.
1896 The health officer may waive any specific condition required by this chapter for
1897 certification when, in the opinion of the health officer, the condition duplicates a
1898 requirement of another regulatory agency and which the applicant has fulfilled.

1899 E. As a condition of certification, a pumper shall consistently demonstrate
1900 reasonable care and skill in performing work governed by this title, meet the
1901 requirements of the King County OSS code of performance and ethics, and comply with
1902 all the terms and conditions of these and all other applicable rules and regulations.

1903 SECTION 45. R&R 3, Part 11, Section 2, as amended, and BOH 13.68.020 are
1904 hereby amended to read as follows;

1905 **Application.** (~~All applications for pumper certification under this title shall be~~
1906 ~~submitted~~) An applicant for a pumper certificate of competency shall submit the
1907 application to the health officer(~~(- The application shall state the applicant's name in full;~~
1908 ~~if a partnership, then the names of the partners, the relation of the applicant to the firm or~~
1909 ~~partnership; the name of the corporation if a corporation; the place of business and place~~
1910 ~~of residence of the applicant; each of the partners in the business, if a partnership; and the~~
1911 ~~place of business of the corporation, if a corporation. The applicant shall also provide))
1912 and shall include the following with the application:~~

1913 A. If an individual, the applicant's name in full, signature, place of residence, and
1914 name and place of business;

1915 B. If a partnership or corporation, the names of the partners or officers, the
1916 relation of the applicant to the partnership or corporation, the signature of the managing
1917 partner or authorized officer, and the name and primary place of business of the
1918 partnership or corporation;

1919 C. ((~~€~~))The number and identification of all vehicles to be used;

1920 D. ((~~¶~~))The type, location and name of all the sites that the applicant will use to
1921 dispose of the contents of septic tanks, cesspools, grease traps, grease interceptors,
1922 seepage pits, vault privies, portable toilets and other receptacles of human sewage;
1923 ~~((and))~~

1924 E. A valid disposal site letter of authorization including the name and address of
1925 the person, firm, or corporation who is responsible for the operation of each disposal
1926 site~~((A valid disposal site letter of authorization must accompany the application. The~~
1927 ~~application shall be signed by the authorized officer of the corporation, if a corporation,~~
1928 ~~or by the managing partner, if a partnership, or by the individual owner, if owned by an~~
1929 ~~individual, and by the individual applicant)); and~~

1930 F. A signed attestation that the applicant for a new or renewal pumper certificate
1931 of competency is familiar with and agrees to perform all OSS services in accordance with
1932 the requirements of this title and the King County OSS code of performance and ethics.

1933 SECTION 46. R&R 3, Part 11, Section 3, as amended, and BOH 13.68.030 are
1934 hereby amended to read as follows:

1935 **Examination and inspection.**

1936 A. Except as described in BOH 13.68.010.B., a pumper's certificate of
1937 competency and~~((~~¶~~))~~ vehicle inspection tab, as applicable, shall be issued to the
1938 applicant only after:

1939 1. Completion of a course of instruction given by ~~((~~¶~~))~~ one or more qualified
1940 ~~((person(s)))~~ persons acceptable to the health officer and which covers, as applicable to
1941 the certificate of competency classification, basic sanitation principles affecting public

1942 health, on-site sewage concepts, details of proper servicing of sewage tanks (~~(or other~~
1943 ~~receptacles of human sewage)~~) and all components of a gravity OSS, and the transporting
1944 and disposing of sewage, septage, sludge, or fats, oils and grease;

1945 2. Satisfactory completion of an examination relevant to the pumper certificate
1946 of competency classification, which may include but not necessarily be limited to the
1947 applicant's knowledge of sanitation principles affecting public health, (~~(knowledge of~~
1948 ~~principles of on-site sewage system)~~) OSS operations, (~~(knowledge of)~~) sewage tanks
1949 (~~(and/or portable toilet)~~) and all components of a gravity OSS, servicing procedures, and
1950 knowledge of regulations governing disposal of septage, sewage, and(~~/or~~) fats, oils, and
1951 grease(~~(, and)~~). The examination may also include an assessment of the reliability of the
1952 applicant in observing sanitation laws, regulations, and directions, plus other pertinent
1953 information as deemed necessary by the health officer. (~~(except that the grease)~~) Grease
1954 trap(~~(/)~~) or interceptor pumpers, (~~(vessel)~~) watercraft sewage holding tank pumpers,
1955 (~~(and)~~) portable toilet pumpers, and miscellaneous sewage pumpers may be exempted
1956 from such examination upon satisfactory completion of an industry certification(~~(/)~~) or
1957 training program, or both, acceptable to the health officer. The fee for such an
1958 examination or evaluation of training documentation shall be as specified in the fee
1959 schedule payable in advance and nonrefundable;

