



# King County

1200 King County  
Courthouse  
516 Third Avenue  
Seattle, WA 98104

## Meeting Agenda Board of Health

**Metropolitan King County Councilmembers: Teresa Mosqueda, Chair; Jorge Barón, Reagan Dunn**  
**Alternate: Sarah Perry**

**City of Seattle Members: Joy Hollingsworth, Robert Kettle, Sara Nelson**  
**Alternate: Bruce Harrell**

**Sound Cities Association Members: Amy Lam, Vice Chair; Cheryl Rakes**  
**Alternates: Amy Falcone and Barb de Michele**

**Public Health, Facilities, and Providers: Butch de Castro, PhD, MSN/MPH, RN, FAAN;**  
**Lisa Chew, MD, MPH; Katherine Gudgel, MS**  
**Alternate: Patricia Egwuatu, DO**

**Consumers of Public Health: Quiana Daniels, BS, RN, LPN, Vice Chair;**  
**Mustafa Mohammed, MD, MBCHB, MHP, LAAC, AAC**  
**Alternate: LaMont Green (Gullah), DSW**

**Community Stakeholders: Christopher Archiopoli, Victor Loo**  
**Alternate: Francoise Milinganyo**

**American Indian Health Commission: Jolene Williams, Councilmember, Snoqualmie Indian Tribe**  
**Alternate: Angela Young, Councilmember, Snoqualmie Indian Tribe**

**Dr. Faisal Khan, Director, Seattle-King County Department of Public Health**  
**Staff: Joy Carpine-Cazzanti, Board Administrator - KCBOHAdmin@kingcounty.gov**

**1:00 PM**

**Thursday, February 20, 2025**

**Hybrid Meeting**

**Hybrid Meetings: Attend Board of Health meetings in person in Council Chambers (Room 1001), 516 3rd Avenue in Seattle, or through remote access. Details on how to attend and/or provide public comment remotely are listed below.**

	<p>Sign language and interpreter services can be arranged given sufficient notice (206-848-0355). TTY Number - TTY 711.</p> <p>Council Chambers is equipped with a hearing loop, which provides a wireless signal that is picked up by a hearing aid when it is set to 'T' (Telecoil) setting.</p>	
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**HOW TO PROVIDE PUBLIC COMMENT:**

1. In person: You may attend the meeting in person in Council Chambers.
2. Remote attendance on the Zoom Webinar: You may provide oral public comment at the meeting by connecting to the meeting via phone or computer using the ZOOM application at <https://zoom.us/>, and entering the Webinar ID below.

**Join by Telephone**

Dial: US : +1 253 215 8782

Meeting ID: 836 2614 2088



If you do not wish to provide public comment, please help us manage the callers by using one of the options below to watch or listen to the meeting.

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1. **Call to Order**
2. **Roll Call**
3. **Announcement of Any Alternates Serving in Place of Regular Members**
4. **Approval of Minutes of January 16, 2025** **pg 7**
5. **Public Comments**
6. **Chair's Report**
7. **Director's Report** **pg 12**



To show a PDF of the written materials for an agenda item, click on the agenda item below.

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### Discussion and Possible Action

- 8. [Resolution No. 25-02](#) **pg 15**

A RESOLUTION adopting the 2025 work plan for the King County Board of Health.

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9. [R&R No. BOH24-05](#) **pg 22**

A RULE AND REGULATION relating to on-site sewage treatment and disposal systems; amending R&R 3, Part 13, Section 1, as amended, and BOH 13.04.050, R&R 3, Part 13, Section 3, as amended, and BOH 13.04.070, R&R 99, Section 2 (part), as amended, and BOH 13.08.010, R&R 3, Part 1, Section 5, as amended, and BOH 13.08.020, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.140, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.152, R&R 99-01, Section 2 (part), and BOH 13.08.226, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.284, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.300, R&R 99-01, Section 2, and BOH 13.08.342, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.350, R&R 3, Part 1, Section 5 (part), as amended, and R&R 13.08.380, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.490, R&R 3, Part 10, Section 2, as amended, and BOH 13.12.030, R&R 3, Part 10, Section 3(B), as amended, and BOH 13.12.050, R&R 3, Part 12, Section 1, as amended, and BOH 13.16.010, R&R 3, Part 2, Section 1, as amended, and BOH 13.20.010, R&R 3, Part 2, Section 2(B), as amended, and BOH 13.20.030, R&R 99-01, Section 2, as amended, and BOH 13.20.035, R&R 3, Part 2, Section 3, as amended, and BOH 13.20.040, R&R 3, Part 3, Section 1, and BOH 13.24.010, R&R 3, Part 3, Section 2, as amended, and BOH 13.24.020, R&R 3, Part 3, Section 3, as amended, and BOH 13.24.030, R&R 3, Part 3, Sections 1 and 4, as amended, and BOH 13.28.010, R&R 3, Part 4, Section 2, as amended, and BOH 13.28.020, R&R 3, Part 4, Section 3, as amended, and BOH 13.28.030, R&R 3, Part 4, Section 7, as amended, and BOH 13.28.070, R&R 3, Part 5, Section 2(A), as amended, and BOH 13.36.010, R&R 3, Part 5, Section 3(C), and BOH 13.40.030, R&R 3, Part 5, Section 5, and BOH 13.48.010, R&R 3, Part 6, Section 1, as amended, and BOH 13.52.010, R&R 3, Part 7, Section 5, and BOH 13.56.050, . R&R 99-01, Section 2 (Part), as amended, and BOH 13.56.054, R&R 99-01, Section 2 (part), as amended, and BOH 13.60.005, R&R 3, Part 8, Section 1, as amended, and BOH 13.60.010, R&R 08-03, Section 145, and BOH 13.60.030, R&R 3, Part 9, Section 1, as amended, and BOH 13.64.010, R&R 3, Part 9, Section 2, as amended, and BOH 13.64.020, R&R 3, Part 11, Section 1, as amended, and BOH 13.68.010, R&R 3, Part 11, Section 2, as amended, and BOH 13.68.020, R&R 3, Part 11, Section 3, as amended, and BOH 13.68.030, and R&R 3, Part 11, Section 5, as amended, and BOH 13.68.050, adding new sections to BOH chapter 13.04, adding new sections to BOH chapter 13.08, recodifying BOH 13.08.226, .repealing R&R 99-01, Section 2 (part), and BOH 13.08.024, R&R 08-03, Section 12, and BOH 13.08.055, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.060, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.070, R&R 99-01, Section 2 (part), and BOH 13.08.072, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.084, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.090, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.114, R&R 08-03, Section 21, and BOH 13.08.115, R&R 08-03, Section 23, and BOH 13.08.117, R&R 08-03, Section 27, and BOH 13.08.131, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.132, R&R 99-01, Section 2 (part), and BOH 13.08.134, R&R 08-03, Section 30, and BOH 13.08.141, R&R 08-03, Section 32, and BOH 13.08.151, R&R 08-03, Section 34, and BOH 13.08.154, R&R 09-03, Section 37, and BOH 13.08.175, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.180, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.190, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.202, R&R 08-03, Section 40, and BOH 13.08.205, R&R 99-01, Section 2 (part), and BOH 13.08.212, R&R 08-03, Section 41, and BOH 13.08.213, R&R 99-01, Section 2 (part), and BOH 13.08.226, R&R 08-03, Section 47, and BOH 13.08.257, R&R 08-03, Section 49, and BOH 13.08.261, R&R 08-03, Section 50, and BOH 13.08.263, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.280, R&R 08-03, Section 55, and BOH 13.08.287, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.290, R&R 8-03, Section 56, and BOH 13.08.305, R&R 3, Part 1, Section 5 (part), as amended, and BOH



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13.08.320, R&R 08-03, Section 57, and BOH 13.08.3215, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.322, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.324, R&R 08-03, Section 60, and BOH 13.08.327, 2R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.330, R&R 99-01, Section 2 (part), and BOH 13.08.341, R&R 08-03, Section 61, and BOH 13.08.346, R&R 3, Part 1, Section 5, as amended, and BOH 13.08.350, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.372, R&R 99-01, Section 2 (part), and BOH 13.08.402, R&R 99-01, Section 2 (part), and BOH 13.08.406, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.410, R&R 08-03, Section 69, and BOH 13.08.424, R&R 99-01, Section 2 (part), and BOH 13.08.426, R&R 08-03, Section 72, and BOH 13.08.465, R&R 3, Part 1, Section 5, as amended, and BOH 13.08.470, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.472, R&R 08-03, Section 74, and BOH 13.08.477, R&R 08-03, Section 76, and BOH 13.08.482, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.484, R&R 09-03, Section 79, and BOH 13.08.493, R&R 08-03, Section 80, and BOH 13.08.4934, R&R 08-03, Section 81, and BOH 13.08.4937, R&R 99-01, Section 2 (part), as amended, and BOH 13.08.496, R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.500, R&R 08-03, Section 87, and BOH 13.08.505, R&R 99-01, Section 2 (part), and BOH 13.08.512, R&R 99-01, Section 2 (part), and BOH 13.08.516, R&R 08-03, Section 88, and BOH 13.08.520, prescribing penalties, and establishing an effective date; enacted pursuant to RCW 43.20.050 and 70.05.060, including the latest amendments or revisions thereto.

*Meagan Jackson, On-site Sewage System Operation & Maintenance Program Supervisor Public Health – Seattle & King County*

*Lynn Schneider, Public Health Septic System Program Supervisor, Public Health – Seattle & King County*

*Roman Welyczko, Project/Program Manager IV, Public Health – Seattle & King County*

10. [Resolution No. 25-03](#) **pg 401**

A RESOLUTION recognizing and honoring Dr. Jeffrey S. Duchin for his decades of dedicated public health leadership and mentorship, his instrumental role in responding to infectious disease threats, including the COVID-19 pandemic, and his contributions to scientific research, local and national public health policy.

## Briefings

11. [BOH Briefing No. 25-B06](#) **pg 404**

2026-31 Medic One/Emergency Medical Services Levy Briefing

*Michele Plorde, Division Director – Emergency Medical Services, Public Health – Seattle & King County*

*Helen Chatalas, Deputy Division Director – Emergency Medical Services, Public Health – Seattle & King County*



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- 12. [BOH Briefing No. 25-B07](#) **pg 431**

State Legislative Session Update



*Simon Vila, Government Relations Officer, Public Health – Seattle & King County*

- 13. **Board Member Updates**

- 14. **Other Business**

**Adjournment**

If you have questions or need additional information about this agenda, please call (206) 263-0365, or write to Joy Carpine-Cazzanti, Board of Health Administrator via email at [KCBOHAdmin@kingcounty.gov](mailto:KCBOHAdmin@kingcounty.gov)

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## Meeting Minutes Board of Health

*Metropolitan King County Councilmembers: Teresa Mosqueda,  
Chair; Jorge Barón, Reagan Dunn  
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Alternate: Francoise Milinganyo*

*American Indian Health Commission: Jolene Williams,  
Councilmember, Snoqualmie Indian Tribe  
Alternate: Angela Young, Councilmember, Snoqualmie Indian  
Tribe*

*Dr. Faisal Khan, Director, Seattle-King County Department of  
Public Health  
Staff: Joy Carpine-Cazzanti, Board Administrator -  
KCBOHAdmin@kingcounty.gov*

1:00 PM

Thursday, January 16, 2025

Hybrid Meeting

### DRAFT MINUTES

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1. **Call to Order**

*The meeting was called to order at 1:01 p.m.*

2. **Roll Call**

**Present:** 15 - Archiopoli, Barón, Chew, Daniels, de Castro, Dunn, Gudgel, Kettle, Lam, Loo, Mohammed, Mosqueda, Nelson, Rakes and Williams

**Excused:** 1 - Hollingsworth

3. **Announcement of Any Alternates Serving in Place of Regular Members**

*No alternates served in place of regular members.*

*Also in attendance were Boardmembers de Michele, Falcone, Green, and Millanganyo.*

4. **Approval of Minutes of November 21, 2024**

*Boardmember Daniels moved to approve the minutes of the November 14, 2024, meeting as presented. Seeing no objection, the Chair so ordered.*

5. **Public Comments**

*The following people spoke:*

*Mary Wictor*

*Warren Iverson*

6. **Chair's Report**

*The Chair briefed the board on the upcoming agenda and shared highlights from 2024.*

7. **Director's Report**

*Dr. Faisal Khan, Director, Public Health, Seattle & King County, briefed the Board on respiratory illnesses, the salmonella outbreak in King County, H5N1 bird flu prevention; and the 2026-2031 Medic One/EMS Levy.*

8. **Election of Chairs and Vice Chairs**

*Boardmember Dunn made a motion to nominate Boardmember Mosqueda as Chair of the Board of Health. The motion carried.*

*Boardmember Gudgel made a motion to nominate Boardmember Daniels as vice chair representing nonelected officials. The motion carried.*

*Boardmember Rakes made a motion to nominate Boardmember Lam as vice chair representing city and county officials. The motion carried.*

### Discussion and Possible Action

9. [Resolution No. 25-01](#)

A RESOLUTION designating the order in which the vice-chairs of the King County Board of Health may act in the absence of the chair in 2025.

*Joy Carpine-Cazzanti, Board Administrator, briefed the Board and answered questions.*

**A Public Hearing was held and closed. A motion was made by Boardmember Lam that this Resolution be Passed. The motion carried by the following vote:**

**Yes:** 15 - Archiopoli, Barón, Chew, Daniels, de Castro, Dunn, Gudgel, Kettle, Lam, Loo, Mohammed, Mosqueda, Nelson, Rakes and Williams

**Excused:** 1 - Hollingsworth

### Briefings

10. [BOH Briefing No. 25-B01](#)

Board of Health Authority

*Sam Porter, Council Staff, briefed the Board and answered questions.*

**This matter was Presented**

11. [BOH Briefing No. 25-B02](#)

Preparing the 2025 Board of Health Workplan

*Joy Carpine-Cazzanti, Board of Health Administrator, briefed the board and answered questions.*

**This matter was Presented**

12. [BOH Briefing No. 25-B03](#)

Briefing on Proposed On-site Sewage/Septic Code Revisions

*Dylan Orr, Director, Environmental Health Services, made remarks.*

*Lynn Schneider, Public Health Septic System Program Supervisor, Public Health - Seattle & King County, briefed the Board and answered questions.*

**This matter was Presented**

13. [BOH Briefing No. 25-B04](#)

Hazardous Waste Management Program Update

**This matter was Deferred**

14. [BOH Briefing No. 25-B05](#)

State Legislative Update

*Simon Vila, Government Relations Officer, Public Health - Seattle & King County, briefed the Board and answered questions.*

**This matter was Presented**

15. **Board Member Updates**

*No updates were given.*

16. **Other Business**

*No other business was presented.*

**Adjournment**

*The meeting was adjourned at 2:50 p.m.*

**If you have questions or need additional information about this agenda, please call (206) 263-0365, or write to Joy Carpine-Cazzanti, Board of Health Administrator via email at [KCBOHAdmin@kingcounty.gov](mailto:KCBOHAdmin@kingcounty.gov)**

Approved this \_\_\_\_\_ day of \_\_\_\_\_

\_\_\_\_\_  
Clerk's Signature



**King County**  
**King County Board of Health**  
**Director's Report**

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Date: February 20, 2025

Prepared by: Dr. Faisal Khan, Director, Public Health – Seattle & King County

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**Stay current on Public Health trends and news:**

I invite King County Board of Health Members and Alternates to stay updated on important news, local health trends and funding opportunities through Public Health – Seattle & King County's blog and online dashboards:

The Public Health Insider blog:

[PUBLIC HEALTH INSIDER – Official insights from Public Health - Seattle & King County staff](#)

Data dashboards:

- [Respiratory virus data dashboards: COVID-19, Influenza, and RSV - King County, Washington](#)
- [Overdose data dashboards - King County, Washington](#)
- [Climate Impacts on Health - King County, Washington](#)

Funding opportunities – RFPs, RFQs, RFAs and others:

[Funding opportunities - King County, Washington](#)

**Request for Applications: Supporting Street Food Vendors in Becoming Permitted**

Please share this notice with your networks: This Public Health – Seattle & King County Request for Applications will provide grant funding to community-based organizations to conduct outreach as Community Liaisons to unpermitted street food vendors (food trucks, carts, trailers, pop-ups, tents, booths) and support them in navigating the process of obtaining a permit to operate. Community Liaisons will have strong ties to the community of unpermitted mobile food vendors, and will provide information, assistance, and support for both entry and long-term success in operating a permitted mobile food unit. Proposals are due March 21, 2025.

More information from Public Health: [Supporting Street Food Vendors in Becoming Permitted - King County, Washington](#)

**Best Starts for Kids Child Care Wage Boost Pilot application is live!**

Child care facilities can now apply to join the Best Starts Child Care Wage Boost Pilot. Applications close March 7. Eligible facilities will be selected by lottery, and workers at selected facilities can enroll to receive a quarterly payment to increase their income through 2027. An estimated 1,400 child care workers will receive the Best Starts Wage Boost. Full-time workers will receive \$2,080 quarterly and part-time workers will receive \$1,040 quarterly. For more information, check out the Best Starts Wage Boost website: [bskwageboost.imaginewa.org](http://bskwageboost.imaginewa.org)

The Best Starts Wage Boost was developed with extensive input from child care workers, child care facilities, families, and the community. Families and child care workers told King County that child care was underfunded— that child care is too expensive for families, wages are too low for workers, and facility owners operate on razor thin margins. In its second levy, Best Starts introduced the child care investment, directing more than \$163 million toward the Best Starts for Kids Child Care Subsidy to help families afford child care and \$25 million to the Best Starts Wage Boost Pilot to study the benefit of government investments in the child care workforce.

More information from BSK: [Best Starts for Kids Child Care Wage Boost Pilot application is live! – Best Starts for Kids Blog](#)

## Respiratory illnesses

Public Health – Seattle & King County continues to see respiratory illness circulating in our community.

**Influenza** has continued to increase through the beginning of February 2025 here in King County. The trends seen locally also track with what is being reported in other jurisdictions nationally.

The current peak of emergency department (ED) visits has surpassed all prior seasons since 2018 except for the 2022-2023 season.

Flu vaccination coverage in King County through February 3, 2025 was 35%, slightly lower than what it was at the end of last season. Everyone who is 6 months or older should receive a seasonal flu vaccine. Given the continued high level of community circulation of influenza, **it's not too late to get a flu shot.**

**COVID** continues to circulate, but has generally remained low since November 2024; however, there was a small temporary increase in December 2024. In recent weeks, we're starting to see small increases in emergency department visits, hospital admissions, and wastewater levels. For ED visits, the increases have been most noticeable among 0–4-year-olds and those who are 65 and older.

Nationally, it appears that the West and South regions of the US regions had larger summer waves followed by smaller winter waves. In contrast, the Midwest and Northeast regions of the US had smaller summer waves followed by larger winter waves. In mid-January 2025, the Centers for Disease Control (CDC) continued to report about [800 Covid-19 associated deaths](#) per week.

**RSV-** RSV rates are still elevated but have been decreasing since the beginning of January 2025. Similar trends have been seen nationally.

Given respiratory illness continues to circulate, Public Health encourages people to make sure they are up to date with all their vaccinations. Wearing a well-fitting, high-quality mask, improving ventilation, and good hand hygiene are key strategies to reduce the risk of infection. And it's a good reminder that if you're sick, stay away from others—even mild illness can cause more severe illness in others, particularly those at higher risk. If you are sick, talk to your doctor about getting tested and treatment early if you are eligible.

Learn more about respiratory illnesses and prevention: [Respiratory illnesses - King County, Washington](#)

## **Gastrointestinal illnesses - Norovirus**

Across national, regional and local trends, reports of Norovirus have been increasing since mid-November. While norovirus isn't a reportable condition, Public Health – Seattle & King County has access to some data that can provide a general idea of trends. We are seeing a higher disease burden for norovirus at this time of year than at other times of year. While this largely follows the known seasonal pattern, some data suggest that we are seeing more than previous seasons. There are probably a number of explanations for this, but largely follows trends of other diseases that are “returning” following the height of the COVID-19 pandemic.

Learn more about norovirus: [New year, new norovirus outbreaks: Let's add 'hand washing' to the resolution list! – PUBLIC HEALTH INSIDER](#)

## **H5N1 bird flu prevention**

While the outbreak of bird flu is currently considered primarily an animal health issue, Public Health – Seattle & King County continues to monitor the situation closely. We have ramped-up preparedness planning to respond should a human exposure or outbreak occur in King County. We are actively drafting an initial response plan specific to bird flu to guide preliminary decision-making and response activities. This includes procuring resources such as antiviral medications and PPE to quickly and equitably respond in the event of human cases in King County. The plan aligns with Public Health's broader pandemic preparedness plan. Recently, the CDC issued a recommendation to expand laboratory surveillance for bird flu among hospitalized patients with influenza. Public Health has distributed this health advisory and is connecting with medical and laboratory directors in King County hospitals to enhance testing.

## **Overview of bird flu**

Bird flu is widespread in wild birds worldwide. Beginning in 2024, bird flu has caused outbreaks among US dairy cows and continued to cause infections among poultry in the U.S. Several recent human cases were identified in the setting of exposure to sick poultry or dairy cows. Here in King County, bird flu has been detected in wild birds, backyard chickens and other animals in the last 2 years, but it has not been identified in pets, dairy cows or people.

There has been no evidence of human-to-human transmission and the current risk to the general public remains low. However, those who interact with animals like dairy or poultry farm workers are at higher risk and should wear protective equipment. People should avoid touching sick or dead birds or other animals, avoid unpasteurized dairy products (such as raw milk or raw milk products) and raw pet food.

Keep an eye on backyard chickens and report any sick or dead backyard birds to the Washington State Department of Agriculture at 1-800-606-3056. If you come across dead or sick wild birds, report to the Washington Department of Fish and Wildlife at [WDFW.wa.gov](http://WDFW.wa.gov).

More information from Public Health: [Avian influenza - King County, Washington](#)



**Signature Report**

**Resolution**

**Proposed No. 25-02.1**

**Sponsors**

1                   A RESOLUTION adopting the 2025 work plan for the  
2                   King County Board of Health.

3                   WHEREAS, Washington state law vests in the King County Board of Health  
4 broad authority and responsibility to protect the health of the people of King County  
5 through including, but not limited to: the enactment of rules and regulations, guidelines  
6 and recommendations, and resolutions to preserve, promote, and improve the public  
7 health; the prevention and control of contagious diseases; and the establishment of fees  
8 for health-related licenses and permits, and

9                   WHEREAS, through resolutions the King County Board of Health has adopted  
10 annual work programs since 2006 to carry out its responsibilities;

11                   NOW, THEREFORE, BE IT RESOLVED by the Board of Health of King  
12 County:

13                   The 2025 King County Board of Health Work Plan, in substantially the form of

- 14 Attachment A to this resolution, is hereby adopted. Dates and briefing topics are subject  
15 to change.

KING COUNTY BOARD OF HEALTH  
KING COUNTY, WASHINGTON

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Teresa Mosqueda, Chair

ATTEST:

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Melani Hay, Clerk of the Board

**Attachments:** A. Work Plan



1 January 16, 2025				
	#	Type	Description	Est. Time
2			Chair's Report	5
3				
4		Vote	Election of Chair and Vice Chairs	10
5			Director's Report - verbal. Key public health issues overview.	10
6	25-01	Discussion and Possible Action: Resolution	A RESOLUTION designating the order in which the vice chairs of the King County Board of Health may act in the absence of the chair in 2025	10
7	25-B01	Briefing and Discussion	Board Authority-Roles and responsibilities	5
8	25-B02	Briefing and Discussion	Discussion of 2025 Workplan	15
9	25-B03	Briefing and Discussion	A RULE AND REGULATION relating to on-site sewage/septic system code revisions	20
10	25-B05	Briefing and Discussion	State Legislative session update	10
11			Total estimated time	105 mins

12 February 20, 2025				
	#	Type	Description	Est. Time
13				
14			Director's Report	10
15	25-02	Discussion and Possible Action	A RESOLUTION adopting 2025 Board of Health Workplan	15
16	BOH24-05	Discussion and Possible Action	A RULE AND REGULATION relating to on-site sewage/septic system code revisions	15
17	25-03	Discussion and Possible Action	A RESOLUTION recognizing and honoring Dr. Jeffrey S. Duchin for his decades of dedicated public health leadership and mentorship, his instrumental role in responding to infectious disease threats, including the COVID-19 pandemic, and his contributions to scientific research, local and national public health policy.	20
18	25-B06	Briefing and Discussion	2026-31 Medic One/Emergency Medical Services Levy Briefing	20
19	25-B07	Briefing and Discussion	State Legislative Session Update	10
20			Total estimated time	90 mins

21 March 20, 2025				
	#	Type	Description	Est. Time
23			Director's Report	10
24	25-B04	Briefing and Discussion	Hazardous Waste Management Program Update	15-20
25		Briefing and Discussion	Public Health Workforce Needs, Service and Outcomes - from 2024	20
26		Briefing and Discussion	Health and Priorities of People Experiencing Homelessness - topic details TBD	30
27		Briefing and Discussion	State Legislative Session Update	10
28			Total estimated time	90 mins

29 April 17, 2025				
	#	Type	Description	Est. Time
31			Director's Report	10
32		Briefing and Discussion	Food Safety Program Update	20-30
33		Briefing and Discussion	Regional Office of Gun Violence Prevention update	30
34		Briefing and Discussion	Youth Behavioral Health	20
35		Briefing and Discussion	State Legislative Session Update	10
36	25-B08	Briefing and Discussion	Creating a Template Document for Establishing Board of Health Workgroups	10
37			Total estimated time	110 mins

38	May 15, 2025			
	<b>#</b>	<b>Type</b>	<b>Description</b>	<b>Est. Time</b>
39				
40				
41			Director's Report	10
42		Briefing and Discussion	Equitable Wastewater Futures work	20-30
43		Briefing and Discussion	Overdose Prevention and Response	30
44		Briefing and Discussion	HIV and Sexually Transmitted Infections in King County	20-30
45		Briefing and Discussion	State Legislative Session Update	10
46			Total estimated time	110 mins

47	June 18, 2025	Rescheduled due to June 19 holiday		
	<b>#</b>	<b>Type</b>	<b>Description</b>	<b>Est. Time</b>
48				
49			Director's Report	10
50		Briefing and Discussion	BOH membership and recruitment for 2026	10
51		Discussion and Possible Action	BOH code update re: outdated dishonored check fees	15
52		Briefing and Discussion	Climate and Health Equity: KC Strategic Climate Action Plan & Public Health role	20
53		Briefing and Discussion	Birthing Parent/Maternal Health Outcomes	20
54		Briefing and Discussion	Health of Aging Population	20
55			Total estimated time	95 mins

56	July 17, 2025			
				<b>Est. Time</b>
57	<b>#</b>	<b>Type</b>	<b>Description</b>	
58			Director's Report	10
59		Briefing and Discussion	Update on BOH membership plans and recruitment for 2026	10
60		Briefing and Discussion	Health Needs of Asylum Seekers and Refugees	20
61		Briefing and Discussion	Infant Health Outcomes	20
62			Total estimated time	60 mins
63	August 21, 2025	Will cancel due to recesses.		

64	September 18, 2025			
				<b>Est. Time</b>
65	<b>#</b>	<b>Type</b>	<b>Description</b>	
66			Director's Report	10
67		Briefing and Discussion	Update on BOH membership plans and recruitment for 2026	10
68		Briefing and Discusson	Pet Business/Zoonotic Code Briefing	20-30
69		Briefing and Discusson	Food Safety Program Update	20
70		Briefing and Discussion	King County Target Zero Strategic Plan 2024-2027	20
71			Total estimated time	90 mins

72	October 16, 2025			
				<b>Est. Time</b>
73	<b>#</b>	<b>Type</b>	<b>Description</b>	
74			Director's Report	10
75		Discussion and Possible Action	A RESOLUTION identifying a candidate for re/appointment as the King County Board of Health's selected nonelected member candidate representing consumers of public health.	5-10 min
76		Discussion and Possible Action	A RESOLUTION identifying a candidate for re/appointment as the King County Board of Health's selected nonelected member candidate representing community stakeholders.	5-10 min
77		Discussion and Possible Action	A RESOLUTION identifying a candidate for re/appointment as the King County Board of Health's selected nonelected alternate member candidate representing community stakeholders.	5-10 min
78		Briefing and Discussion	Community Health Improvement Plan Update	25
79		Briefing and Discusson	Washington State BOH School Environmental Health Rules	20-30
80			Total estimated time	95 mins

81	November 20, 2025			
82	<b>#</b>	<b>Type</b>	<b>Description</b>	<b>Est. Time</b>
83			Director's Report	10
84		Discussion	2026 Workplan initial discussion	15
85		Briefing and Discussion	PHSKC 2026 Legislative Priorities	15
86			Total estimated time	40 mins
87	December 18, 2025	Will cancel due to KCC recess, Dec. 10-Jan 2.		



**Signature Report**

**R&R**

**Proposed No. BOH24-05.1**

**Sponsors**

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

21 R&R 3, Part 2, Section 1, as amended, and BOH  
22 13.20.010, R&R 3, Part 2, Section 2(B), as amended, and  
23 BOH 13.20.030, R&R 99-01, Section 2, as amended, and  
24 BOH 13.20.035, R&R 3, Part 2, Section 3, as amended,  
25 and BOH 13.20.040, R&R 3, Part 3, Section 1, and BOH  
26 13.24.010, R&R 3, Part 3, Section 2, as amended, and  
27 BOH 13.24.020, R&R 3, Part 3, Section 3, as amended,  
28 and BOH 13.24.030, R&R 3, Part 3, Sections 1 and 4, as  
29 amended, and BOH 13.28.010, R&R 3, Part 4, Section 2,  
30 as amended, and BOH 13.28.020, R&R 3, Part 4, Section  
31 3, as amended, and BOH 13.28.030, R&R 3, Part 4,  
32 Section 7, as amended, and BOH 13.28.070, R&R 3, Part  
33 5, Section 2(A), as amended, and BOH 13.36.010, R&R  
34 3, Part 5, Section 3(C), and BOH 13.40.030, R&R 3, Part  
35 5, Section 5, and BOH 13.48.010, R&R 3, Part 6, Section  
36 1, as amended, and BOH 13.52.010, R&R 3, Part 7,  
37 Section 5, and BOH 13.56.050, R&R 99-01, Section 2  
38 (Part), as amended, and BOH 13.56.054, R&R 99-01,  
39 Section 2 (part), as amended, and BOH 13.60.005, R&R  
40 3, Part 8, Section 1, as amended, and BOH 13.60.010 ,  
41 R&R 08-03, Section 145, and BOH 13.60.030, R&R 3,  
42 Part 9, Section 1, as amended, and BOH 13.64.010, R&R  
43 3, Part 9, Section 2, as amended, and BOH 13.64.020,

44 R&R 3, Part 11, Section 1, as amended, and BOH  
45 13.68.010, R&R 3, Part 11, Section 2, as amended, and  
46 BOH 13.68.020, R&R 3, Part 11, Section 3, as amended,  
47 and BOH 13.68.030, and R&R 3, Part 11, Section 5, as  
48 amended, and BOH 13.68.050, adding new sections to  
49 BOH chapter 13.04, adding new sections to BOH chapter  
50 13.08, recodifying BOH 13.08.226,.repealing R&R 99-  
51 01, Section 2 (part), and BOH 13.08.024, R&R 08-03,  
52 Section 12, and BOH 13.08.055, R&R 3, Part 1, Section  
53 5 (part), as amended, and BOH 13.08.060, R&R 3, Part 1,  
54 Section 5 (part), as amended, and BOH 13.08.070, R&R  
55 99-01, Section 2 (part), and BOH 13.08.072, R&R 99-01,  
56 Section 2 (part), as amended, and BOH 13.08.084, R&R  
57 3, Part 1, Section 5 (part), as amended, and BOH  
58 13.08.090, R&R 99-01, Section 2 (part), as amended, and  
59 BOH 13.08.114, R&R 08-03, Section 21, and BOH  
60 13.08.115, R&R 08-03, Section 23, and BOH 13.08.117,  
61 R&R 08-03, Section 27, and BOH 13.08.131, R&R 99-  
62 01, Section 2 (part), as amended, and BOH 13.08.132,  
63 R&R 99-01, Section 2 (part), and BOH 13.08.134, R&R  
64 08-03, Section 30, and BOH 13.08.141, R&R 08-03,  
65 Section 32, and BOH 13.08.151, R&R 08-03, Section 34,  
66 and BOH 13.08.154, R&R 09-03, Section 37, and BOH



67 13.08.175, R&R 3, Part 1, Section 5 (part), as amended,  
68 and BOH 13.08.180, R&R 3, Part 1, Section 5 (part), as  
69 amended, and BOH 13.08.190, R&R 99-01, Section 2  
70 (part), as amended, and BOH 13.08.202, R&R 08-03,  
71 Section 40, and BOH 13.08.205, R&R 99-01, Section 2  
72 (part), and BOH 13.08.212, R&R 08-03, Section 41, and  
73 BOH 13.08.213, R&R 99-01, Section 2 (part), and BOH  
74 13.08.226, R&R 08-03, Section 47, and BOH 13.08.257,  
75 R&R 08-03, Section 49, and BOH 13.08.261, R&R 08-  
76 03, Section 50, and BOH 13.08.263, R&R 3, Part 1,  
77 Section 5 (part), as amended, and BOH 13.08.280, R&R  
78 08-03, Section 55, and BOH 13.08.287, R&R 3, Part 1,  
79 Section 5 (part), as amended, and BOH 13.08.290, R&R  
80 08-03, Section 56, and BOH 13.08.305, R&R 3, Part 1,  
81 Section 5 (part), as amended, and BOH 13.08.320,  
82 R&R 08-03, Section 57, and BOH 13.08.3215, R&R 99-  
83 01, Section 2 (part), as amended, and BOH 13.08.322,  
84 R&R 99-01, Section 2 (part), as amended, and BOH  
85 13.08.324, R&R 08-03, Section 60, and BOH 13.08.327,  
86 2R&R 3, Part 1, Section 5 (part), as amended, and BOH  
87 13.08.330, R&R 99-01, Section 2 (part), and BOH  
88 13.08.341, R&R 08-03, Section 61, and BOH 13.08.346,  
89 R&R 3, Part 1, Section 5, as amended, and BOH

90 13.08.350, R&R 99-01, Section 2 (part), as amended, and  
91 BOH 13.08.372, R&R 99-01, Section 2 (part), and BOH  
92 13.08.402, R&R 99-01, Section 2 (part), and BOH  
93 13.08.406, R&R 3, Part 1, Section 5 (part), as amended,  
94 and BOH 13.08.410, R&R 08-03, Section 69, and BOH  
95 13.08.424, R&R 99-01, Section 2 (part), and BOH  
96 13.08.426, R&R 08-03, Section 72, and BOH 13.08.465,  
97 R&R 3, Part 1, Section 5, as amended, and BOH  
98 13.08.470, R&R 99-01, Section 2 (part), as amended, and  
99 BOH 13.08.472, R&R 08-03, Section 74, and BOH  
100 13.08.477, R&R 08-03, Section 76, and BOH 13.08.482,  
101 R&R 99-01, Section 2 (part), as amended, and BOH  
102 13.08.484, R&R 09-03, Section 79, and BOH 13.08.493,  
103 R&R 08-03, Section 80, and BOH 13.08.4934, R&R 08-  
104 03, Section 81, and BOH 13.08.4937, R&R 99-01,  
105 Section 2 (part), as amended, and BOH 13.08.496, R&R  
106 3, Part 1, Section 5 (part), as amended, and BOH  
107 13.08.500, R&R 08-03, Section 87, and BOH 13.08.505,  
108 R&R 99-01, Section 2 (part), and BOH 13.08.512, R&R  
109 99-01, Section 2 (part), and BOH 13.08.516, R&R 08-03,  
110 Section 88, and BOH 13.08.520, prescribing penalties,  
111 and establishing an effective date; enacted pursuant to

112 RCW 43.20.050 and 70.05.060, including the latest  
113 amendments or revisions thereto.

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

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

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

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

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

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

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

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

133 **Connection to public sewer.**

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

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

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

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

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

157 consistent with the jurisdictional comprehensive plan and sewer extension practices of  
158 the sewer utility involved.

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

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

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

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

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

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

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

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

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

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

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

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

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

200           2. Water well protection covenant: The property owner shall establish a water  
201 well protection sanitary control area by providing a recorded protective covenant  
202 prohibiting, within a horizontal distance of not less than one hundred feet of the well,

203 potential sources of contamination as described in BOH 12.24.010 and WAC 173-160-  
204 171.

205 3. Demonstrate adequate water quantity by:

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

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

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

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

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

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

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

228           C. A private spring on a lot five acres or greater or a lot created prior to May 18,  
229 1972, that complies with all of the following conditions prior to application for OSS site  
230 design approval:

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

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

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

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

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



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

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

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

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

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

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

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

266           a. estimated daily and weekly and annual demand;

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

268           c. roofing materials used;

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

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

273 f. operation and maintenance requirements.

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

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

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

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

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

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

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

291 **Abbreviations.**

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

293 B. "ATU" means Aerobic Treatment Unit.

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

295 ~~D. "CBOD5" means carbonaceous biochemical oxygen demand, typically~~

296 ~~expressed in mg/L. For purposes of approximate conversion from BOD5 to CBOD5,~~

297 ~~multiply the BOD5 by 0.83.~~

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

299 (~~(F. "DDES"))~~ D. "DLS" means King County Department of (~~(development and~~

300 ~~environmental))~~ Local Services.

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

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

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

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

305 ~~from foodstuffs, which are animal fats or vegetable oils, or consisting of compounds of~~

306 ~~alcohol or glycerol with fatty acids, which are soaps and lotions. The quantity of O and G~~

307 ~~is typically expressed in mg/L.~~

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

309 M. "~~TSS" means total suspended solids, a measure of all suspended solids in a~~

310 ~~liquid, typically expressed in mg/L.~~

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

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

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

314 SECTION 6. R&R 3, Part 1, Section 5, as amended, and BOH 13.08.020 are

315 hereby amended to read as follows:

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

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

323           **Bedroom.** "Bedroom" means a room used for sleeping and that includes a  
324 window, a door, and a closet. "Bedroom" does not include a room smaller than seventy  
325 square feet in area with a closet, or an entry way with a closet. For the purposes of this  
326 title, "window" includes a means of egress, other than a door, under section R310.1 of the  
327 International Residential Code, 2018 edition.

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

330           **Excessively permeable soils.** "Excessively permeable soils" means soils:  
331           A. ~~((with))~~ With a soil texture type 1; or  
332           B. ~~((either))~~ With other textures as defined by the United States Department of  
333 Agriculture standards and where conditions are such that the treatment potential is  
334 ineffective in retaining or removing substances of public health significance to  
335 underground sources of drinking water ~~((and soils with a percolation rate of one and one-~~  
336 ~~half minutes per inch or faster))~~.

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

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

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

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

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

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

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

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

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

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

358           ~~((Limited))~~ **Minor repair.** "~~((Limited))~~ Minor repair" means the replacement,  
359 addition or alteration of ~~((a))~~ any of the following broken or malfunctioning ~~((building~~  
360 ~~sewer pipe, sewage tank lid, sewage tank baffles, sewage tank pumps, pump control~~

361 ~~floats, pipes connecting multiple sewage tanks and drainfield inspection boxes and ports))~~

362 OSS components where the subsurface soil absorption system is not failing:

363 A. Building sewer pipe;

364 B. Sewage tank lids and risers;

365 C. Sewage tank baffles;

366 D. Sewage tank pumps;

367 E. Pump control floats;

368 F. Pipes connecting multiple sewage tanks;

369 G. Drainfield inspection boxes and ports;

370 H. Control panels and timers;

371 I. Components of a proprietary treatment unit;

372 J. UV disinfection units; or

373 K. Jetting of pressure distribution pipes or hard plastic or polyvinyl chloride

374 pipes in a gravity OSS.

375 SECTION 12. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.284 are

376 hereby amended to read as follows:

377 **On-site system maintainer.** "On-site system maintainer" ((~~is~~) or "OSM"(~~is~~))

378 means a qualified person approved by the health officer to conduct performance

379 monitoring inspections of, diagnose causes of malfunction and failure of, or perform

380 preventive maintenance on and make ((~~limited~~)) minor repairs to on-site sewage systems.

381 SECTION 13. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.300

382 are hereby amended to read as follows:

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

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

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

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

400           ~~((B-))~~ C. ~~((Portable))~~ A portable toilet pumper removes sewage from only  
401 portable~~((s))~~ or chemical toilet units and transports the contents to an approved disposal  
402 site.

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

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

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

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

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

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

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

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



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

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

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

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

443           **Public meetings—Procedure.**

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

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

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

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

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

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

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

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

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

478           1. Sanitary, agricultural or civil engineer licensed by the state of Washington;

479           2. On-site sewage system designer;

480           3. Seattle Master Builders Association representative;

481           4. Seattle-King County Board of Realtors representative;

482           5. A representative of a nonprofit, nonpartisan public affairs or environmental  
483 affairs organization;

484           6. On-site sewage system maintainer;

485           7. A consumer representing the King County Unincorporated Area Councils;

486           8. Representative of incorporated cities;

487           9. Representative of a sewer utility district;

488           10. On-site sewage system installer;

489           11. On-site sewage system pumper; ~~((and))~~

490           12. Field Sanitarian;

491           13. A representative of a federally recognized tribe or an organization under

492 Title 26 U.S.C. Sec. 501(c)(3) of the Federal Internal Revenue Code of 1986, as

493 amended, registered in Washington that serves American Indian and Alaska Native

494 people and provides services within King County;

495           14. A consumer representing users of OSS within the Urban Growth Area of  
496 King County;

497           15. A consumer representing users of OSS within a Marine Recovery Area or  
498 Shellfish Protection District within King County; and

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

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

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

504           2. A Washington state Department of Ecology representative.

505           3. A Washington state Department of Health representative; and

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

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

510           **Permits -- general.**

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

513           Any person, other than the owner of the property where the OSS is located, who

514 constructs, installs, repairs, or modifies any part of an OSS without an approved OSS

515 installation permit, including but not limited to replacing a drainfield, will be subject to

516 the assessment of civil penalty fines of up to one thousand dollars per day, not to exceed

517 a total of fifteen thousand dollars per violation. The owner of the property where the

518 OSS is located will be subject to the assessment of civil penalty fines of up to one  
519 thousand dollars per day, not to exceed a total of five thousand dollars per violation for  
520 performing the work without an approved OSS installation permit. The health officer  
521 may reduce or waive the penalty assessed against the property owner under this section  
522 after a permitted OSS installation or repair has been completed and the health officer has  
523 approved the installation or repair. Such permit shall be posted on the building or  
524 premises where the work permitted is being done, before the work is begun, and unless  
525 revoked, shall not be removed until such work has been finally approved by the health  
526 officer.

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

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

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

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

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

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

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

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

558 **Installer certification.**

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

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

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

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

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

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

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

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

584           2. ~~((The health officer may suspend or revoke any master or associate installer's~~  
585 ~~certificate of competency, pursuant to BOH chapter 1.08))~~ A first-time applicant for a  
586 master or associate installer's certificate of competency shall submit payment of the  
587 examination fee as set forth in the fee schedule and attain a passing score on the  
588 applicable certification examination; and

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

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

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

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



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

610            4.) 1. A master or associate installer submitting the renewal application after  
611 January 15 of the year following expiration shall, in addition to the applicable certificate  
612 fee, pay a late fee of twenty five percent of the renewal amount, and provide evidence of  
613 completion of at least one CEU credit during the previous calendar year; and

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

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

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

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

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

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

638 **Maintainer certification.**

639 A. ~~((Unless))~~ Except as otherwise specified in this title, including BOH  
640 13.20.040 and 13.60.010 relating to homeowners, it is unlawful to conduct performance  
641 monitoring inspections ~~((of and/or perform))~~, preventive maintenance service, ~~((to~~  
642 ~~include making limited))~~ or minor repairs to on-site sewage systems~~((;))~~ without a  
643 currently valid OSM certificate of competency.

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

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

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

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

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

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

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

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

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

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

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

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

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

687           ~~b. the applicant submits evidence of bonding as specified by BOH~~  
688 ~~13.20.035.C.1; and~~

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

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

694           ~~((5.))~~ E. A maintainer may renew the OSM certificate of competency on or  
695 before January 15 of the year following expiration upon submittal, to the health officer,

696 of a completed renewal application, accompanied by evidence that at least one CEU  
697 credit has been earned by the maintainer during the previous calendar year, and fee  
698 payment as specified under BOH chapter 2.18, except that:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

757           **Application.**

758           A. Application for subdivision or short subdivision approval shall be made to the  
759 health officer on forms provided for this purpose, shall be accompanied by a fee as set  
760 forth in the fee schedule and shall be in sufficient detail to allow evaluation of the  
761 suitability of the proposed means of on-site sewage treatment and disposal. The  
762 application shall be made by a licensed designer or professional engineer as defined  
763 under this title. If a community on-site system is proposed, the preliminary report and

764 plans and specifications shall be in accordance with BOH 13.28.040. ~~((If any soils work~~  
765 ~~is required or evaluation of an existing OSS is necessary the application must be~~  
766 ~~submitted to the health officer by a licensed septic system designer or qualified~~  
767 ~~professional engineer.))~~

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

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

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

782 **Determination of minimum lot size.**

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



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

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

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

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

796 Comprehensive Plan;

797 2. Soil type and depth;

798 3. Area drainage and lot drainage;

799 4. Protection of surface and ground water;

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

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

802 6. Source of domestic water;

803 7. Topography, geology and ground cover;

804 8. Climatic conditions;

805 9. Activity or land use, present and anticipated;

806 10. Growth patterns;

807 11. Individual and accumulated gross effects on water quality;

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

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

811 14. Effect on other properties;

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

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

818 **Table 13.24-1**  
 819 **Minimum Land Area Requirement**  
 820 **Single-Family Residence or**  
 821 **Unit Volume of Sewage**

Type of Water Supply	Soil Type					
	1	2	3	4	5	6
Public Water System	0.5 acre	<del>((12,500))</del> ) <u>13,000</u> sq. ft.	<del>((15,000))</del> ) <u>16,000</u> sq. ft.	<del>((18,000))</del> ) <u>19,000</u> sq. ft.	<del>((20,000))</del> ) <u>21,000</u> sq. ft.	<del>((22,000))</del> ) <u>23,000</u> sq. ft.
Individual/Private	5 acres	5 acres	5 acres	5 acres	5 acres	5 acres

<b>Well*</b>						
<b><u>Minimum</u></b>	<u>2,000 sq.</u>	<u>2,000 sq.</u>	<u>2,500 sq.</u>	<u>3,333 sq.</u>	<u>5,000 sq.</u>	<u>10,000</u>
<b><u>Usable Land</u></b>	<u>ft.</u>	<u>ft.</u>	<u>ft.</u>	<u>ft.</u>	<u>ft.</u>	<u>sq. ft.</u>
<b><u>Area</u></b>						

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

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

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

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

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

- 835 1. A vicinity map providing precise directions to the parcel or parcels;
- 836 2. Signage or flagging at the identified entry point to the parcel or parcels;
- 837 3. Critical area review, including critical aquifer recharge area classification,  
 838 with all buffers and setbacks shown on the plot plan;
- 839 4. A minimum of two soil logs per proposed lot shall be provided prior to  
 840 department preliminary review. Such soil logs shall be excavated in accordance with the

841 requirements of BOH 13.28.050. The soil log or logs must clearly show that within the  
842 lot area designated for the OSS the vertical separation specified in Table 13.28-1, and  
843 minimum lot sizes specified in Table 13.24-1 are provided((-)); and

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

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

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

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

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

- 863 4. (~~(If existing homes are on any of the proposed lots then the applicant must~~  
864 ~~demonstrate all of the following:~~
- 865 a. ~~the existing OSS is in substantial conformance with this title;~~
  - 866 b. ~~there is adequate reserve area available for repair or replacement of the~~  
867 ~~system in accordance with this title; and~~
  - 868 c. ~~the continued operation of the system does not pose a threat to public health~~  
869 ~~or groundwater quality))~~ For lots with existing homes, the health officer will review all  
870 applications to determine the compatibility of the proposed subdivision or short  
871 subdivision with the existing OSS. Factors that the health officer may consider include,  
872 but are not limited to, the following:
- 873 a. location of SSAS in relation to foundation and existing improvements;
  - 874 b. size of SSAS in relation to proposed use;
  - 875 c. condition of the existing OSS;
  - 876 d. potential for reconstruction and repair of the existing on-site sewage  
877 disposal system;
  - 878 e. ultimate purpose of the remodeling; and
  - 879 f. approved source of water.