1960 3. Annual inspection and approval of the applicant's equipment to be used in the
1961 performance of the business;

1962 4. The business operator provides the health officer with evidence of
1963 compliance with state of Washington minimum bonding requirements as stated in chapter
1964 18.27 RCW and contractor's liability insurance for at least fifty thousand dollars; and

1965 5. Business operators, other than OSS pumpers, sign and provide to the health
1966 officer a statement certifying that all employees working in contact with equipment
1967 potentially contaminated by sewage have successfully completed a course of instruction
1968 given by a qualified person or persons acceptable to the health officer which covers basic
1969 sanitation principles affecting public health.

1970 B. Certificate of competency and vehicle inspection fees shall be as specified in
1971 the fee schedule.

1972 C. After certification has been approved by the health officer, the applicant will
1973 be issued a certification of competency registration number. The business owner shall
1974 permanently affix said number preceded by the letters "KC No." on each of the
1975 applicant's collection vehicles. ~~((Said))~~ The numbers must be in a contrasting color to
1976 that of the vehicle and in letters at least three inches high and placed along with the
1977 annual wastewater vehicle tab in a conspicuous place designated by the health officer. In
1978 addition, the name of the operating firm shall be conspicuously displayed on both sides of
1979 the truck.

1980 D.1. Certificates shall expire December 31~~((st))~~ of each year.

1981 ~~((1-))~~ 2. The health officer may renew certificates of competency provided that
1982 the applicant submits not later than December 31~~((st))~~ a complete renewal application
1983 accompanied by~~((:))~~ a fee as set forth in the fee schedule, authorization for continued use

1984 of all disposal sites, a completed annual vehicle inspection report, and proof of minimum
1985 bonding and insurance requirements(~~(; and)~~).

1986 ((2-)) 3. Complete applications for renewal submitted after January 15 shall be
1987 subject to a late fee in the amount of one-half the renewal fee, after January 31 double the
1988 renewal fee and after February 10 a renewal shall not be granted without passing a
1989 competency examination.

1990 SECTION 47. R&R 3, Part 11, Section 5, as amended, and BOH 13.68.050 are
1991 hereby amended to read as follows:

1992 **Revocation of certificate of competency and inspection certificates.** ((~~Any~~
1993 ~~certificate of competency and inspection certificate issued under this title may be~~
1994 ~~suspended or revoked for cause by the health officer pursuant to~~)) The health officer may
1995 assess civil penalty fines of up to one-thousand dollars per violation per day against any
1996 holder of an OSS pumper's certificate of competency, or institute probationary
1997 requirements, or suspend or revoke a pumper's certificate of competency for the pumper's
1998 failure to comply with this title or the King County OSS code of performance and ethics.