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

882 **Application submittal, review, approval.**

883 A. Application for site design approval for a proposed new OSS installation,  
884 repair or replacement of an existing failed soil absorption system, or modification,  
885 connection to or expansion of an OSS shall be made on forms provided by the health

886 officer and be accompanied by 1. a plan review fee as set forth in the fee schedule and 2.  
887 a plan that demonstrates that the standards required in this title are met.

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

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

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

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

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

- 909           A. The OSS site design application shall include the following:
- 910           1. A completed site design application form for the individual OSS that includes
- 911 the following information:
- 912           a. approximate address of property;
- 913           b. parcel number and legal description of property;
- 914           c. type and size of building the system will support;
- 915           d. name and address of property owner, applicant and system designer;
- 916           e. size of the parcel;
- 917           f. whether the property is within the urban area or rural area as designated by
- 918 the King County Comprehensive Plan; and, if located within the urban area, the distance
- 919 of the nearest property line to the closest public sewer line;
- 920           g. designation of an approved domestic water supply source;
- 921           h. type of development for which site design application is being made, for
- 922 example: single-family, multi-family or commercial; and type of permit, for example:
- 923 new installation((~~✓~~)) or repair(~~(~~✓~~ or limited repair)~~) of an existing OSS;
- 924           i. the presence of critical area or areas, including critical aquifer recharge
- 925 areas, to be delineated on the scaled plot plan;
- 926           j. date of testing;
- 927           k. original signature in blue ink and Washington state Department of Licensing
- 928 certificate of competency number of designer or professional engineer's registration
- 929 number; and
- 930           l. all other information requested on the site application for on-site sewage
- 931 disposal system form((~~✓~~));

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

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

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

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

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

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

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

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

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

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

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



- 955 (2) surface water and storm water infiltration areas;  
956 (3) abandoned wells;  
957 (4) outcrops of bedrock and restrictive layers;  
958 (5) buildings;  
959 (6) property lines and lines of easements;  
960 (7) drainage structures such as footing drains, curtain drains, and drainage  
961 ditches;  
962 (8) cuts, banks, and fills;  
963 (9) driveways and parking areas;  
964 (10) existing OSS; and  
965 (11) underground utilities((-));
- 966 3. A completely dimensioned overall parcel plot plan, drawn to a one inch  
967 equals twenty feet scale, or the largest scale that will allow the parcel plot plan to be  
968 presented on a single page, no smaller than eight and one-half by eleven inches and no  
969 larger than eleven by seventeen inches, accurately showing:
- 970 a. site drainage characteristics including direction of surface drainage;  
971 b. an arrow indicating north;  
972 c. topographical contours at two foot intervals over the OSS area and all other  
973 areas containing features relevant to the design and installation of an adequate and  
974 efficient OSS;  
975 d. maximum building footprints, wastewater tanks and primary and reserve  
976 soil absorption system locations;

- 977 e. all locations of and routes to soil log excavations, with such locations and  
978 routes clearly identified by appropriate signage or flagging on the property;
- 979 f. locations of and routes to potable water sources near property lines (drilled  
980 wells within one hundred feet and all other sources within two hundred feet, and all well  
981 heads, with such locations and routes clearly identified by appropriate signage or flagging  
982 on the property;
- 983 g. location of property and easement lines;
- 984 h. location and description of design control point or points within the  
985 designated drainfield area; and
- 986 i. the boundaries of the SSAS detail drawing((-));
- 987 4. Construction plans and specifications showing:
- 988 a. plumbing stub elevation; and
- 989 b. vertical section detail drawings depicting dimensions of wastewater tank  
990 details to include minimum and maximum elevation of installation, maximum depth of  
991 cover over tanks, acceptable seasonal groundwater table elevation at all tank locations,  
992 and depth of required bedding material. For drainfields, minimum and maximum  
993 drainfield width and depth, vertical separation and amount of cover material and  
994 placement if any, and any other OSS components to be constructed at the site((-));
- 995 5. An SSAS detail drawing scaled one inch equals twenty feet (or one inch  
996 equals thirty feet on larger lots) depicting design control point or points, the dimensions  
997 and location of all components of the proposed primary and reserve systems including  
998 trench widths, lengths and horizontal separations. If the location of the reserve area is at  
999 an elevation above the outlet of the septic tank, the design shall include all tanks, dosing

1000 chambers and piping necessary to allow distribution of the effluent to the reserve area  
1001 with a minimum of disruption to the original subsurface field and other property of the  
1002 owner. The health officer may require the installation of the dosing chamber, pressure  
1003 lines and distribution box/inspection box where the future access to the reserve area will  
1004 be severely limited. Drawings may be submitted electronically in a format acceptable to  
1005 and with the prior agreement of the health officer((-));

1006           6. Location of a pump tank controls in plain view of the pump tank shall be  
1007 included on the design drawings.

1008           7. Construction details for and location of any proposed footing drains, curtain  
1009 drains and interceptor drains((-));

1010           8. Calculations and observations supporting the proposed design, including:  
1011           a. soil type; and  
1012           b. hydraulic loading rate in the soil absorption component.

1013           9. An accurate vicinity location sketch and route map to the property, including  
1014 written directions to the property from the last named street or road. Signage shall be  
1015 displayed at the entrance to the property and include the names of the designer and  
1016 applicant. A cleared and flagged route to the soil log and well site locations must be  
1017 provided from the property entrance((-));

1018           10. Proof of availability of an approved domestic water supply source((-));

1019           11. One or more recorded easements describing the locations of all potable  
1020 water lines connected to a well, spring, rain water catchment system, or water meter on  
1021 the property and extending to service connections beyond the property boundary. The  
1022 health officer may require each such easement to include, as applicable, provision for

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1023 location of water storage reservoirs, well housing, pressure tanks, and any other facilities  
1024 and equipment associated with the water source; and

1025 12. Such other information as the health officer may require.

1026 B. Additional requirements for an application for an OSS serving buildings other  
1027 than or in addition to single-family residences:

1028 1. Information to establish that the sewage is not industrial wastewater;

1029 2. Information to establish that the sewage effluent applied to the infiltrative  
1030 surface does not exceed typical residential effluent characteristics by providing waste  
1031 strength characteristics and parameters;

1032 3. For all commercial developments not classified as community on-site  
1033 systems, recorded covenants declaring that the owner or owners of the property or  
1034 properties served by the OSS are responsible for the operation, monitoring, and  
1035 maintenance of the OSS in accordance with this title; and

1036 4. Proof of a system operation monitoring and maintenance plan in accordance  
1037 with requirements of BOH chapter 13.60.

1038 SECTION 31. R&R 3, Part 4, Section 3, as amended, and BOH 13.28.030 are  
1039 hereby amended to read as follows:

1040 **General design requirements.**

1041 A. Collection systems will be designed to comply with criteria set forth in  
1042 Criteria for Sewage Works Design, Washington state Department of Ecology, November  
1043 2007 or as thereafter amended.

1044 B. (~~Maximum Slopes. 1.-~~) OSS shall not be allowed on slopes exceeding forty  
1045 percent.

1046            (~~2-~~) On slopes exceeding thirty percent, the SSAS shall be pressure  
1047 distribution and have a maximum SSAS trench width of two feet.

1048            C. SSAS reserve area or areas shall be designated equal to at least one hundred  
1049 percent of the primary SSAS area. One or more areas may be designated as SSAS  
1050 reserve areas. If more than one area is designated or if access is limited, at the discretion  
1051 of the health officer the reserve system may be required to be installed along with the  
1052 primary SSAS. At least two soil log excavations shall be installed in each designated  
1053 reserve area. Construction plans for the SSAS reserve area may be required by the health  
1054 officer.

1055            D. OSS for lots created after July 1, 1984, shall be located on the same lot as the  
1056 buildings they are designed to serve. Any existing OSS which is failing and for which  
1057 there is insufficient area on the lot to repair the system may be replaced by an OSS  
1058 located off-site provided proof of easements is submitted to the health officer. Proof of  
1059 lot creation date must be provided when requesting use of a drainfield easement for new  
1060 construction. All drainfield easements shall be surveyed and permanently marked, and  
1061 the soils within the easements protected against disturbance. Approval shall be subject to  
1062 such additional conditions as deemed necessary by the health officer to protect public  
1063 health.

1064            E. Any application for site design approval for OSS in a critical area shall include  
1065 documentation from the applicable jurisdictional authority indicating critical area review  
1066 has been completed. All critical areas and their buffers shall be identified and drawn to  
1067 scale on the design drawing submittals. OSS shall not be located on landforms that are  
1068 unstable.

1069 F. Where any type of drain is to be installed for the purpose of intercepting  
1070 subsurface water and channeling, concentrating, focusing or directing its flow onto a  
1071 downstream property not under the ownership or agency of the applicant or King County,  
1072 a release of damages holding King County and its employees harmless for any  
1073 subsequent erosion or loss or limitation of use of such property must be executed and  
1074 filed with the King County records and elections division and which shall run with the  
1075 land, prior to approval of any site application.

1076 G. All types of drains installed for the purpose of affecting vertical separation  
1077 shall be verified as effective during the winter water table season as outlined in BOH  
1078 13.28.060.C.

1079 H. No downspout or footing drain shall be directly or indirectly connected to an  
1080 OSS and the OSS shall be so constructed and installed that surface water or groundwater  
1081 will not interfere with the operation of the system.

1082 I. Seepage pits shall not be used for the disposal of septic tank effluent.

1083 J. The installation and use of cesspools and pit privies for disposal of sewage is  
1084 not permitted.

1085 K. When grease traps are used, the design and installation will comply with  
1086 criteria set forth in the Uniform Plumbing Code, ((2006)) 2021 Edition, International  
1087 Association of Plumbing and Mechanical Officials, as amended. In addition the design  
1088 application shall include a grease trap maintenance schedule.

1089 L. When siphon systems are used, they shall comply with Recommended  
1090 Standards and Guidance for Pressure Distribution Systems, Washington State Department  
1091 of Health, July 1, 2007.

1092 M. The connection of an accessory dwelling unit as defined under K.C.C. Title  
1093 21A or accessory living quarters as defined in this title to an OSS ((is)) designed for or in  
1094 use by a single-family residence or commercial structure may be permitted provided that  
1095 public health and groundwater quality are not affected, and the OSS is designed for the  
1096 anticipated increased flow. For the purposes of this title, including the determination of  
1097 required absorption areas, loading rates, and minimum capacities for septic tanks, each  
1098 bedroom in an accessory dwelling unit or accessory living quarter shall be included in the  
1099 total number of bedrooms to be served by the OSS in addition to the bedrooms in the  
1100 primary residence. An accessory dwelling unit or accessory living quarter with no  
1101 bedroom shall be deemed equivalent to one bedroom within the single-family primary  
1102 residence associated with the accessory dwelling unit or accessory living quarter. In  
1103 medical hardship cases as described in K.C.C. 21A.32.170, the health officer may allow  
1104 the temporary connection of a mobile home or temporary dwelling to an existing OSS  
1105 designed only for a single-family residence provided that neither public health nor  
1106 groundwater quality are negatively affected.

1107 N. Pump lines shall be installed at a depth which precludes disruption or damage  
1108 by installation of other utilities or freezing.

1109 O. No part of an OSS shall be constructed in the ((~~zero-rise~~)) FEMA floodway of  
1110 a flood hazard area as described by K.C.C. Title 21A. New OSS to serve new  
1111 subdivisions shall be located outside the limits of a flood hazard area. The installation of  
1112 new OSS within the flood fringe area of the one-hundred-year flood plain, as determined  
1113 by ((~~DES~~)) DLS or the local building official, may be allowed if the applicant  
1114 demonstrates that:

- 1115 1. The proposed building parcel is an existing legal building site;  
1116 2. No feasible alternative site outside the flood hazard area is available;  
1117 3. Wastewater tanks and electrical components will be flood-proofed to the  
1118 flood protection elevation;  
1119 4. A conforming subsurface soil absorption system can be installed; and  
1120 5. ((~~DDES~~)) DLS or the local building official permits the development which  
1121 is proposed to be served by the OSS.

1122 P. No part of a SSAS including the drainrock shall be located in fill material or  
1123 disturbed soils.

1124 Q. SSAS shall be constructed with observation ports terminating within utility  
1125 boxes adjustable to final grade over the ends of the drainfield pipes, or other methods of  
1126 drainfield detection approved by the health officer to aid in the future locating of these  
1127 components.

1128 R. OSS shall not be permitted where a minimum vertical separation of three feet  
1129 of permeable soil below the infiltrative surface cannot be maintained except as provided  
1130 in Table 13.28-1. The health officer may require greater vertical separation as needed to  
1131 protect public health when the aquifer is used for a potable water supply.

1132 **Table 13.28-1**

1133 **Minimum Treatment Level, Bacteria Level, and Effluent Distribution Method**  
1134 **Required by Various Soil Types, Vertical Separation, and Original Soil Depth**  
1135 **Conditions**

<b>Vertical</b>	
-----------------	--



Separation (in inches)	Soil Type			
	1	2	3-4	5-6 <sup>3</sup>
	<b><u>Minimum Treatment Level, Bacteria Level, and Effluent Distribution Method</u></b>			
<u>12&lt;18</u> <sup>1,2</sup>	<b><u>A &amp; BL1</u></b> - pressure with timed dosing	<b><u>B &amp; BL2</u></b> - pressure with timed dosing	<b><u>B &amp; BL2</u></b> - pressure with timed dosing	<b><u>B &amp; BL2</u></b> - pressure with timed dosing
((>18<24)) <u>&gt;18&lt;24</u>	<b><u>B &amp; BL2</u></b> - pressure with timed dosing	<b><u>B &amp; BL2</u></b> - pressure with timed dosing	<b><u>B &amp; BL2</u></b> - pressure with timed dosing	<b><u>B &amp; BL2</u></b> - pressure with timed dosing
((>24<36)) <u>&gt;24&lt;36</u>	<b><u>B &amp; BL2</u></b> - pressure with timed dosing	<b><u>C &amp; BL3</u></b> - pressure with timed dosing	E-pressure with timed dosing	E-pressure with timed dosing
((>36<60)) <u>&gt;36&lt;60</u>	<b><u>B &amp; BL2</u></b> - pressure with timed dosing	E-pressure with timed dosing	E-((pressure with timed dosing))gravity	E-((pressure with timed dosing))gravity
((>)) ≥60	<b><u>C &amp; BL2</u></b> - pressure with timed dosing	E-gravity	E-gravity	E-((pressure with timed dosing))gravity

1136 **Table 13.28-1 Explanatory Notes**

1137 1. Except as provided in footnote 2, the minimum required original,

1138 undisturbed, permeable soil depth is eighteen inches.

1139           2. For existing lots of record where the original undisturbed soil depth above a  
1140 restrictive layer is between 12 and 18 inches the following is required:

1141           a. Minimum lot size is 5 acres. Any lot area placed into a separate sensitive  
1142 area protection tract in accordance with King County Code Section 21A.24.180 may also  
1143 be included in the computation of the minimum five (5) acre lot size required by this  
1144 section.

1145           b. The owner shall file a covenant with the King County records and elections  
1146 division agreeing not to subdivide the parcel utilizing the OSS to less than 5 acres until  
1147 public sewer service is provided.

1148           c. A water table study shall be conducted during a time of high seasonal water  
1149 table to establish available soil depth.

1150           d. A system meeting treatment level A, or two treatment level B systems in  
1151 combination meeting treatment level A without the use of disinfection, such as a mound  
1152 preceded by an intermittent sandfilter, shall be used.

1153           3. SSAS in soil type 6 must utilize pressure distribution with timed dosing.

1154           S. Disinfection may not be used:

1155           1. To achieve ~~((the fecal coliform requirements to meet treatment levels A or B~~  
1156 ~~in Type 1 soils; or treatment level C)) BL1 or BL2 in Type 1 soils; or~~

1157           2. To achieve BL3; or

1158           3. On lots with less than eighteen inches of soil; or

1159           ~~((3-))~~ 4. In a critical aquifer recharge area.

1160           T. The coarsest textured soil within the vertical separation selected determines  
1161 the minimum treatment level and method of distribution.

1162 U. Based upon the treatment capacity and design flow the designer of an OSS  
1163 shall establish the operational capacity of the system. This information shall be included  
1164 with the design application and record drawing submission.

1165 V. Any reduction in horizontal separation for a pressure sewer line crossing a  
1166 surface water source shall meet the requirements of the publication, Granting Waivers  
1167 from State On-site Sewage System Regulations, chapter 246-272A WAC, as amended,  
1168 published by the Washington state Department of Health.

1169 W. All OSS must comply with the applicable treatment levels contained in Table  
1170 13.28-1 and applicable setbacks contained in Table 13.28-2; though the health officer  
1171 may grant any setback reduction authorized under Table 13.28-2 only in response to a  
1172 written request for such reduction from the designer of record if the request includes all  
1173 reasons for the proposed reduction and describes all mitigation measures required under  
1174 this title or as may be required by the health officer in the exercise of reasonable  
1175 discretion for the protection of the public health.

1176 X. In preparing any OSS site design application, the designer shall consider:

- 1177 1. CBOD5, TSS and O and G;
- 1178 2. Other parameters that can adversely affect treatment anywhere along the  
1179 treatment sequence. Examples include pH, temperature and dissolved oxygen;
- 1180 3. The sensitivity of the site where the OSS will be installed, such as shellfish  
1181 growing areas, designated swimming areas, and other areas identified in the management  
1182 plan.

1183 Y. ~~((Nitrogen contributions, where nitrogen has been identified as a contaminant  
1184 of concern by the management plan, shall be addressed through either lot size or~~

1185 ~~treatment, or both.))~~ The applicant for development in a critical aquifer recharge area  
1186 shall include, in the application, evidence of compliance with K.C.C. 21A.24.316, as  
1187 amended, including evidence of compliance with the critical aquifer recharge area  
1188 requirements.

1189 Z. Design and installation of OSS with electrical components shall include a  
1190 readily accessible control panel exterior to the structure served by the OSS and meeting  
1191 the following standards:

1192 1. Located in an external location between three and five feet in elevation above  
1193 finished grade, meeting state of Washington Department of Labor and Industry's  
1194 electrical safety requirements;

1195 2. Includes an electrical power control switch to enable power shutoff to the  
1196 OSS for maintenance or repair without the need for access to any circuit breaker panels  
1197 or other power controls within the structure served by the OSS;

1198 3. Connected to dedicated electrical circuits with the alarm and pump circuits  
1199 independent of one another;

1200 4. Contains audible and visual alarms to alert the owner or occupant of a system  
1201 deficiency or malfunction; and

1202 5. Includes a remote notification device for the alarm system when the OSS  
1203 alarm notification device is located over 100 feet from the building it serves, such as an  
1204 auto-dialer or telemetry notification system, to notify the respective monitoring and  
1205 maintenance service provider or the property owner or occupant of alarm events.

**Table 13.28-2**

**Minimum Horizontal Separations**

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1208

## (Setbacks)

	MEASURE FROM		
<b>Items Requiring Setback</b>	<b>Edge of soil dispersal component trench or reserve area</b>	<b>Septic tank, holding tank, containment vessel, pump chamber, and distribution box</b>	<b>Building sewer, collection, and nonperforated distribution line <sup>1</sup></b>
Potable Water Source <sup>2</sup>			
-- Private well	100 ft.	100 ft.	100 ft.
-- Public drinking water well	100 ft.	100 ft.	100 ft.
-- Drinking water spring/dug well <sup>3</sup>	200 ft.	200 ft.	200 ft.
<u>Non-potable water source</u> <sup>2</sup>	<u>100 ft</u>	<u>100 ft</u>	<u>100 ft</u>
Pressurized water supply line <sup>4</sup>	10 ft.	10 ft.	10 ft.
Properly decommissioned well <sup>5</sup>	10 ft.	10 ft.	N/A
Surface water <sup>2, 6, 7</sup>	100ft.	50 ft.	10 ft.
Seasonal water <sup>2, 7</sup>	30 ft.	15 ft.	

Swimming Pools			
A. Down-gradient <sup>8</sup>	A. 15ft + height of the cut. Need not exceed 30 ft.	5 ft.	2 ft.
B. Up-gradient <sup>8</sup>	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 <sup>8</sup>	A. 15 ft. + height of foundation cut. Need not exceed 30 ft. <sup>8,9</sup>	5 ft.	2 ft.
B. Up-gradient <sup>8</sup>	B. 10 ft.	5 ft.	2 ft.
Property or easement line	10 ft. <sup>10,11</sup>	5 ft.	N/A
Decks (first floor) with post and pier supports	5 ft.	5 ft.	N/A <sup>15</sup>
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 <sup>8</sup>	A. 15 ft. + height of excavation. Need not exceed 30 ft. <sup>9</sup>	N/A	N/A
B. Up-gradient <sup>8</sup>	B. 5 ft.		
Interceptor/curtain drains/footing drains.			
-- Down-gradient <sup>8</sup>	30 ft.	5 ft.	N/A
-- Up-gradient <sup>8</sup>	10 ft.	N/A	N/A
<u>Lined<sup>16</sup> stormwater detention pond<sup>17</sup></u>			
-- <u>Down-gradient</u>	<u>100 ft<sup>18</sup></u>	<u>N/A</u>	<u>N/A</u>
-- <u>Up-gradient</u>	<u>100 ft<sup>19</sup></u>	<u>N/A</u>	<u>N/A</u>
<u>Unlined<sup>16</sup> stormwater infiltration pond<sup>17</sup></u>	<u>100 ft.</u>	<u>50 ft.</u>	<u>10 ft.</u>
<u>Irrigation canal or irrigation pond<sup>17</sup></u>	<u>100 ft.</u>	<u>50 ft.</u>	<u>10 ft.</u>
<u>Subsurface stormwater</u>			

<u>infiltration or dispersion component</u> <sup>17</sup>			
-- <u>Down-gradient</u>	<u>100 ft</u> <sup>18</sup>	<u>10 ft.</u>	<u>N/A</u>
-- <u>Up-gradient</u>	<u>100 ft</u> <sup>18</sup>	<u>10 ft.</u>	<u>N/A</u>
<del>((Infiltration and Dispersion Trenches</del>			
<del>A. Down gradient</del>	<del>30 ft.</del>	<del>10 ft.</del>	<del>5 ft.</del>
<del>B. Up gradient</del>	<del>100 ft.</del> <sup>14</sup>	<del>30 ft.</del>	<del>5 ft.))</del>
Down-gradient cuts or banks 5 ft. or less in vertical height	15 ft. + height of bank <sup>9, 13</sup>		
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 <sup>8</sup>	15 ft. + height of bank but shall not be less than 25 ft. <sup>9, 12</sup>	N/A	N/A
Down-gradient cuts or banks greater than 5 ft.	15 ft. + height of bank but shall not be less	N/A	N/A



<p>in vertical height with less than 5 ft. of original, undisturbed soil above a restrictive layer due to a structural or textural change <sup>8</sup></p>	<p>than 25 ft. <sup>12</sup></p>		
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1209

**Table 13.28-2 Explanatory Notes**

1210

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

1211

Code. "Nonperforated distribution" also includes pressure sewer transport lines.

1212

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

1213

potential for ground or surface water contamination or pollution such as unconfined

1214

aquifers, shallow or saturated soils, dug wells, and improperly abandoned wells, the

1215

distance from any water supply or surface water may be increased by the health officer.

1216

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

1217

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

1218

drinking water shall comply with BOH 13.04.070.C.

1219

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

1220

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

1221

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

1222

Design, revised November 2007 or equivalent.

1223

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

1224

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

1225

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

1226

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

1227

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

1228 7. This separation may not be reduced by culverting of streams without prior written approval for the  
1229 culverting from King County or applicable building official, but in no case shall this separation be less than  
1230 fifteen feet plus the height of the excavation which contains the culvert. Need not exceed thirty feet.

1231 8. The item is down-gradient when liquid will flow toward it upon encountering a water table or a  
1232 restrictive layer. The item is up-gradient when liquid will flow away from it upon encountering a water  
1233 table or restrictive layer.

1234 9. May be reduced to ten feet by the health officer when bottom of infiltrative surface is downgradient  
1235 from the base of the foundation cut or wastewater tank excavation, or there is at least five feet of original  
1236 undisturbed unsaturated soil above a restrictive layer formed due to a structural or textural change.

1237 10. May be reduced five feet by the health officer in repairs to existing systems, in setbacks to  
1238 easements or where a confirmed property line is up-gradient from the soil absorption component. A survey  
1239 may be required by the health officer to ensure compliance with setback requirements.

1240 11. This distance may be increased to thirty feet by the health officer where cuts or construction on  
1241 neighboring properties may affect the system.

1242 12. Need not exceed one hundred feet.

1243 13. May be reduced to ten feet when the bottom of the infiltrative surface is below the base of the cut  
1244 or bank and no restrictive layer or layer formed due to a structural or textural change is intersected or there  
1245 is at least five feet of original, undisturbed soil above a restrictive layer or layer due to a structural change.

1246 14. The health officer may reduce this setback to thirty feet if the soil depth is four feet or greater and  
1247 is soil type 1, 2 or 3.

1248 15. Any sewer clean-out shall be accessible for OSS maintenance or repair.

1249 16. "Lined" means any component that has the intended function of detaining the  
1250 stormwater with no intention of dispersal into surrounding soil.

1251 17. Infiltration or discharge from stormwater management facilities must be located  
1252 downgradient of the primary and reserve drainfield areas unless the site design  
1253 application submitted to the health officer clearly demonstrates that site topography

1254 prevents discharged flows from stormwater management facilities from intersecting  
1255 the OSS drainfield and the design is consistent with local stormwater management  
1256 authority rules and policies.

1257 18. The health officer may reduce this setback to not less than 30 feet upon finding  
1258 that the OSS site design application clearly demonstrates that the setback reduction  
1259 presents no increased risk of effluent from the OSS entering any component of a  
1260 stormwater management system.

1261 19. The health officer may reduce this setback to not less than 10 feet upon finding  
1262 that the OSS site design application clearly demonstrates that the setback reduction  
1263 presents no increased risk of effluent from the OSS entering any component of a  
1264 stormwater management system.

1265 SECTION 32. R&R 3, Part 4, Section 7, as amended, and BOH 13.28.070 are  
1266 hereby amended to read as follows:

1267 **Required absorption area.**

1268 A. Single-family dwellings.

1269 1. For design purposes a minimum design flow of one hundred fifty gallons((/))  
1270 per bedroom((/)) per day shall be utilized in determining unit volume with a minimum of  
1271 three bedrooms.

1272 2. For each additional bedroom OSS designs must use at least an additional one  
1273 hundred ((~~twenty~~)) fifty gallons((/)) per bedroom((/)) per day.

1274 3. For single-family residences with additional accessory dwelling units or  
1275 accessory living quarters served by the same OSS, the minimum design flow for each  
1276 additional dwelling is one hundred fifty gallons per bedroom per day.

1277 4. For accessory dwelling units or accessory living quarters served by their own  
 1278 OSS not connected to the OSS serving the primary single-family residence, a minimum  
 1279 design flow of one hundred fifty gallons per bedroom per day shall be utilized in  
 1280 determining unit volume with a minimum of two bedrooms.

1281 5. Loading rates shall be determined according to soil texture type as outlined in  
 1282 Table 13.28-4. The finest textured soil in the selected vertical separation establishes the  
 1283 loading rate.

1284 **Table 13.28-4**

1285 **Maximum Hydraulic Loading Rate for Residential Sewage<sup>1</sup>**

<b>Soil Type</b>	<b>Soil Textural Classification Description</b>	<b>Loading Rate for Residential Effluent Using Gravity or Pressure Distribution (gal./sq.ft./day)<sup>5</sup></b>
1	Gravelly and very gravelly <sup>2</sup> coarse sands, all extremely gravelly <sup>3</sup> soils excluding Soil types 5 & 6, all soil type with greater than or equal to 90% rock fragments	1.0 <sup>4</sup>
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 <sup>6</sup>
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 <sup>6</sup>
6	Other silt loams, sandy clay loams, clay loams, silty clay loams.	0.2 <sup>6,7</sup>
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

1286

**Table 13.28-4 Explanatory Notes**

1287

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

1288

reduction of the loading rate or render the soil unsuitable for OSS.

1289

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

1290

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

1291

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

1292

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

1293

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

1294

be used for calculating the minimum absorption area required. The value is to be

1295

determined from this table.

1296

6. OSS installed in soil texture type 4, type 5<sub>1</sub> or type 6 shall be constructed

1297

during dry weather (defined as at least two consecutive weeks without appreciable

1298 rainfall) and dry soil conditions to minimize compaction and smearing during excavation,  
1299 as verified at the site.

1300 7. SSAS in soil type 6 must utilize pressure distribution.

1301 B. Buildings other than single-family residences.

1302 1. Soil dispersal components having daily design flow between one thousand  
1303 and three thousand five hundred gallons of sewage per day shall:

1304 a. be located only on soil types 1 through 5;

1305 b. be located only on slopes of less than thirty percent, or seventeen degrees;

1306 and

1307 c. have pressure distribution and timed dosing.

1308 2. Schools with OSS and who use laboratories and shop facilities shall have  
1309 plumbing drains for these facilities directed to holding tanks separate from the common  
1310 wastewater drains to the OSS.

1311 3. For OSS treating sewage from a nonresidential source, the designer shall  
1312 provide the following:

1313 a. information showing that none of the chemicals or other materials listed in  
1314 BOH 13.04.058 will be introduced into the OSS; and

1315 b. a site-specific design providing the treatment level equal to or greater than  
1316 the treatment level required of sewage from a residential source.

1317 4. The owner of an OSS for a commercial development not classified as a  
1318 community on-site system shall file a covenant declaring that the owner is responsible for  
1319 the operation, monitoring, and maintenance of the OSS in accordance with this title.

1320 5. Required absorption area must be determined by using one of the following  
 1321 methods:

1322 a. by using the figures given in Table 13.28-5, or the Onsite Wastewater  
 1323 Treatment Systems Manual, EPA/625/R-00/008, as amended, then using the appropriate  
 1324 application rate from Table 13.28-4; or

1325 b. by determining average water meter readings for one year from at least three  
 1326 similar establishments and adding a minimum safety factor of fifty percent. Both  
 1327 operating capacity and surge capacity must be determined.

1328 6. The minimum SSAS area must be not less than two hundred square feet.

1329 **Table 13.28-5**

<b>Type of Establishment<sup>1</sup></b>	<b>Gallons Per Person Per Day</b>
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
<p>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:</p> <p style="padding-left: 40px;">(A) Design Standards for Large On-site Sewage Systems, 1993, Washington State Department of Health (available upon request to the department); or</p> <p style="padding-left: 40px;">(B) Criteria for Sewage Works Design, revised November 2007, Washington State Department of Ecology (available online).</p>	

1330 <sup>1</sup>For buildings other than single-family residences the requirements of Section

1331 13.28.020(B) shall be met.

1332 SECTION 33. R&R 3, Part 5, Section 2(A), as amended, and BOH 13.36.010 are

1333 hereby amended to read as follows:

1334 **Design standards.**

1335           A. No septic tank, effluent pump tank, sewage holding tank, grease trap or any  
1336 other sewage tank may be installed in King County unless:

1337           1. The tank is included on the DOH publication, List of Approved On-site  
1338 Sewage Tanks;

1339           2. The tank conforms to the DOH publication, Recommended Standards and  
1340 Guidance for Performance, Application, Design, Construction, Installation and Testing  
1341 On-site Sewage System Tanks, July 1, 2007, as amended; and

1342           3. The health officer has approved plans for the tank installation. Such plans  
1343 shall show all dimensions, reinforcing, structural details and other pertinent data as  
1344 required by the health officer. Upon approval by the health officer, the plans will be  
1345 assigned an official number.

1346           B. ~~((Tanks made of materials other than concrete shall be approved by the  
1347 secretary prior to approval by the health officer.~~

1348           C.)) No pre-cast wastewater tank may be installed except those which are  
1349 included on the registered list and have been clearly and legibly marked on the upper  
1350 surface of the lid showing the number assigned by the health officer, name of the  
1351 manufacturer, tank model number, tank capacity in gallons and date of manufacture.

1352           ~~((D.))~~ C. No metal septic tanks shall be installed in areas under the jurisdiction of  
1353 the department.

1354           ~~((E.))~~ D. All septic tanks, whether they are installed or used singly, in series or in  
1355 a divided system, must be designed according to waste load and in no case shall have a  
1356 total capacity of less than one thousand five hundred gallons, except by written  
1357 permission of the health officer.

1358

**Minimum Capacities for**

1359

**Single-Family Residence Septic Tanks**

<b>Number of Bedrooms</b>	<b>Minimum Liquid Capacity Below Outlet Invert (Gallons)</b>
4 or less	1500
Each additional bedroom, add	250
Garbage grinder installed, add <sup>1</sup>	250

1360 1. Use of garbage grinders increases settleable and floatable solids accumulations in the  
 1361 septic tank, increases wastewater strength and thus increases the potential for system  
 1362 failure especially if frequent and regular tank monitoring and maintenance is not  
 1363 performed. Therefore, use of garbage grinders is not recommended (See Section  
 1364 13.60.005(a)(3)).

1365 ~~((F-))~~ E. No septic tank with a compartment smaller than two hundred fifty  
 1366 gallons liquid capacity may be installed.

1367 ~~((G-))~~ E. A septic tank designed to service any facility except a single-family  
 1368 residence or multiple family housing shall have a liquid capacity at least equal to three  
 1369 times the projected design flow, with a minimum of one thousand five hundred gallons.  
 1370 Septic tanks serving multiple family housing shall have a minimum liquid capacity equal  
 1371 to two times the projected design flow but not less than one thousand five hundred  
 1372 gallons.

1373            ~~((H.))~~ G. All septic tanks or combinations of tanks installed shall provide at least  
1374 two compartments. No wastewater tanks may be joined below the normal inverts unless  
1375 otherwise preapproved by the health officer.

1376            ~~((H.))~~ H. When multi-compartment tanks or two or more tanks in series are used,  
1377 the first compartment or tank shall have a liquid capacity of two-thirds to three quarters  
1378 of total required liquid capacity.

1379            ~~((I.))~~ I. The minimum liquid capacity of a tank receiving intermittent use shall be  
1380 determined from the maximum expected daily waste load, but shall in no case be less  
1381 than one thousand five hundred gallons.

1382            ~~((K.))~~ J. The plan review fee shall be as specified in the fee schedule, payable at  
1383 the time of initial plan submission. In addition to the initial plan review fee, a revision  
1384 review fee shall be assessed as specified in the fee schedule, payable at the time of  
1385 completion of the plan review, for review of any resubmissions, corrections, or additions  
1386 required.

1387            SECTION 34. R&R 3, Part 5, Section 3(C), and BOH 13.40.030, are hereby  
1388 amended to read as follows:

1389            **Size requirement.** The dosing tank shall be of sufficient size so as to provide the  
1390 total volume required (~~((one day's total dosing gallonage plus one day's estimated waste~~  
1391 ~~volume but))~~ for two days of the design flow and shall not be less than one thousand five  
1392 hundred gallons.

1393            SECTION 35. R&R 3, Part 5, Section 5, and BOH 13.48.010 are hereby  
1394 amended to read as follows:

1395            **Specifications.**

1396           A. No OSS may be constructed unless there has first been a soil evaluation for  
1397 the site completed in the manner described in BOH 13.28.050 to determine type, size and  
1398 location of the OSS. SSAS design and construction shall be in accordance with the  
1399 following:

1400           1. Maximum bottom width of trenches shall be twenty-four inches except a  
1401 maximum width of up to thirty-six inches may be allowed provided that:

1402           a. for soil types 1 through 4 the SSAS is at least pressure distribution in  
1403 accordance with BOH 13.48.060 (pressure distribution systems); and

1404           b. for soil types 5 and 6 the effluent shall meet the next higher treatment level  
1405 as indicated in table 13.28-1 unless treatment level B is already required prior to  
1406 discharge to the SSAS; and c. the slope does not exceed thirty percent.

1407           2. Beds are allowed only in excessively permeable soils consisting of very  
1408 gravelly coarse sands or coarser, extremely gravelly soils. SSAS installed in beds must  
1409 be pressure distribution and meet treatment level B or greater.

1410           3. The maximum depth of soil cover over the top of SSAS drainrock shall not  
1411 exceed twenty-four inches except by written permission of the health officer. The  
1412 infiltrative surface or bottom of the drainfield shall not be deeper than thirty-six inches  
1413 below the finished grade.

1414           4. The minimum depth of soil cover over drainrock shall not be less than twelve  
1415 inches unless otherwise authorized by the health officer.

1416           5. Minimum depth of drainrock under drainfield lines shall not be less than six  
1417 inches.

1418           6. The amount of drainrock over drainfield lines shall not be less than two  
1419 inches.

1420           7. Drainrock shall be clean, washed, uniformly graded, nondeteriorating gravel,  
1421 size (~~((three eighths inches to seven eighths inches or three quarters inches to one and-))~~)  
1422 three-fourths of an inch to two and one-half inches with no visible fine particles adhering  
1423 to gravel surfaces and with the percent by weight passing the U.S. No. 200 sieve not  
1424 greater than 0.5 percent.

1425           8. Minimum separation between drainfield trench side walls shall not be less  
1426 than four feet of undisturbed soil (~~((for soil texture types 1, 2, and 3 and shall not be less~~  
1427 ~~than six feet for soil texture type 4, 5 and 6)).~~

1428           9. Individual laterals greater than one hundred feet in length must use pressure  
1429 distribution.

1430           10. No gravelless drainfield system may be installed unless it satisfies the  
1431 requirements of BOH 13.52.054.

1432           11. The designer shall specify, in the OSS design, the SSAS cover material to be  
1433 used and shall verify, in the record drawing, that the cover material used conforms with  
1434 the design specifications.

1435           B. Horizontal separations shall be maintained in accordance with BOH  
1436 13.28.030W and Table 13.28- 2.

1437           C. No drainfield pipes shall be installed unless all fittings are rigidly joined  
1438 together in accordance with the pipe manufacturer's directions.

1439           D. Approved rigid drainfield pipe, such as PVC, shall be used, but only if stakes  
1440 are placed in the trench center at not more than five-foot intervals to maintain grade and a

1441 transit level laser or equally accurate instrument shall be used to assure that proper grade  
1442 is maintained.

1443 E. No drainfield shall be installed that requires a change in grade and earth cover  
1444 unless terracing is accomplished by the use of a suitable plastic or concrete drop box or  
1445 by use of rigid plastic pipe with glued joints (overflow stepdown). Such installation shall  
1446 have an earth dam twenty-four inches thick preceding terracing. Earth dams shall consist  
1447 of original undisturbed soil.

1448 F. Not less than one drainfield trench monitoring port of at least four inches in  
1449 diameter, which is anchored, with an easily removable cover that extends to finished  
1450 grade, shall be installed down to the infiltrative surface in each drainfield lateral.

1451 G. No OSS shall be installed unless the pipe lines between the building and the  
1452 septic tank, the septic tank and the distribution box, under paved areas, and within ten  
1453 feet of any buildings, shall be constructed of plastic, or cast-iron pipe laid with watertight  
1454 joints. The pipe materials shall conform to material specifications of the Uniform  
1455 Plumbing Code.

1456 H. No drainfield shall be installed that, after installation of the gravel over the  
1457 pipe, is not then covered with a geotextile barrier material that meets the specifications of  
1458 Section 5, Design Standards for Large On-site Sewage Systems, December 1993,  
1459 amended July 1994, Washington State Department of Health, as amended.

1460 I. No drainfield shall be installed under driveways, roadways, parking areas,  
1461 paved areas or under areas subject to compaction by vehicular traffic.

1462 J. Pipe used for construction of gravity drainfield lines shall be a minimum of  
1463 four inches inside diameter and constructed of rigid materials conforming with ASTM  
1464 F481-02, as amended.

1465 K. Pipe used for construction of tightline must comply with the current Uniform  
1466 Plumbing Code.

1467 L. SSAS shall be installed in undisturbed native soil. Trees or tree stumps greater  
1468 than eighteen inches in diameter, when measured two feet above grade, shall be left  
1469 standing, cut at ground level, burned in place, or managed by other methods acceptable to  
1470 the health officer that will avoid disturbing the soil.

1471 SECTION 36. R&R 3, Part 6, Section 1, as amended, and BOH 13.52.010 are  
1472 hereby amended to read as follows:

1473  **Holding tanks.**

1474 A. Sewage holding tanks may be permitted only for controlled, nonresidential  
1475 usage or as an interim method to handle emergency situations or to correct existing  
1476 problem systems; provided, that an on-site system management program satisfactory to  
1477 the health officer has been established to assure on-going operation and maintenance.

1478 B. ~~((In addition, t))~~ The applicant ((must)) for a holding tank shall provide a no-  
1479 protest agreement with the sewerage authority or a signed petition supporting formation  
1480 of a ULID if the property is within a sewer service area.

1481 C. ~~((Design plans shall be submitted))~~ The applicant shall submit holding tank  
1482 design plans in conformance with this title to the health officer for review. The ((design  
1483 and)) owner shall ensure that holding tank maintenance and operation ((shall be in  
1484 accordance)) conform with this title and with Guidelines for Holding Tank Sewage



1485 Systems, July 2007, Washington State Department of Health, as amended. The  
1486 application shall include specifications for the anticipated daily sewage load, the tank  
1487 capacity, the alarm device, the overflow elevation, the location of the tank, and any other  
1488 information pertinent to the installation.

1489 D. ~~((A minimum bond of five thousand dollars must be filed with the health  
1490 officer or management authority to guarantee cleanup in case of accidental spill and/or  
1491 repair of the system.~~

1492 E. ~~A copy of a pumping contract with a certified OSS pumper must be filed with  
1493 the department)) The owner shall enter into an active pumping contract with a certified  
1494 OSS pumper and file a copy of the contract with the health officer. The owner shall  
1495 maintain the contract at all times until the holding tank has been decommissioned. The  
1496 pumper shall notify the health officer if the contract is at any time canceled or not  
1497 renewed by either party to the contract.~~

1498 F. The owner or applicant shall obtain ~~((A))~~ an OSS installation permit ~~((must be  
1499 obtained))~~ prior to installation of the tank.

1500 G. ~~((Monitoring))~~ The owner shall cause monitoring and maintenance ((shall)) of  
1501 the tank to be performed in accordance with BOH 13.60.010. The owner shall ensure  
1502 that pumping of the holding tank occurs at least as frequently as specified under the  
1503 approved holding tank design, or, alternatively, that the holding tank installation includes  
1504 technology to monitor septage levels in the tank and notify the owner and contracted  
1505 pumper if ninety percent of the tank capacity is exceeded.

1506 SECTION 37. R&R No. 3, Part 7, Section 5, and BOH 13.56.050 are each hereby  
1507 amended to read as follows:

1508 **Record drawing.**

1509 A. (~~Whenever a designer approves an installation,~~) Within thirty days after  
1510 approving an OSS installation and notifying the health officer of system completion, the  
1511 designer shall prepare, sign, and submit electronically to the health officer a completely  
1512 scaled and dimensioned record drawing and certification of the approved OSS (~~shall be~~  
1513 ~~prepared in triplicate by the designer of the system on forms provided by the health~~  
1514 ~~officer. These forms shall then be signed by the designer and within thirty days of~~  
1515 ~~notifying the health officer of system completion all three complete copies shall be~~  
1516 ~~submitted~~). Where an installation, alteration or repair is undertaken without a design  
1517 prepared by a designer, the installer or OSM performing the installation, alteration or  
1518 repair shall provide a reconciled (~~record drawing~~) site sketch to the health officer and  
1519 the OSS owner at the time of final inspection.

1520 B. The following details are required for all record drawings:

- 1521 1. An accurate plot plan, with measurements and directions accurate to within  
1522 one-half of one foot, showing the locations of the essential components of the OSS  
1523 including:
- 1524 a. all sewage tanks, tank pump out lids, tank inspection access ports and depth  
1525 of tank burial.
  - 1526 b. all plumbing stub outlets.
  - 1527 c. building sewer line between building and septic tank.
  - 1528 d. effluent transport line between septic tank and distribution box or inspection  
1529 box.

- 1530 e. the ends, and all changes in direction, of installed and found buried pipes  
1531 and electrical cables that are part of the OSS.
- 1532 f. the distribution/inspection box.
- 1533 g. all soil absorption system laterals and permanent visible marker locations.  
1534 The length and width of each individual drainfield lateral shall be shown to scale and the  
1535 total number of lineal feet and square footage of laterals specified on the drawing. A  
1536 dimensioned reserve soil absorption system area shall be included. h.
- 1537 h. the location of any unusual construction features such as step downs(( $\frac{1}{2}$ )) in  
1538 the drainfield laterals(( $\frac{1}{2}$ )) must be clearly indicated.
- 1539 i. distance between any drainfield laterals and the edges of any fill soils, cuts,  
1540 banks, terraces, foundations, property lines, lakes, streams, wells or other water sources,  
1541 water lines, driveways and impermeable surfaces.
- 1542 j. the location and detail of soil absorption system inspection ports.
- 1543 k. location and depth of permeable cover added after installation.
- 1544 l. if ((~~a pump system~~)) the OSS contains a pump, the pump size, manufacturer,  
1545 model, pump cycle duration, dose in gallons/cycle and pump timer settings.
- 1546 m. location, size, shape, and placement of all buildings on the building site  
1547 showing their relation to the OSS and to any easements, underground oil storage tanks,  
1548 utility lines and property lines.
- 1549 n. location, direction of flow, and discharge point of all ground and/or surface  
1550 water interceptor drains and on-site stormwater infiltration systems.
- 1551 o. orientation of drawing with north direction by arrow.
- 1552 p. location of private water supply (well, spring, etc.).

- 1553 q. location of design control point.
- 1554 2. Clearly Indicated Scale using the appropriate scaled increments shown on a  
1555 typical engineering scale. Recommended scale of one inch equals twenty feet. Scales  
1556 utilizing ratios smaller than one inch equals thirty feet are not acceptable.
- 1557 3. One copy of an OSS owner's operating, maintenance and technical  
1558 specifications manual which includes:
- 1559 a. system performance specifications, including initial settings of electrical or  
1560 mechanical devices needed to operate the system as intended by the designer and  
1561 installer;
- 1562 b. system operating instructions, including ~~((, for proprietary products,))~~  
1563 manufacturer's standard product literature for proprietary products;
- 1564 c. system preventive maintenance instructions and service schedule;
- 1565 d. make, model and/or performance specifications of all system components;
- 1566 ~~((and))~~
- 1567 e. check list and schedule for routine monitoring inspections, effluent sampling  
1568 and reports ~~((-))~~; and
- 1569 f. record that materials and equipment meet the specifications contained in the  
1570 design.
- 1571 4. Copy of recorded "notice on title" required by BOH 13.56.054, and an  
1572 operation and maintenance services agreement as applicable.
- 1573 5. Copy of OSS installation permit.
- 1574 6. Documentation describing the waste strength range within which the OSS is  
1575 designed to operate.

1576            SECTION 38. R&R 99-01, Section 2 (Part), as amended, and BOH 13.56.054 are  
1577 hereby amended to read as follows:

1578            **Notice on title.**

1579            A. New Systems. The owner shall record a notice on title with the King County  
1580 records and election division. This notice shall include all of the owner's responsibilities  
1581 described in BOH 13.60.005 and Table 13.60-1.

1582            B. Existing systems.

1583            1. Prior to sale or transfer of property ownership, if the building is served by an  
1584 OSS and the notice on title required by this section has not been recorded, then the owner  
1585 shall record the notice as set forth in BOH 13.56.054.A. At the time of sale the seller  
1586 shall obtain the buyer's signature acknowledging receipt of a copy of this recorded notice.

1587            2. At the time of sale or transfer of property ownership, the buyer or transferee  
1588 of a property served by an OSS shall forward to the health officer a fee as set forth in the  
1589 fee schedule and submit a signed copy of the notice on title as set forth in BOH  
1590 13.56.054.A.

1591            ~~((3. At the time a building is remodeled or expanded, if it is not connected to  
1592 public sewer and the notice on title required by this section has not been recorded, then  
1593 the owner shall record the notice as set forth in BOH 13.56.054.A.))~~

1594            SECTION 39. R&R 99-01, Section 2 (part), as amended, and BOH 13.60.005 are  
1595 hereby amended to read as follows:

1596            **Operation and maintenance.**

1597            A. The OSS owner is responsible for the continuous proper operation and  
1598 maintenance of the OSS, and shall:

- 1599           1. Determine the level of solids and scum in the septic tank at least once every  
1600 three years for residential systems with no garbage grinder and once every year if a  
1601 garbage grinder is installed and, unless otherwise provided in writing by the health  
1602 officer, once every year for commercial systems((-));
- 1603           2. Employ an approved pumper to remove the septage from the tank when the  
1604 level of solids and scum indicates that removal is necessary((-));
- 1605           3. Cause preventive maintenance/system performance monitoring inspections to  
1606 be conducted and any indicated service to be performed by an approved person at a  
1607 minimum frequency in accordance with Table 13.60-1 unless otherwise established by  
1608 the health officer((-));
- 1609           4. Secure and renew contracts, as needed, to fulfill the OSS operation and  
1610 maintenance requirements of Table 13.60-1((-));
- 1611           5. Operate and maintain all OSS in accordance with this title, with pertinent  
1612 alternative system guidelines issued by the DOH and with the approved OSS owner's  
1613 operating and maintenance instruction manual((-));
- 1614           6. Protect the OSS area including the reserve area from:
- 1615           a. cover by structures or impervious material;
- 1616           b. surface drainage;
- 1617           c. soil compaction, for example, by vehicular traffic or livestock; and
- 1618           d. damage by soil removal and grade alteration((-));
- 1619           7. Maintain the flow of sewage to the OSS at or below the approved operating  
1620 capacity and sewage quality standards for residential strength waste water((-));

1621 8. Direct drains, such as footing or roof drains away from the area where the  
1622 OSS is located~~((=))~~;

1623 9. At time of property transfer, provide the buyer with maintenance records, if  
1624 available, in addition to the completed seller disclosure statement in accordance with  
1625 chapter 64.06 RCW for residential real property transfers; and

1626 10. Ensure that all tank access lids are secured to minimize risk of injury or  
1627 unauthorized access.

1628 B. The owner shall not allow:

1629 1. Use or introduction of strong bases, strong acids or organic solvents into an  
1630 OSS for the purpose of system cleaning;

1631 2. Use of a sewage system additive unless it is specifically approved by the  
1632 DOH; or

1633 3. Use of an OSS to dispose of waste components atypical of residential  
1634 wastewater, for example, but not limited to, petroleum products, paints, solvents, or  
1635 pesticides.

1636 SECTION 40. R&R 3, Part 8, Section 1, as amended, and BOH 13.60.010 are  
1637 hereby amended to read as follows:

1638 **Monitoring of residential, community or commercial systems.**

1639 A. The owner shall cause ~~((monitoring of the))~~ performance monitoring and  
1640 preventive maintenance inspections of any OSS at a frequency and by a qualified person  
1641 as specified in Table 13.60-1.

1642 B. For all system types, service access and monitoring ports to finished grade are  
1643 required for all system components. Specific component requirement include the  
1644 following:

1645 1. Septic tanks shall have service access maintenance ports and monitoring ports  
1646 for the inlet and outlet. If effluent filters are used, access to the filter at finished grade is  
1647 required;

1648 2. Surge, flow equalization or other sewage tanks shall be accessible for  
1649 monitoring and maintenance;

1650 3. All pretreatment units shall have service access maintenance ports and  
1651 monitoring ports;

1652 4. Pump chambers, tanks and vaults shall have service access maintenance  
1653 ports;

1654 5. Disinfection units shall have service access and be installed to facilitate  
1655 complete maintenance and cleaning;

1656 6. Soil dispersal components shall have monitoring ports for both distribution  
1657 devices such as valves or other controls and the infiltrative surface; and

1658 7. Any person providing service to an OSS shall secure tank access lids after  
1659 servicing the OSS or provide clearly visible marking and notification to the property  
1660 owner and occupants before leaving the site.

1661 C. Systems using pumps shall have accessible controls and warning devices.

1662 D. To facilitate maintenance and safety, control panels shall be located in line of  
1663 sight of the pump tank.



1664 E. OSS serving food establishments require, at a minimum, an annual  
 1665 performance monitoring and preventive maintenance inspection and periodic pumping as  
 1666 needed.

1667 F. (~~Operation and maintenance~~) Performance monitoring and preventive  
 1668 maintenance inspections of any OSS in a marine recovery area shall be performed by a  
 1669 licensed OSS maintainer and at a frequency determined by the health officer based upon  
 1670 type, size, age, system condition, and system location, but not less than once per year. If  
 1671 no accurate record drawing for the OSS has been prepared and filed with the department,  
 1672 the licensed OSS maintainer performing the (~~maintenance and performance monitoring~~)  
 1673 inspection shall prepare and submit to the health officer a reconciled (~~record drawing~~)  
 1674 site sketch together with the (~~system~~) operation and performance monitoring report  
 1675 required under this chapter.

1676 **Table 13.60-1**

1677 **Minimum Frequency of (~~Preventive Maintenance~~) Performance Monitoring and**  
 1678 **Preventive Maintenance Inspections**

	Gravity System <u>without</u> <u>Pump</u> <sup>4</sup>	Public Domain Technology <sup>2</sup>	Proprietary Technology <sup>3,5</sup>	Commercial and Food Establishment	Non- Discharging Toilets <sup>6</sup>
<b>Initial<sup>1</sup></b> <b>Inspection</b>	6 months	6 months	45 days	45 days	N/A

<b>Regular Inspection frequency</b>	Every 3 years	Annually	<del>((Every 6 months))</del> <u>Annually</u>	Annually <del>((or 6 months depending on Technology used))</del>	Annually
<b>Who May Perform the Inspection</b>	Owner or Licensed Maintainer or Licensed OSS Pumper	Licensed Maintainer	Licensed Maintainer	Licensed Maintainer	Owner

**Table 13.60-1 Explanatory Notes**

1679

1680

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

1681

1682

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

1683

1684

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

1685

1686

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

1687

1688

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1690

1691 5. Table 13.60-1 specifies the minimum required monitoring frequency. A more  
1692 stringent monitoring frequency shall be used if recommended by the manufacturer.

1693 6. This monitoring is in addition to that required for the OSS receiving the building's  
1694 nontoilet liquid waste.

1695 G. The person conducting the ~~((maintenance and))~~ performance monitoring and  
1696 preventive maintenance inspection shall submit ~~((a system))~~ an operation and  
1697 ~~((maintenance/))~~ performance monitoring report, on forms provided by the health officer,  
1698 to the owner at the time of the inspection and to the health officer accompanied by a  
1699 filing fee as specified in the fee schedule within thirty days of the inspection.

1700 H. Any person holding a King County OSS certificate of competency or  
1701 Washington state on-site sewage system designer or professional engineer license who  
1702 observes effluent surfacing from an OSS component or sewage backing up into a  
1703 structure shall report the failure on forms provided by the health officer within five  
1704 business days of observing the failure.

1705 I. The fee for each ~~((OSS monitoring/performance inspection))~~ monitoring report  
1706 required by the health officer shall be in accordance with the fee schedule.

1707 ~~((I. Preventive maintenance and monitoring))~~ J.1. For any commercial  
1708 development using OSS, performance monitoring and preventive maintenance inspection  
1709 of the OSS ~~((performance and))~~, including quality of effluent, shall be required ~~((for any~~  
1710 commercial development using OSS)).

1711 ~~((I.))~~ 2. The minimum frequency and the type of inspection required shall be in  
1712 accordance with Table 13.60-1 unless otherwise established by the health officer.

1713            ~~((2-))~~ 3. At least an annual inspection of OSS serving food establishments shall  
1714 be conducted.

1715            ~~((1-))~~ K. For properties where required performance monitoring and ~~((/or))~~  
1716 preventive maintenance inspections are at least thirty days overdue the health officer may  
1717 notify the owner that the OSS is not in compliance with these rules. The health officer  
1718 may, in addition to provisions of BOH chapter 1.08 of this code, cause a notice of  
1719 noncompliance to be recorded with the real property records for the subject lot.

1720            SECTION 41. R&R 08-03, Section 145, and BOH 13.60.030 are hereby  
1721 amended to read as follows:

1722            **Operation and maintenance at time of sale.**

1723            A. The seller or grantor of any single-family or multiple family residential  
1724 property served by an OSS shall, prior to transfer of title to the property, have a property  
1725 transfer monitoring and performance inspection performed by a licensed OSM. The  
1726 licensed OSM shall file with the department an on-site system report and applicable fee  
1727 in accordance with the fee schedule.

1728            ~~((1-))~~ B. If no record drawing is on file with the department, the OSM shall  
1729 prepare a ~~((record-drawing))~~ site sketch and include it with the O&M report submitted to  
1730 the department.

1731            ~~((2-))~~ C. If a record drawing is on file with the department but does not  
1732 accurately depict the OSS, the OSM shall prepare a ~~((reconciled-record-drawing))~~ site  
1733 sketch and include it with the O&M report submitted to the department.

1734            ~~((3-))~~ D. A property transfer monitoring and performance inspection is not  
1735 required if such an inspection was performed within the previous ~~((6 months))~~ twelve  
1736 months, provided the property has not been transferred since the most recent inspection.

1737            ~~((4-))~~ E. At the time of property transfer, the owner shall provide, to the buyer,  
1738 maintenance records, if available, in addition to the completed seller disclosure statement  
1739 in accordance with chapter 64.06 RCW for residential real property transfers.

1740            SECTION 42. R&R No. 3, Part 9, Section 1, as amended, and BOH 13.64.010  
1741 are each hereby amended to read as follows:

1742            **Repairs of failing OSS.**

1743            A. This title shall be applied to the maximum extent permitted by the site for any  
1744 repair necessitated by the failure of an existing OSS. The health officer may waive  
1745 compliance with these requirements if a conforming repair is not feasible and if in the  
1746 health officer's judgment the repaired system will not have an adverse effect on public  
1747 health, but the repaired system shall not discharge onto the surface of the ground, into  
1748 surface waters, or otherwise fail.

1749            B. The health officer may require a site design in accordance with BOH chapter  
1750 13.28 for the repair or replacement of a failing soil absorption component ~~((and if~~  
1751 ~~deemed necessary))~~ or for a ~~((limited))~~ repair. Prior to designing the repair system, the  
1752 designer shall consider the contributing factors of the failure to enable the repair to  
1753 address identified causes of the failure, and shall include this information in any design or  
1754 repair proposal to the department. ~~((The health officer shall require a site design in~~  
1755 ~~accordance with chapter 13.28 for the repair or replacement of a failing soil absorption~~  
1756 ~~component and if deemed necessary for a limited repair.))~~

1757 C. It is unlawful to repair an OSS without ~~((an))~~ a department approved OSS  
 1758 ~~((limited))~~ repair permit, except that a permit is not required for a minor repair as defined  
 1759 under BOH chapter 13.08.

1760 **Table 13.64-1**  
 1761 **Minimum Treatment Level and Bacteria Level Required for Repair or Replacement**  
 1762 **of Soil Absorption Components on Sites not Meeting Vertical and/or Horizontal**  
 1763 **Separation Requirements of this Title**

Vertical Separation (in inches)	Horizontal Separation <sup>1</sup>											
	<25 feet <sup>2,3</sup>			25<50 feet <sup>2,3</sup>			50 < 100 feet <sup>2,3</sup>			> 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
	<b><u>Minimum Treatment Level and Bacteria Level</u></b>											
< 12	A & BL 1	A & BL 1	A & BL1	A & BL 1	A & BL 1	A & BL 1	A & BL 1	A & BL 1	((B)) A & BL1	B & BL 2	B & BL 2	B & BL 2
((>12< 18)) ≥ 12  < 18	A & BL 1	A & BL 1	A & BL1	A & BL 1	B & BL 2	B & BL 2	A & BL 1	B & BL 2	B & BL2	Conforming Systems		
((>18< 24)) ≥ 18	A &	A &	A & BL1	A &	B & BL	B & BL	A &	B & BL	((C)) B &			

<u>&lt; 24</u>	<u>BL</u> <u>1</u>	<u>BL</u> <u>1</u>		<u>BL</u> <u>1</u>	<u>2</u>	<u>2</u>	<u>BL</u> <u>1</u>	<u>2</u>	<u>BL2</u>	
((>24< 36)) ≥ 24  <u>&lt; 36</u>	A & <u>BL</u> <u>1</u>	B & <u>BL</u> <u>2</u>	B & <u>BL2</u>	B & <u>BL</u> <u>2</u>	((€) ) B & <u>BL</u> <u>2</u>	((€) ) B & <u>BL</u> <u>2</u>	B & <u>BL</u> <u>2</u>	((€) ) B & <u>BL</u> <u>2</u>	C & <u>BL3</u>	
((>36))  ≥ 36	A & <u>BL</u> <u>1</u>	B & <u>BL</u> <u>2</u>	B & <u>BL2</u>	B & <u>BL</u> <u>2</u>	C & <u>BL</u> <u>3</u>	C & <u>BL</u> <u>3</u>	B & <u>BL</u> <u>2</u>	C & <u>BL</u> <u>3</u>	((€) 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.

1776 D. The treatment level required for repair or replacement of soil absorption  
1777 components of an existing failed OSS when conforming vertical separation and  
1778 conforming horizontal separation to surface water and/or to individual private wells is not  
1779 possible shall be in accordance with Table 13.64-1.

1780 E. Alterations or repairs to an OSS shall be documented in a repair record  
1781 drawing submitted to the health officer for final approval at time of final inspection,  
1782 unless a full design application was submitted for the repair.

1783 F. ~~((The owner receiving a Table 13.64-1 repair permit where treatment Level A  
1784 or B is required shall:~~

1785 ~~1. Immediately report any OSS failure to the health officer;~~

1786 ~~2. Continuously operate, maintain and monitor the OSS performance in  
1787 accordance with the appropriate recommended standards and guidance for the technology  
1788 in use; and~~

1789 ~~3. Report the results of the OSS maintenance and monitoring to the health  
1790 officer quarterly when Treatment Level A is required and annually when Treatment Level  
1791 B is required.~~

1792 G.)) The owner receiving a permit shall file a "notice on title" in accordance with  
1793 13.56.054 and the notice shall include:

1794 1. A notarized agreement to comply with the conditions of BOH 13.64.010.F  
1795 above; and

1796 2. A disclosure that a nonconforming OSS has been installed to correct a failure  
1797 because a conforming OSS is not feasible due to site and soil limitations and that due to



1798 the OSS nonconformity the system is not authorized to support new building construction  
1799 or expansions or major alterations of the existing structure.

1800 ~~((H.))~~ G. The health officer may authorize in writing a horizontal separation of  
1801 not less than seventy-five feet between an OSS dispersal component and an individual  
1802 private drilled well, but only if:

1803 1. ~~((†))~~ The well is located on the same parcel as the property served by the OSS;

1804 2. ~~((†))~~ The OSS is designed and operated to provide treatment level A or  
1805 treatment performance beyond that accomplished by meeting the vertical separation and  
1806 effluent distribution requirements described in Table 13.64-1; and

1807 3. ~~((†))~~ The owner monitors drinking water quality for coliform and nitrate and  
1808 periodically submits drinking water quality reports to the health officer at least annually.

1809 ~~((F.))~~ H. For any designed repair, the designer shall include, on the record  
1810 drawing document, the operating capacity of the repaired OSS and provide a copy of the  
1811 record drawing document to the owner.

1812 ~~((J.))~~ I. For any repair required to be performed in accordance with Table 13.64-1  
1813 of this title, disinfection may not be used to achieve the fecal coliform requirements to  
1814 meet:

1815 1. Treatment levels ~~((A or B))~~ BL1 or BL2 where there is less than eighteen  
1816 inches of vertical separation~~((:))~~; or

1817 2. Treatment levels ~~((A or B))~~ BL1 or BL2 in type 1 soils; or

1818 3. Treatment level ~~((C))~~ BL3.

1819 ~~((K.))~~ J. Except as provided in BOH 13.20.040, OSS repairs shall be supervised  
1820 by an OSS master installer certified pursuant to BOH 13.20.020 and 13.20.030.

1821            ~~((E-))~~ K. When the work of repairing an existing OSS has been completed, but  
1822 before it is closed and covered, the installer shall notify the owner and the person who  
1823 designed the repair ~~((and owner shall be notified))~~ that the work has been completed.  
1824 The person who designed the repair shall then proceed as described in BOH 13.56.030(~~(~~  
1825 ~~subsections))~~ B. and C. The person designing the repair shall then call for the health  
1826 officer to inspect the system.

1827            L. For a ~~((limited))~~ minor repair, the installer or maintainer shall submit a  
1828 ~~((limited))~~ minor repair report to the health officer within five working days after  
1829 completing the repair with a site sketch documenting any changes in OSS components.

1830            M. Unless otherwise directed by the health officer, OSS repairs shall not be  
1831 covered until the health officer has given approval.

1832            SECTION 43. R&R 3, Part 9, Section 2, as amended, and BOH 13.64.020 are  
1833 hereby amended to read as follows:

1834            **Remodeling – approval required.**

1835            A. Existing buildings or structures to which additions, alterations, or  
1836 improvements which would impact the operation of the OSS are made after the effective  
1837 date of this title shall be served by an OSS complying with this title ~~((; provided,~~  
1838 ~~however))~~, except that the health officer may waive compliance with these requirements  
1839 for existing buildings or structures when the addition, alterations, repairs, or  
1840 improvements to the building or structure are compatible with and do not adversely  
1841 impact the OSS including the potential reserve area, do not affect the adequacy of the  
1842 system to treat the sewage over the remaining useful life of the building or structure, and

1843 do not adversely affect the ability of the continued operation of the system to protect  
1844 public health, surface water quality, or groundwater quality.

1845 B. Applications for approval by the health officer of existing OSS serving  
1846 existing buildings undergoing addition, alteration, repair, or improvement shall be made  
1847 as provided in this section. The application shall be made on forms furnished by the  
1848 health officer.

1849 C.1. The health officer will review all applications to determine the compatibility  
1850 of the proposed addition, alteration, repair, or improvement with the existing OSS.

1851 ~~((+))~~ 2. Factors that the health officer may consider include, but are not limited  
1852 to, the following:

1853 a. location of SSAS in relation to foundation and existing improvements;

1854 b. size of SSAS in relation to proposed use;

1855 c. condition of the existing OSS;

1856 d. ~~((useful anticipated life of the existing on-site sewage disposal system;~~

1857 e.)) potential for reconstruction and repair of the existing on-site sewage

1858 disposal system;

1859 ~~((f))~~ e. ultimate purpose of the remodeling; and

1860 ~~((g))~~ f. approved source of water.

1861 ~~((2))~~ 3. The health officer may require the applicant to furnish such exhibits and  
1862 information as may be deemed relevant and necessary to the application.

1863 D. Any applicant ~~((for a permit for a change))~~ changing ~~((of))~~ use in a  
1864 commercial structure served by an OSS, or for a change of use from residential to  
1865 commercial in a structure served by an OSS, shall obtain the health officer's review and

1866 approval of the OSS before the OSS may be utilized to serve the new use in the structure.  
1867 Any such applicant for a change in use approval for the continued use of the OSS shall  
1868 ~~((submit a written))~~ cause the application for approval by the health officer to be  
1869 submitted by a licensed OSS designer or professional engineer on forms provided by the  
1870 health officer. The application shall include information detailing the anticipated  
1871 wastewater strength of the proposed use and any processes or uses which may impact the  
1872 wastewater characteristics and flows of the existing OSS.

1873 E. The nonrefundable fee for such a review shall be as specified in the fee  
1874 schedule, payable to the department. No charge shall be made for applications for  
1875 projects that are determined to be categorically exempt by the health officer.

1876 SECTION 44. R&R 3, Part 11, Section 1, as amended, and BOH 13.68.010 are  
1877 hereby amended to read as follows:

1878 **Pumper certification requirements.**

1879 A. It is unlawful for any person to carry on or engage in the business of pumping  
1880 out the contents of septic tanks, cesspools, grease traps, seepage pits, vault privies,  
1881 portable toilets, and other receptacles of human sewage or to transport over the highways  
1882 or to dispose of the contents therefrom in King County unless the pumper business  
1883 operator and in addition, each employee of the OSS pumper who engages in OSS  
1884 pumping activities, holds a valid certificate of competency and each vehicle has an  
1885 annual inspection tab issued by the health officer in accordance with this title for  
1886 conducting such business. The following liquid waste pumper's certificate of  
1887 competency classifications are established:

- 1888 1. OSS pumper;

1889 2. Grease trap(~~(/)~~) or interceptor pumper;

1890 3. (~~(Vessel)~~) Watercraft sewage holding tank pumper;

1891 4. Portable toilet pumper; and

1892 5. Miscellaneous sewage pumper.

1893 B. All persons holding a valid pumper registration on the effective date of these  
1894 regulations will be classified by the health officer in accordance with subsection(~~(s)~~) A.1.  
1895 through (~~(A)~~)4. of this section.

1896 C. A holder of an OSS pumper classification certificate of competency may, in  
1897 addition to the pumping and transporting activity under this section, conduct routine  
1898 preventive maintenance and performance monitoring inspections of gravity OSS, except  
1899 that an OSS inspection at time of property sale under BOH 13.60.030 shall be performed  
1900 by a licensed OSS maintainer. A liquid waste pumper of any classification may not  
1901 perform minor repairs on any OSS component other than lids, risers, baffles, and building  
1902 sewer tightlines.

1903 D. An applicant may be issued a certificate under such terms, conditions orders  
1904 and direction as the health officer may deem necessary for the protection of public health.  
1905 The health officer may waive any specific condition required by this chapter for  
1906 certification when, in the opinion of the health officer, the condition duplicates a  
1907 requirement of another regulatory agency and which the applicant has fulfilled.

1908 E. As a condition of certification, a pumper shall consistently demonstrate  
1909 reasonable care and skill in performing work governed by this title, meet the  
1910 requirements of the King County OSS code of performance and ethics, and comply with  
1911 all the terms and conditions of these and all other applicable rules and regulations.

1912            SECTION 45. R&R 3, Part 11, Section 2, as amended, and BOH 13.68.020 are  
1913 hereby amended to read as follows;

1914            **Application.** ~~((All applications for pumper certification under this title shall be~~  
1915 ~~submitted))~~ An applicant for a pumper certificate of competency shall submit the  
1916 application to the health officer~~((The application shall state the applicant's name in full;~~  
1917 ~~if a partnership, then the names of the partners, the relation of the applicant to the firm or~~  
1918 ~~partnership; the name of the corporation if a corporation; the place of business and place~~  
1919 ~~of residence of the applicant; each of the partners in the business, if a partnership; and the~~  
1920 ~~place of business of the corporation, if a corporation. The applicant shall also provide))~~  
1921 and shall include the following with the application:

1922            A. If an individual, the applicant's name in full, signature, place of residence, and  
1923 name and place of business;

1924            B. If a partnership or corporation, the names of the partners or officers, the  
1925 relation of the applicant to the partnership or corporation, the signature of the managing  
1926 partner or authorized officer, and the name and primary place of business of the  
1927 partnership or corporation;

1928            C. ~~((§))~~The number and identification of all vehicles to be used;

1929            D. ~~((§))~~The type, location and name of all the sites that the applicant will use to  
1930 dispose of the contents of septic tanks, cesspools, grease traps, grease interceptors,  
1931 seepage pits, vault privies, portable toilets and other receptacles of human sewage;  
1932 ~~((and))~~

1933            E. A valid disposal site letter of authorization including the name and address of  
1934 the person, firm, or corporation who is responsible for the operation of each disposal

1935 site(~~(. A valid disposal site letter of authorization must accompany the application. The~~  
1936 ~~application shall be signed by the authorized officer of the corporation, if a corporation,~~  
1937 ~~or by the managing partner, if a partnership, or by the individual owner, if owned by an~~  
1938 ~~individual, and by the individual applicant)); and~~

1939 F. A signed attestation that the applicant for a new or renewal pumper certificate  
1940 of competency is familiar with and agrees to perform all OSS services in accordance with  
1941 the requirements of this title and the King County OSS code of performance and ethics.

1942 SECTION 46. R&R 3, Part 11, Section 3, as amended, and BOH 13.68.030 are  
1943 hereby amended to read as follows:

1944 **Examination and inspection.**

1945 A. Except as described in BOH 13.68.010.B., a pumper's certificate of  
1946 competency and(~~(/or))~~ vehicle inspection tab, as applicable, shall be issued to the  
1947 applicant only after:

1948 1. Completion of a course of instruction given by ((~~(a)~~) one or more qualified  
1949 ((~~person(s)~~) persons) acceptable to the health officer and which covers, as applicable to  
1950 the certificate of competency classification, basic sanitation principles affecting public  
1951 health, on-site sewage concepts, details of proper servicing of sewage tanks ((~~or other~~  
1952 ~~receptacles of human sewage~~) and all components of a gravity OSS, and the transporting  
1953 and disposing of sewage, septage, sludge, or fats, oils and grease;

1954 2. Satisfactory completion of an examination relevant to the pumper certificate  
1955 of competency classification, which may include but not necessarily be limited to the  
1956 applicant's knowledge of sanitation principles affecting public health, ((~~knowledge of~~  
1957 ~~principles of on-site sewage system~~) OSS operations, ((~~knowledge of~~) sewage tanks

1958 ~~((and/or portable toilet))~~ and all components of a gravity OSS, servicing procedures, and  
1959 knowledge of regulations governing disposal of septage, sewage, ~~and((/or))~~ fats, oils, and  
1960 grease~~((, and))~~. The examination may also include an assessment of the reliability of the  
1961 applicant in observing sanitation laws, regulations, and directions, plus other pertinent  
1962 information as deemed necessary by the health officer. ~~((except that the grease))~~ Grease  
1963 ~~trap((/))~~ or interceptor pumpers, ~~((vessel))~~ watercraft sewage holding tank pumpers,  
1964 ~~((and))~~ portable toilet pumpers, and miscellaneous sewage pumpers may be exempted  
1965 from such examination upon satisfactory completion of an industry certification~~((/))~~ or  
1966 training program, or both, acceptable to the health officer. The fee for such an  
1967 examination or evaluation of training documentation shall be as specified in the fee  
1968 schedule payable in advance and nonrefundable;

1969           3. Annual inspection and approval of the applicant's equipment to be used in the  
1970 performance of the business;

1971           4. The business operator provides the health officer with evidence of  
1972 compliance with state of Washington minimum bonding requirements as stated in chapter  
1973 18.27 RCW and contractor's liability insurance for at least fifty thousand dollars; and

1974           5. Business operators, other than OSS pumpers, sign and provide to the health  
1975 officer a statement certifying that all employees working in contact with equipment  
1976 potentially contaminated by sewage have successfully completed a course of instruction  
1977 given by a qualified person or persons acceptable to the health officer which covers basic  
1978 sanitation principles affecting public health.

1979           B. Certificate of competency and vehicle inspection fees shall be as specified in  
1980 the fee schedule.



1981 C. After certification has been approved by the health officer, the applicant will  
1982 be issued a certification of competency registration number. The business owner shall  
1983 permanently affix said number preceded by the letters "KC No." on each of the  
1984 applicant's collection vehicles. ~~((Said))~~ The numbers must be in a contrasting color to  
1985 that of the vehicle and in letters at least three inches high and placed along with the  
1986 annual wastewater vehicle tab in a conspicuous place designated by the health officer. In  
1987 addition, the name of the operating firm shall be conspicuously displayed on both sides of  
1988 the truck.

1989 D.1. Certificates shall expire December 31~~((st))~~ of each year.

1990 ~~((1.))~~ 2. The health officer may renew certificates of competency provided that  
1991 the applicant submits not later than December 31~~((st))~~ a complete renewal application  
1992 accompanied by~~((:))~~ a fee as set forth in the fee schedule, authorization for continued use  
1993 of all disposal sites, a completed annual vehicle inspection report, and proof of minimum  
1994 bonding and insurance requirements~~((: and))~~.

1995 ~~((2.))~~ 3. Complete applications for renewal submitted after January 15 shall be  
1996 subject to a late fee in the amount of one-half the renewal fee, after January 31 double the  
1997 renewal fee and after February 10 a renewal shall not be granted without passing a  
1998 competency examination.

1999 SECTION 47. R&R 3, Part 11, Section 5, as amended, and BOH 13.68.050 are  
2000 hereby amended to read as follows:

2001 **Revocation of certificate of competency and inspection certificates.** ~~((Any~~  
2002 ~~certificate of competency and inspection certificate issued under this title may be~~  
2003 ~~suspended or revoked for cause by the health officer pursuant to)) The health officer may~~

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2004 assess civil penalty fines of up to one-thousand dollars per violation per day against any  
2005 holder of an OSS pumper's certificate of competency, or institute probationary  
2006 requirements, or suspend or revoke a pumper's certificate of competency for the pumper's  
2007 failure to comply with this title or the King County OSS code of performance and ethics.

2008           SECTION 48. R&R 99-01, Section 2 (part), and BOH 13.08.024 are hereby  
2009 repealed.

2010           SECTION 49. R&R 08-03, Section 12, and BOH 13.08.055 are hereby repealed.

2011           SECTION 50. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.060  
2012 are hereby repealed.

2013           SECTION 51. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.070  
2014 are hereby repealed.

2015           SECTION 52. R&R 99-01, Section 2 (part), and BOH 13.08.072 are hereby  
2016 repealed.

2017           SECTION 53. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.084 are  
2018 hereby repealed.

2019           SECTION 54. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.090  
2020 are hereby repealed.

2021           SECTION 55. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.114 are  
2022 hereby repealed.

2023           SECTION 56. R&R 08-03, Section 21, and BOH 13.08.115 are hereby repealed.

2024           SECTION 57. R&R 08-03, Section 23, and BOH 13.08.117 are hereby repealed.

2025           SECTION 58. R&R 08-03, Section 27, and BOH 13.08.131 are hereby repealed.

2026            SECTION 59. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.132 are  
2027 hereby repealed.

2028            SECTION 60. R&R 99-01, Section 2 (part), and BOH 13.08.134 are hereby  
2029 repealed.

2030            SECTION 61. R&R 08-03, Section 30, and BOH 13.08.141 are hereby repealed.

2031            SECTION 62. R&R 08-03, Section 32, and BOH 13.08.151 are hereby repealed.

2032            SECTION 63. R&R 08-03, Section 34, and BOH 13.08.154 are hereby repealed.

2033            SECTION 64. R&R 09-03, Section 37, and BOH 13.08.175 are hereby repealed.

2034            SECTION 65. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.180  
2035 are hereby repealed.

2036            SECTION 66. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.190  
2037 are hereby repealed.

2038            SECTION 67. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.202 are  
2039 hereby repealed.

2040            SECTION 68. R&R 08-03, Section 40, and BOH 13.08.205 are hereby repealed.

2041            SECTION 69. R&R 99-01, Section 2 (part), and BOH 13.08.212 are hereby  
2042 repealed.

2043            SECTION 70. R&R 08-03, Section 41, and BOH 13.08.213 are hereby repealed.

2044            SECTION 71. R&R 99-01, Section 2 (part), and BOH 13.08.226 are hereby  
2045 repealed.

2046            SECTION 72. R&R 08-03, Section 47, and BOH 13.08.257 are hereby repealed.

2047            SECTION 73. R&R 08-03, Section 49, and BOH 13.08.261 are hereby repealed.

2048            SECTION 74. R&R 08-03, Section 50, and BOH 13.08.263 are hereby repealed.

2049            SECTION 75. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.280  
2050 are hereby repealed.

2051            SECTION 76. R&R 08-03, Section 55, and BOH 13.08.287 are hereby repealed.

2052            SECTION 77. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.290  
2053 are hereby repealed.

2054            SECTION 78. R&R 08-03, Section 56, and BOH 13.08.305 are hereby repealed.

2055            SECTION 79. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.320  
2056 are hereby repealed.

2057            SECTION 80. R&R 08-03, Section 57, and BOH 13.08.3215 are hereby  
2058 repealed.

2059            SECTION 81. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.322 are  
2060 hereby repealed.

2061            SECTION 82. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.324 are  
2062 hereby repealed.

2063            SECTION 83. R&R 08-03, Section 60, and BOH 13.08.327 are hereby repealed.

2064            SECTION 84. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.330  
2065 are hereby repealed.

2066            SECTION 85. R&R 99-01, Section 2 (part), and BOH 13.08.341 are hereby  
2067 repealed.

2068            SECTION 86. R&R No. 08-03, Section 61, and BOH 13.08.346 are hereby  
2069 repealed.

2070            SECTION 87. R&R 3, Part 1, Section 5, as amended, and BOH 13.08.350 are  
2071 hereby repealed.

2072            SECTION 88. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.372 are  
2073 hereby repealed.

2074            SECTION 89. R&R 99-01, Section 2 (part), and BOH 13.08.402 are hereby  
2075 repealed.

2076            SECTION 90. R&R 99-01, Section 2 (part), and BOH 13.08.406 are hereby  
2077 repealed.

2078            SECTION 91. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.410  
2079 are hereby repealed.

2080            SECTION 92. R&R 08-03, Section 69, and BOH 13.08.424 are hereby repealed.

2081            SECTION 93. R&R 99-01, Section 2 (part), and BOH 13.08.426 are hereby  
2082 repealed.

2083            SECTION 94. R&R No. 08-03, Section 72, and BOH 13.08.465 are hereby  
2084 repealed.

2085            SECTION 95. R&R No. 3, Part 1, Section 5, as amended, and BOH 13.08.470  
2086 are hereby repealed.

2087            SECTION 96. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.472 are  
2088 hereby repealed.

2089            SECTION 97. R&R 08-03, Section 74, and BOH 13.08.477 are hereby repealed.

2090            SECTION 98. R&R 08-03, Section 76, and BOH 13.08.482 are hereby repealed.

2091            SECTION 99. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.484 are  
2092 hereby repealed.

2093            SECTION 100. R&R 09-03, Section 79, and BOH 13.08.493 are hereby  
2094 repealed.

2095            SECTION 101. R&R 08-03, Section 80, and BOH 13.08.4934 are hereby  
2096 repealed.

2097            SECTION 102. R&R 08-03, Section 81, and BOH 13.08.4937 are hereby  
2098 repealed.

2099            SECTION 103. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.500  
2100 are hereby repealed.

2101            SECTION 104. R&R 08-03, Section 87, and BOH 13.08.505 are hereby  
2102 repealed.

2103            SECTION 105. R&R 99-01, Section 2 (part), and BOH 13.08.512 are hereby  
2104 repealed.

2105            SECTION 106. R&R 99-01, Section 2 (part), and BOH 13.08.516 are hereby  
2106 repealed.

2107            SECTION 107. R&R 08-03, Section 88, and BOH 13.08.520 are hereby  
2108 repealed.

2109            SECTION 108. **Effective date.** This rule takes effect April 1, 2025.

2110            **SECTION 109. Severability.** If any provision of this rule or its application to  
2111 any person or circumstance is held invalid, the remainder of the rule or the application of  
2112 the provision to other persons or circumstances is not affected.

KING COUNTY BOARD OF HEALTH  
KING COUNTY, WASHINGTON

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Teresa Mosqueda, Chair

ATTEST:

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Melani Hay, Clerk of the Board

**Attachments:** None



## King County

### King County Board of Health

#### Staff Report

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Agenda item No: 9

Date: February 20, 2025

Rule and Regulation No: BOH24-05

Staff: Meagan Jackson,  
Corrina Marote, Lynn Schneider

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#### **Subject**

Proposed revisions to King County Board of Health Title 13 – On-site Sewage System code.<sup>1</sup>

#### **Summary**

The On-site Sewage Systems (OSS) Program in Public Health—Seattle & King County’s Environmental Health Services Division, referred to as the OSS Program, provides permitting and maintenance oversight for 85,000 OSS in King County. The Washington State Board of Health adopted new OSS requirements in revised Washington Administrative Codes in January 2024. Therefore, the OSS Program is proposing revisions to King County Board of Health Code (KCBOH) Title 13, to be effective April 1, 2025. In order to meet this timeline, the KCBOH must act by 2/20/2025. The KCBOH received briefings on this topic in April 2024, individual briefings in fall 2024, and January 2025.

To develop the proposed revisions, OSS Program staff conducted technical and legal analysis of existing OSS codes; facilitated the OSS Technical Advisory Committee, which includes rural and urban OSS owners, OSS industry, realtors, builders, and representatives of Tribes, cities, state agencies, and environmental advocacy groups; performed an equity impact review; and completed an extensive community outreach process. The OSS Program has been responsive to input from community and partners to ensure that code revisions do not introduce unnecessary costs or barriers.

The proposed revisions to King County’s OSS Program were approved by the Washington State Department of Health on October 1, 2024. The revisions ensure compliance with the new state codes, reduce costs and barriers for property owners, promote consistency and clarity, and strengthen oversight mechanisms for certified OSS service providers. If approved by the King County Board of Health, the revisions will support property owners with OSS while protecting human health and the environment. The OSS Program is committed to a clear and equitable process for implementing the new codes through internal procedures, policies, and the Local Management Plan update. Additional resources are needed to provide educational resources to community members and identify creative strategies to address the crisis of aging OSS infrastructure.

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<sup>1</sup> BOH24-05, <https://mkcclegisearch.kingcounty.gov/LegislationDetail.aspx?ID=7010008&GUID=BA656A50-A13E-482E-8D57-0F7F1179B158&Options=Advanced&Search=>



## Background

### *On-site Sewage Systems in King County*

In King County, an estimated 85,000 on-site sewage systems (OSS), commonly known as septic systems, treat ten percent of the county's wastewater. Almost half (37,000) serve properties in the Urban Growth Area (UGA), where affected communities are disproportionately low-income and communities of color. Figure 1 shows the location of OSS in King County, as well as the distribution of OSS by age. Two thirds (54,000) of the OSS in King County are more than 30 years old, which the Environmental Protection Agency (EPA) identifies as the average working lifetime for an OSS.

Properly designed, installed, and maintained OSS provide excellent wastewater treatment and are an important utility option for properties where sewer is not available. When OSS failures occur, they have significant impacts on households when sewage, carrying bacteria and viruses, backs up into a home, comes up in a yard, or onto surrounding properties. Untreated waste threatens the health of people, pets, and the environment. Cost has been identified as the biggest barrier to homeowners needing to replace OSS or convert a failing OSS to sewer (UGA only). The average cost for replacing OSS is \$41,000 in King County. Sewer connection is often more expensive – \$80,000 to \$124,000. An average of 900 OSS failures per year have been reported to King County over the past three years – and we know that many

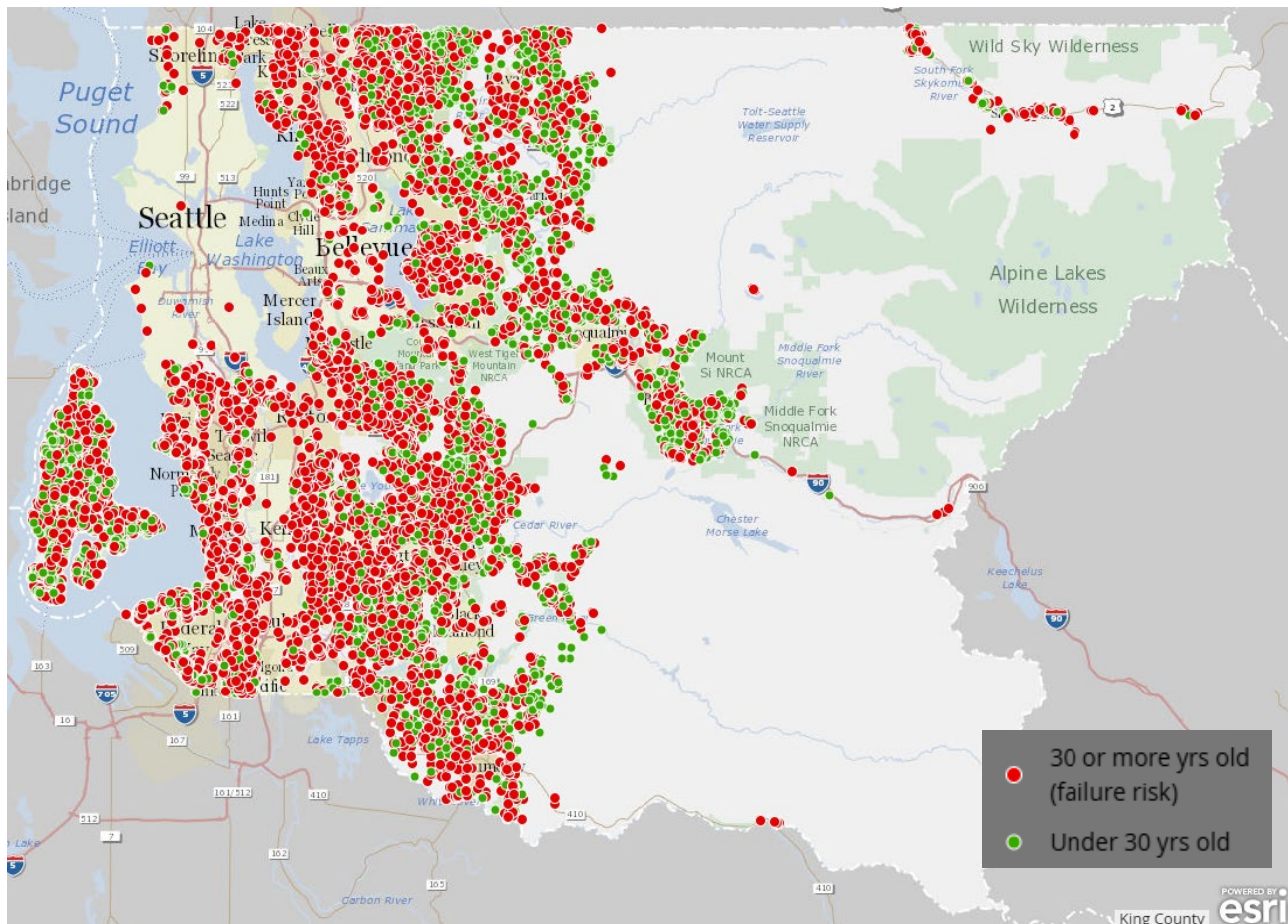


Figure 1. Location and age of OSS in King County

failures are not reported.

### *OSS regulations*

King County began regulating OSS in 1961. Codes have been revised on a regular basis to adapt to emerging technologies and challenges specific to OSS management in King County. Local OSS codes must be aligned with state regulations but may be more restrictive. The primary state regulations related to OSS appear in Chapter 246-272A of the Washington Administrative Code (WAC).

In 2017, the Washington State Department of Health (WADOH) performed an assessment of Chapter 246-272A WAC and determined that revisions were necessary to ensure that the state's OSS regulations meet current needs. WADOH worked with a Code Advisory Committee to propose revised codes that were adopted by the Washington State Board of Health in January 2024.<sup>2</sup> The provisions of the new rule are effective April 1, 2025.

In addition to ensuring compliance with state minimum requirements, the OSS Program identified the adoption of revised state regulations as an opportunity to propose improvements to King County code requirements. Since KCBOH Title 13 was last updated in 2008, technological advances and an improved understanding of wastewater treatment have altered some key aspects of wastewater management. Within this context, King County can reduce costs and barriers to compliance by revising OSS regulations, while also maintaining a high level of public health and environmental protection.

## **Analysis**

### *Code Evaluation and Proposal Development*

The OSS Program implemented a multi-step code analysis and proposal development process, described in further detail in subsequent sections of this staff report. Public Health structured the development process to be equitable and focused on gathering input from partners and community members to inform proposed code revisions and identify changes that will reduce costs and barriers to compliance. To achieve this, the OSS Program:

- Performed technical and legal analysis and comparison of the newly adopted state code with existing KCBOH Title 13 and identified additional opportunities for revisions based on staff and customer feedback from the past ten years;
- Engaged proactively with our partners, including the OSS Technical Advisory Committee;
- Conducted an equity impact review to ensure specific consideration of inequitable impacts and proposed responses for those at highest risk of negative outcomes due to failing OSS;
- Provided a robust community input process and transparent and timely information for community, property owners, industry, elected officials, governmental entities, and other partners; and
- Provided a formal comment opportunity on draft proposed revisions.