1999 SECTION 48. R&R 99-01, Section 2 (part), and BOH 13.08.024 are hereby
2000 repealed.

2001 SECTION 49. R&R 08-03, Section 12, and BOH 13.08.055 are hereby repealed.

2002 SECTION 50. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.060
2003 are hereby repealed.

2004 SECTION 51. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.070
2005 are hereby repealed.

2006 SECTION 52. R&R 99-01, Section 2 (part), and BOH 13.08.072 are hereby
2007 repealed.

2008 SECTION 53. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.084 are
2009 hereby repealed.

2010 SECTION 54. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.090
2011 are hereby repealed.

2012 SECTION 55. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.114 are
2013 hereby repealed.

2014 SECTION 56. R&R 08-03, Section 21, and BOH 13.08.115 are hereby repealed.

2015 SECTION 57. R&R 08-03, Section 23, and BOH 13.08.117 are hereby repealed.

2016 SECTION 58. R&R 08-03, Section 27, and BOH 13.08.131 are hereby repealed.

2017 SECTION 59. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.132 are
2018 hereby repealed.

2019 SECTION 60. R&R 99-01, Section 2 (part), and BOH 13.08.134 are hereby
2020 repealed.

2021 SECTION 61. R&R 08-03, Section 30, and BOH 13.08.141 are hereby repealed.

2022 SECTION 62. R&R 08-03, Section 32, and BOH 13.08.151 are hereby repealed.

2023 SECTION 63. R&R 08-03, Section 34, and BOH 13.08.154 are hereby repealed.

2024 SECTION 64. R&R 09-03, Section 37, and BOH 13.08.175 are hereby repealed.

2025 SECTION 65. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.180
2026 are hereby repealed.

2027 SECTION 66. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.190
2028 are hereby repealed.

2029 SECTION 67. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.202 are
2030 hereby repealed.

2031 SECTION 68. R&R 08-03, Section 40, and BOH 13.08.205 are hereby repealed.

2032 SECTION 69. R&R 99-01, Section 2 (part), and BOH 13.08.212 are hereby
2033 repealed.

2034 SECTION 70. R&R 08-03, Section 41, and BOH 13.08.213 are hereby repealed.

2035 SECTION 71. R&R 99-01, Section 2 (part), and BOH 13.08.226 are hereby
2036 repealed.

2037 SECTION 72. R&R 08-03, Section 47, and BOH 13.08.257 are hereby repealed.

2038 SECTION 73. R&R 08-03, Section 49, and BOH 13.08.261 are hereby repealed.

2039 SECTION 74. R&R 08-03, Section 50, and BOH 13.08.263 are hereby repealed.

2040 SECTION 75. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.280
2041 are hereby repealed.

2042 SECTION 76. R&R 08-03, Section 55, and BOH 13.08.287 are hereby repealed.

2043 SECTION 77. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.290
2044 are hereby repealed.

2045 SECTION 78. R&R 08-03, Section 56, and BOH 13.08.305 are hereby repealed.

2046 SECTION 79. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.320
2047 are hereby repealed.

2048 SECTION 80. R&R 08-03, Section 57, and BOH 13.08.3215 are hereby
2049 repealed.

2050 SECTION 81. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.322 are
2051 hereby repealed.

2052 SECTION 82. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.324 are
2053 hereby repealed.

2054 SECTION 83. R&R 08-03, Section 60, and BOH 13.08.327 are hereby repealed.

2055 SECTION 84. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.330
2056 are hereby repealed.

2057 SECTION 85. R&R 99-01, Section 2 (part), and BOH 13.08.341 are hereby
2058 repealed.

2059 SECTION 86. R&R No. 08-03, Section 61, and BOH 13.08.346 are hereby
2060 repealed.

2061 SECTION 87. R&R 3, Part 1, Section 5, as amended, and BOH 13.08.350 are
2062 hereby repealed.

2063 SECTION 88. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.372 are
2064 hereby repealed.

2065 SECTION 89. R&R 99-01, Section 2 (part), and BOH 13.08.402 are hereby
2066 repealed.

2067 SECTION 90. R&R 99-01, Section 2 (part), and BOH 13.08.406 are hereby
2068 repealed.

2069 SECTION 91. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.410
2070 are hereby repealed.

2071 SECTION 92. R&R 08-03, Section 69, and BOH 13.08.424 are hereby repealed.

2072 SECTION 93. R&R 99-01, Section 2 (part), and BOH 13.08.426 are hereby
2073 repealed.

2074 SECTION 94. R&R No. 08-03, Section 72, and BOH 13.08.465 are hereby
2075 repealed.

2076 SECTION 95. R&R No. 3, Part 1, Section 5, as amended, and BOH 13.08.470
2077 are hereby repealed.

2078 SECTION 96. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.472 are
2079 hereby repealed.

2080 SECTION 97. R&R 08-03, Section 74, and BOH 13.08.477 are hereby repealed.

2081 SECTION 98. R&R 08-03, Section 76, and BOH 13.08.482 are hereby repealed.

2082 SECTION 99. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.484 are
2083 hereby repealed.

2084 SECTION 100. R&R 09-03, Section 79, and BOH 13.08.493 are hereby
2085 repealed.

2086 SECTION 101. R&R 08-03, Section 80, and BOH 13.08.4934 are hereby
2087 repealed.

2088 SECTION 102. R&R 08-03, Section 81, and BOH 13.08.4937 are hereby
2089 repealed.

2090 SECTION 103. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.500
2091 are hereby repealed.

2092 SECTION 104. R&R 08-03, Section 87, and BOH 13.08.505 are hereby
2093 repealed.

2094 SECTION 105. R&R 99-01, Section 2 (part), and BOH 13.08.512 are hereby
2095 repealed.

2096 SECTION 106. R&R 99-01, Section 2 (part), and BOH 13.08.516 are hereby
2097 repealed.

2098 SECTION 107. R&R 08-03, Section 88, and BOH 13.08.520 are hereby
2099 repealed.

2100 SECTION 108. **Effective date.** This rule takes effect April 1, 2025.

2101 SECTION 109. **Severability.** If any provision of this rule or its application to
2102 any person or circumstance is held invalid, the remainder of the rule or the application of
2103 the provision to other persons or circumstances is not affected.