Additionally, to comply with state regulations, the OSS Program engaged in State Environmental Protection Act (SEPA), Department of Health, and Department of Commerce Review.

### *Technical and Legal Analysis*

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<sup>2</sup> Additional information about WADOH code revision process can be found at <https://doh.wa.gov/community-and-environment/wastewater-management/rules-and-regulations/onsite-rule-revision>.

The OSS Program performed a review of each section of the adopted Chapter 246-272A WAC in comparison to KCBOH Title 13 to identify changes required due to the state revisions. The OSS Program also conducted interviews with OSS Program Health & Environmental Investigators to identify parts of the code that have caused confusion, delays, or mistakes based on their experience implementing these codes since 2008. The interviews also identified code revisions that customers have requested. Of 29 proposed substantive changes obtained via these interviews, 20 were prioritized for further evaluation due to their high impact on public health, equity, or improved services.

#### *Technical Advisory Committee Input*

Each of the potential substantial revisions was discussed in detail with the OSS Technical Advisory Committee (TAC) at monthly meetings. The OSS TAC, established in 2021, includes representatives of rural and urban OSS owners, those who work in the OSS industry, realtors, builders, Tribes, cities, state agencies, county agencies, and environmental advocacy groups. Through facilitated discussions, TAC members shared support or concerns, helped think through long-term implications, and identified whether the proposed changes would increase or decrease costs and other barriers. Recommendations were incorporated into the proposed changes after each meeting. The meetings also included an opportunity for public comment.

Additionally, after the community input stage (discussed below), the OSS TAC was convened to vote on which revisions to propose to the King County Board of Health. All TAC members were in support of the codes in the proposed rule and regulation, with one exception. The proposal to enhance the allowance for certified pumpers to perform routine inspections of gravity OSS was not supported by some OSS industry representatives. The OSS Program decided to continue with this revision given the high interest from property owners, while agreeing to work with the OSS industry to determine how to best implement this to meet everyone's needs.

#### *Equity Impact Review*

OSS Program staff partnered with the Environmental Health Services' Racial Equity Manager and the Public Health—Seattle & King County's (PHSKC) Equity Review Team (ERT) to perform an Equity Impact Review (EIR) of the proposed code revisions. The ERT includes representatives of different PHSKC divisions and community members whose lifelong equity work and lived experiences make them uniquely qualified to identify inequitable impacts and propose systemic changes to address them.

The EIR identified two revision topics that provided the greatest opportunities to improve equitable OSS management. These included adding a requirement to use an EIR when reviewing the OSS Local Management Plan, which is required every five years per WAC 246-272A, and addressing unethical business practices by OSS industry professionals. These topics were evaluated using a Structural Competency framework to identify what contributes to inequities at an individual/intrapersonal level of influence and an institutional/socio-cultural level of influence, as well as strategies to mitigate the concern.

Throughout this review, three key opportunities to address inequities were identified:

- Strengthen and leverage partnerships with community members and other impacted parties, particularly with state agencies and Tribes, to support effective EIRs that lead to meaningful change.

- Develop OSS Industry Code of Performance and Ethics to protect customers from unethical business practices, which are more common when a customer is a person with limited English proficiency; is Black, Indigenous, or a Person of Color; is a person with a disability; or is an older adult. By incorporating protections for the most marginalized in King County communities, the proposed OSS regulations will improve services for all King County residents.
- Increase access to in-language resources and culturally sensitive trainings to empower OSS owners and residents to advocate for themselves and take care of their OSS.

### *Community Input*

PHSKC hired Confluence Consulting NW to support community outreach and engagement about potential code revisions. Extensive public engagement included:

- A monthly newsletter (subscriptions doubled from 450 when the engagement started to over 900 current subscribers);
- An OSS code revision website translated into six languages, with over 10,000 unique views;
- 47 social media posts, with over 1,400 interactions;
- Emails to a list of over 600 potentially interested parties including realtors, homeowner associations, community-based organizations, and others;
- Seven listening sessions, ten interviews with representatives of priority communities as identified by the Technical Advisory Committee, and participation in eight existing community meetings, covering regions across King County and various interest groups; and
- A survey (translated into the top six languages used in King County) with 614 responses.

During engagement with community members and other interested parties, the OSS Program asked for input on 17 TAC-reviewed topics related to potential code revisions. Participants shared questions, concerns, requests, and other input related to the impact of these possible revisions on their ability to effectively use their OSS for wastewater treatment. The input provided was primarily general in nature, reflecting participants' needs related to the code revision process, communication methods, education, and permitting processes. The OSS Program took each of these insights, as well as direct input about the possible code revisions, into consideration when drafting the code revision proposals.

The key general themes from the community input stage are listed below, and specific code revision input is included in Table 2 on page 8. More detailed information can be found in Attachment 5.

- Community Engagement and Knowledge: Participants regularly noted that the OSS Program should have provided more communication about the listening sessions and a lack of awareness within the broader community, as well as a more general lack of understanding of how OSS works and their role in its maintenance. Many participants requested more educational resources and trainings.
  - How PHSKC responded: Expanded community representation on the OSS TAC; included more outlets for sharing information as they were identified; applied for grant funding for county-wide OSS outreach project.
- Property Inspections and Values: Many participants shared their concern about inspections of OSS systems and their fears that this would lead to the County coming on their property without consent. Additionally, people spoke against codes that might affect the value of their property (especially minimum lot size).

- How PHSKC has responded: Prioritized code revisions that will increase property owners' ability to manage their property independently; included anticipated cost and impact on property in plain language summary of proposed codes; increased communication about inspection process – County inspectors never enter private property without permission; conducted a GIS analysis and found that of the 4,000+ developable properties, 35 will be impacted by the minimum lot size update.
- Opinions on Governance and Processes: Community members shared opinions about the fairness and effectiveness of the governance processes. Many lack trust in both government processes and people, and often make erroneous assumptions about motives. Many participants requested greater inclusion in decision making and more flexibility to choose how to meet code requirements.
  - How PHSKC has responded: Expanded community representation on the TAC; continued monthly newsletter to strengthen communication about how codes are implemented and resources for property owners; explained reason for proposed code revision in plain language summary; prioritized code revisions that make compliance cheaper and easier.
- Impact on Property, Costs and Quality of Life: Property owners conveyed worries about how regulations impact property usage and housing conditions, including the cumulative cost of repairs and maintenance, lower property values, and potential property loss if OSS fail. They were worried about how these regulations might impact their ability to make future changes to their homes, such as expansions, renovations or the addition of ADUs.
  - How PHSKC has responded: Prioritized code revisions that decrease costs associated with OSS construction and maintenance; prioritized code revisions that support property expansions and additions, such as ADUs; continued work to support financial assistance programs for OSS construction, repair, and maintenance costs.

#### *Public Comment on Draft Proposed Revisions*

Although only a public hearing is required for proposed changes to King County Board of Health Rules and Regulations, the OSS Program elected to provide an extended opportunity for public comment on a draft proposed Rule and Regulation (R&R). The draft R&R was made available on September 17, 2024, and due to requests to extend the public comment period, the deadline was extended from October 10 to October 21, 2024. The OSS Program hosted six public comment meetings throughout King County; comments could also be submitted via online survey, mail, and by phone. The program created a public comment webpage to ensure easy access to the draft R&R, public comment options, and a plain language summary of the draft R&R which included information about anticipated impacts and costs.

Just under 200 people attended the public comment meetings. The OSS Program received 145 comments, of which 41 were general comments, 88 were comments about specific code sections, and 16 were questions. The OSS Program identified ways to incorporate 22 percent of the code-specific comments. Attachment 6 includes all public comments with responses.

#### *SEPA, Dept of Health, Dept of Commerce Review*

To comply with state regulations, PHSKC requested a State Environmental Protection Act review, Department of Commerce review of impact to land use and development, and Department of Health review for compliance with WAC Chapter 246-272A WAC. A few minor changes in the proposed code

language were identified to ensure compliance with state regulations. Confirmation of completed reviews are provided in Attachment 8 to this staff report.

### Proposed Code Revisions

As a regulator, the OSS Program’s goal is to consider the input provided by impacted parties and balance benefits to property owners and the OSS industry with public health and environmental protection. Based on this analysis, the OSS Program is proposing the following revisions to KCBOH Title 13. Table 1 lists the substantive changes that must be made to KCBOH Title 13 to comply with the Chapter 246-272A WAC requirements that were adopted in January 2024.

<b>Code section</b>	<b>Proposed change</b>	<b>Rationale</b>
<b>Throughout</b>	Revises requirements so that no permit is required for a minor repair.	This change clarifies that small fixes like repairing a cracked pipe or replacing a pump can be done without a permit. This significantly reduces costs, not only by the permit fee, but also because a service provider can make the fix immediately instead of waiting until a permit has been approved.
<b>13.24.020</b>	Increases minimum lot size for new subdivisions by 500-1,000 square feet and establishes minimum usable land area requirement.	Ensures that subdivided properties intended to be served by OSS have enough space for the OSS and on-site stormwater treatment.

Table 2 lists the substantive changes that the OSS Program is proposing beyond the WAC requirements, with more detail available in technical memorandums in Attachment 7. All other clean-up revisions can be found in Attachment 4. Additionally, PHSKC has proposed a technical amendment to the advertised Rule and Regulation to remove the repeal of the “repair” definition.

Table 2. Proposed substantive revisions to KCBOH Title 13

Code section	Proposed change	Rationale	Public Input	Anticipated impact
<b>OSS Industry Certifications &amp; Oversight</b>				
<b>13.68.010 and 13.68.030</b>	Adds specifications for OSS pumpers performing routine performance monitoring inspections of gravity OSS and ensures that the examination requirements for this certification include the knowledge necessary to inspect gravity OSS.	This change makes it easier to have gravity OSS inspected at the same time they are pumped. It also ensures that OSS pumpers have the knowledge and expertise necessary to perform routine inspections of gravity OSS.	<ul style="list-style-type: none"> <li>• Very strong support from the general public and property owners, who emphasized the need to ensure that pumpers have the necessary knowledge and skills for gravity OSS inspections.</li> <li>• The OSS Program chose to move forward with this proposed change despite concerns from OSS industry. The implementation details will be determined in collaboration with industry as part of the 2027 Local Management Plan update.</li> </ul>	<p><b>Cost:</b> Reduced cost to property owners because a certified professional who is pumping a gravity OSS may also perform a routine inspection at the same time. This will also increase revenue-generating options for OSS pumpers.</p> <p><b>Who is impacted:</b> All owners of gravity OSS and OSS pumpers.</p>
<b>13.60.010</b>	Adds requirement that certified professionals must report observed OSS failure (surfacing effluent or backing up into structure) to health department within five business days.	Public Health is responsible to ensure that failures are addressed in a timely manner to prevent public exposure to untreated sewage. To do this effectively, the OSS Program needs timely information about the state of the OSS. This is especially relevant for	<ul style="list-style-type: none"> <li>• Many OSS owners advocated to keep the 30-day deadline. Other participants wanted quicker reporting, especially near sensitive ecosystems. The OSS industry shared that they need a minimum of 3 days to submit a report.</li> </ul>	<p><b>Cost:</b> No anticipated impact.</p> <p><b>Who is impacted:</b> All OSS certified professionals and OSS owners.</p>

Code section	Proposed change	Rationale	Public Input	Anticipated impact
		rental properties, where the property owner may not be informed or motivated to fix the failure. No fee will be assessed for the report of a failure.	<ul style="list-style-type: none"> <li>The proposed 5-day requirement specific to sewage surfacing or backing up into a structure balances these different perspectives.</li> </ul>	
<b>13.20.030, 13.20.035, and 13.68.050</b>	Adds a requirement for a signed attestation that OSS industry applicant is familiar with OSS Code of Performance and Ethics (CPE). Adds a requirement to comply with CPE to maintain certification. Adds a \$1,000 fine for violations of Title 13 or CPE.	The OSS Program receives complaints of upselling and defrauding by certified professionals. When the OSS Program does not enforce a consistent standard of service, OSS owners are not confident that they will receive good service for their OSS. This is an expensive process, so it's important that property owners receive good services.	<ul style="list-style-type: none"> <li>There was a consensus on the need for clearer expectations of service for certified OSS professionals.</li> <li>Some property owners and industry members expressed concerns about increased costs and enforcement challenges.</li> <li>The OSS Program added the \$1,000 fine to address concerns about the program's ability to enforce the proposed code.</li> </ul>	<p><b>Cost:</b> No anticipated direct impact other than to certified professionals in violation of CPE. This has an indirect impact of reducing costs of repairing, installing, and maintaining OSS.</p> <p><b>Who is impacted:</b> Holders of King County OSS certificate of competency.</p>
<b>Requirements for OSS Design and Sewer Connections when installing new OSS and addressing failures</b>				
<b>13.04.050</b>	Adds a waiver process to allow a non-conforming OSS replacement of failure when sewer is available, but connection is not feasible.	This change ensures compliance with Growth Management Act (GMA) and King County Comprehensive Plan, which specify that properties in the Urban Growth Area should be connected to sewer. A waiver	<ul style="list-style-type: none"> <li>Sewer connection costs are a huge concern and burden to property owners, but many still recognize the need to make sure that urban properties can connect to sewer.</li> </ul>	<p><b>Cost:</b> Property owners will have a clear pathway to evaluate alternatives to expensive sewer connections. While there will be some costs associated with the</p>



Code section	Proposed change	Rationale	Public Input	Anticipated impact
		process will address OSS failure situations where connection to sewer is not timely or reasonable, including due to cost of sewer connection.	<ul style="list-style-type: none"> <li>The proposed code addresses some of the cost concerns, while ensuring compliance with GMA and KC Comprehensive Plan. The waiver process allows property-level decisions to ensure good public health protection.</li> </ul>	waiver application, total costs to address failing OSS will decrease.  <b>Who is impacted:</b> All OSS owners in Urban Growth Area.
<b>13.48.010</b>	Changes requirements for pressure distribution drainfields to reduce minimum separation between drainfield trench sidewalls for soil texture types 4-6 from six feet to four feet.	New understanding in OSS industry confirms that effluent generally flows down from drainfield trenches, not out the sides. Reduced drainfield trenches will not impact public health risk of untreated sewage but will significantly reduce the size of pressure distribution drainfields.	This proposed change was added in response to the high level of interest in reducing costs and supporting affordable housing in rural areas. It is also responsive to the request to remove unnecessary restrictions, especially when they are associated with higher costs.	<b>Cost:</b> This will make it much easier to install smaller OSS to support repairs and ADU construction. More properties can use pressure distribution OSS instead of needing advanced treatment, saving approximately \$5,000 in installation costs.  <b>Who is impacted:</b> Property owners who need to repair OSS or want to construct an ADU on their property.
<b>13.24</b>	Specifies that nitrogen treatment requirements in King County Code must be	This change ensures consistent application of nitrogen treatment	<ul style="list-style-type: none"> <li>The OSS Program received comments that simplicity is important and new</li> </ul>	<b>Cost:</b> No anticipated increase in cost because this is already

Code section	Proposed change	Rationale	Public Input	Anticipated impact
	met throughout King County. For properties smaller than one acre in a Critical Aquifer Recharge Area (CARA) Type 1 and 2, the OSS must provide nitrogen treatment.	requirements in incorporated and unincorporated areas of King County. Nitrogen treatment is important to ensure that nitrogen levels in groundwater meet drinking water standards.	<p>regulations should not be implemented if they are not necessary.</p> <ul style="list-style-type: none"> <li>The OSS Program decided to prioritize consistent code application and groundwater protection. The program will help find financial and technical assistance for impacted property owners</li> </ul>	<p>implemented as a standard procedure.</p> <p><b>Who is impacted:</b> Property owners who install a new OSS in the designated areas. This may be applied to replacement OSS, too.</p>
<b>13.08.218</b>	Adds a “bedroom” definition.	OSS are sized based on the number of bedrooms in the residence. A bedroom definition provides consistency so that the necessary OSS capacity is clear. This makes it easier for developers and property owners to plan for current and future uses.	<ul style="list-style-type: none"> <li>Consistency with other bedroom definitions is important. Some OSS owners were not supportive of this change because they thought that they could evaluate decisions about OSS capacity on their own.</li> <li>The OSS Program drafted a bedroom definition that is as simple and consistent as possible.</li> </ul>	<p><b>Cost:</b> Reduced costs that come up because of extended conversations between builders, OSS installers, and OSS Program.</p> <p><b>Who is impacted:</b> Property owners who need to install a new OSS or who are remodeling existing buildings with bedrooms.</p>
<b>13.64.020</b>	Adds language to clarify that an OSS evaluation by a licensed OSS designer or professional engineer is required for any change of	Commercial facilities represent a higher public health risk because the wastewater generation is more varied and higher foot	<ul style="list-style-type: none"> <li>There is general support for this added requirement. The OSS Program received many comments in support of more restrictive processes</li> </ul>	<p><b>Cost:</b> Cost of evaluation (approx. \$3,000) will be added when starting a commercial</p>

Code section	Proposed change	Rationale	Public Input	Anticipated impact
	use for a commercial property or from a residential to a commercial use.	traffic causes greater exposure to a potential OSS failure. Having a properly sized OSS also reduces on-going complications with the OSS.	<p>to ensure that an OSS can properly support commercial properties.</p> <ul style="list-style-type: none"> <li>The OSS Program is proposing to move forward with this requirement.</li> </ul>	<p>establishment served by an OSS. The evaluation may also determine that an OSS upgrade is necessary prior to the change of use, but the cost of repairs will decrease because the OSS will be properly sized.</p> <p><b>Who is impacted:</b> Property owners seeking to start or change a commercial establishment on OSS.</p>
<b>OSS Inspections, Operation, and Maintenance</b>				
<b>13.52.010</b>	Removes requirement for \$5,000 bond for holding tanks. Replaces this requirement with following a predetermined pumping schedule or installing a device that monitors tank levels and notifies property owner and pumper when tank needs to be pumped.	Holding tanks are an OSS without a drainfield – the septage must be routinely removed to prevent sewage backing up or surfacing. They used to only be used on commercial sites, but now more residential properties use them for repairs when there are no other options. These changes provide a better method for the OSS Program to track the pumping	<ul style="list-style-type: none"> <li>Input shows that it’s important to make sure there are no raw sewage discharges from holdings tanks.</li> <li>Property owners also emphasized the importance of having options for how to maintain their OSS.</li> <li>This revision gives the property owner options, as well as a better method to</li> </ul>	<p><b>Cost:</b> If owner decides to use a notification device, the cost for installation will increase by \$1,000-2,000. No other impact anticipated.</p> <p><b>Who is impacted:</b> Property owners with holding tank OSS. There are approximately 100</p>

Code section	Proposed change	Rationale	Public Input	Anticipated impact
		to ensure that holding tanks are managed well.	ensure that the tank is pumped as needed.	holding tanks in King County.
<b>13.60.010</b>	Reduces required inspection frequency for proprietary technology and commercial and food establishments from every 6 months to annually.	This change balances the need to inspect complex OSS to ensure that they are functioning properly to protect public health with reducing costs to property owners. It removes a requirement that is more stringent than the WAC 246-272A minimums because it was not determined to be more protective of public health.	<ul style="list-style-type: none"> <li>• There is general support for this change because inspection costs can be challenging for property owners.</li> <li>• Many property owners shared an interest in inspecting their own OSS, which is currently only allowed for gravity OSS. The OSS Program does not have capacity to implement this, so it will be considered in future code proposals.</li> </ul>	<p><b>Cost:</b> Reduced by the cost of one inspection per year (\$300-\$600).</p> <p><b>Who is impacted:</b> Owners of proprietary OSS (for example aerobic treatment units, subsurface drip systems, etc). There are approximately 3,000 proprietary OSS in King County.</p>
<b>13.60.030</b>	Change time of sale inspection timeline to be valid for 12 months instead of 6 months.	The new WAC 246-272A requirement for a time of sale inspection sets a 12-month expiration date. This change ensures consistency across county lines.	<ul style="list-style-type: none"> <li>• Opinions about this proposal were mixed. Realtors tended to support. OSS industry opposed. Property owners' opinions varied. This proposal was selected because it provides consistency while ensuring that good information is provided to the buyer.</li> <li>• The input highlighted that when a property is sold multiple times, the water use</li> </ul>	<p><b>Cost:</b> No anticipated impact.</p> <p><b>Who is impacted:</b> Owners of properties with OSS who are selling the property and OSS maintainers performing OSS inspections.</p>

Code section	Proposed change	Rationale	Public Input	Anticipated impact
			changes, so a new inspection should be required. The proposal incorporates this.	
<b>13.60.005 and 13.60.010</b>	Adds a requirement for all tank access lids to be secured. All service providers must secure lids before leaving property or notify resident that lid could not be secured.	Protecting community health and safety is our highest priority. Unsecured tank lids have resulted in several child deaths in Washington over the past decade. A simple fix like making sure OSS lids are properly screwed down can save lives.	General support for this requirement.	<b>Cost:</b> No anticipated impact. <b>Who is impacted:</b> All certified OSS professionals, OSS owners, and residents.
<b>New section</b>	Require equity impact review when local management plan review is conducted every 5 years.	The local management plan provides more detail about how OSS operation and maintenance codes will be implemented. In accordance with King County Ordinance 16948, this change implements an institutional practice to promote equity and social justice, preventing rules that create barriers.	<ul style="list-style-type: none"> <li>Public input included a lot of pushback against an equity impact review.</li> <li>Because the EIR highlighted this change as one that has a high likelihood of improving equity in King County, the OSS Program chose to keep it in the proposed code revisions.</li> </ul>	<b>Cost:</b> No anticipated impact. <b>Who is impacted:</b> All OSS owners.

## Anticipated Impacts

The proposed code revisions are intended to improve public health and environmental protection, decrease overall costs to OSS owners, and remove barriers to compliance and proper OSS maintenance. The proposals are intended to ensure consistency and clarity and strengthen oversight mechanisms for certified OSS industry professionals. PHSKC does not anticipate any significant fiscal impacts to OSS Program revenue due to the proposed changes.

The OSS Program identified several additional areas that could be improved with more research and data, but insufficient information is available at this time to propose well-informed changes. Some of these topics include the impact of high-efficiency fixtures on OSS sizing requirements, the level of nitrogen treatment required to protect drinking water in Critical Aquifer Recharge Areas, and alternative methods for OSS sizing. Additional research is needed to properly evaluate the impacts of these changes and to ensure that regulations support proper wastewater treatment. Research could be conducted by Washington State universities, in collaboration with local health jurisdictions.

Throughout the code revision process, more community education was identified as a significant need. If the proposed codes are adopted and additional resources are provided through the King County budget process, the OSS Program will continue to expand outreach to community members and provide information about the revisions to OSS owners.

## Timeline

The Washington State Board of Health adopted new OSS requirements in revised Washington Administrative Codes in January 2024. Therefore, the OSS Program is proposing the revisions to King County Board of Health Code (KCBOH) Title 13 also be effective April 1, 2025. In order to meet this timeline, the KCBOH must adopt the Title 13 revisions at least 30 days before April 1. Adoption in February 2025 would meet this timeframe. The KCBOH received a briefing on this topic at the Board's April 18, 2024 meeting.

## Amendments

Upon further review, staff identified a series of technical corrections needed and have prepared a striking amendment for the Board's consideration. Striking Amendment S1 (and accompanying Title Amendment 1) would correct technical errors inadvertently carried over in BOH R&R 24-05 from previous rule amendment drafts, such as restoring an omitted definition and correcting formatting and typographic errors, table headings, mathematical symbols, and an erroneous setback distance value.

The corrections are summarized in the following table.

**Corrections to R&R 24-05 On-site Sewage Regulation Amendments  
(Striker Amendment S1 and Title Amendment T1)**

	<b>Location of Error in draft R&amp;R 24-5</b>	<b>Location of Correction in draft Striker Amendment S1</b>	<b>Description of Correction</b>
1	p. 13, line 289	p. 9, line 179	Replacing incorrect BOH Rule and Code section references (R&R 99, BOH 13.08.010) with correct rule and code section references (R&R 99-01, BOH 13.08.018).
2	p. 18, lines 394-395	p. 13, lines 284-285	Adding underscore to identify new text in code section (BOH 13.08.342, definition of "pumper").
3	pp. 18-19, lines 396-406	p.14, lines 286-296	Clean-up edits to conform with King County drafting style standards (changing "Portable" to "A portable...", "Watercraft" to "A watercraft...", "Grease trap" to "A grease trap...") (BR edit)
4	pp. 55-60, lines 1206-1264	pp. 51-58, lines 1096-1169	Correcting the formatting of an Explanatory Note number to superscript format in Table 13.28-2 (in cell containing minimum setback value for Subsurface stormwater infiltration or dispersion component—Down-gradient); replacing erroneous minimum setback distance from 25 feet to 50 feet in last row of the table; and correcting font size and indentations in table explanatory notes per King County drafting style standards.
5	p. 64, lines 1289-1290	p. 60, lines 1197-1198	Technical corrections to soil texture numeric values in explanatory notes following Table 13.28-4. (Adding a less than sign (<) to the upper percentage value for very gravelly soil, and adding a greater than or equal to sign (≥) to the percentage value for extremely gravelly soil.)
6	p. 72, line 1406	p. 68, line 1316	Technical correction to place a code subsection in the correct position following its preceding subsections. (Placing subsection 1.c below subsection 1.b on OSS drainfield trench width requirements.)
7	p. 88, line 1749	p. 84, line 1659	Technical language clarification to require submittal of a site design for repair or replacement of an on-site sewage system component. (Changing "may" to "shall" in BOH 13.64.010.B regarding repairs of failing on-site sewage systems, for consistency with the rest of this subsection requiring design submittal for OSS repair proposals.)
8	pp. 89-90, lines 1760-1775	pp. 85-86, lines 1670-1679	Technical corrections to the horizontal separation column headings and to the explanatory notes of Table 13.64-1. (Changing distance values for horizontal separation headings in table to conform with State of Washington standards; and changing treatment level values from level "A" to level "A and BL1" in the table explanatory notes.)
9	p. 103, lines 2070-2110	pp. 99-101, lines 1980-2017	Technical correction to remove the inadvertent repeal of definition of "repair." (Striking SECTION 87 which would have repealed BOH 13.08.350 (definition of "repair"), and renumbering remaining sections consecutively.)
10	p. 1, lines 5-6, and pp. 4-5,	T1*	Title Amendment to correct references to the code section number from BOH 13.08.010 to 13.08.018 (definitions of abbreviations), and to remove the repeal of the definition of "repair" in BOH 13.08.350.

	lines 89-90	p. 1, lines 8-9, and p. 5, lines 92-93	
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\* Title Amendment T1 is a separate document from Striker Amendment S1.

### **Invited**

1. Lynn Schneider, OSS Program Supervisor, EHS, PHSKC
2. Corrina Marote, PPM IV, EHS, PHSKC

### **Attachments**

1. Plain language summary of all proposed revisions to BOH Code Title 13
2. Public Health—Seattle & King County Community engagement report
3. Public comments with OSS Program’s responses
4. Public Health—Seattle & King County Technical memorandums for key substantive changes to BOH Code Title 13
5. Washington State Department of Commerce confirmation letter, September 30, 2024
6. Washington State Department of Commerce confirmation email, October 14, 2024
7. Letter of support from King County Child Death Review Board, November 13, 2024
8. Letter of comment from Seattle King County Realtors, November 15, 2024
9. Letter of support from Washington State Department of Health, November 1, 2024
10. KC DLS Permitting SEPA Memo Determination of Non-Significance, December 17, 2024
11. Affidavit of Publication in the Seattle Times of DLS Permitting SEPA DNS Comment Period, November 20, 2024



## Summary of Proposed Ordinance relating to King County On-site Sewage System Codes

This summary fulfills Washington State Growth Management Act and King County Code (K.C.C.) 20.18.100 requirements for a “plain language summary.”

Public Health – Seattle & King County is proposing revisions to King County Board of Health codes, Title 13 – On-site Sewage Systems. We are doing this to comply with recent changes to WAC 246-272A, with revisions adopted in January 2024. We’re also using this opportunity to improve the codes and incorporate the latest best science. Based on technical and legal analysis, equity review, feedback from our customers and partners, technical advisory committee review, and public input, we have drafted revised codes. These codes will be presented to the King County Board of Health in November 2024, and if adopted at that time will go into effect in January 2025.

Item Number	Title 13 Sections	Current Code	Proposed Change	Why are we proposing this change?	How will this change impact me?	Type of change
1	Throughout		Revises language to remove passive language and replace with active language.	Aligns with standard practice for code writing, which clearly identifies who is responsible for the code requirements.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup
2	Throughout		Changes language from "construction permit" to "installation permit."	Updates language to align with industry standard.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup
3	Throughout		Changes reference to King County building department from DDES to DLS	Updates language to align with new department name.	Revision provides clarity but does not impact code implementation.	Mandatory cleanup
4	Throughout		Revises requirements so that no permit is required for a minor repair to correct a failing OSS.	We heard a need to reduce costs and only require permits when they are absolutely necessary. This change ensures compliance with minor repair requirements in revised WAC 246-272A.	<b>Cost:</b> Permit cost of \$250-\$700 removed from total minor repair cost. <b>Who is impacted:</b> All OSS owners. Minor repairs are often required to ensure ongoing operation of OSS systems. We are already following this new approach through a program policy.	Mandatory substantive
5	New section		Adopt WAC 246-272A by reference.	Clarifies that all sections of WAC 246-272A are adopted unless otherwise stated in Title 13.	Revision provides clarity but does not impact code implementation.	Mandatory cleanup

6	New section		Requires equity impact review when local management plan review is conducted (every 5 years), in accordance with King County Ordinance 16948.	We heard that it's important to think about how codes are implemented and make sure that our actions are specific to different conditions across the county (e.g. urban settings compared to rural settings). This change ensures that equity and impact to priority populations is considered when developing and updating local management plan.	<b>Cost:</b> No anticipated impact. <b>Who is impacted:</b> All OSS owners.	Mandatory substantive
7	13.04.050	Establishes requirements for connection to public sewer. New development must connect to public sewer in the Urban Growth and rural area where available. Existing development must connect to public sewer when the OSS fails, the sewer district allows connection, the property is within 200' of sewer connection point, and a conforming OSS cannot be installed.	Adds reference to King County Code (KCC) section governing OSS in Urban Growth Area. Removes language stating sewer connection is required in rural area. Adds subsection to grant waivers to this requirement.	We heard that sewer connection costs are a huge concern to property owners, but that it is still important to make sure that urban properties can connect to sewer. This change ensures compliance with Growth Management Act and King County Comprehensive Plan, which specify that connection to sewer outside of the Urban Growth Area is not allowed. A waiver process will address situations where connection to sewer is not timely or reasonable, including due to cost of sewer connection.	<b>Cost:</b> Property owners will have a clear pathway to evaluate alternatives to expensive sewer connections. Anticipated lower costs to address failing OSS. <b>Who is impacted:</b> All OSS owners in Urban Growth Area.	Mandatory cleanup, Voluntary substantive
8	13.04.070	Establishes that a property's water supply must be from an approved source in order to install or expand an OSS.	Removes references to KCC 13.24.140 and 13.24.138 for private well sources.	This change clarifies which agency is responsible for water supply determination. Compliance with KCC Title 13 is under DLS authority. Reference to King County Code is superfluous.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup
9	13.04.070.B	Establishes expiration date for water well site approvals.	Extends expiration date from two to three years.	Allows more time from date of approval to construct well.	<b>Cost:</b> Reduced cost for situations where installation is delayed by more than two years. <b>Who is impacted:</b> Developers and property owners having a well installed.	Voluntary minor
10	13.08.010	Defines terms used in Title 13.	Repeals definitions consistent with WAC 246-272A to minimize duplication.	Because WAC 246-272A is adopted by reference, WAC definitions can be used for implementation of Title 13.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup

11	13.08.010	Defines terms used in Title 13.	Changes definitions that do not exist in or are not consistent with WAC 246-272A. Revised/added definitions include Accessory living quarters, Bedroom, Excessively permeable soils, Failure, Minor repair, On-site system maintainer, Original permeable soil, Pumper, Repair, Restrictive layer, Shoreline, Surface water.	Ensures clarity and proper understanding. Bedroom definition - we heard that the definition should not be very detailed and should be consistent with other bedroom definitions. We made the definition as simple and consistent as possible: "Bedroom" means a room intended to be used for sleeping and that includes a window, a door, and a closet. "Bedroom" does not include a room not greater than seventy square feet in area with a closet, or an entry way with a closet.	<b>Cost:</b> No anticipated impact <b>Who is impacted:</b> Property owners who need to install a new OSS or who are remodeling existing buildings with bedrooms.	Mandatory cleanup, Voluntary substantive bedrooms.
12	13.12.030, 13.12.050	Outlines procedure for appeals to health officer's decision about OSS site design applications.	Extends time to appeal time to respond to appeal from 40 days to 90 days.	Allows greater time for appeal as well as adequate review and determination.	<b>Cost:</b> No anticipated impact <b>Who is impacted:</b> Property owners wishing to develop property who want to appeal decision about OSS site design application.	Voluntary minor
13	13.16.010	Lists membership of the OSS Technical Advisory Committee.	Adds representative of a federally recognized tribe or 501(c)3 organization that serves American Indian and Alaska Native people. Adds a consumer representative for urban OSS, OSS in a Marine Recovery Area or Shellfish Protection District, OSS in sensitive environmental area, and OSS serving commercial properties.	We heard that property owners want to participate more in program planning in order to inform policies and how the program does our work. We also heard that it's important to make sure we are partnering and learning with local tribes. This change ensures better representation on the Technical Advisory Committee for all parties impacted by OSS in King County.	<b>Cost:</b> No anticipated impact <b>Who is impacted:</b> Technical Advisory Committee members.	Voluntary minor

14	13.20.010	Requires an OSS permit for construction, installation, repair, or modification of an OSS.	Adds a \$15,000 fine for all persons constructing or installation an OSS without a permit other than the property owner. Adds a \$5,000 fine for the property owner, which will be waived when an approved OSS is installed.	We heard that we need to try to reduce unpermitted installations and their impact on water quality and public health risks. We also heard that companies doing the work need to be held accountable. This change adds a deterrent from installing substandard OSS without a permit to prevent health risks for unpermitted OSS, which provide limited wastewater treatment. It ensures all OSS proposals are reviewed for compliance with this Title and reduces the number of premature failures from inadequate installations.	<p><b>Cost:</b> Increased cost to persons installing without a permit. No anticipated impact to OSS owners unless they choose to pay the fine instead of having an approved OSS installed.</p> <p><b>Who is impacted:</b> Persons and companies installing OSS without a permit.</p> <p>This change will reduce unpermitted OSS installations, which will reduce costs when unpermitted OSS must be replaced due to failure or upgraded to meet code requirements. Public Health doesn't find out about all of these unpermitted installations, but it is helpful to have a penalty that will prevent some people from doing this work. We will create a new online complaint form so that it's easier for people to inform us about unpermitted installations.</p>	Voluntary substantive
15	13.20.010, 13.28.010	Outlines OSS site design application submittal, review, and approval	Extends expiration date of approved plan from two years to three years.	Allows more time from date of plan approval to install OSS.	<p><b>Cost:</b> Reduced cost for situations where installation is delayed by more than two years.</p> <p><b>Who is impacted:</b> Developers and property owners having an OSS installed.</p>	Voluntary minor
16	13.20.030	Establishes requirements for obtaining, maintaining, and renewing certification of competency for installers.	Reorganizes the section.	Adds clarity, reduces redundancy, changes language from passive to active.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup

17	13.20.030, 13.20.035, 13.68.050	Establishes requirements for obtaining, maintaining, and renewing certification of competency for maintainers, installers, and liquid waste haulers.	Adds a requirement for a signed attestation that applicant is familiar with King County codes and OSS Code of Performance and Ethics. Adds a requirement that compliance with OSS Code of Performance and Ethics is necessary to maintain certification. Adds a \$1,000 fine for violations of Title 13 and OSS Code of Performance and Ethics by certified professionals.	We heard that it's important for Public Health to have some protections for OSS owners who rely on installers, maintainers, and pumpers to tell them how to keep their OSS working. This change adds greater specificity in required standard of performance when installing, maintaining, repairing, and pumping OSS. Adds a higher fine for violations of this standard of performance.	<b>Cost:</b> No anticipated direct impact other than to certified professionals in violation of standards of performance. <b>Who is impacted:</b> Holders of King County OSS certificate of competency. This change has an indirect impact of reducing costs of repairing, installing, and maintaining OSS. It will reduce upselling and defrauding of OSS owners by certified professionals. We also heard that it's important to have clear, transparent information about how this will be implemented. We will share a detailed implementation outline on the Public Health website.	Voluntary substantive
18	13.20.030.B.3	Establishes requirements for obtaining, maintaining, and renewing certification of competency for installers.	Adds requirement that OSS master installer must have at least two years of relevant experience when applying for certificate of competency.	Ensures that OSS master installers have sufficient experience to perform the job of installing OSS, which is a highly complex and technical job that requires a high level of technical expertise.	<b>Cost:</b> No anticipated impact. <b>Who is impacted:</b> Persons seeking to obtain OSS master installer certification in King County.	Voluntary minor
19	13.20.035	Establishes requirements for obtaining, maintaining, and renewing certification of competency for on-site system maintainers.	Reorganizes the section.	Adds clarity, reduces redundancy, changes language from passive to active.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup
20	13.20.040	Establishes requirements for resident owner design, construction and monitoring	Establishes that property may not be adjacent to shoreline, soil evaluations must be performed by a licensed OSS designer or professional engineer or soil scientist, and proposed design must conform with Title 13.	We heard that owners want to be able to install their own OSS. These changes continue to allow that, while ensuring proper public health protection. Resident owners may design and install their own OSS if the criteria in this section are met. The proposed change extends criteria to include setback requirements to all shorelines, not just marine shorelines, to ensure surface water quality standards are met. Includes requirement for an expert in soil evaluation to determine if soil conditions meet criteria for resident owner design and installation.	<b>Cost:</b> No anticipated impact <b>Who is impacted:</b> Property owners whose property conditions meet the soil conditions and setback requirements for resident owner design.	Voluntary minor

21	13.24.010	Establishes application process for subdivisions	Adds language about who is qualified to perform work.	Reinforces that a licensed OSS designer or professional engineer must submit the subdivision application.	Revision provides clarity but does not impact code implementation.	Voluntary minor
22	13.24.010, 13.24.020, 13.28.030.Y	Establishes factors for determining minimum lot size and OSS treatment requirements for subdivisions and short subdivisions	Adds reference to King County Code 21A.24.316.	We heard that the codes need to be as simple as possible and easy to understand. Nitrogen treatment requirements are often difficult to understand and implement. This code changes tries to make it easier. It specifies that nitrogen treatment requirements outlined in King County Code 21A must be met throughout King County. For properties smaller than one acre in a Critical Aquifer Recharge Area (CARA) Type 1 and Type 2, the OSS must provide nitrogen treatment. The intent of this change is to ensure that Title 13 is at least as restrictive as WAC 246-272A requirements for nitrogen treatment while avoiding the use of 246-272A-0320, Table XII. Due to its complexity, we anticipate that using this table would lead to errors, causing delays and increased costs for projects.	<b>Cost:</b> No anticipated increase in cost because this is already implemented as a standard procedure. <b>Who is impacted:</b> Property owners with properties that are smaller than one acre in CARA Type 1 and Type 2 areas.	Voluntary substantive
23	13.24.020	Specifies minimum land area requirements	Revises minimum land area requirements, increasing them by 1,000 square feet for soil types 2-6. Adds minimum usable land area requirement.	Revisions required to meet WAC 246-272A minimum requirements.	<b>Cost:</b> Reduced ability to subdivide property may decrease property values by a very small amount. <b>Who is impacted:</b> This change only reduces the ability to subdivide 35 of the approximately 4,000 properties that can currently be subdivided in King County. This does not apply to existing lots of record or properties that are currently developed.	Mandatory substantive
24	13.24.030	Establishes application process for subdivisions	Clarifies what health officer will evaluate when a subdivision is proposed and there are existing homes on any of the proposed lots.	Existing language is unclear and does not give enough specificity to ensure consistency and predictability. This applies the evaluation requirements already in use for building permit application reviews to subdivision reviews.	<b>Cost:</b> No anticipated impact <b>Who is impacted:</b> Property owners seeking to subdivide.	Voluntary minor

25	13.28.020	Specifies OSS site design support materials	Changes wording from panels to points	Corrects word error.	Revision provides clarity but does not impact code implementation.	Mandatory cleanup
26	13.28.020	Specifies OSS site design support materials	Adds easement requirement for potable water lines.	Protects potable water sources when water lines extend past property boundaries. An easement ensures that there is good documentation about the location of the water line, protects against damage, and ensures access for repairs.	<b>Cost:</b> Small additional cost to record the easement (approximately \$225) <b>Who is impacted:</b> OSS owners with water supply lines that extend past property boundaries and property owners granting easements	Voluntary minor
27	13.28.030 Table 28-1	Minimum Treatment Level and Effluent Distribution Method Required by Various Soil Types, Vertical Separation and Original Soil Depth Conditions	Corrects greater than or equal to symbols in Vertical Separation column and required treatment types. Adds bacteria level requirements.	Corrects errors from 2009. Bacteria level requirements are required to comply with revised WAC 246-272A.	Revision provides clarity but does not impact code implementation.	Mandatory cleanup, Mandatory substantive
28	13.28.030 Table 28-2	Minimum Horizontal Separations - Water source setback requirements	Adds minimum horizontal separation for non-potable water sources	Adds requirements in WAC 173-160-171(3)(b)(iv), ensuring that all water source setback requirements are in one place.	Revision provides clarity but does not impact code implementation.	Mandatory cleanup
29	13.28.030 Table 28-2	Minimum Horizontal Separations - Stormwater management facilities	Revises setback requirements for stormwater management facilities	This revision is required to comply with 2021 King County Surface Water Design Manual.	<b>Cost:</b> Small increase to cost of OSS design on small properties where stormwater management facilities are necessary. <b>Who is impacted:</b> OSS owners and designers proposing a new or replacement OSS. The new setback requirements are larger than existing requirements, so additional time and cost may be required to meet these requirements.	Mandatory minor
30	13.28.030.K	General design requirements reference compliance with Uniform Plumbing Code, 2006, for grease trap installation and design	Updates Uniform Plumbing Code reference to 2021.	Updates to most recent version of referenced code.	Revision provides clarity but does not impact code implementation.	Mandatory cleanup
31	13.28.030.M	New subsection	Adds sizing requirements for accessory dwelling units and accessory living quarters within a single family residence or as part of a detached building.	Clarifies OSS sizing requirements for accessory living quarters (ALQs), specifying that a bedroom in an accessory dwelling without a kitchen can be considered one additional bedroom for the sizing of the OSS serving the single family residence and the ALQ bedroom.	<b>Cost:</b> Lower cost for installation of OSS for ALQs (ADUs without a kitchen). <b>Who is impacted:</b> OSS owners building ADUs without kitchens. This change will make it easier to install or upgrade an OSS to support an ALQ.	Voluntary minor

32	13.28.030.O	Specifies general design requirements for construction of an OSS in relation to flood areas.	Changes wording from zero rise to FEMA and updates responsible department name.	Updates to current standard language.	Revision provides clarity but does not impact code implementation.	Mandatory cleanup
33	13.28.030.Z	New subsection	Adds requirement for exterior control panels for pressure distribution systems	Requires all pressure distribution systems to have an exterior control panel with a power control switch that maintainers can access when performing preventive maintenance. The external power control switch protects maintainers from electric shock when providing essential services for the OSS.	<b>Cost:</b> Small additional cost of control panel with external shutoff compared to cost of control panel without external shutoff. <b>Who is impacted:</b> Property owners installing a new OSS with electrical components will be required to have this component in their septic system. This is standardly included in most current installations, so the impact will be minimal.	Voluntary minor
34	13.28.070	Specifies the required OSS sizing (minimum design flow) per bedroom in a single family residence	Adds minimum design flow requirements for accessory dwelling units (ADUs) and accessory living quarters served by their own OSS.	We heard that affordable housing is important and that it's important to support ADU construction. This change adds language from WAC 246-272A to Title 13 to clarify sizing requirement for ADUs. Allows smaller OSS for ADUs than is currently allowed.	<b>Cost:</b> Lower cost for installation of OSS for ADUs. <b>Who is impacted:</b> All OSS owners building ADUs. This change will make it easier and cheaper to build ADUs on smaller lots.	Voluntary substantive
35	13.36.010	Requires secretary approval prior to installation of tanks made of materials other than concrete.	Removes this requirement.	This approval is now performed by Washington State Department of Health. The requirement is no longer necessary in local codes.	Revision provides clarity but does not impact code implementation.	Mandatory cleanup
36	13.40.030	Specifies the size requirements for dosing tanks in OSS utilizing pressure distribution.	Revises language about dosing tank size requirements to clarify confusing language.	Clarifies that a dosing tank must be sized to hold two days of the design flow. The existing language was confusing and caused inconsistency and delays with approval of OSS site design applications.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup
37	13.48.010	Specifies the technical requirements for soil absorption systems (also known as OSS drainfields).	Reduces minimum separation between drainfield trench sidewalls for soil texture types 4-6 from six feet to four feet. Changes gravel size requirements to comply with WAC 246-272A minimums.	We heard that affordable housing is important and that it's important to support ADU construction. New understanding in OSS industry confirms that effluent generally flows down from drainfield trenches, not out the sides. Reduced drainfield trenches will not impact public health risk of untreated sewage but will significantly reduce the size of pressure distribution drainfields.	<b>Cost:</b> No anticipated impact. <b>Who is impacted:</b> Property owners who need to repair OSS or want to construct an ADU on their property. This will make it much easier to install smaller OSS to support repairs and ADU construction.	Voluntary substantive Mandatory cleanup



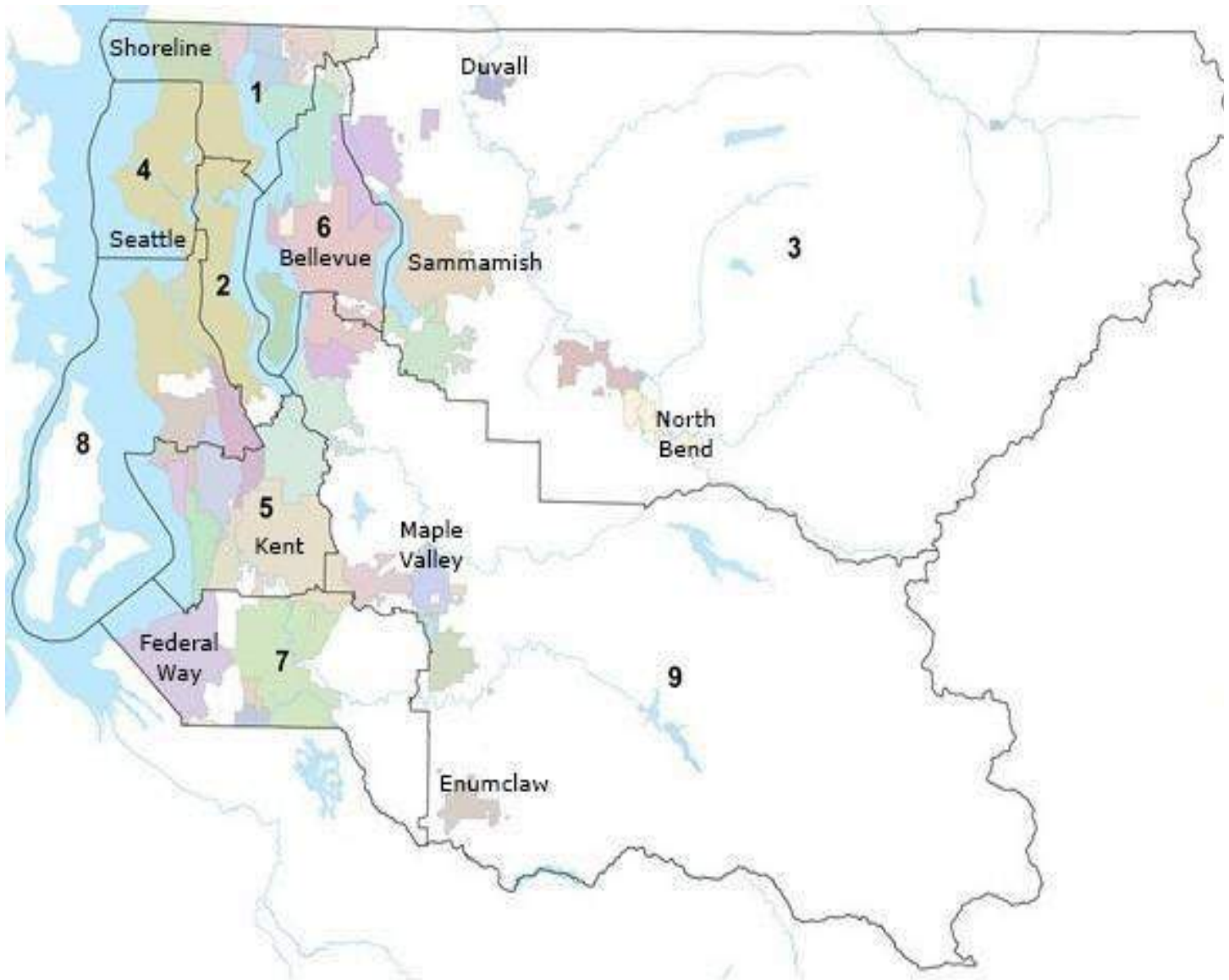
38	13.52.010	Specifies the requirements for design, installation, and monitoring of holding tank OSS.	Removes requirements to have \$5,000 bond for cleanup of spill or repair of system. Replaces this requirement with a requirement to follow a predetermined pumping schedule or install a device that monitors tank levels and notifies property owner and pumper when tank needs to be pumped.	We heard that it's important to make sure there are no raw sewage discharges from holdings tanks - OSS that consist of only a tank without a drainfield. We also heard that it's important to give property owners options for how they want to maintain their OSS. This revision gives the property owner options for how to work with a contracted OSS pumper to ensure that holding tanks are pumped, as well as a better method for the Health Department to ensure that the tank is pumped as needed.	<b>Cost:</b> If owner decides to use a monitoring and notification device, the cost to install a holding tank will increase by \$1,000-2,000. The cost will not increase if the owner decides to use a pre-defined pumping schedule. <b>Who is impacted:</b> Property owners with holding tank OSS. There are approximately 100 holding tanks in King County. The majority of these serve commercial establishments. Public Health will establish a clear process for tracking holding tank pumping contracts and enforcing compliance with this requirement.	Voluntary substantive
39	13.56.050	Specifies that record drawing must be submitted by designer on forms provided by the health officer.	Removes requirement to submit record drawing in triplicate and updates requirement to electronic submission.	Updates submission requirements to align with new digital processes, which increase turnaround time and visibility of review status.	Revision provides clarity but does not impact code implementation.	Mandatory cleanup
40	13.56.054	Specifies requirement to record notices on title about OSS	Removes requirement to record an OSS notice on title at the time of building remodel or expansion.	We've heard that we should reduce costs and process steps that are not necessary. This change removes a procedural step that has caused delays and does not significantly contribute to public health protection.	<b>Cost:</b> Reduced by the recording fee cost (approximately \$250). <b>Who is impacted:</b> OSS owners who are remodeling their property and do not have an OSS notice on their title.	Voluntary minor
41	13.60.005	Outlines requirements for OSS owner to properly operate and maintain OSS	Adds requirement to ensure that all tank access lids are secured.	Ensures that proper measures are taken to prevent the huge life safety risk of an unsecured tank lid. Unsecured tank lids have resulted in several child deaths in Washington over the past decade.	<b>Cost:</b> No anticipated impact. <b>Who is impacted:</b> All OSS owners.	Voluntary substantive
42	13.60.010	Outlines requirements for OSS monitoring	Updates name of routine OSS inspection to consistently say "performance monitoring and preventive maintenance inspection."	Improves consistency and clarity.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup
43	13.60.010	Outlines requirements for OSS monitoring	Adds requirement to ensure that all tank access lids are secured after servicing OSS or notify resident that lids are not secured.	Ensures that proper measures are taken to prevent the huge life safety risk of an unsecured tank lid. Unsecured tank lids have resulted in several child deaths in Washington over the past decade.	<b>Cost:</b> No anticipated impact. <b>Who is impacted:</b> All OSS certified professionals and OSS owners.	Voluntary substantive

44	13.60.010	New subsection	Adds requirement that licensed designers and certified professionals must report observed effluent surfacing or sewage backing up into structure to health department within five business days.	Public Health is responsible to ensure that failures are addressed in a timely manner to prevent public exposure to untreated sewage. In order to do this effectively, we need to have good information about the state of an OSS. This timeline was decided on after much discussion with various parties who recommended both shorter and longer timeframes. No fee will be assessed for the report of a failure.	<b>Cost:</b> No anticipated impact. <b>Who is impacted:</b> All OSS certified professionals and OSS owners.	Voluntary substantive
45	13.60.010 Table 13.60-1	Established required frequency of preventive maintenance inspections	Changes required inspection frequency for proprietary technology and commercial and food establishments from every 6 months to annually. Required inspection frequency for OSS gravity system that serves a residence with a garbage grinder reduced from every year to every 3 years.	We've heard that code requirements need to align with the needs of specific OSS types and that King County requirements should not be more stringent than the WAC unless absolutely necessary. This change better aligns with WAC 246-272A requirements while reducing costs to property owners and ensuring that OSS are properly maintained to reduce risks to public health.	<b>Cost:</b> Reduced by the cost of one inspection per year (\$300-\$600). <b>Who is impacted:</b> Owners of proprietary OSS (for example aerobic treatment units, subsurface drip systems, etc).	Voluntary substantive
46	13.60.030	Established requirements for operation and maintenance at time of sale	Changes time of sale inspection expiration from 6 months to 12 months, provided that the property has not been transferred since the most recent inspection.	We've heard lots of different thoughts about this proposal. Some people think it is best to keep the time of sale expiration at 6 months, and some think it is best to extend the expiration to 12 months. We've decided to extend it to 12 months to better align with WAC 246-272A, providing consistency across county lines, while ensuring that good information is provided to buyer about performance of OSS. We also heard that if the property is sold multiple times within 12 months, a new inspection should be performed to make sure that the information in the report is current. We have incorporated this into the code revision proposal.	<b>Cost:</b> No anticipated impacted. <b>Who is impacted:</b> Owners of properties with OSS who are selling the property and OSS maintainers performing OSS inspections.	Voluntary substantive

47	13.64.010 Table 64-1	Specifies minimum treatment levels for design of repair and replacement OSS.	Corrects greater than or equal to symbols in Vertical Separation column. Adds bacteria level requirements.	Corrects error from 2009. Bacteria level requirements are required to comply with revised WAC 246-272A.	Revision provides clarity but does not impact code implementation.	Mandatory cleanup, Mandatory substantive
48	13.64.010.F	Specifies operation requirements for repairs using treatment level A and B	Strikes this section.	Ensures consistency with updated monitoring inspection requirements. Other requirements in this section can be addressed through the Local Management Plan process.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup
49	13.64.020	Specifies approval process for building remodels when the building is served by an OSS.	Revises language from "provided, however" to "except that."	Revises ambiguous language.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup
50	13.64.020	Specifies approval process for building remodels when the building is served by an OSS.	Remove evaluation criterion of the "useful life of the existing on-site sewage system disposal system"	Removes ambiguous language that causes inconsistency. Public Health will update policy about building application review to specify what conditions of the existing OSS will be evaluated and how inspectors will determine if a new OSS is required when a remodel or addition is proposed.	<b>Cost:</b> No anticipated impact. <b>Who is impacted:</b> Owners of properties served by OSS seeking to remodel their residence or alter their property.	Voluntary minor
51	13.64.020	Specifies that an applicant for a permit for change of use in a commercial structure shall obtain health department approval.	Adds language to clarify that this review is required for any change of use for a commercial property or from a residential to a commercial use. Adds specification that an application with an evaluation of anticipated wastewater strength must be submitted by a licensed OSS designer or professional engineer.	We've heard that it is a good idea to make sure that wastewater from commercial facilities is properly treated. This change clarifies process for evaluation and approval of commercial change of use to ensure that OSS can sufficiently treat the wastewater generated from the new commercial use. This is important for changes when more wastewater will be generated, such as when a real estate office becomes a daycare. This significantly reduces the risk of people coming into contact with raw sewage when an OSS fails on a commercial property and reduces on-going complications with the OSS.	<b>Cost:</b> Cost of change of use evaluation and application will be added to cost of starting a commercial establishment served by an OSS. The evaluation may also determine that an OSS upgrade is necessary prior to the change of use. The cost of repairs and failure corrections will decrease because the OSS will properly sized to treat the wastewater. <b>Who is impacted:</b> Property owners seeking to start or change a commercial establishment served by an OSS.	Voluntary substantive
52	13.68.010	Specifies pumper certification requirements	Adds miscellaneous sewage pumper classification.	Addresses process challenges in that some liquid waste pumpers did not fit into existing classifications.	Revision provides clarity but does not impact code implementation.	Voluntary minor

53	13.68.010	Specifies pumper certification requirements	Adds specifications for OSS pumpers performing routine performance monitoring inspections of gravity OSS.	We've heard that property owners want pumpers to be able to perform inspections because it makes it easier to get routine inspections of gravity OSS because a pumper that is on site to pump the tank can also perform a general inspection. We also heard that the details of how we implement this are complicated, so we need to keep talking with certified professionals and property owners about how to do this well. The details of the inspection requirements will be determined through the Local Management Plan update process.	<b>Cost:</b> Reduced cost to property owners because certified professional who is pumping a gravity OSS may also perform a routine inspection at the same time. <b>Who is impacted:</b> All owners of gravity OSS. This will also increase revenue-generating options for OSS pumpers.	Voluntary substantive
54	13.68.020	Establishes requirements for applying for liquid waste pumper certification.	Reorganizes the section and adds requirement for attestation that applicant will perform duties in compliance with codes and policies.	Adds clarity, reduces redundancy, changes language from passive to active.	Revision provides clarity but does not impact code implementation.	Voluntary cleanup
55	13.68.030	Establishes requirements for obtaining, maintaining, and renewing certification of competency for liquid waste pumper/hauler business owners and employees.	Adds requirements for proper evaluation of competency to perform preventative maintenance and monitoring of gravity OSS.	Ensures that OSS pumpers have the knowledge and expertise necessary to perform routine inspections of gravity OSS.	<b>Cost:</b> No anticipated impact. <b>Who is impacted:</b> Individuals seeking to become OSS pumpers.	Voluntary substantive

## Attachment 2. Community Engagement Report



# KING COUNTY OSS

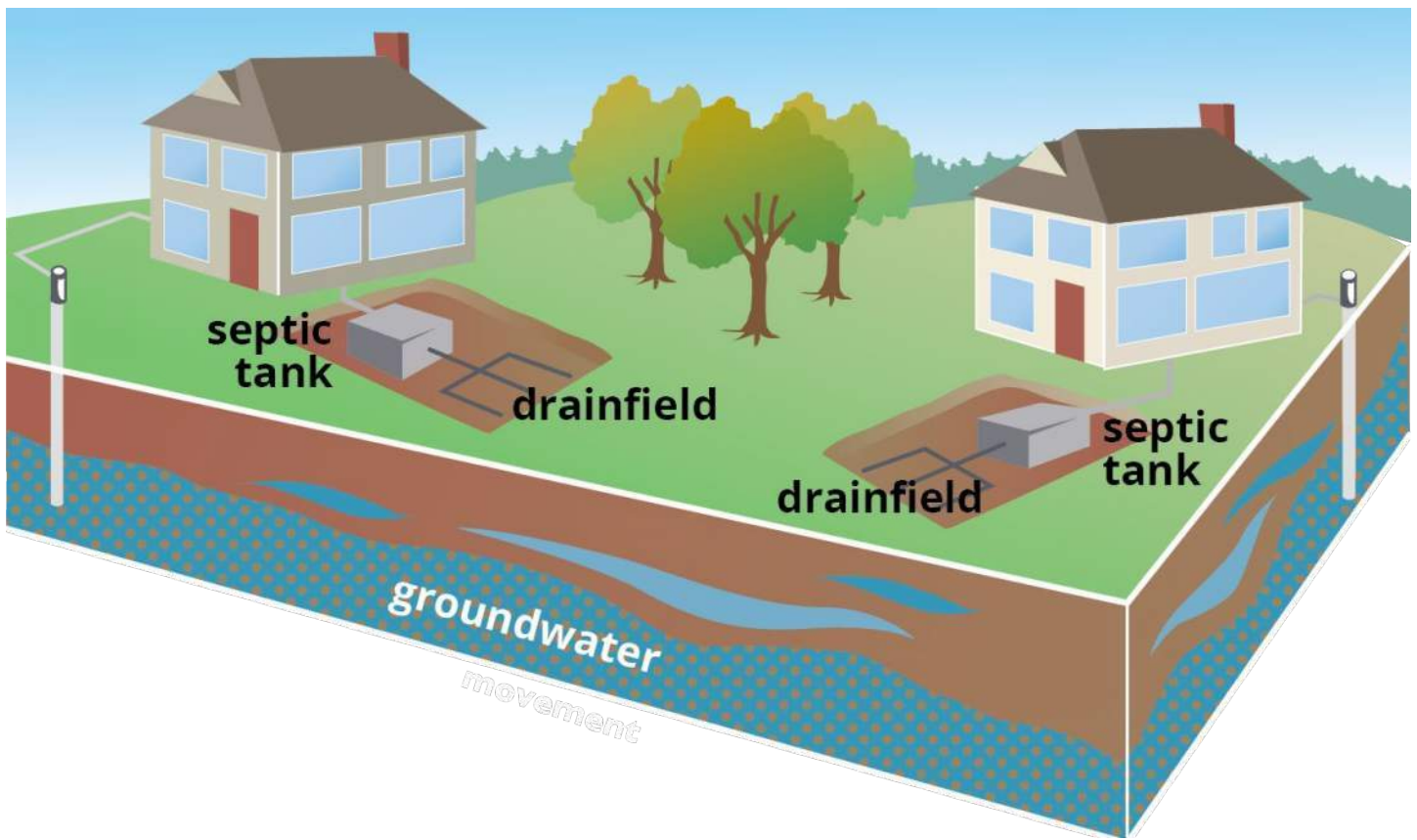
CODE REVISION COMMUNITY OUTREACH PROJECT

CONFLUENCE CONSULTING NORTHWEST

[faith@confluencenorthwest.com](mailto:faith@confluencenorthwest.com)

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## 2024 OSS CODE REVISIONS

On-site Sewage/septic System (OSS) code revisions refer to the process of updating and modifying the standards and guidelines governing OSS. This includes design, installation, operation, and maintenance. By regularly updating and enhancing these codes, we strive to create rules that align with the latest scientific findings & industry best practices to keep King County safe & healthy.

OSS code revisions aim to strike a balance between protecting public health and the environment while making room for the unique characteristics and challenges of different properties. Technical Advisory Committees, regulatory authorities, industry professionals, and community partners play essential roles in this process.

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# EXECUTIVE SUMMARY

The purpose of this project, led by Confluence Consulting Northwest in collaboration with Public Health - Seattle & King County's OSS (On-site Sewage System) program, was to develop community engagement for revising King County's OSS Code. The focus was on incorporating equity and antiracist practices, ensuring the inclusion of marginalized communities, and engaging a wide array of stakeholders such as rural and urban residents, septic system professionals, environmental advocates, tribal governments, and community organizations.

## Project Objectives and Strategy

The engagement plan aimed to inform King County residents about potential changes to the OSS code and gather input through public meetings, surveys, and social media outreach. The approach was twofold:

1. **Follow the energy:** Engaging with community groups and individuals who are directly impacted by OSS revisions through building networks and partnerships in what is called a 'snowball' method. (Snowball sampling uses a small pool of initial informants to nominate, through their social networks, other participants who have interest and could potentially contribute input. The term "snowball sampling" reflects an analogy to a snowball increasing in size as it rolls downhill.)
2. **Throw a wide net:** Sharing information broadly via a dedicated website, public meetings, and direct outreach to ensure that all interested parties had the opportunity to participate.

## Key Findings and Challenges

Extensive public engagement, including seven listening sessions, six public comment sessions and a survey with 614 responses, revealed that many residents have concerns about septic system regulations. Major themes that emerged include:

- **A perceived lack of transparency** about OSS codes and regulatory processes, leading to distrust in local government.
- **Financial concerns** related to potential costs associated with maintaining or upgrading septic systems.
- **The desire for increased community involvement and educational resources**, as many residents felt unprepared to participate effectively in the decision-making process.

The challenges faced in this engagement process included building trust with marginalized communities, navigating complex topics, and ensuring that information was accessible and understandable to diverse audiences, as well as working to mend trust broken by previous projects.

All of these challenges have been exponentially heightened by the history of 2016 when the OSS program had a public fiasco, and perhaps more importantly the perceived silence of the last six years.



In the absence of regular information and outreach from the OSS program, people in the community have been filling the information void with whatever rumors come their way. Trust is highly eroded because there aren't processes or programs in place to nurture meaningful relationships with residents and OSS owners.

For the duration of this project we have consistently seen participants show up to engagements angry, confused, and with quite a bit of animosity towards staff and the County in general. At each engagement, people left feeling better informed and more disposed towards listening and trust. These efforts have been successful but are clearly just the beginning of what is needed.

## Recommendations

Based on community feedback, several recommendations were made to improve future engagement and policy development:

- **Increase clarity and transparency:** Ensure OSS codes are clearly defined, and impacts are communicated effectively.
- **Diversify the TAC:** Representation on the Technical Advisory Committee will allow County to make better informed decisions.
- **Enhance community involvement:** Establish regular communication channels, surveys, and resident insight committees.
- **Provide financial support and flexibility:** Offer financial assistance or subsidies and create flexible regulations to ease compliance burdens.
- **Focus on fairness and equity:** Ensure regulations are applied fairly, with an emphasis on outreach to underserved communities.
- **Prioritize education:** Develop ongoing educational initiatives to increase awareness about septic system maintenance and regulatory processes.

## Conclusion

The project successfully initiated a dialogue with a broad spectrum of King County residents, identifying key concerns and potential solutions for the OSS code revision process. Ongoing engagement and educational efforts will be crucial for building trust and ensuring the OSS program meets the diverse needs of the community.

“They (King County) seem to focus on finding the balance between simplifying the system for homeowners while ensuring safety for the community.” - Survey response

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# PUBLIC ENGAGEMENT PLANNING

## Project Purpose

As part of this contracted scope of work, Confluence Consulting Northwest, in collaboration with King County Public Health OSS program staff, was asked to:

- Develop an OSS Code Revision community engagement plan intended to inform King County residents of these changes, that is centered around core principles of equity and antiracist practices, prioritizing marginalized communities and those facing infrastructure and health inequities.
- Assist King County in managing the Technical Advisory Committee (TAC) for this process
- Engage across rural and urban King County via public meetings, a survey, and social media outreach.
- Gather community insights around OSS code revision work at its various stages.
- Analyze themes and key findings from qualitative (community meetings, interviews) and quantitative (surveys) methods

This project exists to engage King County Rural and Urban community members as well as professional partners from multiple fields to inform how King County Public Health creates code revisions to meet State WAC changes to OSS regulations. A representative group of community members have the opportunity through TAC (Technical Advisory Committee) to inform the County's discussion and initial drafting of language on these revisions as well as potential policy changes. More communities have been engaged through other methods outlined below.

Key community members and partners in this work include, but are not limited to, the OSS industry (designers, installers, maintainers, pumpers), rural and urban property owners and renters, land use professionals (realtors, builders, developers, architects & engineers), local tribal governments, local municipalities, county and state agencies, stormwater/environmental organization representatives, realtors, fishermen & shellfish growers, water recreation enthusiasts, immigrant communities and community environmental advocacy groups.

The community engagement project plan specifically identified how the needs of marginalized communities were to be considered and how the outreach process would prioritize informing and gaining input from these communities. We designed this approach to intentionally reach those who have not provided input in the past and who face disproportionate impacts from environmental hazards.

## Strategy

The engagement strategy included the core principles used to engage members in an equity framework, as well as the tactical choices we made to meet our aspirational goals. The following principles inform this approach:

- Legitimizing and respecting differences
- Recognizing different lived experiences
- Embracing curiosity and intellectual humility
- Encouraging transparency and vulnerability
- Modeling empathy and compassion
- Holding paradoxes as perspectives that can co-exist

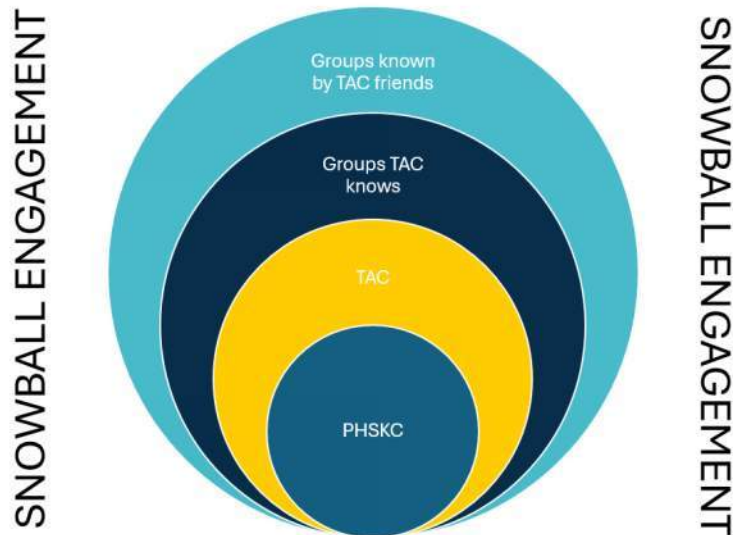
From these principles, we were able to center relationships as core to our outreach processes. We used a two pronged approach to outreach:

1) **Follow the energy.** Starting with our discussions with PHSKC and the TAC, we began building lists of community groups, professional associations, nonprofits and individuals who our core partners (PHSKC & TAC) identified as interested in, or affected by, OSS Code Revision. From initial outreach to those community groups, we collected additional names and ideas, rippling out as we engaged with those in the community closest to impacts and perhaps furthest from positive outcomes. In research, this is called a snowball methodology.

- Established contact and built relationships with Key Conversion partners from background documents [OSS Code conversation partners.docx](#).
- Partnered with Community Based Organizations based on their interest in and impact from OSS code revisions as well as through TAC recommendations.

2) **Throw a wide net.** Planning with PHSKC staff, we built a communication plan that shared information as widely as possible with as few barriers to engagement as possible.

- A **website** curated in simple, straightforward language shared information across the County to all interested parties.
- The same website pointed people to community **surveys** where opinions were shared by anyone (see language access planning) without the need to attend a **public meeting**.
- **Invitations** were sent to all those tracked from our snowball data work, with the invitation to share with friends, thus creating ever larger circles of engagement.



We invited the public to attend seven public meetings discussing OSS Code Revisions and the broad areas of interest related to those revisions that will most likely be on community minds. In order to identify those community partners to engage intentionally in these public meetings, our team first identified priority audiences - who we wanted to hear from? Why? How are these groups impacted by code change and/or impacts of failed policy?

Our early work involved an effort to identify specific groups for individual sessions that allowed for targeted communication and engagement strategies tailored to the specific needs and interests of each group within the broader audience.



Extensive lake, river, and ocean shorelines throughout rural and urban King County make OSS maintenance important for environmental protection, particularly a focus on water quality and cleanliness.

## Priority Audiences

To identify priority audiences for this outreach effort, CCN and PHSKC engaged in numerous conversations about previous outreach efforts, particularly focused on what has worked well and what has not worked. In addition, TAC was invited to provide their insights into who has shown interest in or who might be most affected by these revisions.

To begin, we sought to identify a broad audience of impacted and interested parties which included:

- Land Use Professionals
- Septic Professionals
- Environmental organizations and other Community Advocacy groups ie:
- Nonprofit Organizations
- King County Community Advocacy Groups
- Water and Land
- Tribal land residents and partners
- Utility districts
- King County rural and urban OSS owners and residents in key areas like:
  - Vashon-Maury Island
  - Poverty Bay
  - Maple Valley
  - North Bend
  - Federal Way
  - Auburn Area
  - Skyway
  - Highline
  - Sammamish Water Plateau
  - Enumclaw Water Plateau
  - SE King County - Black Diamond
  - Lake Sawyer
- Unincorporated King County area councils and residents
- Homeowners and renters through HOA and Housing Development Consortium
- General public – every KC resident (people not on OSS properties are impacted by these rules too - including neighbors of failing OSS systems)
- ALL INTERESTED PARTIES in learning about the OSS CODE Revisions and more.

Certain geographic locations might have a higher OSS failure due to age, which can also coincide with lower income communities, thus making those areas doubly important to engage. TAC recommendations also included these areas because of high engagement and interest regarding OSS.

Identifying exact contacts to reach out to for people and groups in the broader categories we have named involved an ongoing process of leaning on core community partners for their wisdom and insight. Again, we used the snowball approach to start with a soft introduction from County or TAC

and followed a string of relationships to uncover more. As we considered the limitations of time and scope, prioritization involved asking the following questions:

1. Is this group/ community likely to be affected by or face barriers from the proposed code revisions?
2. Is this group/ community in an area identified as having high rates of septic failure by King County?
3. Is this group/ community on the shoreline, near a river, or in a group that depends on water quality (fishermen, shellfish cultivators, water recreation enthusiasts) which might be affected by long term OSS policy?
4. Is this group/ community a language or cultural group who span the County and/or have lots of OSS?
5. Is this group/ community considered to be disadvantaged or underserved?
6. Has this group/ community been asked for their input in the past? Are they currently being engaged by King County?
7. (For in person meetings) Is this an area that has potentially a large number of people from diverse groups who want to be engaged?
8. Is this group/ community passionate about this topic?

These criteria helped us prioritize specific groups who are not traditionally heard, who are affected by these changes, and/or who might face barriers to healthy OSS participation due to suggested policy changes. We will not be done shifting through all the distinctions but have hopefully set up a new understanding of how to include voices from across the spectrum.

In order to make best use of resources, it was decided that King County would take the lead in engaging three special interest groups:

- **Jurisdictional Partners:**
  - Unincorporated King County area councils
  - Utility districts
  - Tribal lands
  - City Councils
- **Septic Professionals:**
  - Designers
  - Installers
  - Maintainers
  - Pumpers
- **Master Builders Association:**
  - Developers
  - Builders

County, as a jurisdiction, has existing relationships with other City staff and elected officials, as well as ongoing relationships with the septic professionals who follow and to some extent communicate regulatory code to the general public. Our consultant team worked extensively with County staff to align messaging and scheduling throughout this engagement.

## Challenges to engagement

Engagement is rooted in relationship building and requires the time to build both trust and a system of two-way communication. Just putting information out is not engagement - it requires seeing, listening, and learning from each other in ways that develop repeated sharing of information and ideas over time.



These things take significant time to build and are different for every engagement and every population. Projects like this one often struggle to build deep relationships that allow for sustained and integrated communications and feedback because people are so busy. Calendars are full, virtual meetings are ubiquitous, and most people working in or for communities have many competing priorities. Carving out time and space to engage with the County around OSS may seem less important than other issues.

Additionally, our conversations with community members grew our understanding that many of our priority audiences, particularly those most traditionally marginalized, are often not rural. When living inside incorporated or urban growth areas, they often live in apartments which are rarely on septic systems. Although we communicated with professional groups, immigrant support organizations, CBO's and faith-based organizations, we were unable to have the same level of engagement with these communities that we accomplished with more white, rural community members.

At the start of this project, this team was unaware of the engagement challenges and vacuum of information and trust that resulted from the 2016 OSS fee proposal. In the absence of positive engagement and the sharing of factual information, residents have fed a vast rumor mill. False narratives and inaccurate memories of past events have spread throughout the community, becoming a lightning rod for divisive and angry sentiment. There is much work ahead to continue what was started with this project, and much mending of trust left to do.

It is our hope that the conversations we began in our time here will continue to grow under the care of the King County OSS Program staff and will serve as the catalyst for rich and more diverse engagement in the coming years. It cannot be stressed enough that follow through on the outreach begun in the last several months is vital to ongoing community engagement for the department.

## Generating Contact Lists

Through meetings and information gathering with TAC, the outreach team collected the names and contact information for organizations with a wide variety of interests. As outlined in our engagement plan, seven initial meetings were set for the following interest groups:

1. Land use professionals
2. Shoreline communities & water enthusiasts (recreational, fishing, shellfish)
3. Environmental and social justice advocacy organizations
4. Spanish language speakers
5. Residents of North King County (held in person in Sammamish)
6. Residents of South King County (held in person in Kent)
7. All County residents/ General virtual meeting

In addition to these groups, King County staff led meetings with other interested parties with whom County already has working relationships:

1. OSS Professionals
2. Jurisdictional leaders including Tribes, other Cities and State representatives
3. Master Builders
4. Unincorporated councils

For each of these groups, lists were generated of CBO's, nonprofits, faith based organizations, business groups and professionals who work in and around fields that are affected by OSS policy. These lists came from TAC, people who TAC referred us to, County lists, and internet research, and ultimately comprised more than 700 specific invites to meetings. There was a focus on attempting to reach organizations whose memberships were often not included in outreach efforts - seeking to understand how code revisions might create barriers means it's important to speak to those for whom positive outcomes are often out of reach.

	A	B	C	D	E	F	G	H	I	J	K
101		Friends of Lake Meridian Park	Environmental organization		MJ sent email 5/29						MJ sent email 6/10
102		Puget Soundkeeper Alliance	Environmental organization		MJ sent email 5/29						MJ sent email 6/10
103		Shore Friendly King County	Environmental organization		MJ sent email 5/29						MJ sent email 6/10
104		Washington Coastal Zone Management Dept of Ecology	Government agency		MJ sent email 5/29						MJ sent email 6/10
105		King Conservation District	Environmental organization		MJ sent email 5/29						MJ sent email 6/10
106		South King County PSA	Recreational organization		MJ sent email 5/29						MJ sent email 6/10
107		Washington Fly Fishing Club	Recreational organization		MJ sent email 5/29						MJ sent email 6/10
108		Northwest Fly Anglers	Recreational organization		MJ sent email 5/29						MJ sent email 6/10
109		Seattle Poggie Club	Recreational organization		MJ sent email 5/29						MJ sent email 6/10
110		Water resource areas (king county web page) WRIA									MJ sent email 6/10
111		Mid Sound Fisheries enhancement									MJ sent email 6/10
112		Miller-Walker Stewardship Group									MJ sent email 6/10
113		King County Lake Stewardship Group			MJ sent email 5/29						MJ sent email 6/10
114		Public Works Staff at Cities (response to issues)									MJ sent email 6/10
115		Friends of Cottage Lake			MJ sent email 5/29						MJ sent email 6/10
116		midtown fisheries			MJ sent email 5/29						MJ sent email 6/10
117		Algona	permitting and land use office		MJ sent email 5/29						MJ sent email 6/10
118		Auburn	permitting and land use office		MJ sent email 5/29						MJ sent email 6/10
119		Beaux Arts Village	permitting and land use office		MJ sent email 5/29						MJ sent email 6/10
120		Belvue	permitting and land use office		MJ sent email 5/29						MJ sent email 6/10
121		Black Diamond	Community Development		MJ sent email 5/29						MJ sent email 6/10



As part of this project's outreach, many phone calls were made to build interest in OSS meetings. Many of these one-to-one connections also yielded good information, and more importantly started relationships that the team has been able to pass to Eunbi Lee and the Outreach team at Public Health. Data from these conversations is also included in this report, see Audience Insights.

## **Website Information Portal**

Part of the strategy for this project was to provide a user-friendly, code revision specific website for the public. This website allowed residents to learn more about the context of code revisions (why are we talking about this?), read about some of the ideas County was starting off with regarding revisions, learn about the Technical Advisory Committee (TAC), and learn more about OSS in general.

Response to the website was positive, and all communications were opportunities to send people to the website to learn more. While it was clear throughout this engagement that more educational resources are needed, the website allowed us to point residents to these specific pieces of information without getting lost in the larger County web presence.

Over the course of this project, the website received over 15,745 page views and 10, 256 unique visitors, making it one of the most effective engagement and educational aspects of this work. The majority of page views were on the Public Engagement page, where upcoming opportunities to engage were listed along with a link to the OSS Code Revision Survey.

## **Social Media Outreach**

Beginning in late April, our team, in collaboration with King County communications professionals, drafted a series of social media posts designed to generate interest and engagement throughout the county. These posts, shared across King County's Facebook, Instagram, Twitter/X, and Nextdoor platforms, served multiple purposes, including general engagement, event-specific invitations, knowledge sharing, and raising public awareness about the OSS code revision process.

Social media offers numerous advantages for public outreach, providing a broad and diverse reach at a relatively low cost compared to traditional media. It also facilitates real-time communication, allowing for immediate interaction with the public. For example, our Facebook posts alone generated 371 comments, demonstrating the community's active participation. Social media's ability to share visual content, such as infographics, further simplifies complex information, making it more accessible and engaging for the public.

Additionally, the targeting features on these platforms enabled us to focus specifically on King County residents, ensuring our messaging reached the most relevant audience. This not only increased the effectiveness of the campaign but also boosted engagement, as people received content tailored to their location. The ability to track analytics in real-time provided valuable insights into campaign performance and data on outreach.

Though initial engagement was slow, it grew steadily over the course of the project. In total, we posted 47 times, reaching 181,918 views, with 301 shares and 1,131 interactions (likes and dislikes), illustrating the growing impact of our outreach efforts.

An example of an educational post with a call to action:

**SAVE THE DATE!**

JULY 20    IN PERSON!    3 PM

**NORTH KING COUNTY  
HEALTHY OSS FORUM**

Join us to share your knowledge & opinions on how to activate participation in healthy septic system management.

This meeting is for all residents of Northeast King County

Invite a friend & learn more TODAY!

**Sammamish Water Plateau**  
1510 228th Avenue Southeast,  
Sammamish, WA 98075

   @kcpubhealth

## Survey Collection

In addition to listening sessions, interviews and meetings held throughout the county, a comprehensive survey was conducted that included questions for both OSS professionals and regular community members. The survey included 35 questions, some demographic and most relating to opinions on the direction King County staff were suggesting for code revision.

The survey also had two open-ended questions which were opportunities for respondents to share more on OSS in general and on the specific codes. As with listening sessions, the majority of what was shared was broader and spoke to their experiences with OSS and King County in general, while there was a smaller amount of feedback relating to codes directly or making specific suggestions for action by County. We received 614 completed surveys. An overview of the data collected is in the next section of this report.

## Relationship Development

As contact lists were built, a number of conversations began with leaders of organizations throughout King County, but in particular those who represented populations often not well engaged or represented in government outreach. Throughout the contact list generation described above, efforts were made to connect with underrepresented populations. As is best practice, multiple avenues of

connection were explored, and one on one conversations held to better understand how different groups relate to issues with OSS and waste management.

Groups & populations with special focus included:

**Racial and Ethnic Minorities:** We spoke to communities of color, including African Americans, Latinx, Indigenous peoples, and Asian Americans. The following are some of the groups represented:

- Housing Development Consortium of Seattle King County
- Living Well Kent
- Rev Jimmy James, Kent Community Church
- Minority Realtors
- Minority OSS Professional

**Immigrants and Refugees:** We heard from immigrant groups who are often reluctant to join conversations due to their immigration status. These groups frequently face exclusion from policy decisions that directly impact their lives.

- Communities of Rooted Brilliance
- Refugee and Immigrant Youth Advisory Council (RIYAC)
- Association of Zambians in Seattle (AZISWA)
- Washington State Coalition of African Leaders (WASCAL)

The people we reached out to in this way expressed a general appreciation for the effort to include diverse and underrepresented communities to create relationships that can open doors for future collaboration and knowledge building opportunities. The African immigrant communities have different priorities and perspectives regarding how they live their lives and often topics like On Site Septic and Sewage Systems have been disregarded or ignored. There was a general agreement among the African immigrant and community leaders we spoke with that there is a real need for education regarding this topic within their communities, and they are excited to work with King County more closely in the future to get that done.

We identified three key areas where King County can improve to better address the diverse priorities and perspectives of the underrepresented communities they serve.

### **1. Meet them where they are**

Community leaders from underrepresented groups highlighted the significance of time within their communities. Many members juggle multiple jobs to make ends meet, dedicating any free time to family or community gatherings. We recommend that King County engage with these groups in their own spaces and on their preferred platforms. This approach ensures a captive audience by integrating messaging into their existing programs.

### **2. Be open to non-traditional forms of communication:**

Immigrant groups we engaged with preferred non-traditional forms of communication, such as WhatsApp and one-on-one phone calls, due to their familiarity and comfort with these methods. Utilizing platforms already integrated into their daily lives ensures that outreach is

more likely to be received and acted upon. WhatsApp, in particular, is the most relied upon form of communication for personal and community interactions and was the preferred medium for disseminating information according to community leaders we spoke to.

### **3. Incentives and Compensation for Outreach collaboration:**

At the start of the project, we faced challenges in getting community leaders to meet with us. This changed after we offered a stipend in exchange for their time. These incentives are crucial as they help offset any costs or inconveniences associated with participation. Incentives can motivate individuals to take part in outreach activities, especially when they have limited free time, leading to higher levels of engagement.

Additionally, Rev. James emphasized the importance of compensating community leaders for the time they spend on outreach efforts. This often requires a considerable amount of time and frequently goes unrewarded, benefiting organizations seeking community help. Rev. James is a valuable partner with a wide reach into the City of Kent and is eager to formalize a contractual relationship with King County for their outreach efforts within African American communities.

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# COMMUNITY THEMES & ATTITUDES

As noted throughout this report, the community engaged for this project provided feedback and insights that went far beyond code revisions. The code revision process and the requirement for public engagement has created an opportunity for OSS owners to learn more about their own systems, how those systems relate to a larger system of water and waste management, and how County staff are able, and not able, to affect change. Much of the data gathered in this process speaks to this larger tableau - the need to understand the system of people, policies, governments, home owners, businesses and professionals who participate in the safe management of residential and commercial waste management.

For many, this network of roles and relationships is murky at best. Their own experience is of feeling unheard, unsure, and ultimately not included in the decisions that determine the costs and requirements of being able to flush their toilets, or in some cases keep their homes. In light of inflation and the dramatic rise in cost of living for everyone in King County, OSS owners feel a particular anxiety about how much it might cost to upkeep, replace or remove their systems, and a keen sense that they don't really know enough.

**"Homeowners need clear expectations about what's required for septic system maintenance and inspections. Right now, it's confusing." - Survey response**

That ambiguity and disconnection has led to a lot of uninformed chatter, and a lot of fear that the County is making decisions in ways that don't take into account the financial realities of King County residents. Distrust is high. This community feels disconnected from the decision-making processes affecting their lives. There is a clear desire for more transparency, fairness, and support from the County, as well as a need for regulations that are seen as reasonable and equitable.

The concerns about property value, financial strain, and regulatory overreach also point to a broader anxiety about the stability and future of the community. Residents may fear that the cumulative effect of these regulations could lead to unintended consequences, such as declining property values, loss of community character, or increased financial burdens that disproportionately affect certain groups.

## Overarching Themes

Thematic analysis reveals a community that is concerned about both the immediate and long-term implications of septic system regulations. Financial strain, lack of clear communication, and the potential for disruption to their way of life are at the forefront of residents' minds. There is also an undercurrent of resistance, possibly fueled by a perceived lack of fairness or trust in the governing bodies.

These insights suggest that any policy changes or community engagement efforts should prioritize transparency, clear communication, and support mechanisms to address these concerns effectively. Providing residents with more control over how they comply with regulations, possibly through flexible options or financial support, could also help alleviate some of the resistance and build trust.

Here are some of the more specific pieces of input residents communicated.

### Community Engagement and Awareness

- **How this shows up:** Participants regularly noted a perceived lack of communication and awareness around the listening sessions, as well as a more general lack of understanding of how OSS works and their role in its maintenance. These comments point to a:
  - **Perceived Lack of Transparency:** Residents may feel that they are not fully informed about decisions affecting their community, leading to mistrust or frustration. The need for more transparent communication suggests that residents want to be more involved in the decision-making process.
  - **Desire for Inclusivity:** There might be concerns that certain groups within the community are not being adequately represented or heard, leading to calls for more inclusive engagement practices.
  - **Need for Education:** The community may be looking for more educational resources to help them understand complex issues related to septic systems and governance, which could alleviate some of their concerns.

### Property Inspections and Values

- **How this shows up:** Many participants shared their concern about inspections of OSS systems and their fears that this would lead to the County coming on their property without consent. Additionally, people spoke about codes that might affect the value of their property (especially minimum lot size). This shows us that:
  - **Fear of Devaluation:** Residents may be concerned that frequent or stringent inspections could lead to lower property values or make them less attractive to potential buyers, particularly if issues are found that require costly repairs or upgrades.
  - **Financial Strain:** The potential for inspections to uncover problems that necessitate expensive fixes could be a significant source of stress for homeowners, particularly those on fixed incomes or with limited financial resources.
  - **Privacy and Autonomy:** There might be a deeper concern about the intrusion of government oversight into private property, with residents feeling that their autonomy as property owners is being compromised.

### Opinions on Governance and Processes

- **How this shows up:** Community members sharing opinions are evaluating the fairness and effectiveness of the governance processes. Many lack trust in both processes and people, and often make erroneous assumptions about motives. This could indicate:
  - **Skepticism of Government Intentions:** There might be a suspicion that the county's actions are not entirely aligned with the best interests of the community, leading to doubts about the motivations behind certain regulations.
  - **Demand for Fairness:** Residents may be concerned that the regulations are not being applied equitably, with some feeling that they are being unfairly targeted or burdened by the rules.
  - **Desire for Accountability:** The community could be calling for greater accountability from local officials, seeking assurances that their concerns are being taken seriously and that decisions are being made transparently.
  - **Perceived Overreach:** Residents might feel that the county is overstepping its boundaries, imposing regulations that they see as unnecessary or overly stringent. This repeatedly came up specifically around this code revision process; community members don't understand why these revisions are needed and assume that they are just a way to further meddle in residents' properties and lives.

### Impact on Property, Costs and County living

- **How this shows up:** Property owners conveyed worries about how regulations impact property usage and housing conditions, including forced density and gentrification, lower property values and potential property loss if systems fail. They spoke of:
  - **Affordability:** There may be a fear that the cumulative costs could become unaffordable, particularly for lower-income residents or those on fixed incomes.
  - **Hidden Costs:** Concerns could extend to unexpected or hidden costs, such as fees for inspections, permits, or fines for non-compliance.
  - **Regulatory Overreach:** Residents may feel that the county's regulations are overly prescriptive, affecting even basic aspects of their living conditions, such as the number of bedrooms or occupancy limits.
  - **Family and Lifestyle Impacts:** There might be concerns that these regulations could disrupt family life or alter the character of the community, particularly if they impose restrictions that affect how homes are used or modified.
  - **Long-Term Planning:** Homeowners might be worried about how these regulations will impact their ability to make future changes to their homes, such as expansions, renovations or the addition of ADU's.

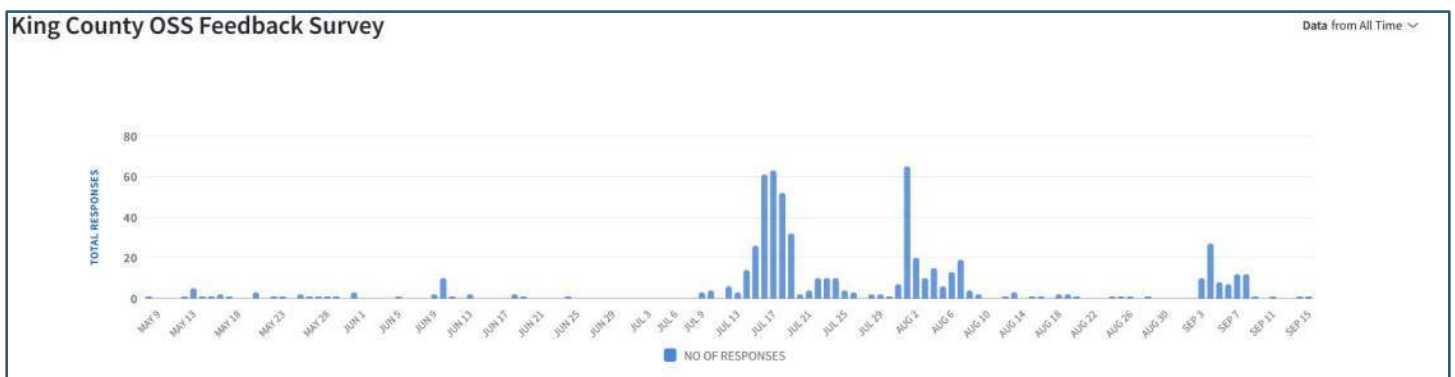
### Necessity and Extent of Regulations

- **How this shows up:** Questions about the necessity and appropriateness of the regulations being imposed came up frequently. They also spoke to a lack of understanding around jurisdiction - how city, county, and state rules apply to them. Connected to an overall distrust, this could imply:
  - **Perception of Excessive Regulation:** There might be a feeling that the county is imposing too many rules, which residents perceive as unnecessary, confusing or overly burdensome. This could lead to resistance or non-compliance.
  - **Desire for Flexibility:** Residents may be advocating for more flexible approaches that take into account the diversity of property types and homeowner situations, rather than a one-size-fits-all regulatory framework.

- **Worries About Future Restrictions:** The focus on the extent of regulations might reflect concerns that the county could continue to introduce more restrictions, leading to a cumulative burden that becomes increasingly difficult to manage.
- **Resistance to Change:** Residents might be resistant to changes that they perceive as disruptive or unnecessary, especially if they feel these changes are being imposed without adequate consultation.

## Community Impact and People

- **How this shows up:** Residents are thinking about the collective impact of these issues on their community, both in the immediate and long-term future. This could reflect:
  - **Social Equity:** Concerns about whether the regulations are being applied fairly across different communities, and whether some residents are disproportionately affected.
  - **Quality of Life:** Worries that the regulations could negatively impact the quality of life, such as by making it more difficult to maintain properties or by causing divisions within the community.
  - **Environmental Concerns:** Although not explicitly mentioned, there could be underlying concerns about the environmental impact of septic systems on the community, such as potential contamination of water sources.



-Survey responses by date. July & August saw the most responses.

## Survey Responses

The survey was shared via the King County OSS website, social media, the King County website, via email and directly with community members in conversation. Ultimately 614 people took time to complete the 35-question survey.

In the open-ended questions in the survey, “Why did you answer the way you did?” and “What else should we know?”, residents shared thoughts very much in keeping with what we heard in listening sessions and in interviews. The sentiments shared are included in the overarching thematic analysis discussed above.

For the remainder of survey questions, we used either multiple choice or a likert scale, which asked for respondent opinions on a scale of 1 to 5, with 1 being ‘bad idea’ and 5 being ‘great idea’. This is



one place, due to the framing of the questions, that we were able to get more input on the suggested code revisions. Please note that respondents often thought the questions too vague, in part because at the time of survey administration no draft code language was yet available. Instead, questions were around the direction county staff were leaning on specific codes, and so many statements were not well defined.

Nonetheless, the survey proved to be both validating of the qualitative gathered via other methods and a useful insight into opportunities for better education and rulemaking that best meets the needs of residents. Here's a quick snapshot of some results.

### **By the numbers**

63% from unincorporated King County

13% from an urban city

51% from County District 3

23% from County District 9

60% white

23% elders

88% have an OSS in a home they own

55% are most concerned about costs

35% don't always trust County staff to do their job well

### **For OSS professionals**

37.5% installers

37.5% maintainers

63% believe standards for OSS professionals is high impact

50% believe notifications for failing systems is high impact

50% believe codes for loose lids are high impact

These 3 codes named as high impact (above) were chosen as most important to their work

50% believe the codes requiring hook up to sewer will create barriers

### **Urban Residents**

Only 13% of respondents replied that they were from a large town or city. This population didn't have significantly different responses than the overall population surveyed, but there are a few differences.

Urban residents were more strongly in favor of:

- allowing reduced loading rates,
- adding a definition of bedroom,
- adding requirements for quality and clarity of record drawings,
- adding protections against unpermitted OSS installations,
- adding on-going equity-based regulation revisions, and
- adding protections against loose lids.

This showed up in the survey as a higher percentage of respondents from large towns or cities answering “5” or “great idea” on these code questions compared to respondents from small towns or rural areas.

## Codes

For all respondents, most of the codes suggested met with mixed favorability leaning towards the positive. There are a few outliers, and a few codes where an answer of 3 was the largest number of respondents. (A brief note about 3 on a 1 to 5 likert scale: 3’s are the middle of the scale and can represent a wide range of thoughts for a respondent, including ‘I don’t know’, ‘I don’t understand’, ‘I have no opinion really’, or ‘I feel ambivalent about this’. Generally, questions where 3 is the most selected answer in this survey were more technical. There is significant scholarship on whether to include a median in a likert scale, with most experts falling on the side of including it, as non-inclusion of the ambivalent option forces a false choice for respondents.)

It is worth noting that in this survey there were several people who answered 1 for every code except extending inspections at time of sale. Those respondents who answered 1 to more than half of the code questions (73 or about 12% of respondents) were also likely to have highly negative comments about the process, King County, and OSS management in general. Comments from this group included:

- Additional codes will only end in taxing people.
- This is just more government overreach.
- Leave the OSS codes alone and go back to sleep. No one likes you.
- Leave septic owners alone.
- Why are you putting redundant rules in that already exist.
- The rules and certs for OSS pumpers is just a way to increase enforcement actions and ways to hamstring owners with rules that are excessively complex.
- This is overreach by the county and discriminatory against rural land owners.
- I do not support regular inspections nor more regulations for septic companies/workers.
- Unnecessary change in code, no need to micromanage homes and the lives of people in the county.

And many more in this same vein. This 12% arrived with little intention to participate in solutions or sense making for improving code revisions or overall OSS management. We have seen the same in listening sessions and public comment sessions.

However, that leaves 88% of respondents who participated in good faith, thoughtfully answering and rating codes based on their own experience. Of the 18 codes submitted in this survey, 12 had the majority of respondents answer 4 or 5, 3 had a high response rate for ambiguity (3’s) and 3 had more 1 and 2 responses than 4’s and 5’s.

## Positive code responses:

- Licensing pumpers to inspect - 62.38% of respondents in 4&5
- Service quality standards for OSS pros - 44.46% of respondents in 4&5
- Commercial facility transfers- 51.3% of respondents in 4&5
- Define minor repair- 49.84% of respondents in 4&5

- Add a definition of 'bedroom' – 50.81
- Clarity of record drawings- 55.7% of respondents in 4&5
- Protections against unpermitted OSS- 49.35% of respondents in 4&5
- Evaluate inspection requirements - 47.93% of respondents in 4&5
- Time of sale inspections – 71.33 overwhelming support
- Managing holding tanks - 45.44% of respondents in 4&5
- Protections for loose tank lids - 47.13% of respondents in 4&5

**Ambiguous code responses:**

- Equity review –30% 3's
- Nitrogen reduction - 35% 3's
- Reduced loading rates- 32% 3's

**Negative code responses:**

- Minimum lot size – 40.91% of respondents in 1&2
- Connection to sewer at 200 ft - 41.86% of respondents in 1&2
- Reporting requirements - 39.09% of respondents in 1&2

These responses make sense when we note that questions receiving ambiguous responses were the most technical codes (loading rate & nitrogen reduction) and the equity review, which is part of a wider push back on equity efforts across America. Codes with the most negative responses deserve some attention from the County, as they seem to align around that perception of overreach - telling people how to subdivide their land, when someone will report them, and when they are required to connect to sewer - even if they don't want to.

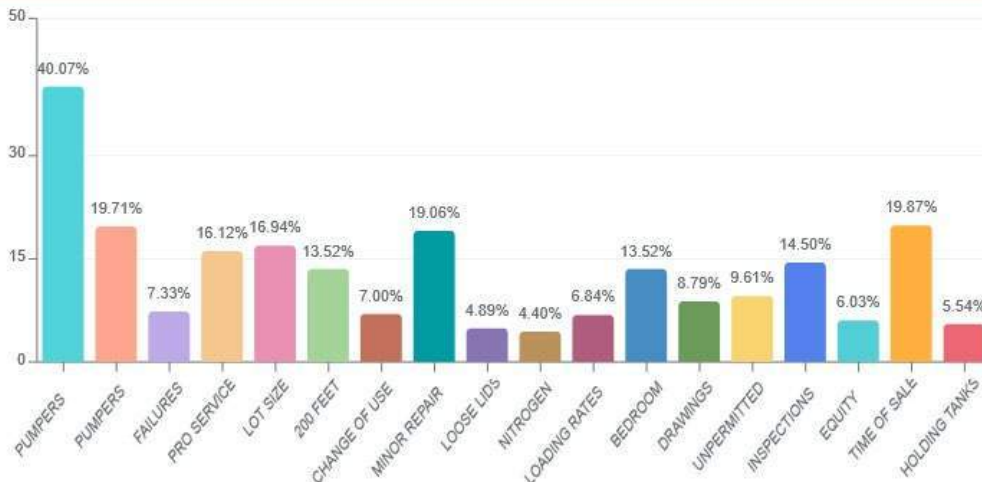
WHAT'S IMPORTANT TO YOU? 3 Questions

QUESTION 31 | MULTIPLE CHOICE

**Which of these codes changes or actions seems important for you and your community.**

Either because they affect you personally or professionally.

Answered: 614 Skipped: 0



## Key Insights from Diverse Audiences

We were deliberate in how we engaged with historically excluded groups to ensure their unique perspectives and needs were included in the code review public comment. During our initial meetings, it became evident that there was limited awareness of OSS and the policies governing its use. There was a call for King County to be committed to long-term support and follow-up after the initial engagement. This will ensure that relationships, and the needs of these groups are continually addressed. The following section outlines our findings and provides recommendations for King County to build lasting relationships with these communities.

### Community Engagement and Trust Building

Building trust with immigrant and refugee communities is essential. These communities often fear engaging with government organizations due to concerns about deportation. Effective engagement requires time, personal interactions, and creating safe spaces where community members feel secure.

**Recommendations for King County:** Continuous engagement and support are essential to maintain trust and build lasting relationships. All of the groups we spoke to expressed the difficulty their members have in attending meetings as most work multiple jobs and use weekends for family gatherings. The best way to reach this part of the population would be to leverage and take part in their community events and gatherings.

- Conduct regular community gatherings in their spaces.
- Engage in one-on-one interviews and personal conversations.
- Follow up after initial engagement to show commitment and build trust.
- Ensure that any issues identified are addressed promptly and effectively

### Youth Engagement

Youth programs are a valuable tool for connecting with immigrant residents about OSS. Youth leaders can effectively distribute information, collect data, and establish trusting relationships by going door-to-door. Their involvement helps in hearing directly from the community and fostering engagement.

**Recommendation:** Immigrant communities rely significantly on their youth to bridge language gaps. Additionally, there is a strong emphasis on community service, with many young students being encouraged to participate in programs that allow them to give back to their local communities. King County can leverage their outreach programs in the following ways:

- Utilize youth leaders for door-to-door outreach.
- Involve youth council members in advising on community challenges and solutions.
- Be open to using non-traditional ways to disseminate information.

## Educational Outreach

We found that there is a significant need for educational materials and meetings to inform the community about OSS. Community leaders shared that they were not aware that there were homes on OSS in the county. They asked that the county provide basic educational information to share with members on septic.

**Recommendation:** Community leaders like Rev. James and Pastor Sibanda can play a crucial role in disseminating information through their networks. Providing materials in multiple languages is also important for accessibility.

- Partner with community leaders to disseminate information.
- Organize community events or information sessions.
- Compensate community leaders for their time and travel to assist with outreach efforts.
- Provide educational materials in multiple languages.

## Financial Assistance and Support

There was a concern among the community leaders we spoke to that financial constraints would prevent their members from being able to maintain an OSS. There is a call for King County to provide financial assistance and ensure ongoing support in the historically excluded communities. This includes securing funding for sewer connections and addressing the financial impacts of OSS maintenance.

### Recommendations:

- Offer financial assistance programs for OSS maintenance and pumping.
- Collaborate with government organizations to secure funding for sewer connections.
- Provide ongoing support to historically excluded communities.

## Policy Inclusion and Advocacy

It's essential to include minority and underrepresented groups in policy decisions and educate them about their rights. Rev James expressed that many community members are unaware of their ability to participate in the public comment process.

**Recommendation:** It's crucial to educate communities about their rights to ensure their voices are included in the code revision and other policy-changes.

- Take the necessary time to educate communities about the public comment process and their rights.
- Ensure community members know they have a say in policy decisions affecting them.

## Codes & Community Suggestions

In addition to the huge amount of input received about King County and OSS management in the more general sense, we also received a smaller amount of input from both listening sessions and the

survey that are more directly about specific codes or recommendations for the County to consider in its ongoing OSS program management.

These quotes are presented here in two sets: one arranged by overarching theme, and the second set by the specific code they speak to. This first set helps us see how quotes support the themes identified above.

## THEMES

### Regulatory Suggestions and Code Requirements

- The county should consider reducing minimum vertical separation to be in line with the state (12") based on the advancement of OSS treatment systems.
- The code must include requirements for filters with annual inspection and cleaning, alarm for overflow with automatic main water shut-off if the alarm is going off.
- Codes need to include SPECIFIC language that defines all the types of systems it applies to, what exactly is changing/different, and for whom.
- You need to add the anticipated fees associated with each proposed revision.
- Oversight is important to ensure compliance and safety.
- Make sure the code clearly says who it applies to - rural, urban, etc.- and what systems it applies to - gravity, etc.
- Suggest that the size of OSS is for a specific number of people for the household.
- There should be a mechanism that allows for anonymous reporting of a failed OSS.
- Is there any consideration to meter the affluent?
- Re: Bedroom Definition. Use the standard construction of: space + egress + closet. Don't overcomplicate it, which creates more confusion and hoop jumping. Keep it simple!
- Use the area of the room to define a bedroom.

### Education and Communication

- Please keep communicating clearly and obviously like this so we know what's happening.
- I don't see that the public has been properly educated as to why these bureaucratic policies are being added. First educate, then ask.
- I think a homeowner with septic should know how to take care of the system. Available education is important.
- I don't know if there's a list of things that could be educational to just really teach people quickly about septics, like the first thing in septic or sewer there is no such thing as a flushable wipe.
- Providing informational materials from the County directly may be helpful. Mass mailers directly to the property owner even to OSS companies to pass along.
- Educating about what a "residential property" means versus "business"-use.
- King County should have documentation on the frequency of pumping for all systems allowed in the county.

- Publish age and failure data. It's important that residents know these things. Just because a system is 30 years old doesn't mean it's bad.
- More communication of ultimate impact, dates, and exception process (Cory B).
- Add a checklist on your website to guide installers so they know what they should be checking.
- Most people have no idea about the spare area for a drain field (aka reserve area). Can realtors hand out cheat sheets about this? (Can we make a code requirement that they do so?)

## **Trust and Transparency**

- It seems as though the county is being "sneaky" about its intentions.
- We are very environmentally conscious people who have had terrible experiences with King County public health when trying to do the right thing. This has led to low trust. Also, the OSS team is often not on the same page as the DNR and other agencies regarding the same property. Having worked in senior government positions at the state and federal level, this really needs to be addressed.
- I'm always wondering what the state and county can do to increase the public's trust and confidence in this sort of rule-making. It seems like my neighbors consider changes like this and increased regulation to be intrusive.
- Leave the OSS codes alone and go back to sleep. No one likes you.

## **Financial Assistance and Equity**

- I don't think anyone should be forced to connect to a sewer within 200 feet unless the county will pick up the difference in cost between replacing the existing septic system and the cost of connecting to the sewer.
- Please provide more grants.
- County should take on some of the cost of connecting to a sewer. It's too expensive, and I had to sell my house because they told me I had to come up with over 40k to connect.
- Low-income/senior rate would be good to have – if you qualify for the property tax exemption, could also get a discount/rebate/etc.
- Incorporating equity, specifically limited income – grants to help defray costs.
- There should be subsidized programs to pay for permits and planning help for low-income homeowners and the elderly who want to add ADUs that could increase housing stock in King County and likely help our communities' aging population deal with rising costs by supplementing income and providing more connections.

## **Alternative Systems and Technologies**

- Particularly for unincorporated King County, composting or incinerating toilets should be allowed and presented as a viable option. Lower the barriers for such systems.
- I think composting and incinerator toilets should be allowed in place of septic systems if the land is better suited for that.
- In general, owners should be encouraged to replace individual OSS systems with systems that are actively managed and maintained, such as sewer systems or shared OSS systems.
- Consider shared or community systems for smaller lots.

- I want to see more options for septic systems as per Europe, where it is a rigid but inexpensive system.
- Alternative technologies - constructed wetlands, composting toilets, greywater - there are a lot of people who would be interested in this.
- Encourage the use of smart meters, so knowing the water consumption of a home is in a snap.

### **Inspections, Monitoring, and Maintenance**

- Clear drawing records would be great.
- New certification for pumpers to inspect OSS for routine inspections.
- In the pumper class, it would be good to include this content: "You have to go through this training first AND you should have the equipment requirement." --Partnering up with WOSSA for the training.
- Need to send reminders if there is no pump report.
- Recommendation to test for effluent quality and increased monitoring.
- Simple procedures for inspections.
- Send a postcard to property owners that their system needs to be inspected.
- Implement a widespread notification to all septic owners.

### **Professional Accountability and Quality Assurance**

- Is there a process by which a bad septic installer or designer or any of those could actually be noted or removed or somehow not allowed to do work in the county?
- County should provide a list of reputable installers on their webpage. You do not do much for the residents in making sure that we're not being taken advantage of.
- For installation and repairs, have builders print and sign a contract saying they will follow the code. The resident does not pay until the County inspects and approves. That will help with accountability (Gary A Preston PhD.)
- As a service provider, they should be able to refer out any business they cannot complete on their own (more advanced systems).
- Need to hold the industry accountable for reporting.
- The fine for unlicensed professionals, I think it has to be something more severe on the fine.

### **Environmental Concerns**

- Failing septic systems are polluting Hood Canal. Those need repair and replacement.
- Please start publishing the data from the EPA that says OSS systems are better for the environment than sewer systems.
- I think at this time it is most important to educate the public about the necessity to maintain a system properly and make recommendations for repairs with a timeline that is affordable for homeowners should they need them and a reasonable amount of time to make the repairs. If drain fields in sensitive areas for new homes pose a threat to groundwater, insurance that proper systems are installed that won't impact groundwater going forward, and perhaps documentation of service of systems going forward to ensure using public maintains their systems properly.



- There should be a mechanism that allows for anonymous reporting of a failed OSS.

## General Feedback and Suggestions

- This is a thoughtful review. These items stood out as particularly important in my opinion.
- They seem to focus on finding the balance between simplifying the system for homeowners while ensuring safety for the community.
- You could maybe require (holding tank) it as a part of the TOS process.
- Self-certification is what property owners really want.
- I have never heard of an OSS failure in the 30 years we've lived in our neighborhood where everyone is on septic. I doubt that any big changes are needed.
- Then there is the question about when to allow OSS on a smaller site. Never is my answer. Bring in sewer.
- Would like clarity on definitions and implications of a nonconforming system available online. Thurston Co, for example, has more info available on their website.
- Home listings should be required to disclose the cost of ownership of OSS.
- Requiring open prices is a good idea – understand that it would be a range, you can't always know the specific price, but it would be good to know what to expect.

This next set of direct quotes helps enlighten King County staff on thinking about Codes specifically mentioned by participants.

## CODES

### Sewer Connection Requirement

- "Sewer extensions are expensive. The county should consider what's reasonable for homeowners."
- "The cost to extend sewer lines can be over \$200,000, and it's unfair to force homeowners into this situation."
- "You can be within 200 feet of a sewer main. But that sewer main may not be in the road. There's no easement to connect to it. In order to connect, you'd actually have to extend far more than 200 feet."

### TOS Requirements & Timeline

- "I think 12 months is reasonable because a lot of sales transactions take more than six months."
- "If someone is buying a fixer-upper, the six months might require another inspection later. I think 12 months would be better."
- "The state requires a 12-month inspection period, but we have had a six-month period since 2007."

### Bedroom Definition

- "In the real estate business, a bedroom is defined by a room with a closet and a passable window... interesting to see what the county uses."
- "In order to qualify as a bedroom, it does have to have a window for egress. So the window seems to be a good part of it."
- "The bedroom count is important, but there are lots of loopholes, like calling a room an office when it's really a bedroom."

### **Change of Use Inspections Commercial OSS**

- "The one thing I'd like to see is a guideline... particularly when you buy or sell a home that says, hey, this size is defined for this many people."
- "A house that was built in the 70s that didn't have a reserve field, it's much smaller and it only had one or two people in it for a long time, that's getting bought by a new family coming in."
- "If the property, if the building being served would be within 200 feet... and a change of use is requested... that would change the requirement for us."

### **Unpermitted Installs**

- "If you streamline the permitting process and people still don't follow it, then the fines need to be severe."
- "The key is a permit and the inspection done by the county... there are some guardrails. If you know where they are and can arrange for them to be part of an agreement before you pay anyone for anything."
- "Just a question. When we're talking about adding protection against unpermitted, is this something where we're talking like fines or something like that to the homeowner with the failing system or something more drastic like a possible vacate situation?"

### **Inspection Frequency Requirements**

- "Well, I've been in my house for 30 years and other than the two times I've had it pumped, I've never had it inspected. Am I a flagrant violator, a horrible violator?"
- "Some of the inspection requirements seem excessive, especially if the system is simple and gravity-fed."
- "A reminder program for homeowners to inspect or maintain their septic systems is a good idea, especially for complex systems."

### **Industry Accountability**

- "There needs to be a clearer definition of what inspections mean. Are they for finding failures or ensuring safety?"
- "Homeowners need clear expectations about what's required for septic system maintenance and inspections. Right now, it's confusing."
- "Any way that somebody can do a more simple inspection, it is definitely helpful."

### **Reduced Drain Field Sizing**

- "Denitrification is expensive... You're forcing proprietary technology on people that have never had them. The expense of this is high."
- "I would encourage people that have private domestic wells, perhaps you should get it tested for nitrogen every couple of years. Those are sensible recommendations."
- "Phosphorus can transfer a whole quarter of a mile in soils. You don't want to get high phosphorus levels, which can result in algae blooms."

## Holding Tank Management

- "I was surprised by the texting here, that vaulting is considered a permanent solution for something that otherwise would call for a drain field."
- "I would think that this approach, this holding tank approach, since it affects more than a single homeowner... would be appropriate for the homeowners to provide to the county electronically documentation that the tank had been pumped on the interval that the permit specifies."
- "There's also quite a bit of septic especially where I live that are on steep slopes and geologic hazards where the soils really are not really good. They're very sandy, the water goes downhill and we're having septic even when there's sewer in the area that the septic."



## Public Comment

As a part of this code revision process, after listening sessions were held to inform the drafting of white papers and code revision language, the drafts for all revisions were released to the public in mid-September. Once those revisions were ready, along with a plain language version more accessible to many, the County set up several more meetings to solicit public comment on these drafted positions.

Both virtual and in person meetings were held in the last week of September and first 9 days of October (September 24- October 9). While these sessions were intended to gather feedback on the work done to date for code revision, many community members arrived without having seen any of the drafted language or understanding the landscape of the whole process. We again saw many arriving angry and unprepared to work towards solutions. The excellent staff of King County OSS managed these situations with patience and grace, attempting to answer questions as well as they could and to transparently invite all participants into the process.

Public comment sessions collected feedback from hundreds of people, and most has been in alignment with what we've heard all along from residents. In the 127 comments collected, people identified:

## Financial Burdens and Assistance

- **Inspection and Upgrade Costs:** High costs associated with required inspections, frequent upgrades, and the transition to sewer systems.
- **Financial Support Needs:** Calls for grants, loans, or subsidies to help offset these costs, especially for low-income residents.
- **Fairness in Investment:** Requests for financial credits or refunds for those forced to convert to sewer systems after investing in septic repairs.

## Communication and Public Engagement

- **Outreach and Notification:** Frustrations over inadequate communication methods, especially for reaching elderly or non-digital populations, and calls for wider public notifications about code changes.
- **Comment Period Length:** Concerns that the current public comment period is too short for residents to review and provide feedback on complex changes.
- **Transparency and Accessibility:** Requests for clearer, more accessible explanations of code changes, technical terms, and enforcement procedures.

## Environmental and Public Health Goals vs. Personal Impact

- **Impact on Property Values and Rights:** Concerns about how septic system requirements, buffer zones, and environmental restrictions may affect property values and development rights.
- **Septic System and Sewer Connection Requirements:** Questions about mandatory connections to sewer systems, frequency of septic inspections, and availability of eco-friendly system options.
- **Environmental Justification:** Skepticism regarding whether septic systems contribute significantly to pollution, and requests for data to support regulatory decisions focused on environmental protection.

This breakdown captures the primary areas of concern expressed by residents, along with specific issues within each category. Overall, while there was significant criticism and concern about specific code changes, the positive comments indicate that some residents value the focus on environmental protection, appreciate opportunities for public engagement, and recognize the educational benefits of these discussions.

The positive feedback received from participants included:

## Opportunities for Public Input and Engagement

- **Positive Feedback:** Some residents expressed gratitude for the opportunity to participate in discussions and provide feedback. They appreciated that their voices were being heard and felt empowered by having a platform to share their views on the code revisions.
- **Example Comments:**
  - “Thank you for the opportunities to share our voice to empower you to advocate on our behalf.”

- “I’m learning a lot tonight about these code revisions. I should not be learning at this late stage, but I appreciate the information being shared.”

## Educational Value of Community Meetings

- **Positive Feedback:** Several residents, especially first-time septic owners, mentioned they found the sessions informative and felt they learned valuable information. The meetings helped them understand septic system maintenance and the impact of new requirements.
- **Example Comments:**
  - “As a first-time septic owner, this has been extremely helpful! I learned so much in one evening than I have over the past three years!”
  - “I’m glad for those who have helped make changes. Five years from now, plans can change, but I appreciate the knowledge shared tonight.”

## Environmental and Public Health Goals

- **Positive Feedback:** A few residents recognized the broader environmental goals of the code changes, even if they had concerns about specific provisions. They understood the need for proactive measures to protect surface water and ensure that septic systems are functioning correctly to prevent pollution.
- **Example Comments:**
  - “A lot of this is about the environment. I started looking at EPA goals for 2030, and I agree that Washington State as a whole has to clean its act up.”
  - “Encouraging people to have more septic systems that work better than sewer is something we should support from an ecological point of view.”

There are a number of recommendations that emerge from this specific set of comments, and which are more tactical in nature than the strategic and long-term focus of the recommendations of this project overall (next section).

### 1. Extend and Enhance Public Comment Periods

- **Recommendation:** Extend the public comment period (from time draft language is available) for major code changes to at least 60 days and ensure thorough public notification. Use various methods, including USPS mail, email, public meetings, and social media, to reach a diverse audience.
- **Rationale:** A longer comment period allows more time for residents to understand and respond thoughtfully to complex code changes, especially those affecting property rights and financial obligations.

### 2. Increase Financial Assistance and Incentive Programs

- **Recommendation:** Establish or expand grant and low-interest loan programs to help homeowners offset the costs of required upgrades, repairs, or conversions to sewer. Offer

financial credits for recently upgraded septic systems if connection to a sewer system is mandated.

- **Rationale:** Financial support would alleviate the cost burden on property owners, encourage proactive maintenance, and foster goodwill between the county and residents. Credits for recent investments recognize homeowner efforts and reduce resentment towards new mandates.

### 3. Provide Clear and Consistent Communication on Requirements

- **Recommendation:** Create a clear, publicly accessible guide outlining requirements for different types of systems, inspection processes, and potential exemptions. This guide should include plain-language definitions for terms like "minor repair" and "shoreline."
- **Rationale:** Clear, jargon-free information empowers homeowners to understand their responsibilities and reduces confusion. Comprehensive guides can also lower the need for individual inquiries, saving time for both the public and county staff.

### 4. Enhance Community Engagement and Transparency

- **Recommendation:** Hold regular community forums and workshops on OSS and sewer system regulations, including specific sessions for impacted areas. Share data and scientific findings that support regulatory changes and compare King County's practices with those of other counties.
- **Rationale:** Increasing transparency and allowing residents to participate more directly in the policy-making process helps build trust and ensures the public feels heard. Comparing practices can also illustrate how King County is aligning with or diverging from other regions.

### 5. Implement Flexible Inspection and Compliance Requirements

- **Recommendation:** Adjust inspection frequencies based on system types, age, and performance history. For example, consider reducing inspection frequency for systems that have consistently met standards and are in low-risk areas.
- **Rationale:** Tailoring inspection requirements to system-specific factors reduces unnecessary costs for homeowners while ensuring that higher-risk systems are monitored appropriately.

### 6. Develop Proactive Outreach Strategies

- **Recommendation:** Initiate mail campaigns to all OSS owners before code changes take effect. Collaborate with neighborhood associations, local newspapers, and community centers to reach populations less likely to engage digitally, including elderly residents.
- **Rationale:** Targeted outreach would improve awareness, especially for those who are harder to reach via digital channels and helps ensure the community is informed about regulatory changes.

### 7. Expand and Modernize Alternative System Options

- **Recommendation:** Encourage the use of innovative, eco-friendly systems like methane digesters or greywater systems where appropriate. Develop a streamlined approval process for these systems, and provide resources for homeowners interested in alternative solutions.
- **Rationale:** Supporting green technology options can reduce environmental impacts and promote sustainable practices. Offering homeowners more choices can also reduce the need for costly sewer conversions in certain areas.

## 8. Improve Coordination with Sewer Districts on Expansion Plans

- **Recommendation:** Require sewer districts to notify affected residents well in advance of planned expansions, and publish future expansion plans on a publicly accessible online platform. Make it clear when connecting to sewer will be mandatory.
- **Rationale:** Advance notification allows homeowners to make informed decisions about their current systems and plan for potential future expenses related to sewer connections.

## 9. Clarify Code Compliance and Enforcement Policies

- **Recommendation:** Ensure clear criteria for code compliance and transparent, fair enforcement practices. Establish an appeals process for homeowners who believe they are being unfairly penalized and offer workshops on compliance to simplify the process.
- **Rationale:** Transparent enforcement criteria and accessible appeals processes foster trust and reduce anxiety about compliance. Educational workshops can demystify compliance requirements and reduce unintentional violations.

## 10. Conduct Comprehensive Environmental Impact Assessments

- **Recommendation:** Use updated, data-driven environmental impact studies to determine how OSS and sewer systems affect local ecosystems, especially in sensitive areas. Make this data publicly available to justify regulatory decisions.
- **Rationale:** Showing evidence-based reasons for environmental protection measures can enhance public understanding and support. Regular assessments can also help prioritize areas for environmental protection and resource allocation.

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# RECOMMENDATIONS

One of the most rewarding aspects of working in community outreach is producing these recommendation reports. Compiling recommendations is just that - a compilation of what we heard participants asking for throughout the engagement. This is the art of translating listening into actions that help us better serve our communities.

For this project that description is quintessentially true. Whether in listening sessions, interviews, or in survey responses participants were very clear in what they feel is needed to be more positively a part of maintaining healthy OSS systems in King County. Below is a high level overview of recommendations pulled directly from the data and our experience. Some of these have already been enacted in the code language and how they are presented.

“I think at this time it is most important to educate the public about the necessity to maintain a system properly and make recommendations for repairs with a timeline that is affordable for homeowners should they need them and a reasonable amount of time to make the repairs. Some folks don't really know about the systems, and only become aware when there is an issue...” - Survey response

**Improve Clarity and Transparency for Codes:** Residents distrust what they don't know and what they can't see. Code revisions should be as clear as possible, in particular ensuring all terms are defined and that each code identifies the impacts & costs likely to occur and for whom. Some residents asked for clarity around what an inspection really entails for example, and did not understand the difference between a regular and a time of sale inspection.

Example> Code Revision #1.

Code section

Current code

Suggested language

Intended to address the challenge of...

Key terms: (ex) Inspection, gravity system, proprietary system etc

Applies to: Homeowners with the following systems:

Likely cost impact: None, raise of xx, lower of xx

Implementation challenges: xx will be addressed in how we set it up.

**Improve Representation on TAC:** The role of the Technical Advisory Committee is to help with setting the direction of the OSS Public Health program in a way that best serves diverse communities by acting as representatives of those communities. Currently TAC is not representative of all King County, particularly lacking representation from those most likely to suffer adverse effects of poor policy and environmental degradation. In order for the County to engage successfully throughout the community on issues that matter to everyone, TAC must be truly representational.



**Increase Community Involvement:** Engaging the community more directly in the decision-making process wherever possible could help address concerns about inclusivity and transparency. Creating citizen insight committees or conducting regular surveys to gauge public opinion might help. As an initial effort, we know County is seeking to include more OSS owner representatives on the TAC.

Programs that increase visibility and rewards for good OSS maintenance could help bring social engineering to the effort to engage more people in the process. (Gold Star mentality! See: [New Zealand recycling initiative.](#)) The more that OSS maintenance is owned and seen as valuable to residents themselves the less County will be seen as an ‘overseer’ or enemy in these processes.

**Provide Financial Support and Flexibility:** Offering financial assistance or subsidies for homeowners who need to comply with regulations could alleviate some of the financial strain. There is a need to be more proactive in finding opportunities for grants or public/ private funding. The gap between public funding and what is needed to transition to sewer, for example, is far too large to be shouldered by residents. There is a need to keep costs as low as possible in a very strained financial environment.

Additionally, implementing more flexible regulations that consider the unique circumstances of different properties might help reduce resistance. County is already applying this in offering waiver processes for several code variations. Continued education and transparency on the reasonableness and flexibility of these options will help engage and maintain more people with less ire.

**Focus on Fairness and Equity:** Ensuring that regulations are applied fairly and that no group is disproportionately affected could help build trust between the county and its residents. This might involve reviewing existing regulations to identify and address any unintended biases.

Although survey results and listening sessions showed a discomfort with terms like ‘equity’ and ‘equitable’ practices, many residents are keenly aware of the differential between rich and poor. Education and messaging around the meaning of equity beyond racial and ethnic lenses should be shared to help people understand that equity is class based as well.

**Educate at every level of the process.** Ongoing planning and improvements should be communicated frequently and transparently. Residents can only participate in what they can understand, otherwise they feel talked down to and kept in the dark.

- The OSS website is a hurdle for many - it is hard to find what they need because the terms used to navigate make no sense to lay people. Recommend making this way more user friendly.
- Educational outreach should be performed regularly in every County area. Classes on septic maintenance, understanding your system, how to choose and hire professionals, how to sell or buy a home with OSS.
- We suggest an open door monthly (or weekly!) Q&A or training session for the public (free). This increases community knowledge while building more positive relationships and letting the public get to

know OSS program staff. Perhaps include a member of WOSSA or TAC to build deeper technical knowledge.

**Develop more robust data and share it out.** People are looking for answers the County just doesn't have at this time. County should research/ study/ compile data on:

- Average system life for all types of systems, cross referenced w/ soil types in key County areas.
- Average cost of services for all providers in the County and what differentiates them. Residents want support in how to hire someone who talks about stuff they don't understand.
- Best ways to define and measure usage that is beyond a 'bedroom' count.

All of these recommendations together are perhaps overwhelming. We see them as representing the long-term health of the community and more pointedly the King County OSS program team. Through increased education and outreach, this team can rebuild the trust needed to work more closely with residents, businesses, jurisdictions, advocates and other partners in managing a healthy OSS system that includes everyone.

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## CONCLUSION

In conclusion, this project made significant strides in engaging King County residents, professionals, and diverse community groups to inform OSS code revisions, prioritizing equity and inclusion. Through public meetings, surveys, and targeted outreach, a broad range of perspectives were gathered, highlighting concerns around transparency, financial implications, and trust in the regulatory process.

Although challenges such as building trust, ensuring participation from marginalized communities, and overcoming misconceptions were evident, the project laid a strong foundation for ongoing dialogue and partnership.

Key recommendations include enhancing clarity and transparency in codes, expanding educational outreach, fostering community involvement, and providing financial support and flexibility for residents. Sustained engagement, clear communication, and a commitment to addressing the identified concerns will be crucial in ensuring that OSS policies are responsive, equitable, and effectively contribute to the health and well-being of King County's communities.

Prepared by Confluence Consulting Northwest, LLC



# KING COUNTY OSS

## BUILDING PARTNERSHIPS FOR HEALTHY SYSTEMS



### PARTNER SYSTEMS

OSS - On site Sewage/Septic - is more than just the physical system on your property.

King County, septic professionals, homeowners, businesses, realtors & developers are all a part of creating a healthy OSS system that protects people, neighborhoods and our environment.

It takes all of us to make sure we'll have healthy systems that last into a sustainable future for everyone.

Every few years the Washington State Government revises their state code, or WAC, in regards to on-site sewage/septic systems. When this happens, King County needs to look at our own codes and ensure they meet or exceed the WAC guidelines for safety.



### PUBLIC SESSIONS

Join us! We have meetings for:

- Land Use Professionals - May 16
- Conservation, environmental and community advocates - May 30
- Folks who live, work, or play on the water (shoreline homes, shellfish growers, fisherman, water sports enthusiasts) - June 13
- Spanish speaking folks - June 29
- Residents of North King County (in person July 20)
- Residents of South King County (in person July 27)
- General public - August 8 virtual

We cannot change all of our codes, especially those set by the State, but we can make changes in some areas to better fit our County.

### REVISIONS

This year, we're looking at about 20 possible code changes that help reduce costs, increase access, better define systems and certifications, and protect families and neighbors.

Your feedback is needed on the suggested revisions to help County better understand your experiences and gain a sense of what's most important to you.



To share your thoughts, attend a public session or take a survey on our website.



[www.kingcountyoss.info](http://www.kingcountyoss.info)



# Attachment 3. Public Comments with OSS Program's Response

## Eastgate Environmental Health Services

14350 SE Eastgate Way  
 Bellevue, WA 98007-6458  
**206-477-8050** Fax 206-296-0946  
 TTY Relay: 711  
[www.kingcounty.gov/health](http://www.kingcounty.gov/health)



## Summary of Public Comments Regarding Proposed Revisions to King County Board of Health Title 13

November 2024

This document includes the comments that that On-site Sewage System (OSS) Program received during the public comment period for proposed revisions to King County Board of Health Title 13, September 17 through October 21, 2024. Longer comments have been summarized for succinctness.

**Table 1: KC BOH Title 13 General Support**

Comment Received	Response from PHSKC
I'm glad for those who have helped make changes. Five years from now plans can change. My grocery store got a letter stating that we need to have an inspection done, so just be aware that down the road and things can change.	<b>No change to proposed rule.</b> No specific recommendation.
Like the idea of pursuing grants to convert OSS to sewer in urban areas.	<b>No change to proposed rule.</b> PHSKC appreciates the feedback and will continue to pursue funding.
The proposed codes have changed 180° since this thing began. This group has really taken comments into consideration and applied them.	<b>No change to proposed rule.</b> PHSKC appreciates the feedback and support for proposed rules.
I am glad that people are being held accountable to fix their systems. It caused a big problem when my neighbor's system failed.	<b>No changes to proposed rule.</b> PHSKC appreciates the feedback and support for proposed rules.
Supports proposed changes. Satisfied with increase in minimum lot size. Believes proposed changes will ensure water quality is protected. Recommends more stringent sewer connection requirements in critical areas.	<b>No change to proposed rule.</b> PHSKC appreciates the feedback and support for proposed rules.

**Table 2: KC BOH Title 13 General Opposition**

Comment Received	Response from PHSKC
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Opposes proposed changes. Believes county should focus on public sewers instead of on-site sewage systems to address water quality issues.	<b>No proposed change to rule.</b> No specific recommendation.
Opposes proposed changes. Believes that SB 5503 was not taken into consideration and that sewer overflows are the greater problem.	<b>No change to proposed rule.</b> PHSKC has evaluated the proposed code revisions to ensure compliance with RCW 43.20.065. KC BOH Title 13 allows the least expensive option that meets standards to address an OSS failure.
Opposes proposed changes. Believes that additional time is necessary to evaluate impact of proposed revisions. Raises concerns about the cost of sewer connections, especially in urban areas that were originally developed on OSS and questions the intent behind requiring properties to connect to sewer.	<b>No change to proposed rule.</b> PHSKC has completed an in-depth review of code revision options, including an extensive community input and public comment period.
Opposes proposed changes. Believes information was distributed appropriately and changes may unreasonably limit the rights of property owners.	<b>No change to proposed rule.</b> PHSKC appreciates the feedback but respectfully disagrees with assertions made. The proposed codes have been developed to reduce costs, including those associated with inspections and maintenance. The proposed revisions were reviewed by King County Prosecuting Attorney's Office to ensure compliance with property right and public comment requirements.
I am opposed to this ordinance at this time. I feel the language and enforcement is far too vague and needs better clarification before consideration.	<b>No change to proposed rule.</b> PHSKC appreciates the feedback. Proposed codes have been reviewed by the Technical Advisory Committee and King County Prosecuting Attorney's office to ensure the level of detail is appropriate for Board of Health codes.
Opposes the proposed regulations due to the impact of more stringent inspection, maintenance, and reporting requirements on property rights and increased costs to property owners; anticipated unlawful regulatory takings and inverse condemnation; and violation of public comment and notice requirements	<b>No change to proposed rule.</b> PHSKC appreciates the feedback but respectfully disagrees with assertions made. The proposed codes have been developed to reduce costs, including those associated with inspections and maintenance. The proposed revisions were reviewed by King County Prosecuting Attorney's Office to ensure compliance with property right and public comment requirements.
Opposes proposed changes. Believes code revision should be postponed to allow more time for public comment.	<b>No change to proposed rule.</b> PHSKC appreciates the feedback. Revised codes must be adopted by April 1, 2025 to comply with the effective date of the revised chapter 246-272A WAC. PHSKC has completed an in-depth review of code revision options, including an extensive community input and public comment period.

Opposes proposed changes. Believes changes are not clear and will increase costs.	<b>No change to proposed rule.</b> PHSKC appreciates the feedback. The proposed rule changes aim to reduce costs. The OSS Program will provide more information about the adopted changes through the OSS newsletter. Sign up at <a href="http://www.kingcounty.gov/oss/alerts">www.kingcounty.gov/oss/alerts</a> .
OSS are miraculous and the water is 99% returned to the water table when using a septic system. Public sewer dumps billions of gallons of sewage into surface water causing pollution. OSS should be encouraged rather than pushing people to sewer. The county should ease the critical determination ordinances to help people use OSS. It's insanity to push people to sewer.	<b>No proposed change to rule.</b> On-site sewage systems are not feasible in all areas of King County, especially in areas with increased population density.
Repairing a failed OSS requires bringing OSS up to current standards - very limited gravity OSS allowed in KC - preferred pressure system 2 tanks more expenses.	<b>No change to proposed rule.</b> System type is determined by site conditions, including but not limited to soil type and depth and available area.

**Table 3: KC BOH Title 13 General Input – Content**

<b>Comment Received</b>	<b>Response from PHSKC</b>
Code should be detailed prior to acceptance by the BOH. Open ended code changes are not straight forward or factual information for the public to operate on.	<b>No change to proposed rule.</b> No specific recommendation.
Maybe with more remodels, additions, or extra bedroom, ADU/DADUs, or cottage housing, there needs to be consideration for training/info and probably TECHNICAL way to MEASURE the number of gallons being used per day for that dwelling or residential units.	<b>No change to proposed rule.</b> Water usage typically fluctuates throughout the week and/or on a day-to-day basis. Current septic system sizing is based on average water use with a safety factor to account for peak flow situations.
We need to prioritize making repairs to existing systems that have major issues or failures as easy and affordable as possible. The uncertainty and potentially catastrophically high costs associated with repairs disincentive homeowners from inspecting, acknowledging issues and failures, and entering the official process.	<b>No change to proposed rule.</b> PHSKC appreciates the feedback and recognizes the importance of cost-effective repairs. The proposed changes aim to reduce costs of repairs.
List or point out any areas where KC is proposing stronger than state AND change to lower state regulations.	<b>No change to proposed rule.</b> Changes that ensure compliance with WAC are listed as mandatory changes. Codes that are more restrictive than WAC have been thoroughly evaluated by the TAC and the reason for additional requirement is explained in the plain language summary and associated technical memos.

KISS - Keep it simple, stupid! Less than 0.5% failure.	<b>No change to proposed rule.</b> No specific recommendation.
Be clear that gravity systems can still be built.	<b>No change to proposed rule.</b> Title 13.28-1 shows the conditions under which gravity OSS can be installed.
Timing is everything! When OSS is repaired, property owner no longer interested in converting to sewer.	<b>No change to proposed rule.</b> PHSKC appreciates the feedback and is working hard to proactively address sewer availability because of the challenge raised in this comment.
Consider reviewing notices on title for accuracy during OSS Time of Sale. Update notices at this junction when inaccurate to increase educational information provided to property owners.	<b>No change to proposed rule.</b> PHSKC will review OSS Time of Sale forms in partnership with Northwest Multiple Listing Service to ensure consistency and clear communication for the buyer.
Consider expanding public OSS education resources and disseminating more OSS education materials to residents utilizing on-site septic systems.	<b>No change to proposed rule.</b> PHSKC appreciates the commentor's focus on education and will work to find resources to increase OSS education opportunities for King County residents.

**Table 4: KC BOH Title 13 General Input - Process**

<b>Comment Received</b>	<b>Response from PHSKC</b>
Request that the public comments be extended to meet the minimum standard of 30-day.	<b>No change to proposed rules.</b> The public comment process was reviewed by King County Prosecuting Attorney's Office to ensure compliance with public comment requirements.
Think about a shared hook up to sewer cost between the sewer district, the county, and the home owner.	<b>No change to proposed rule.</b> PHSKC pursues grant opportunities, when available, to help bridge the wastewater gap in communities in need.
Fine those who have failures.	<b>No change to proposed rule.</b> This is already allowed per the progressive enforcement process outlined in BOH Title 1.
We just found out about this process. More time is needed for septic owners to evaluate 100 pages of code. The was not well advertised.	<b>No change to proposed rule.</b> PHSKC has completed an in-depth review of code revision options, including an extensive community input and public comment period.
I don't see that Fall City (all septics) is aware of this. Fall City Community Association should be notified. As we are a rural unincorporated town. FCCA is our community info.	<b>No change to proposed rule.</b> The OSS Program worked hard to share this information broadly. The Program has scheduled a meeting with the FCCA on 11/12.
I'm struggling to understand some of the changes a full red line version of the proposed changes should be provided to the public	<b>No change to proposed rule.</b> A full version will be made available after final proposed R&R is completed.

**Table 5: KC BOH Title 13 General Question**

Comment Received	Response from PHSKC
What is the scientific proof of the need for this proposed change?	<b>No change to proposed rule.</b> The proposed changes are based on evaluation by TAC, public input, and anticipated impact to public health and program services.
My property is definitely well over 200 ft from the nearest sewer. How do I determine if my address is in an urban growth area? I just want to understand if we built an ADU and needed additional septic if we can get a waiver. We have over an acre so plenty of space for another drain field.	<b>No changes to proposed rule.</b> The King County Assessor's Districts and development conditions report can be used to determine whether a property is located within the Urban Growth Area.
Does more restrictive OSS impact property values?	PHSKC does not have data available to determine any impact. King County assessor does not evaluate septic systems when assessing the value of a property.
Changes mandated by state or federal?	The Washington Administrative Code (WAC) for on-site sewage systems is being updated and will take effect April 1,2025. The WAC applies to all on-site sewage systems within Washington state. PHSKC is updating King County Board of Health Code Title 13, which will also be effective in 2025 and applies to on-site sewage systems within King County in addition to the WAC.
Does King County acknowledge there is a \$\$ cost for property owners?	Yes, PHSKC works hard to identify cost savings and financial assistance options.
Changes apply to existing property owners with or without OSS or just new OSS?	The changes impact maintenance of existing systems, construction -- design of new and replacement septic systems, and oversight of the septic industry to protect property owners.
Who inspections septic systems?	Gravity systems without a pump may be inspected by certified pumpers, except at time of property sale, licensed maintainers, or the resident owner. All other OSS must be inspected by a licensed on-site system maintainer. Non-discharging toilets may be inspected by the resident owner.
Do you have to upgrade if your system fails?	When a replacement system is required, it must meet current standards for an OSS replacement where possible.
Explain what you mean if septic fails and sewer is coming - do you still have to replace after you install new septic?	Title 13 requires connection to sewer if sewer is available and the OSS has failed.
What are requirements to get financial assistance? - income	Income limits are adjusted annually and depend on the program. See King County Housing Repair and Craft3 for more informaiton.



Which code revision are proposing to revise so King County code can be consistent with WA state code revision according to WA State cost cutting for homeowner?	PHSKC has evaluated the proposed code revisions to ensure compliance with RCW 43.20.065. KCBOH Title 13 allows the least expensive option that meets standards to address an OSS failure.
Shouldn't the County already know how many septic systems since they approved them in the first place	The OSS Program estimates that there are 85,000 OSS in King County. Some were installed before the 1960s when OSS permits were first issued.

**Table 6: KC BOH Title 13.04**

Title Section	Comment Received	Response from PHSKC
13.04	Add following last sentence in Equity Impact Review. No part of Ch.13 that is more restrictive than state code may be applied until the equity impact review is completed.	<b>No change to proposed rule.</b> The equity impact review will inform implementation of codes through Local Management Plan, which does not cover all code sections.
13.04	Add the following. The equity impact assessment shall be subject to a public process including surveying and conducting focus groups throughout the county including both urban (within UGA and within city) and rural (outside UGA) areas. The equity impact review must be approved by BOH to consider it complete.	<b>No change to proposed rule.</b> PHSKC does not have the resources to implement such a process at this time. The Equity Impact Reviews will follow King County standards and best practices and will include as much public input as possible.
13.04	This awkward language is confusing to the reader. In stating the local management plan will be under WAC 246-272A-0015 does the county mean to exempt from the decision making on a local management plan any ordinance language in the draft or final ordinance that is more stringent than the applicable law in the WAC? What assurance is there in code that an equity impact review will be applied equitably in all local management plans?	<b>No change to proposed rule.</b> WAC 246-272A-0015 requires a review of the Local Management Plan at least every 5 years. The proposed rule requires an equity impact review whenever a review of the Local Management Plan occurs. For more details about how an Equity Impact Review is implemented, see <a href="https://kingcounty.gov/en/legacy/elected/executive/equity-social-justice/tools-resources.aspx">https://kingcounty.gov/en/legacy/elected/executive/equity-social-justice/tools-resources.aspx</a> .
13.04.050	New section G. Sewer is not considered to be available within 200 feet in the case of repair of an existing OSS (or replacement stemming from a repair case) regardless of distance if the cost of sewerage inclusive of all necessary items to convert to sewer exceeds the cost of the least OSS that meets health requirements	<b>No change to proposed rule.</b> Sewer availability is determined by the sewer utility provider based on whether they would permit a connection from the property to the existing sewer line. PHSKC must comply with RCW 43.20.065 and allow the least expensive option that meets standards to address an OSS failure.

	<p>for said OSS. The cost of sewerage shall include all GFCs, trunkage, ULID connection charges, any fees, permitting, retirement of the OSS, side sewer, changes to the owner property to install side sewer including but not limited to sidewalk and driveway and road repairs, restoring landscaping, rerouting the building sewer, utility relocation, cleanouts, need for individual or shared lift stations, public roadway repairs in the event of a ULID, stormwater changes as a result of the conversion or ULID formation, all permitting and environmental review charges by the county and/or local jurisdiction needed to support conversion to sewer, costs related to the owner needing to secure a temporary residence or rent portable bathrooms and/or showering facilities while the cutover from septic to sewer takes place, and like. Likewise the cost of OSS repair or replacement must also consider changes to the property to use the reserve area, replace tanks, relocate utilities, address drainage on the property, temporary residence or needing to rent bathrooms and/or showering facilities while the OSS is unable to provide sewerage treatment, and the like. Additionally the OSS owner and/or applicant may include analysis showing the operations and maintenance cost of the OSS over time versus monthly costs for public sewer, including taxes and any additional charges that are part of the recurring charges for sewer (e.g., trunking charges, lift station charges, and so on).</p>	
13.04.050	Strike “the lands or”	<b>No change to proposed rule.</b> The Technical Advisory Committee reached a consensus on proposed language after much discussion. The situation described can be addressed through the proposed waiver process.
13.04.050	Remove word “failing” and replace with “failed”	<b>No change to proposed rule.</b> The word "failing" is not present in the referenced code section.
13.04.050	Opposes sewer connection requirements. Believes the most cost-effective solution should be considered when evaluating connection to sewer versus on-site sewage system.	<b>No change to the proposed rule.</b> The sewer connection requirements with the addition of a waiver process were thoroughly evaluated and approved by the Technical Advisory Committee. The proposed rule ensures compliance with the Growth Management Act and King County Comprehensive Plan, allows conforming OSS replacements, and helps to address cost concerns through a waiver process.

13.04.050	The language presented in the draft ordinance here conflicts with SB 5503, Chapter 21, Laws of 2019. Clearly the proposed ordinance language would impose the kind of circumstances denying the ability to use and own OSS and more stringent requirements of an OSS owner in seeking waivers or administrative appeals than is intended by the legislature in SB 5503.	<b>No changes to proposed rule.</b> PHSKC has evaluated Title 13 requirements to ensure compliance with new 43.20.065. PHSKC's first priority is to allow minor repairs and replacements within the applicable standards.
13.04.050	Insert between the words “failed” and “and” the following phrase “and all efforts to restore the OSS to operation the existing OSS have failed”	<b>Adopt rule with amendment.</b> Proposed rule has been changed per this comment to clarify that minor repairs to address OSS deficiencies are prioritized prior to requiring sewer connection.
13.04.050.C	Sewer conversion requirement in legal code still contains distance as measured from land, from building sewer is a fairer method	<b>No change to proposed rule.</b> PHSKC considered the option of measuring from building sewer with the Technical Advisory Committee, but it was determined that adding an option to waive the sewer connection requirement was the more appropriate way to proceed.

**Table 7: KC BOH Title 13.08**

<b>Title Section</b>	<b>Comment Received</b>	<b>Response from PHSKC</b>
13.08	Bedroom definition: remove double negative from proposed language	<b>Proposed rule has been revised per comment.</b> Double negative has been replaced with positive language to improve clarity.
13.08	In the definition for bedroom the double negative is confusing	<b>Proposed rule has been revised per comment.</b> Double negative has been replaced with positive language to improve clarity.
13.08	The word “intended” in the bedroom definition is vague and should say “actively used” instead	<b>Adopt rule with amendment.</b> The bedroom definition has been updated in the proposed rule to improve clarity, including removal of the "intended for" language.
13.08.115	sq footage, bedrooms and OSS. Cabins that are used only on weekends, or randomly will not have the same usage as those used daily.	<b>No change to proposed rule.</b> The methodology of using bedrooms as the basis for design is the best available method at the time. We are evaluating for use for the life of the drainfield (can be over 50 years). Randomly used right now, but they could turn into a permanent residence
13.08.226	Replace “is not failing” with “has not failed”	<b>No change to proposed rule.</b> This is a direct copy of language in WAC 246-272A.

13.08.226	Add sentence to E. "Inadequately treated means treatment which fails to meet the treatment levels of the OSS design at its time of original permitting."	<b>No change to proposed rule.</b> Groundwater and surface water contamination is determined based on federal water quality standards.
13.08.226	Change K to "Jetting or use of water or other fluid to unclog any piping used in the SSAS such as pipes in a pressure distribution system, hard plastic or PVC or similar in a gravity OSS or pump to gravity, or piping or emitters in a low pressure emitter system".	<b>No change to proposed rule.</b> Jetting of concrete pipes in gravity OSS is not permitted as a minor repair due to the risk of damage to old concrete pipes.
13.08.226	Add section L. Tank depth sensors or transducers.	<b>No change to proposed rule.</b> PHSKC is not aware of any OSS that use tank depth sensors or transducers. The PHSKC OSS Repair Memo can be updated to reflect new technologies as needed.
13.08.226	Rewrite Failure as: "Failure" means a conditions of an OSS system or its components that present an unacceptable risk to public health by not meeting the sewerage treatment standards the OSS was designed for at the time of its original permitting or by any OSS system or component malfunction where direct or indirect contact with sewerage exists that presents an unacceptable risk to the public.	<b>No change to proposed rule.</b> The described scenario of concern (OSS owner is keeping it operational within the limits of the original design) does not meet the current definition of an OSS failure, so the intent of this public comment has been met with existing proposed rule.
13.08.226	Defines "Minor repair" and states which OSS components may be replaced, added, or altered. There is no mention of a permit for such work listed. May a homeowner do these repairs or hire the work done without going through the permitting process? This must be specified clearly in code!	<b>No changes to proposed rule.</b> This is clearly stated in BOH 13.64.010.C.
13.08.226	Add section M. To repair or replace any piping which leads to the SSAS.	<b>Adopt rule with amendment.</b> Proposed rule has been changed per this comment. This is a technical change to the rule to clarify permitting requirements. Added Section 13.08.226.G "Pipes that lead to the SSAS and any non-perforated pipes in the SSAS."
13.08.226	Can you provide examples of "Throughout - Minor repairs no longer require permits"? What is a minor repair vs a major repair?	<b>No change to proposed rule.</b> BOH 13.08.226 includes a definition of a minor repair.

13.08.342	Ahead of “OSS” add “pressure distribution and”	<b>No change to proposed rule.</b> Septic pumpers may inspect the tank components of a pressure distribution OSS during the pumping, but are not qualified to inspect other components of a pressure distribution OSS. An individual may obtain an on-site system maintainer certification if they wish to conduct inspections of pressure distribution OSS.
13.08.342	Create new definition “Owner maintainer”. Owner maintainers shall be able to perform any inspection, monitoring, reporting, or maintenance activity for their OSS. Actions performed by an owner maintainer shall be treated as if done by a licensed professional. BOH shall establish mechanisms for owner maintainers to report inspection and monitoring. BOH shall establish educational materials for owner-maintainers.	<b>No change to proposed rule.</b> The current rule does not prevent property owners from performing their own OSS maintenance and inspections. PHSKC currently does not have capacity to implement a homeowner inspection program, but supports property owners in inspecting their own OSS.
13.08.342	Create new definition “Public domain owner maintainer”. Public domain owner maintainers shall be able to perform the inspection, maintenance, monitoring, and reporting of their own public domain technology OSS. Actions performed by a public domain owner maintainer shall be treated as if done by a licensed professional. BOH shall establish mechanisms for public domain owner maintainers to report inspection and monitoring. BOH shall establish educational materials for public domain owner maintainers.	<b>No change to proposed rule.</b> The current rule does not prevent property owners from performing their own OSS maintenance and inspections. PHSKC currently does not have capacity to implement a homeowner inspection program, but supports property owners in inspecting their own OSS.
13.08.350	Repair means the replacement, reconstruction or relocation of relocation of, or addition or addition to alternation, a sewage tank, distribution box, tight line, or other appurtenances of an existing OSS, and including any replacement, reconstruction or relocation of, or addition or alteration to a soil absorption system.	<b>No change to proposed rule.</b> The proposed rule updates the definition to align with the WAC definition. Other changes can be considered during the next code revision.
13.08.490	The definition for surface water should be amended to include the word navigable	<b>No change to proposed rule.</b> Further changes to the surface water definition cannot be made without additional research. This will be addressed through a memo developed with the TAC that provides more specificity.
13.08.490	Definition of “Surface water”. The term springs has been included as new language for the draft code. At public meetings the definition of surface water has been debated and it has been stated by county representatives that the definition needs improvement. The inclusion of springs as a term for surface water should be removed or more descriptively defined.	<b>Adopt rule with amendment.</b> Proposed rules includes a minor change of adding "drinking water" to provide further clarity about what type of spring is referenced. Further changes cannot be made without additional research. This will be addressed through a memo developed with the TAC that provides more specificity.

**Table 8: KC BOH Title 13.12**

Title Section	Comment Received	Response from PHSKC
13.12	Add the recommendation decision, along with the appeal ID and committee member list, shall be available at <a href="https://www.kingcountyoss.info/BOH-OSS-appeal-determination">https://www.kingcountyoss.info/BOH-OSS-appeal-determination</a> for transparency.	<b>No change to proposed rule.</b> Recommendation does not need to be incorporated into code. OSS Program policy and procedures will be reviewed and updated if possible.

**Table 9: KC BOH Title 13.16.010**

Title Section	Comment Received	Response from PHSKC
13.16.010	Change voting members to include consumer representatives in marine, urban, and commercial OSS	<b>No change to proposed rule.</b> Existing language has included the consumer representatives as voting members.
13.16.010	Change to “at least 12 members” with the inclusion of the adds for a consumer representative in marine, urban, and commercial later referenced.	<b>Adopt rule with amendment.</b> Proposed rule has been changed per this comment. Technical change to the rule to ensure representative TAC membership.
13.16.010	Replace Lines 477-489 with: 1. Professional Engineer, 2. Sanitarian, 3. Geologist or Soil Scientist, 4. Seattle-King County Board of Realtors Representative, 5. Representative from a nonprofit, nonpartisan public affairs or environmental organization, 6. Consumer Representative from the King County Unincorporated Area Councils, 7. Representative from Incorporated Cities, 8. Representative from a Sewer Utility District, 9. Three OSS owners from different cities to ensure there are not underrepresented and should take turns to public and enviorment.	<b>Adopt rule with amendment.</b> Proposed rule has been changed to add three additional seats on the TAC for OSS owners.

**Table 10: KC BOH Title 13.20**

Title Section	Comment Received	Response from PHSKC
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13.20.010	Sections B-H are no longer clear in light of definitions of “repair” and “minor repair” and this code should not be adopted. Again the intent (from a repairs and replacement driven by repairs perspective) in the focus groups was to differentiate REPAIR of the SSAS from the rest (minor REPAIR)	<b>No change to proposed rule.</b> Section 13.20.010.A includes language to reference other allowances throughout Title 13, including the allowance to perform minor repairs without a permit. Sections B-H only apply to repairs, which is consistent with how the language is used.
13.20.010	This section needs work and object to its adoption in its current form. During the focus groups the intent was to discourage repairs to the most vital element of an OSS... the drainfield... but this appears to be expanded to cover any part of an OSS and further refers to installation permits which are associated with “repairs” and not “minor repairs”. The level of this fine--\$15k- or \$5k--if under criminal code would be a felony offense.	<b>Adopt rule with amendment.</b> Proposed rule has been changed per this comment. PHSKC will perform additional analysis of enforcement mechanisms to prevent unpermitted OSS installations and propose new rule language in a future ordinance.
13.20.010.A	Some industries depend on regulatory driven artificial demand for services. The septic industry has an effective lobby which pushes “green services”. There is a tremendous need for clarity - a minor repair is not well defined. If a property owner does a small repair to their OSS and it turns out to actually be considered a repair by the county, they could be in for a \$5000 fine. King County is being made to carry the water for what the industry wants.	<b>No change to proposed rule.</b> The proposed rule includes an updated definition of minor repairs, as well as several measures to ensure that PHSKC has the tools necessary to hold industry to a consistent standard of service.
13.20.010.A	“Permits general”. Line 509 through 520 is not clear as to what is allowed to be done by the homeowner without an installation permit because it states “Unless otherwise specified in this title, it is unlawful to construct, install, repair or modify an OSS without an approved OSS installation permit. Further, it is stated “Any person, other than the owner of the property where the OSS is located, who constructs, installs, repairs, or modifies any part of an OSS without an approved OSS installation permit, including but not limited to replacing a drainfield, will be subject to the assessment of civil penalty fines of up to fifteen thousand dollars per violation. The owner of the property where the OSS is located will be subject to the assessment of civil penalty fines of up to five thousand dollars per violation for performing the work without an approved OSS installation permit. The health officer may reduce or waive the penalty assessed against the property owner under this section after a permitted OSS installation or repair has been completed and the health officer has approved the installation or repair.” The waiver process referred to in this section is not expressed in	<b>No change to the proposed rule.</b> BOH 13.64.010.C specifies that a permit is not required for a minor repair. The proposed penalties comply with the authority granted to a local health officer to assess civil penalties per RCW 70A.105.120.

	<p>code is the waiver a health officer may apply to a property owner based on an RCW, WAC, or King County Code? If so, the code used for the waiver process should be included in this section of the title.</p> <p>The language does not make clear where in this title it is otherwise specified that it is not unlawful to construct, install, repair, or modify any part of an approved OSS installation permit.</p>	
13.20.010.E	<p>The added code reads “The applicant for an OSS installation permit may not also be the designer named on the site application unless the work to be done consists solely of OSS failure repair.”</p> <p>This is confusing and seems to contradict other language in code, for example on Page 25 line 533 through 535“E. Unless otherwise provided in this title, the applicant for an OSS installation permit shall be a certified master installer and shall be responsible for all work done under that permit” In this and throughout the proposed changes document, any instance of the phrase “unless otherwise provided in this title”should have a reference to the title, section, chapter that otherwise provided refers to.</p> <p>It seems this requirement in the proposed draft code stating an applicant for an OSS installation permit may not also be the designer named on the permit would complicate and create unnecessary additional expense to the process of installing an OSS. The code language in the permit general section is confusing and needs to be written clearly so it can be widely understood by the reader.</p>	<p><b>No change to the proposed rule.</b> This requirement is in place to ensure that the OSS designer is providing adequate oversight for new OSS installations by creating a separation of duties. Title 13 allows design and installation of failure replacements to be completed by the same individual with the intent of reducing costs.</p>
13.20.030	<p>Add, “BOH shall provide typical permit templates for gravity, sand filter, and pressurized systems so that individuals can follow the standards along with simple guidance.”</p>	<p><b>No change to proposed rule.</b> Environmental Health Services is implementing a new permitting software that will allow for greater transparency.</p>
13.20.040	<p>4. The property is not adjacent to a ((marine)) shoreline; a resident owner is singled out for a more stringent compliance level than all other OSS builds as the county has eliminated the word marine from the phrase marine shoreline, thus making all shorelines subject to the more stringent features for a resident owner design, construction or monitoring while not applying that standard in any other code language in a comparable build.</p>	<p><b>Adopt rule with amendment.</b> A definition of shoreline has been added to the proposed rule to clarify which properties are eligible for resident owner design. Resident owners may design and install their own OSS when the property conditions support a gravity OSS. The soil conditions and setback requirements necessary for a gravity OSS are outlined in this code section. Shoreline properties require a design by a licensed OSS designer or professional</p>



	<p>This language is a regulatory over-reach that has no stated purpose or need. The elimination of the word marine in the draft code in this section must be corrected so as to not place an additional burden on a landowner without corresponding studies that reveal specific scientific standard requiring expanded or doubled buffers that would not apply to the land otherwise. Another standard applying only to Resident owner design, construction and monitoring is found on page 34, line 727: 1. The area where the drainfield and reserve area are to be located has a minimum of four feet of original permeable soil, and a minimum vertical separation of three feet is maintained. This sentence again requires a standard called out only in the circumstance of a resident owner design, construction and monitoring.</p> <p>If a resident owner must apply for a permit, and have an engineered design which includes soils testing, there would appear to be no other differences in the OSS permitting process other than that of ownership, the expansion of a horizontal setback from 100 to 200 feet, and any shoreline based on an owner's design, and the requirement of an unattainable 48 inches of original permeable soil, for a resident owner design, construction or monitoring is capricious and arbitrary if not based on fact, law, and scientific study.</p>	<p>engineer given the high risk of water contamination if the OSS is not properly designed or installed.</p>
13.20.040	<p>Don't take marine out of the marine shoreline requirement. People don't have a choice if there's a ditch or storm water by their property. The 200-foot setback is not good.</p>	<p><b>Adopt rule with amendment.</b> A definition of shoreline has been added to the proposed rule to clarify which properties are eligible for resident owner design. The setback has also been reduced to 100 ft to ensure consistency with other code sections.</p>
13.20.040	<p>Add to 3 "or pressure distribution" after "soil"</p>	<p><b>No change to proposed rule.</b> A pressure distribution OSS is technically complet and must be designed by a licensed OSS designer or professional engineer.</p>
13.20.040	<p>Add "or pressure distribution" after "gravity" sections B and C</p>	<p><b>No change to proposed rule.</b> A pressure distribution OSS is technically complet and must be installed by a certified OSS installer.</p>

13.20.040	Add new section E. An owner shall be able to conduct minor repairs on any component of an OSS when the minor repair is like for like or identical of the component under minor repair. BOH shall create a process where owners can report minor repairs.	<b>Adopt rule with amendment.</b> Proposed rule was changed per this recommendation. Language was added to clarify that OSS owners can perform minor repairs on gravity OSS and septic tanks components without a permit.
13.20.040	The system primary area and reserve area are not less than two hundred feet from surface water; this is added language derived from what other law, statute, or study? The table shown on page 57, through 58 calls for a horizontal separation or set back of 100 feet from surface water. Why does the text differ from what is represented in the table? The county in this language creates a more stringent horizontal set back based on the fact the resident owner is the designer, constructor, or monitor of the property while not forcing in code the same standard on all other design, construction, and monitoring for other than resident owner. This is a clear example of a regulatory exaction that singles out and applies a standard to a single class of land owner and not any other. This code language must be eliminated.	<b>Adopt rule with amendment.</b> This language has been removed from the proposed rule.
13.20.040	Remove "Resident," as it is unrelated to the protection of health and the environment. In fact, the OSS owner is both a victim of unsanitary conditions and the primary responder with the resources to restore the failing system.	<b>No change to proposed rule.</b> Additional changes cannot be made without additional research. This request will be considered during the next code revision.
13.20.040	Add "or pressure distribution" after "gravity" section D. Strike "septic tank" and replace with "any"	<b>No change to proposed rule.</b> This request is beyond the scope of the proposed code revisions and will be considered during the next code revision.
13.20.040	strike "a low pressure distribution system" and replace with "any"	<b>No change to proposed rule.</b> This request is beyond the scope of the proposed code revisions and will be considered during the next code revision.
13.20.040	After gravity add pressure distribution and replace "septic tank" with "any"	<b>No change to proposed rule.</b> This request is beyond the scope of the proposed code revisions and will be considered during the next code revision.
13.20.040	change "a low pressure distribution system" to "any"	<b>No change to proposed rule.</b> This request is beyond the scope of the proposed code revisions and will be considered during the next code revision.

13.20.040	What is the definition of shoreline? Why have you struck the word marine before shoreline?	<b>Adopt rule with amendment.</b> A definition of shoreline has been added to the proposed rule to ensure clarity. The increased risk to public health is relevant to shoreline properties for all large bodies of water, not just marine water. The new shoreline definition includes marine waters, rivers and streams with a mean annual flow exceeding 20 cubic feet per second, lakes larger than 20 acres, and wetlands.
13.20.040	Why increase the setback to 200 feet? It's not clear that it's only applicable to when an owner installs their own septic system.	<b>Adopt rule with amendment.</b> Proposed rule has been updated to ensure consistent requirement of 100 foot setback to surface water

**Table 11: KC BOH Title 13.24**

<b>Title Section</b>	<b>Comment Received</b>	<b>Response from PHSKC</b>
13.24.010	Add section D. As an alternative to the critical aquifer recharge area requirements a proposal may indicate whether the underlying mapping is correct, that compliance can be achieved via following the state WAC 246-272A for any treatment parameter, or that the area or development does not require compliance to critical area treatment requirements based on the history or characteristics of the area in question.	<b>No change to proposed rule.</b> An applicant may at any time use the waiver process of WAC 246-272A-0420, as described in 13.08.084, to request alternative approaches to meeting the intent of the code.
13.24.010	Add remark to C. The application of KCC 21a.24.316 shall not be enforced until critical area ordinances have been updated in association with county 2024 Comprehensive Plan and the equity review has been completed.	<b>No change to proposed rule.</b> PHSKC already applies nitrogen treatment requirements per KCC in all of unincorporated King County. The proposed change ensures consistent application in incorporated areas as well. PHSKC is supportive of County efforts to improve CARA data.
13.24.020	Part B and add remark on item 15. Compliance may also be demonstrated by submitting a proposal that indicates the mapping is not correct, that compliance can be achieved via following the state WAC 246-272A for any treatment parameter, or that the area or development does not require compliance to critical area treatment requirements based on the history or characteristics of the area or development in question.	<b>No change to proposed rule.</b> An applicant may at any time use a waiver process of WAC 246-272A-0420, as described in 13.08.084, to request alternative approaches to meeting the intent of the code.
13.24.020.A.1	Clarification of the three unit volume of sewage per parcel is unclear and should be rewritten in plain language	<b>No change to proposed rule.</b> Additional detail is included in the unit volume of sewage definition, KCBOH 13.08.496.

13.24.020	Part B and add remark following item 15. The application of KCC 21a.24.316 shall not be enforced until critical area ordinances have been updated in association with county 2024 Comprehensive Plan and the equity review has been completed.	<b>No change to proposed rule.</b> PHSKC already applies nitrogen treatment requirements per KCC in all of unincorporated King County. The proposed change ensures consistent application in incorporated areas as well. PHSKC is supportive of County efforts to improve CARA data.
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**Table 12: KC BOH Title 13.28**

Title Section	Comment Received	Response from PHSKC
Table 13.28-1	Replace “Table 13-281 Footnote c. A water table study shall be conducted shall be conducted during a time of high seasonal water table to establish available soil depth.” with “The Health Officer shall verify the groundwater information using the Natural Resources Soil Survey and WA Department of Natural Resources data. If unavailable, the soil shall be evaluated by either an OSS designer or a professional engineer to determine if there are indications of groundwater within 24 inches of the bottom excavation.”	<b>No change to proposed rule.</b> On-site soil conditions vary extensively within the lot. Winter watertable conditions inform us of actual site conditions that cannot be determined from other sources.
13.28.010.C	Add, “with the Health Officer’s supervisor’s approval.”	<b>No change to proposed rule.</b> This is addressed through internal policies and procedures. This is our current practice.
13.28.030	Add to Y. As an alternative to the critical aquifer recharge area requirements a proposal may indicate whether the underlying mapping is correct, that compliance can be achieved via following the state WAC (refs XXX) for any treatment parameter, or that the area or development does not require compliance to critical area treatment requirements based on the history or characteristics of the area in question.	<b>No change to proposed rule.</b> An applicant may at any time use the waiver process of WAC 246-272A-0420, as described in 13.08.084, to request alternative approaches to meeting the intent of the code.
13.28.030	Add section AA. The local health officer is authorized to grant exceptions and waivers to any part of 13.28.030 where in the health officer’s judgement an unreasonable or burdensome outcome may result. An applicant may indicate where unreasonable. The health officer shall determine the reasonableness as requested by an application and provide their reasoning for or against. The determination by the health officer in this case shall be appealable by an applicant.	<b>No change to proposed rule.</b> An applicant may at any time use the waiver process of WAC 246-272A-0420, as described in 13.08.084, to request alternative approaches to meeting the intent of the code.

13.28.030	Add remark to Y. The application of KCC 21a.24.316 shall not be enforced until critical area ordinances have been updated in association with county 2024 Comprehensive Plan and the equity review has been completed.	<b>No change to proposed rule.</b> PHSKC already applies nitrogen treatment requirements per KCC in all of unincorporated King County. The proposed change ensures consistent application in incorporated areas as well. PHSKC is supportive of County efforts to improve CARA data.
13.28.030	Replace 2 with “Has a method enabling power to be cutoff and accessible from the exterior of the structure served by the OSS to maintain or service an OSS component needing power such as: 1) A removeable plug 2) A circuit breaker, disconnect, signal, or switch that disconnects the power to the OSS component”.	<b>No change to proposed rule.</b> This level of detail is not required in code. Additional details can be addressed through a policy or memorandum if needed.
13.28.030	Table 13-28-1 and R appear to be in conflict as the table includes requirements for 36” and greater while part R states no OSS cannot be permitted unless the minimum vertical separation is three feet, clearly separation greater than 36” is greater than the minimum of three feet. Propose deleting the rows corresponding to >36 inches.	<b>Adopt rule with amendment.</b> Table 13-28.1 was revised to provide greater clarity.
13.28.030	Reference W has same defect as above on R / table 13-28-1	<b>Adopt rule with amendment.</b> Table 13-28.1 was revised to provide greater clarity.
13.28.070	Change to 150 to 120 in A part 1.	<b>No change to proposed rule.</b> This requirement has been in effect since at least 1987. This code revision process did not include an in-depth analysis of design capacity. The request should be evaluated in detail for consideration in future code revisions.

**Table 13: KC BOH Title 13.36.010**

<b>Title Section</b>	<b>Comment Received</b>	<b>Response from PHSKC</b>
13.36.010	describes design standards that include increased tank sizes, and increased flow standards. It is not clear if the design standards are to apply to replacement of OSS considered to have failed. Failure is defined on page 17, lines 350 through 364. The ordinance does not provide code that describes the standards for replacement of an OSS to non-failure status. On page 42, line 888 calls for” a plan that demonstrates that the standards required in this title are met.” But it does not specifically state	<b>No change to proposed rule.</b> This code revision is not proposing to increase tank sizes or flow standards. Per 13.64.010, an OSS replacement must meet standards to the maximum extent possible allowed by the site conditions. This includes evaluation of existing tanks and reusing them if possible. Consideration is given to what is feasible for replacement OSS.

	where in code those standards are located. It could be assumed the section on page 82, beginning on line 1730 “Repairs of failing OSS.” Could be the standard referred to on page 42, but it is not clear if that is what is intended in code. This should be made clear in code language if this is the standard referred to on page 64.	
13.36.010	Change 1500 to 1000 and “one thousand five hundred” to “one thousand”	<b>No change to proposed rule.</b> This requirement has been in effect since 2008. This code revision process did not include an in-depth analysis of design capacity. The request should be evaluated in detail for consideration in future code revisions.
13.36.010	Part D change 250 to 240.	<b>No change to proposed rule.</b> This requirement has been in effect since at least 1987. This code revision process did not include an in-depth analysis of design capacity. The request should be evaluated in detail for consideration in future code revisions.
13.36.010.E	The required septic system size should not be increased because a residence has a garbage grinder	<b>No change to proposed rule.</b> This code revision process did not include an in-depth analysis of design capacity. The request should be evaluated in detail for consideration in future code revisions.

**Table 14: KC BOH Title 13.40.030**

<b>Title Section</b>	<b>Comment Received</b>	<b>Response from PHSKC</b>
13.40.030	Change one thousand five hundred to one thousand.	<b>No change to proposed rule.</b> This requirement has been in effect since 2008. This code revision process did not include an in-depth analysis of design capacity. The request should be evaluated in detail for consideration in future code revisions.

**Table 15: KC BOH Title 13.48.010**

<b>Title Section</b>	<b>Comment Received</b>	<b>Response from PHSKC</b>
13.48.010	Strike under 2 “meet treatment level B or greater”	<b>No change to proposed rule.</b> Treatment level B is required due to the combination of the OSS structure of a bed and the soil type. A change to this requirement can be evaluated in a future code revision.

**Table 16: KC BOH Title 13.52.010**

Title Section	Comment Received	Response from PHSKC
13.52.010	Consider making monitoring device optional and allowing the monitoring to be utilized in lieu of the 3-year bond in an effort to be more equitable. Recommend not implementing requirement for monitoring device on existing holding tanks.	<b>No change to proposed rule.</b> The code is about the design, installation, and monitoring of a new holding tank. This does not introduce a requirement to alter existing permit conditions for holding tanks, but a property owner may voluntarily do so. PHSKC will continue to advocate for additional financial assistance for all OSS-related needs.

**Table 17: KC BOH Title 13.60**

Title Section	Comment Received	Response from PHSKC
13.60.010	Table 13-60-1 should be modified to allow for owner and pumper inspection and monitoring / preventative maintenance for at least public domain systems and further to not require it more frequently than every 3 years for systems without a garbage disposer.	<b>Adopt rule with amendment.</b> Proposed rule has been changed to incorporate part of this comment. Gravity OSS with a garbage disposal will not be required to have more frequent maintenance inspections. The current rule does not prevent property owners from performing their own OSS inspections. PHSKC currently does not have capacity to implement a homeowner inspection program, but supports property owners in inspecting their own OSS.
13.60.010.F	I understand the importance of shellfish areas, but yearly by third party such as on Vashon sounds expensive for the homeowner.	<b>No change to proposed rule.</b> The regular maintenance of a septic system is not just for the health of shellfish in the Sound. Making sure the septic system functions properly and getting it checked makes it easy for the homeowners to be prepared for any incidents of sewage overflow, and this can help improve the health of community.
13.60.010.H	Clarify definition of Failure: surfacing sewage or backing up into the house	<b>Adopt rule with amendment.</b> Proposed rule changed per comment. Language has been changed from "failure" to "effluent surfacing from an OSS component or sewage backing up into a structure."
13.60.010.H	Require failure report after 30 days	<b>No change to proposed rule.</b> The 5 day turnaround time was selected to balance feasibility of reporting with the imminent health risk of surfacing effluent.
13.60.010.H	Requirement to report a failure within 5 days could give professionals another tool to force property owners to pay them more money.	<b>No change to proposed rule.</b> The failure reporting requirement has been amended to provide greater specificity. It applies to scenarios with high risk to public health. Because a reporting

		requirement already exists, PHSKC does not anticipate that this will increase unprofessional conduct by OSS industry.
13.60.010.H	It should be 2 weeks for reporting failed system. Some properties involve several parties like estate of.	<b>Adopt rule with amendment.</b> Proposed rule has been changed to provide more specificity about the failure reporting requirement. This only applies to failures with surfacing effluent or sewage back up into a structure - high public health risk situations. This will help improve the understanding of how many failures occur in King County to support applications for funding.
Table 13.60-1	Changing a 6 month inspection to 12 months is another huge cost to the homeowner.	<b>No change to proposed rule.</b> PHSKC appreciates the feedback and respectfully disagrees. Decreasing the frequency of inspections will reduce costs for OSS maintenance.
Table 13.60-1	On pumpers: feel simple PD systems inspection should be able to be done by a pumper	<b>No change to proposed rule.</b> Septic pumpers may inspect the tank components of a pressure distribution OSS during the pumping, but are not qualified to inspect other components of a pressure distribution OSS. An individual may obtain an on-site system maintainer certification if they wish to conduct inspections of pressure distribution OSS.
Table 13.60-1	Allow pumpers to inspect simple pressure distribution or public domain systems. For example float only or float and timer only. Might consider simple systems with ATU (aerators).	<b>No change to proposed rule.</b> Septic pumpers may inspect the tank components of a pressure distribution OSS during the pumping, but are not qualified to inspect other components of a pressure distribution OSS. An individual may obtain an on-site system maintainer certification if they wish to conduct inspections of pressure distribution OSS.
Table 13.60-1	Can you explain what pump to gravity would fall under in the table that describes the frequency of maintenance inspections? Please explain that public domain includes pump to gravity	<b>No change to proposed rule.</b> This has already been addressed through proposed code revisions.
Table 13.60-1	Allow owners to inspect simple public domain systems. Test alarm, test floats, inspect baffles, check effluent filter, check timers, check sludge/scum levels, check field observation ports. A pumper can do this as well.	<b>No change to proposed rule.</b> The current rule does not prevent property owners from performing their own OSS maintenance and inspections. PHSKC currently does not have capacity to implement a homeowner inspection program, but supports property owners in inspecting their own OSS.

**Table 18: KC BOH Title 13.64.010**

Title Section	Comment Received	Response from PHSKC
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13.64.010	After otherwise fail add “In no case shall failure mean failure to treat beyond the standards and/or treatment level at the time of permitting of the subject OSS. If no standard or treatment level was established at the time of the permitting of the OSS then no level may be used to in the assessment to declare failure or threats to public health.	<b>No change to proposed rule.</b> A failure is defined in section 13.08.152. The definition and prescribed requirements are necessary to meet minimum state requirements.
13.64.010	Add section O. The person submitting a repair or replacement proposal (if done as a result of a repair applying to a failed SSAS) may submit any information to the local health officer that any requirement within the title is onerous, not supported by experience, incorrectly mapped, placed incorrectly into a critical area or any other similar area (such as any type of source protection area), not applicable to the environmental, physical, and/or conditions on site and the health officer may waive any requirement or condition in this title. The health officer whether requested or not by the party performing a repair or developing a repair proposal may waive any part of this title in approving a repair (or replacement driven by an effort to repair a failed SSAS). The denial of a repair (or replacement proposal in the case of replacements stemming from repair of a failed SSAS) shall be subject to appeal.	<b>No change to proposed rule.</b> An applicant may at any time use the waiver process of WAC 246-272A-0420, as described in 13.08.084, to request alternative approaches to meeting the intent of the code. Per section 13.64.010.A, the health officer may waive compliance with these requirements. The denial of a repair can be appealed through the process outlined in section 13.12.
13.64.010	Delete 1 and quarterly reporting of monitoring on treatment level A. Add text on #1 to be within 1 business day for cases in the immediate vicinity of a commercial shellfish harvesting area.	Proposed rule has been changed per this comment. Section 13.64.010.F is addressed through other section of the code. Any other relevant requirements will be reviewed and incorporated into the Local Management Plan.

**Table 19: KC BOH Title 13, Miscellaneous**

<b>Title Section</b>	<b>Comment Received</b>	<b>Response from PHSKC</b>
13.60.005; 13.64.020	"secured" not clearly defined; "remodel" and "alter" should be specified to exclude changes unrelated to OSS usage	<b>No change to proposed rule.</b> Due to differences in tank lid construction, it is not possible to add additional details to the code requirement. The code clearly states that the lid needs to be secured so that it cannot be lifted or the tank accessed. Per 13.64.020.A, remodels and alterations that do not impact the OSS usage are excluded from this requirement.

New section	The proactive replacement of a drainfield that is NOT failed shall be allowed under the original permit conditions provided a like drainfield to a reasonable degree is constructed and within the reserve area identified under the original OSS. Health shall require a design application that shows the location of the drainfield, may require a soils study and/or water table assessment, and drainage review of the property.	<b>No change to proposed rule.</b> PHSKC aims to ensure that a property can be served as long as possible by existing OSS and replacement OSS installed in reserve area. By prematurely replacing the original OSS, the lifespan of the OSS in the reserve area is started earlier than necessary, leading to potential issues when the reserve OSS fails.
New section	Remediation. The repairs, minor repairs, and/or any other technique that may be used or trialed to restore an OSS and its components including an SSAS shall be allowed reasonable time to work and restore the OSS from a malfunctioning SSAS or treatment component before requiring a repair. Such may include but not limited to: hydrojetting, vaccuming and pumping, introduction of chemicals or additives to the tank or any component of an OSS, introduction of chemicals or additives atop an SSAS, injecting chemicals or additives to the SSAS, field fracturing, injection of materials within the SSAS to aid in drainage or treatment, addition of ATUs, sand filters, aeration, bioreactive treatment components, resting of an SSAS via repeated pumping or other means, reduction in design flow (such as via reducing water use in the home), removal of garbage disposers, increase in dilution of sewerage entering the OSS as may be warranted for high strength sewerage being a cause of malfunction of the OSS, addition or alteration of drainage where drainage contributed to the malfunction of an SSAS, conversion from anaerobic to aerobic, adjustment or introduction of timed dosing, modification to the treatment sequence and/or timing of a proprietary OSS, use of additives to reduce or eliminate biomat, and/or any other method, practice, or technique known to the industry, owners, health, researchers, academics, engineers, or licensed professionals.	<b>No change to proposed rule.</b> Section 1 adopts WAC 246-272A by reference, including allowance for remediation. PHSKC's current remediation policy memo is available at on the OSS webpage. The remediation policy may be amended if determined necessary by the OSS Technical Advisory Committee.
New section	Remediation. Add the following. Health adopts remediation per the state WAC 272 246A 230.	<b>No change to proposed rule.</b> Section 1 adopts WAC 246-272A, including WAC 246-272A-230, by reference.

<p>Definition removed post 2008 revision</p>	<p>I am curious about graywater infiltration systems; I have heard of their legality in other jurisdictions but am not aware of whether seattle permits them. Would this fall under your department's purview? Are they already legal and I have missed the memo? Consider this a comment in their favor!</p>	<p><b>No change to proposed rule.</b> Graywater infiltration systems are sized based on the evapotranspiration rate in the area it is proposed. The septic system for the blackwater must still be sized for the number of bedrooms in the residence (no reduction in system size is allowed in conjunction with a graywater system). The amount of space required for both systems is often not feasible and/or is not pursued by applicants.</p>
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**Table 20: KC BOH Title 13 – General Input Not Related to Title 13**

<p><b>Comment Received</b></p>	<p><b>Response from PHSKC</b></p>
<p>A single family residence and an ADU on one lot using a private well should not be required to change that private well to a Group B well.</p>	<p><b>No change to proposed rule.</b> This is outside the scope of Title 13 code revisions.</p>
<p>Consider exploring green systems such as methane digestive systems.</p>	<p><b>No change to proposed rule.</b> Wastewater treatment technologies must be approved by Washington State Department of Health.</p>
<p>Questions and concerns about when sewer connection is required for a residence currently served by an on-site septic system, especially when water quality is good.</p>	<p><b>No change to the proposed rule.</b> BOH Title 13 sewer connection requirements only apply to failing OSS.</p>
<p>What about sewer expansion: sewer districts should be required to provide notification for any expansions with specifics and any proposed future expansions.</p>	<p><b>No change to proposed rule.</b> BOH Title 13 does not have jurisdiction over sewer expansion or notification processes.</p>
<p>Sewer department and/or Disticts really should NOTIFY folks when sewer is coming into an area--via development or even by single sewer extensions as sewer creep reaches people... and they should be aware and know costs and options.</p>	<p><b>No change to proposed rule.</b> BOH Title 13 does not have jurisdiction over sewer expansion or notification processes.</p>
<p>If septic system fails and sewer system is coming but forced to fix/upgrade system until sewer is available, owner should get reimbursed by putting money they had to pay toward sewer hook up.</p>	<p><b>No change to proposed rule.</b> BOH Title 13 does not have jurisdiction over sewer connection costs.</p>
<p>I have a sprinkler system. I'm required to get back flow testing every few years. I did that and then the requirement changed and now I am being required to get the backflow testing every year. I had a hard time finding a professional to do it and I almost didn't. Then I got a letter from the water system and they were going to start enforcement. These people may not enforce right now but there are enforcers out there.</p>	<p><b>No change to proposed rule.</b> BOH Title 13 does not have jurisdiction over water purveyor requirements.</p>

# Attachment 4. Technical Memorandums for Key Substantive Changes

## King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum

**Date updated:** November 8, 2024  
**Version:** 3, Final  
**Subject:** Enforcement options for unpermitted OSS installations  
**Developed by:** Dr. Alex D. Negron, OSS Industry Lead  
**Discussed with TAC:** March 26, 2024

### **1. Current code**

#### **Summary:**

Civil penalties for violations by persons engaged in commercial ventures shall be assessed at two hundred fifty dollars (\$250.00) per violation. Civil penalties for violations by persons engaged in noncommercial ventures shall be assessed at twenty-five dollars (\$25.00) per violation. Each day during which a violation is committed, continued, permitted or not corrected shall be deemed a violation.

#### **Language:**

KC BOH 1.08.060 Civil penalty.

- A. In addition to or as an alternative to any other judicial or administrative remedy provided in this chapter or by law or other rules and regulations, any person who violates any public health statute, rules and regulations, or rules and regulations adopted under them, or by each act of commission or omission procures, aids or abets such violation shall be subject to a civil penalty.
- B. Any person engaged in the development, management, sale, rental or use of property solely for the purpose of residential occupancy by the person or his or her immediate family shall be deemed to be engaged in noncommercial ventures for purposes of this section. All other persons shall be deemed to be engaged in commercial ventures for purposes of this section.
- C. Civil penalties for violations by persons engaged in commercial ventures shall be assessed at two hundred fifty dollars (\$250.00) per violation. Civil penalties for violations by persons engaged in noncommercial ventures shall be assessed at twenty-five dollars (\$25.00) per violation. Each and every day or portion thereof during which a violation is committed, continued, permitted or not corrected shall be deemed a violation.

### **2. Proposed change:**

**Summary:** PHSKC proposes to strengthen fines specific to construction, installation, repair, or modification any OSS component without permit as required by Title 13. The proposed penalty would increase fines for commercial ventures including certified OSS professionals, licensed contractors from other industries (such as plumbers or general contractors), and non-licensed individuals or entities. Fines would increase from \$250 to up to \$15,000 for the first violation. PHSKC also proposes to increase the fine for property owners and immediate family members who cause or perform construction, installation, repair, or modification of an OSS without the necessary permit. This fine would increase from \$25 to up to \$5000 per violation and would be waived when the OSS is evaluated and shown to be in compliance with minimum requirements of Title 13.

#### **Language:**

**13.20.010 Permits--general.**

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

3. **Reason for change:**

This change is being implemented to address unpermitted OSS installations, especially those completed by certified professionals without required permits. Unauthorized installations often lead to costly repairs or upgrades for property owners when systems fail or need to meet code standards. Beyond financial impacts, unpermitted OSS installations pose risks to groundwater and drinking water quality. By introducing clear penalties and a streamlined reporting process, the proposed changes encourage compliance to protect public health and environmental quality. The new financial penalties and online complaint form will help PHSKC monitor and manage installations more effectively, reducing OSS failures and safeguarding water resources.

4. **Anticipated impact:**

The proposed change is expected to decrease the number of unpermitted on-site sewage system (OSS) installations, resulting in better compliance with health and safety standards. For property owners, this will mean fewer unexpected costs related to replacing or upgrading non-compliant systems. By discouraging unlicensed or unauthorized OSS work, the policy also aims to reduce contamination risks, thereby protecting groundwater and drinking water quality and impacts to public health.

The addition of financial penalties is anticipated to deter certified professionals and others from bypassing permit requirements. Furthermore, an updated online complaint form will make it easier for the public to report unpermitted installations, increasing PHSKC's ability to identify and address non-compliant systems. Overall, this change is expected to improve the effectiveness of OSS regulations, enhancing public health and environmental protection while promoting responsible practices among installers.

The total cost to property owners who install an OSS without the necessary permits will not increase unless they refuse to work with PHSKC to ensure minimal compliance with OSS codes. Property owners who install an unpermitted septic system may face consequences, including fines of up to \$5,000 and a lien filed against their property. However, it is anticipated that the \$5,000 fine will be waived in most cases when property owners go through the necessary permitting processes. Following these steps will ensure that the OSS is safe, compliant, and protective of public health, as well as protecting against future costs due to problems with an underperforming, unpermitted OSS.

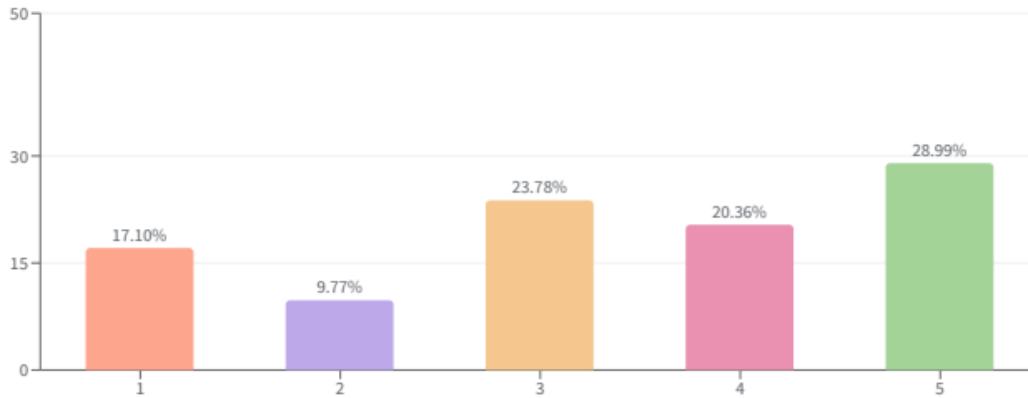
## 5. Technical Advisory Committee Feedback

Final proposal fully supported by TAC.

- OSS industry professionals recognize the need to more effectively pursue unpermitted OSS installations.
- Suggestion to include fines for property owners which can be reduced upon permitting compliance.
- Several members suggested increasing the maximum fines from the proposed \$5,000 to align with approximate revenue from unpermitted OSS installation.
- Request for consistent enforcement and increased resources and tools for PHSKC to identify unpermitted actions.
- Realtor representative expressed support for at least increasing fines including increasing the fine for non-professionals to \$250 per day.

## 6. Community Input

- Community comments:
  - **Support for increased penalties on unpermitted OSS installations:** Many attendees favored stronger fines (raising them from \$250 to \$15,000) to deter unpermitted septic installations, addressing risks like groundwater contamination.
  - **Enforcement challenges:** Concerns were raised about how difficult it is to detect and handle OSS systems installed without proper permits.
  - **Unscrupulous contractors:** There were complaints about contractors misleading or overcharging homeowners, prompting calls for King County to offer better protections and guidance to homeowners.
  - **Permitting process issues:** Some participants suggested that the costly and slow permitting process might be encouraging unpermitted installations, advocating for improvements to make it more efficient and accessible.
  - **Need for stricter penalties:** County officials and community members agreed on the need for harsher penalties to ensure compliance and prevent unsafe installations.
- Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	105	17.10 %
2	60	9.77 %
3	146	23.78 %
4	125	20.36 %
5	178	28.99 %

**7. Technical evaluation and additional information**

King County’s OSS program seeks to address unpermitted septic system installation from commercial ventures including certified OSS professionals, licensed contractors from other industries (such as plumbers or general contractors), and non-licensed individuals or entities. Currently, commercial ventures who install, modify, or repair OSS without required permits risk only a small fine if caught. The fine is sometimes considered the “cost of doing business” and fails to discourage future unpermitted work. Property owners risk an even smaller fine for soliciting or performing unpermitted work on an OSS.

Property owners are often left with an OSS that does not meet treatment standards and can experience premature failure. When unpermitted OSS are found, the system must be thoroughly evaluated for compliance with current codes. This means that the property owner will incur additional costs to hire a designer to evaluate level of treatment and propose upgrades to the installed OSS to meet current codes.

**King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum**

**Date updated:** November 8, 2024  
**Version:** 3, Final  
**Subject:** OSS Industry Code of Performance and Ethics  
**Developed by:** Dr. Alex D. Negron, OSS Industry Lead  
**Discussed with TAC:** March 26, 2024

**1. Current code**

**Summary:** PHSKC provides oversight of on-site sewage system (OSS) professionals in King County including those holding Master Installer (MI), Associate Installer (AI), On-site system Maintainer (OSM), and liquid waste pumper/hauler certifications. King County Board of Health (BOH) Title 1 provides for a penalty of \$250 for a commercial entity who violates rules and regulations. Additionally, KC BOH Title 1 provides for suspension or revocation of a permit. In this title, a permit is defined as “any form of certificate, approval, registration, license or other written permission given to any person to engage in any activity as required by law, ordinance or regulation.”

**Language:**

**KC BOH 1.08.060 Civil penalty.**

- A. In addition to or as an alternative to any other judicial or administrative remedy provided in this chapter or by law or other rules and regulations, any person who violates any public health statute, rules and regulations, or rules and regulations adopted under them, or by each act of commission or omission procures, aids or abets such violation shall be subject to a civil penalty.
- B. Any person engaged in the development, management, sale, rental or use of property solely for the purpose of residential occupancy by the person or his or her immediate family shall be deemed to be engaged in noncommercial ventures for purposes of this section. All other persons shall be deemed to be engaged in commercial ventures for purposes of this section.
- C. Civil penalties for violations by persons engaged in commercial ventures shall be assessed at two hundred fifty dollars (\$250.00) per violation. Civil penalties for violations by persons engaged in noncommercial ventures shall be assessed at twenty-five dollars (\$25.00) per violation. Each and every day or portion thereof during which a violation is committed, continued, permitted or not corrected shall be deemed a violation.

**KC BOH 1.08.180 Suspension of permits.**

- A. The director may temporarily suspend any permit issued under any public health rules and regulations for (1) failure of the holder to comply with the requirements of any public health rules and regulations or rules and regulations promulgated under them, (2) failure to comply with any notice and order issued pursuant to this chapter, or (3) the dishonor of any check or draft used by the permit holder to pay any fees required by law or rules and regulations of the board of health.
- B. Permit suspension shall be carried out through the notice and order provisions of this chapter, and the suspension shall be effective upon service of the notice and order upon the holder or operator. The holder or operator may appeal such suspension as provided by this chapter.



- C. Notwithstanding any other provision of this chapter, whenever the director finds that a violation of any public health rules and regulations or rules and regulations promulgated thereunder, has created or is creating an unsanitary, dangerous or other condition which, in his judgment, constitutes an immediate and irreparable hazard, he may, without service of a written notice and order, suspend and terminate operations under the permit immediately. (R&R 7 §301, 12-1-81).

**KC BOH 1.08.190 Revocation of permits.**

- A. The director may permanently revoke any permit issued by him for (1) failure of the holder to comply with the requirements of any public health rules and regulations, or rules or regulations promulgated under them, or (2) failure of the holder to comply with any notice and order issued pursuant to this chapter, or (3) interference with the director in the performance of his duties, or (4) discovery by the director that a permit was issued in error or on the basis of incorrect information supplied to him, or (5) the dishonor of any check or draft used by the holder to pay any fees required by law or rules and regulations of the board of health.
- B. Such permit revocation shall be carried out through the notice and order provisions of this chapter and the revocation shall be effective upon service of the notice and order upon the holder or operator. The holder or operator may appeal such revocation, as provided by this chapter.
- C. A permit may be suspended pending its revocation or a hearing relative to revocation. (R&R 7 §302, 12-1-81).

**2. Proposed change**

**Summary:** This policy update introduces new requirements for professionals holding a King County OSS certificate of competency. The goal is to help lower the costs of OSS repairs, installations, and maintenance by reducing instances of upselling and fraud directed at OSS owners. To support transparency, PHSKC will publish a detailed outline of how this policy will be implemented on its website. New measures include a requirement for applicants to sign a statement affirming their understanding of King County codes and the OSS Code of Performance and Ethics. Certified professionals must adhere to this Code to keep their certification, and any violation of Title 13 or the Code of Performance and Ethics will result in a \$1,000 fine per violation.

**Language:**

**13.20.030. Installer certification**

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

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

Parallel language is included in section 13.20.035 for the on-site system maintainer certification and in 13.68.050 for the OSS pumper certification.

### **3. Reason for change:**

This change is being implemented to enhance accountability and integrity among certified OSS professionals in King County. There has been an ongoing concern about upselling and fraudulent practices that drive up the costs of repairing, installing, and maintaining OSS for property owners. By introducing requirements for a signed attestation and mandatory adherence to the OSS Code of Performance and Ethics, this policy seeks to ensure that certified professionals are fully informed of and committed to upholding clear and consistent standards. The introduction of a \$1,000 fine per violation is intended to deter non-compliance, fostering trust in OSS services while promoting fair business practices. Making the implementation details available on the PHSKC website will also ensure transparency, helping OSS owners and professionals understand these new standards and how they will be applied.

### **4. Anticipated impact:**

This change is expected to improve the overall integrity, reliability, and professionalism of certified OSS professionals in King County. By addressing issues like upselling unnecessary services or performing work without the necessary permits, property owners can expect reduced costs for system installation, maintenance, and repairs. The goal is to ensure that services are transparent and aligned with established standards, so property owners only pay for what is truly necessary. With improved oversight, the industry can offer more consistent pricing and streamlined processes, making OSS services more accessible and cost-effective for everyone.

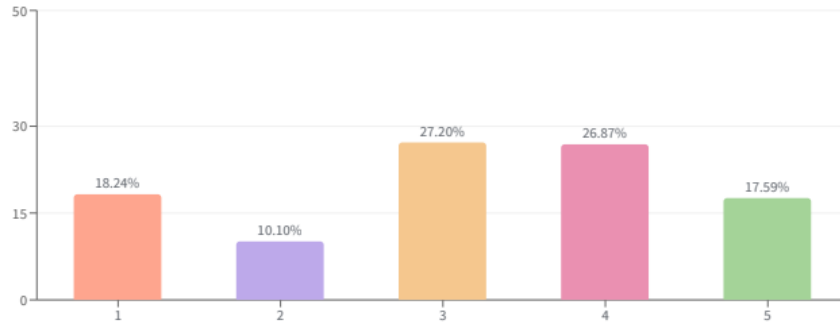
With a focus on enforcing a consistent standard of service, OSS industry members already operating with integrity stand to benefit from enhanced credibility and client trust, while the industry as a whole may see improved stability and consistency. Proposed fines will increase the financial impact to those who are not following code and policy requirements. To minimize financial impact, the OSS Program will follow a standard progressive enforcement process to ensure that issues are thoroughly investigated and that clear evidence confirms that a violation has occurred.

### **5. Technical Advisory Committee Feedback**

- General support for this proposal, but the details of implementation were extensively discussed. PHSKC policy that provides more detail about progressive enforcement, as well as the Code of Performance and Ethics, will be reviewed by TAC prior to finalization.
- OSS industry representative requested that PHSKC take into consideration changing circumstances at a site after a professional leaves, which they have no control over.
- OSS industry representative commented that government should not try to enforce ethical practices in the industry. The representative stated that this should be the domain of the BBB, social media, etc.
- OSS industry representative expressed concern that often a complaining homeowner doesn't know what is needed so it's likely the professional did nothing wrong.
- Suggested including a requirement to have 2 industry professionals certify that an applicant for initial or renewal certification should be able to obtain the certification. This suggestion was based on the expectation that a professional who operates ethically should be able to obtain peer certifications.

### **6. Community Input**

- Community comments:
  - There was a consensus on the need for clearer expectations of service for certified OSS professionals.
  - Concerns were raised about potential cost increases of industry professionals charging more for standard services.
  - Participants noted that some customers felt taken advantage of by professionals, and there was support for additional regulatory outcomes to hold professionals accountable for inadequate performance.
- Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES ▾	RESPONSES ▾	RESPONSE PERCENTAGE ▾
1	112	18.24 %
2	62	10.10 %
3	167	27.20 %
4	165	26.87 %

3/60

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ANSWER CHOICES ▾	RESPONSES ▾	RESPONSE PERCENTAGE ▾
5	108	17.59 %

## 7. Technical evaluation and additional information:

Code of Performance and Ethics Guidelines Examples:

- Professionals shall not perform work that is unnecessary.
- OSM professionals shall correct Time of Sale inspection reports within 10 days of receipt.
- Professionals shall not bill for unperformed services.
- Professionals shall not perform repairs without a permit.
- Professionals shall not misrepresent OSS conditions to consumers.

Professionals shall not misrepresent OSS requirements to consumers.

These examples are directly related to issues PHSKC has observed such as OSS professionals performing work when it is not needed (i.e. replacing a D-box when a recent inspection shows that the D-box is in acceptable condition). PHSKC has also observed Time of Sale inspections being placed on hold with a request for an edit or clarification from the OSS professional, but with very little compliance. PHSKC has observed inspection reports that have stated that the tanks were pumped, but the property owner complains that the service never took place. PHSKC has also documented occurrences of OSS professionals making a repair on a septic system without applying for a permit.

## KC BOH Title 13 Code Revision 2024 - Technical Memorandum

**Date updated:** October 31, 2024  
**Version:** 3, Final  
**Subject:** Public Sewer Connection Requirements  
**Developed by:** Meagan Jackson, Interim Assistant Division Director  
**Discussed with TAC:** January 22, 2024

### 1. Current code

**Summary:** For existing development in the Urban Growth Area, when a septic system fails, the property must be connected to sewer if the nearest property boundary is within 200 feet of a sewer connection and the sewer utility permits such conversion OR install a conforming OSS.

#### Language:

##### **13.04.050 Connection to public sewer.**

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

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

1. Repair, modification or replacement of the on-site sewage system is necessary, or the existing on-site sewage system has failed and an on-site sewage system fully conforming to this title cannot be designed and installed; or
2. Additional construction which in any way affects the on-site sewage system is proposed.

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

### 2. Proposed change

**Summary:** No change to existing language about sewer availability despite different WAC definition of distance to available sewer connection. PHSKC proposes adding a reference to King County Code (KCC) section governing OSS in Urban Growth Area, removing language stating sewer connection is required in rural area, and adding a subsection to grant waivers to this requirement. HSKC will develop a policy to clarify sewer connection waiver process.

**Language:**

**13.04.050. Connection to public sewer.**

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

1. Repair, modification or replacement beyond a minor repair of the on-site sewage system is necessary, or the existing on-site sewage system has failed and an on-site sewage system fully conforming to this title cannot be designed and installed; or
2. Additional construction which in any way affects the on-site sewage system is proposed.

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

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

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

**3. Reason for change**

The revised WAC 246-272A requirements provide clarify that the state code requirements are for a property to connect to sewer if the local sewer district allows and if sewer is available within 200 feet of the point of connection. To meet King County Comprehensive Plan and Growth Management Act requirements for all development in the Urban Growth Area to be served by public sewer, Title 13 will maintain the existing definition. A waiver process will be added to address situations where connection to sewer is not timely or reasonable, including due to the cost of sewer connections. Because the waiver process is unclear and often causes confusion to property owners already facing a failing OSS, PHSKC will create a policy with distinct steps to apply for a variance.

**4. Anticipated impact**

- Cost: Property owners will have a clear pathway to evaluate alternatives to expensive sewer connections. Anticipated lower costs to address failing OSS.
- All OSS owners in the Urban Growth Area will need to evaluate sewer availability when their OSS fails. Sewer connection is not an option to address OSS failures outside the Urban Growth Area.

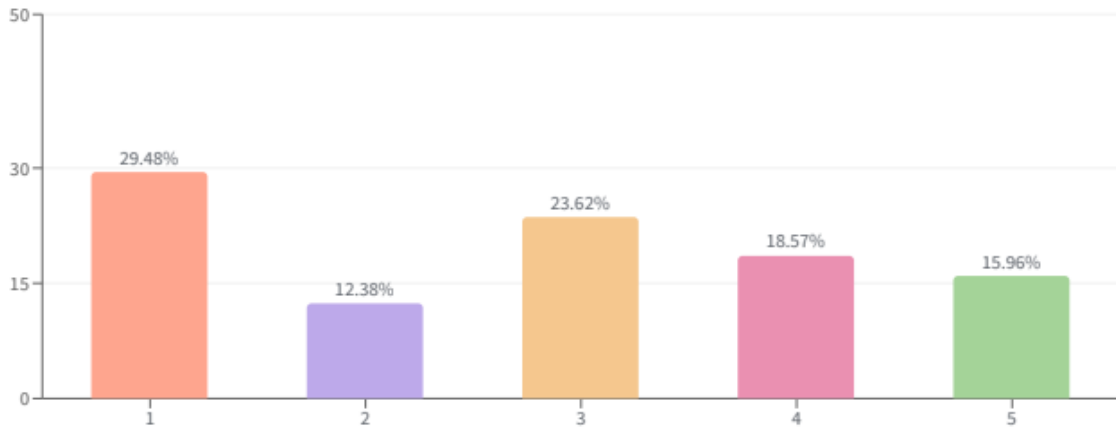
**6. TAC feedback**

- There are areas where the distance between the point of connection and the property line is often greater than 200 feet. Adopting the WAC would cause challenges will requiring properties in the Urban Growth Area to connect to sewer, which is required to meet Growth Management Act requirements.

- In general, we need more properties to connect to sewer to address wastewater treatment needs and protect water quality.
- The cost to connect to sewer is very large and needs to be addressed.
- The requirement to extend sewer main across property frontage is the most cost prohibitive. King County WTD capacity charge is also expensive.
- Local municipality should have the first review of waiver requests.

## 7. Community Input

- Community comments:
  - **High costs of sewer connections:** Homeowners expressed concerns about the high costs (up to \$150,000) for connecting to sewer systems within 200 feet, especially for lower-income families and long-time residents.
  - **Unwanted development pressures:** Many homeowners feel burdened by development-driven sewer demand that they did not ask for or benefit from.
  - **Waiver process transparency:** While a waiver process exists for exemptions, attendees called for more transparency and flexibility in how it's applied.
  - **Logistical challenges:** In some areas, sewer lines are technically within 200 feet but inaccessible, making the cost of connection even higher due to geographic or infrastructure barriers.
  - **Impact on isolated or less developed areas:** Simplifying connection requirements could increase financial burdens in areas where infrastructure is lacking.
  - **Balancing development and neighborhood preservation:** There were calls to strike a balance between promoting sewer connection for health and environmental reasons and preserving the character of established neighborhoods.
  - **Community-funded solutions:** Some participants suggested exploring community-funded or alternative funding approaches to ease the financial burden on individual homeowners.
  - **Need for better support and flexibility:** Overall, attendees urged for more support, flexibility, and consideration of homeowners' financial situations when implementing sewer connection requirements.
- Survey results (1 – bad idea; 5 – great idea) for proposed change to clarify sewer connection requirements in the Urban Growth Area:



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	181	29.48 %
2	76	12.38 %
3	145	23.62 %
4	114	18.57 %
5	98	15.96 %

**8. Technical evaluation and additional information**

If sewer connection is not timely and reasonable, a waiver can be granted from the following jurisdictions of authority. PHSKC proposes the following order of preference:

- (1) Local municipality
- (2) Local sewer district
- (3) Public Health – Seattle & King County
- (4) King County Utility Technical Review Committee

**Revised WAC 246-272A requirements for connection to public sewer (*revisions indicated in italics*)**

**WAC 246-272A-0025 Connection to public sewer system**

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

- (a) Permit the repair or replacement of the OSS only if a conforming OSS can be designed and installed, excluding OSS designed in compliance with or proposing to use Table X in WAC 246-272A-0280; or
- (b) Require connection to a public sewer system if the sewer utility allows the connection and has adequate public sewer services available within 200 feet *from where the existing building drain connects to the existing building sewer, or where no building drain*



- currently exists, within 200 feet from where the sewer line begins*, as measured along the usual or most feasible route of access.
- (2) The owner of a structure served by an OSS permitted as a repair under Table X in WAC 246-272A-0280 shall abandon the OSS as specified in WAC 246-272A-0300, and connect the structure to a public sewer system when:
- (a) Connection is deemed necessary to protect public health by the local health officer;
  - (b) An adequate public sewer becomes available ***within 200 feet of the existing structure, or in cases where no building drain exists, within 200 feet from where the sewer for the building begins***, as measured along the usual or most economically feasible route of access; and
  - (c) The sewer utility allows the sewer connection.
- (3) Local boards of health may require a new development to connect to a public sewer system to protect public health.
- (4) Local boards of health shall require new development or a development with a failing OSS to connect to a public sewer system if it is required by the comprehensive land use plan or development regulations.

**King County 2016 Comprehensive Plan and King County Code Requirements**  
**Comprehensive plan**

- F-255** In the Urban Growth Area, **all new development** shall be served by public sewers unless:
- a. Application of this policy to a proposal for a single- family residence on an individual lot would deny all reasonable use of the property; or
  - b. Sewer service is not available for a proposed short subdivision of urban property in a timely or reasonable manner as determined by the Utilities Technical Review Committee. These on-site systems shall be managed by one of the following entities, in order of preference:
    - 1. The sewer utility whose service area encompasses the proposed short subdivision; or
    - 2. The provider most likely to serve the area; or;
    - 3. An Onsite Sewage System Maintainer certified by the Public Health – Seattle & King County.

**King County Code**

**13.24.035 Public sewer service.**

**A. All development within the urban growth area shall be served by public sewer service except on-site sewage systems may be allowed temporarily in some parts of the urban growth area in accordance with K.C.C. 13.24.136.**

**13.24.136 On-site sewage treatment and disposal systems in the Urban Growth Area.** All new development within the Urban Growth Area shall be served by an adequate public or private sewage disposal system, including both collection and treatment facilities, as required by K.C.C. 21A.28.030. On-site sewage treatment and disposal systems shall be permitted in the Urban Growth Area only for single-family residences or for short subdivisions only on an interim basis and only as follows:

- A. For existing individual lots, the department of local services permitting division manager or designee may authorize individual on-site sewage treatment and disposal systems given the following findings:
  - 1. Application of the requirement of K.C.C. 13.24.035 that all development in the urban growth area be served by public sewers, would deny all reasonable use of an individual lot;

2. The applicant has submitted a certificate of sewer availability from the most logical sewer utility accompanied by a letter that demonstrates to the satisfaction of the department of local services permitting division manager or designee that the requirement to receive public sewer service from the utility is unreasonable or infeasible at the time of construction; and

3. The applicant has provided a certificate of future connection from the appropriate utility that certifies that an irrevocable agreement has been entered into with the utility providing that the property shall be connected to public sewers upon availability of such sewers and that the property owner shall pay all costs of connection to the sewer. This certificate shall stipulate that the applicant and the applicant's successor's and interest agree to participate in and not protest the formation of a utility local improvement district or local improvement district or utility project that is designed to provide public sewer services to the property. This certificate shall be recorded in the real property records of King County and shall be a permanent condition on the property running with the land until such time as the costs for connection are fully paid to the utility;

Note – this proposal is consistent with Chapters 35A.21.390 & 36.01.330 RCW

**King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum**

**Date updated:** November 13, 2024  
**Version:** 3, Final  
**Subject:** Clarifying OSS Pumper Certification Allowance to Inspect Gravity OSS  
**Developed by:** Dr. Alex D. Negron, OSS Industry Lead  
**Discussed with TAC:** March 26, 2024

**1. Current code**

**Summary:**

KC BOH Table 13.60-1 allows a property owner, licensed maintainer, or licensed OSS pumper to perform Routine inspections of gravity on-site sewage systems (OSS).

**Language:**

	Gravity System <sup>4</sup>	Public Domain Technology <sup>2</sup>	Proprietary Technology <sup>3,5</sup>	Commercial and Food Establishment	Non-Discharging Toilets <sup>6</sup>
<b>Initial<sup>1</sup> Inspection</b>	6 months	6 months	45 days	45 days	N/A
<b>Regular Inspection frequency</b>	Every 3 years	Annually	Every 6 months	Annually or 6 months	Annually
<b>Who May Perform the Inspection</b>	Owner or Licensed Maintainer or Licensed OSS Pumper	Licensed Maintainer	Licensed Maintainer	Licensed Maintainer	Owner

**Table 13.60-1 Explanatory Notes**

1. The initial inspection is to be performed at the time interval indicated following occupancy.
2. Public domain technology includes such systems as: mounds, intermittent sand filters and pressure distribution.
3. Proprietary Technology includes such systems as: ATUs, Glendon up-flow filters, Advantex pack bed filters and subsurface drip.
4. At least an annual septic tank maintenance check is required if the structure served is equipped with a garbage grinder waste disposal unit. If a screened outlet baffle is present an annual check is recommended. Pumpers shall report each pumping event to the health officer in accordance with BOH chapter 13.68.
5. Table 13.60-1 specifies the minimum required monitoring frequency. A more stringent monitoring frequency shall be used if recommended by the manufacturer.
6. This monitoring is in addition to that required for the OSS receiving the building's nontilet liquid waste.

**2. Proposed change**

**Summary:**

PHSKC proposes to add language to Title 13 to clarify that certified pumpers may perform routine inspections and preventative maintenance to gravity OSS (i.e. clean or replace filters, replace baffles, etc.). No repairs outside of tank components and building sewer tightlines would be allowed. Pumpers would not be allowed to perform Time of Sale inspection reports.

**Language:**

**BOH 13.68.010 Pumper certification requirements**

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

**E.** As a condition of certification, a pumper shall consistently demonstrate reasonable care and skill in performing work governed by this title, meet the requirements of the King County

OSS code of performance and ethics, and comply with all the terms and conditions of these and all other applicable rules and regulations

**3. Reason for change:**

This change is intended to provide property owners with more options for routine maintenance while ensuring the work is done by trained professionals. It was highly supported by property owners who engaged in the OSS code revision process. Property owners maintained that it would be easier to comply with inspection requirements if one individual who is already on their property (an OSS pumper) can also complete an inspection and report it to PHSKC. The proposed changes aim to find a balance between increasing options for routine inspections while ensuring a high level of service and appropriate training/certification for more complex work.

**4. Anticipated impact:**

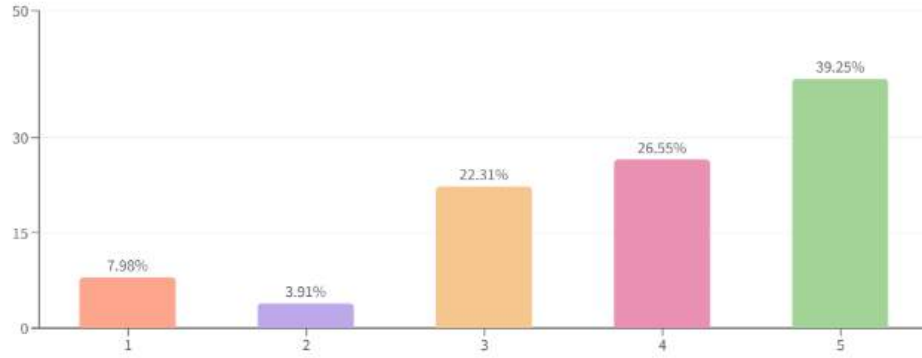
This change is expected to improve access to routine maintenance services for gravity OSS, making it easier and more affordable for property owners to keep their systems in good working condition. The requirement for additional training, exams, and continuing education will ensure that pumpers are qualified and up to date with industry standards, leading to higher quality service. However, by limiting pumpers to specific tasks and excluding more complex repairs, the proposed change will ensure that work is done within a safe and professional scope, ultimately protecting the integrity of the OSS systems. Property owners will benefit from increased availability of routine maintenance services while maintaining confidence that any major repairs will be handled by qualified professionals.

**5. Technical Advisory Committee Feedback**

- OSS industry representatives expressed concerns that pumpers will not have the necessary experience/training for inspections and that the pumping business model does align with pumpers taking more time on a property to perform an inspection.
- Representatives were more supportive of clarifying existing allowances than creating a new certification type and requested that the details of this approach be determined through further conversations with the Technical Advisory Committee.
- Property owner and realtor representatives were supportive of this approach.
- Details of implementation to be determined after consulting with TAC in early 2025.

**6. Community Input**

- Community comments
  - Many comments were in strong support of allowing certified OSS pumpers to perform routine inspections of gravity OSS and submit inspection reports.
  - Some people recommended that we allow pumpers to perform even more inspections, including inspecting pressure distribution and advanced treatment OSS.
  - Some concerns were shared about OSS pumpers using this process to force property owners into paying them more for the same amount of work.
  - Property owners expressed confusion around which certified professional can perform which work on an OSS, and requested that PHSKC improve the resources that explain this.
- Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	49	7.98 %
2	24	3.91 %
3	137	22.31 %
4	163	26.55 %
5	241	39.25 %

**7. Technical evaluation and additional information**

Pumpers are qualified to maintain gravity OSS because they must pass the WOSSA Level 1 Exam to become certified. This certification ensures they can conduct visual inspections of drainfields to identify potential failures or pre-failures of septic tanks and drainfields, assess the structural integrity of septic tanks, and perform minor repairs such as installing or replacing risers, replacing baffles, and repairing tightlines. This confirms they have the knowledge and skills needed to effectively perform basic inspections of gravity OSS.

## King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum

**Date updated:** November 20, 2024  
**Version:** 2, Final  
**Subject:** Bedroom Definition  
**Developed by:** Marissa KingTalik, Kristen Farley, and Kyla Leyendekker, Health & Environmental Investigators  
**Discussed with TAC:** August 27, 2024

### 1. Current code

**Summary:** Existing code does not include a definition for “bedroom”.

### 2. Proposed change

**Summary:** PHSKC proposes to add a definition for “bedroom”.

#### Language:

#### **13.08. New subsection - Bedroom.**

"Bedroom" means a room used for sleeping and that includes a window, a door, and a closet.

"Bedroom" does not include a room smaller than seventy square feet in area with a closet, or an entry way with a closet. For the purposes of this title, "window" includes a means of egress, other than a door, under section R310.1 of the International Residential Code, 2018 edition.

### 3. Reason for change

PHSKC uses bedroom count to determine the required design flow and sizing for an OSS for residential use. Without a bedroom definition, the permitting process is often delayed due to inconsistencies in understanding between the architect, builder, property owner, OSS designer, and PHSKC.

### 4. Anticipated impact

- Increased consistency for determining design flow for residential use.
- Standardized and faster reviews of on-site sewage site design applications.
- No anticipated financial impact.

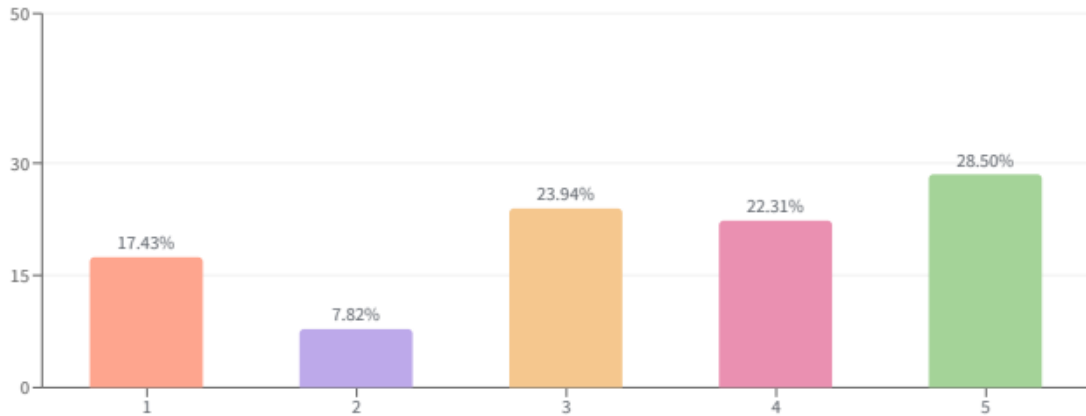
### 5. Technical Advisory Committee Feedback

- Technical advisory committee supported the proposal to include a bedroom definition. They raised the benefit of aligning with definitions used in real estate industry.

### 6. Community Input

- Community comments:
  - **Challenges in defining a "bedroom":** Defining what constitutes a bedroom for septic system capacity was complex due to varying practices, such as repurposing rooms or multiple occupants sharing a space.
  - **Need for clarity:** Attendees emphasized the importance of clear and consistent bedroom definitions that align with actual occupancy rather than just room labels.

- **Varied usage of rooms:** Many pointed out that rooms like offices are often used as bedrooms, potentially straining septic systems, underscoring the need for definitions that account for evolving use cases.
- **Alternative metrics:** Some suggested shifting from a bedroom-based system to one based on occupancy or square footage, which could offer a more accurate measure of septic system needs.
- **Preventing future conflicts:** Clear definitions were seen as crucial for avoiding conflicts during property inspections or sales, ensuring septic systems are appropriately designed for future use.
- Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	107	17.43 %
2	48	7.82 %
3	147	23.94 %
4	137	22.31 %
5	175	28.50 %

**7. Technical evaluation and additional information**

Tacoma-Pierce County Health Department and Kitsap Public Health District have already implemented a definition for bedroom.

Example from TPCHD code: “Bedroom: A room, other than a bathroom or a kitchen, within a dwelling unit with at least 80 square feet, a window, a door and a closet, but this presumption shall not apply to the first family room in a residence or to both one family room and one den in a residence with more than three bedrooms.”

Example from KPHD: “Bedroom --- a room used for sleeping in accordance with the applicable jurisdictional building department.”

## King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum

**Date updated:** October 31, 2024  
**Version:** 3, Final  
**Subject:** Minimum Lot Size  
**Developed by:** Corrina Marote, Equitable Wastewater Program Manager  
**Discussed with TAC:** April 23, 2024

### 1. Current code

**Summary:** Current minimum lot sizes meet prior WAC and King County Code requirements.

#### **Language:**

13.24.020 Determination of minimum lot size.

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

1. All lots created must be at least twelve thousand five hundred square feet and shall not exceed a maximum flow density of one thousand five hundred seventy gallons of sewage per acre per day.

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

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

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

2. Soil type and depth;

3. Area drainage and lot drainage;

4. Protection of surface and ground water;

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

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

6. Source of domestic water;

7. Topography, geology and ground cover;

8. Climatic conditions;

9. Activity or land use, present and anticipated;

10. Growth patterns;

11. Individual and accumulated gross effects on water quality;

12. Availability of a one hundred percent reserve area for system replacement; 13.

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

14. Effect on other properties;

15. Compliance with zoning, critical area development restrictions including the critical aquifer recharge area and other code requirements of the governing agency as applicable.

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



**Table 13.24-1  
Minimum Land Area Requirement  
Single-Family Residence or  
Unit Volume of Sewage**

Type of Water Supply	Soil Type					
	1	2	3	4	5	6
Public Water System	0.5 acre	12,500 sq. ft.	15,000 sq. ft.	18,000 sq. ft.	20,000 sq. ft.	22,000 sq. ft.
Individual/Private Well*	5 acres	5 acres	5 acres	5 acres	5 acres	5 acres

\*Requirements for public wells may preclude use of private wells in certain instances. See RCW 19.27.097.  
NOTE: Well location and construction must be consistent with the King County Comprehensive Plan, as amended.  
(R&R No. 08-03 § 98, 2008; R&R No. 99-01 § 2 (part), 3-19-99; R&R No. 3 Part 3 § 2, 12-19-86).

**2. Proposed change**

**Summary:** Minimum lot size for newly established lots in WAC 246-272A has increased by 500-1,000 square feet, depending on soil type. Furthermore, new lots being served by OSS must have a certain land area that is usable for septic system installation and repairs. This land cannot be under water, paved, impacted by an easement, or otherwise unusable for the OSS. For existing, non-conforming lots King County must adopt the alternative minimum lot size determination option in Table XII of revised WAC 246-272A. Due to its complexity, we anticipate that using this table would lead to errors, causing delays and increased costs for projects. To make nitrogen treatment requirements easier to understand and to meet groundwater protection requirements, all properties in critical aquifer recharge areas (CARA) I and II must meet nitrogen treatment requirements, as specified in King County Code 21A.24.316. By adding this to BOH code, it will consistently apply to incorporated areas within CARA Type I and II as well.

**Language:**

**13.24.020. Determination of minimum lot size.**

- A.1. All lots created must be at least thirteen thousand square feet and shall not exceed a maximum flow density of 3.35 unit volumes of sewage per day for public water supply and 1 unit volume of sewage per acre per day for private water supply.
- B.15. Compliance with zoning, critical area development restrictions including the critical aquifer recharge area requirements under K.C.C. 21A.24.316, as amended, and other code requirements of the governing agency as applicable.
- C. The minimum lot size requirement for creating subdivisions involving single-family residences or mobile home parks shall be determined by the soil type as outlined in Table 13.24-1.

**Table 13.24-1  
Minimum Land Area Requirement  
Single-Family Residence or  
Unit Volume of Sewage**

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

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

**3. Reason for change**

The state code sets the minimum standard and has increased the land requirements for new development on OSS. BOH Title 13 complies with the previous version of WAC 246-272A. In order to comply with the approved revision of WAC 246-272A, BOH Title 13 must adopt this requirement.

**4. Anticipated impact**

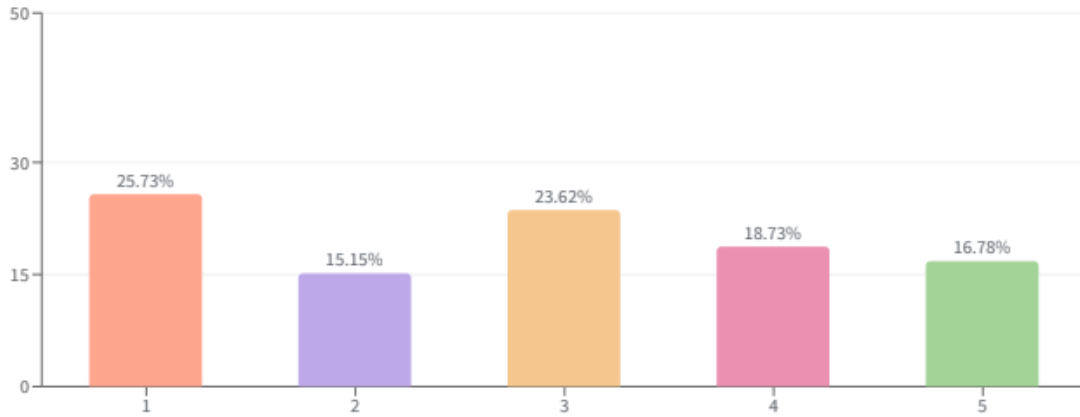
- There is no anticipated increase in cost due to the nitrogen treatment requirements because this is already implemented as a standard procedure
- According to a GIS analysis of subdividable parcels in King County, approximately 35 parcels will not be able to be subdivided due to the new minimum lot size requirements. King County development code (KCC 19A and 21A) establishes the minimum standards for development; the primary drivers are parcel size and zoning, not BOH Title 13.

**5. Technical Advisory Committee feedback**

- Public Health needs to ensure that we do everything we can to promote development, especially of affordable housing.
- In general, little impact is expected because of existing requirements for development in King County.

**6. Community Input**

- Community comments
  - Fear of property devaluation due to losing ability to subdivide a property
  - Critical Aquifer Recharge Area data and mapping is outdated and may be inaccurate. Additional treatment requirements should not be considered if there is no evidence of nitrogen contamination in drinking water.
- Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	158	25.73 %
2	93	15.15 %
3	145	23.62 %
4	115	18.73 %
5	103	16.78 %

**7. Technical evaluation and additional information**

**Total Nitrogen Reduction:**

Per Table III in WAC 246-272A, nitrogen-reducing OSS must meet 30 mg/L (or 50% reduction based on mass loading as required in WAC 246-272A-320, i.e. Table XII)

Per Table I in the July 2012 *Recommended Standards and Guidance for Performance, Application, Design, and Operation and Maintenance Propriety On-site Wastewater Treatment Projects* publication, nitrogen-reducing OSS must meet 20 mg/L TN.

**Critical Aquifer Recharge Area requirements:**

CARA standards in King County Code 21A.24.510 exceed WAC 246-272A Table XII, which would be used to calculate the minimum area required using nitrogen reducing technology. This was determined based on technical evaluation by Roger Parker (WADOH) and Tracy Cui (DLS Permitting Product Line Mgr.).

CARA KCC21A.24.510 Septic system design and critical area designation, KCC 21A.24.316 (13) on lots smaller than one acre, an on-site septic system, unless: a. the system is approved by the Washington state [sic] Department of Health and has been listed by the Washington State department of Health as meeting treatment standard N as provided in WAC chapter 426-272A

[sic]; or b. the Seattle-King County department of public health determines that the systems required under subsection A.13.a of this section will not function on the site.

**Updated WAC Language:**

WAC 246-272A-320 Developments, subdivisions, and minimum land area requirements.

(1) Prior to approving any development, the local health officer shall:

- (a) Require site evaluations under WAC 246-272A-0220;
- (b) Require information consisting of field data, plans, and reports supporting a conclusion that the proposed land area is sufficient to:
  - (i) Install conforming OSS;
  - (ii) Preserve reserve areas for proposed and existing OSS; and
  - (iii) Properly treat and dispose of the sewage;
- (c) Require information demonstrating that the proposed development will minimize adverse public health effects from the accumulation of contaminants in groundwater and surface water;
- (d) Determine the minimum land area required for the development using Table XI of this section, or the alternative methodology in Table XII of this section. The local health officer may require larger lot sizes than the minimum standards established in Table XI or Table XII of this section;
- (e) Require all proposals **not meeting the minimum land area requirements** in Table XI of this section to demonstrate the proposed development:
  - (i) Minimizes adverse impacts to public health, surface water, or groundwater quality;
  - (ii) Considers:
    - (A) Topography, geology, and ground cover;
    - (B) Climactic conditions;
    - (C) Availability of public sewers; and
    - (D) Present and anticipated land use and growth patterns;
  - (iii) Complies with current planning and zoning requirements;
  - (iv) Does not exceed the nitrogen limit per land area as identified in Table XII of this section; and
  - (v) Does not allow new lots smaller than 13,000 square feet if served by nonpublic water supplies;
- (f) Require minimum land area of 13,000 square feet or larger, except when a proposal includes:
  - (i) OSS within the boundaries of a recognized sewer utility having a finalized assessment roll; or
  - (ii) A planned unit development with a signed, notarized, and recorded deed covenant restricting any development of lots or parcels above the approved density with the overall density meeting the minimum land area requirements of (d) or (e) of this subsection in perpetuity or until the OSS is no longer needed as identified in WAC 246-272A-0200(6);
  - (g) Require that developments other than single-family residences:
    - (i) Meet the minimum land areas required for each unit's volume of sewage;
    - (ii) Do not exceed 3.35 unit volumes of sewage per day per acre if served by public water supplies; and
    - (iii) Do not exceed 1.0 unit volume of sewage per day per acre for nonpublic water supplies; and

- (h) Require that the use of a reduced-sized dispersal component does not result in a reduction of the minimum land area requirements established in this section.
- (2) The local health officer shall require the following prior to approving any subdivision:
- (a) A recommendation for approval as required by RCW 58.17.150;
  - (b) Where a subdivision with nonpublic wells are proposed:
    - (i) Configuration of each lot line to allow a supply protection zone to fit within the lot lines; or
    - (ii) Water supply protection zones on more than one lot when the person proposing the subdivision or development provides a copy of a recorded restrictive covenant to each property that is sited partially or completely within the water supply protection zone;
    - (iii) Water supply protection zone of at least 100 foot radius for each existing or proposed well site.
- (3) The local health officer may:
- (a) Require detailed site plans and OSS designs prior to final approval of subdivision proposals;
  - (b) Require larger land areas or lot sizes to achieve public health protection;
  - (c) Prohibit development on individual lots within the boundaries of an approved subdivision if the proposed OSS design does not meet the requirements of this chapter; and
  - (d) Permit the installation of an OSS, where the minimum land area requirements or lot sizes in Table XI of this section or maximum total nitrogen in Table XII of this section cannot be met, only when the following criteria are met:
    - (i) The lot is registered as a legal lot of record created prior to the effective date of the rule;
    - (ii) The lot is not within an area identified in the local management plan developed under WAC 246-272A-0015 where minimum land area is listed as a design parameter necessary for public health protection; and
    - (iii) The proposed OSS meets all requirements of this chapter without the use of a waiver under WAC 246-272A-0420.

**Table XI**  
**Minimum Land Area Requirement For Each Single-Family Residence or Unit**  
**Volume of Sewage and Minimum Usable Land Area**

		Soil Type (defined by WAC 246-272A-0220)					
		1	2	3	4	5	6
<b>Minimum Land Area</b>	<b>Public Water Supply</b>	21,780 sq. ft. (.5 acre)	13,000 sq. ft.	16,000 sq. ft.	19,000 sq. ft.	21,000 sq. ft.	23,000 sq. ft.
	<b>Nonpublic Water Supply</b>	2.5 acres <sup>1</sup>	1.0 acre	1.0 acre	1.0 acre	2.0 acres	2.0 acres
<b>Minimum Usable Land Area</b>		2,000 sq. ft.	2,000 sq. ft.	2,500 sq. ft.	3,333 sq. ft.	5,000 sq. ft.	10,000 sq. ft.

<sup>1</sup>OSS consisting of only sewage tanks and gravity SSAS must have a minimum land area of 2.5 acres per WAC 246-272A-0234(6).

**Maximum Allowable Total Nitrogen (TN) Load Per Day by Type of Water Supply, Soil Type, and Land Area<sup>1</sup>**

Water Supply Type	Maximum Daily TN Load	Soil Type <sup>2</sup>					
		1	2	3	4	5	6
<b>Public</b>	<b>mg per sq. ft.</b>	3.8	6.3	5.1	4.3	3.9	3.6
	<b>lb per acre</b>	0.36	0.60	0.49	0.41	0.37	0.34
<b>Nonpublic</b>	<b>mg per sq. ft.</b>	1.9	1.9	1.9	1.9	0.9	0.9
	<b>lb per acre</b>	0.18	0.18	0.18	0.18	0.09	0.09

<sup>1</sup>Based on 60 mg/L TN and 360 gal/day OSS effluent.

<sup>2</sup>As defined in Table V in WAC 246-272A-0220.

## King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum

**Date updated:** November 6, 2024  
**Version:** 3, Final  
**Subject:** Holding Tank Management Requirements  
**Developed by:** Meagan Jackson, Interim Assistant Division Director  
**Discussed with TAC:** February 27, 2024

### 1. Current code

**Summary:** Holding tanks are on-site sewage systems (OSS) that collect the wastewater in a tank, which must be pumped for septage disposal. There is no soil absorption area. Holding tanks are allowed in limited circumstances for nonresidential settings and as an interim method to correct problem systems.

Requirements to promote effective management of septage include a \$5,000 bond filed with the health officer to use for cleanup of potential spill and a pumping contract with a certified pumper.

#### **Language:**

##### **13.52.010 Holding tanks.**

- A. Sewage holding tanks may be permitted only for controlled, nonresidential usage or as an interim method to handle emergency situations or to correct existing problem systems; provided, that an on-site system management program satisfactory to the health officer has been established to assure on-going operation and maintenance.
- B. In addition, the applicant must provide a no-protest agreement with the sewerage authority or a signed petition supporting formation of a ULID if the property is within a sewer service area.
- C. Design plans shall be submitted to the health officer for review. The design and operation shall be in accordance with this title and with Guidelines for Holding Tank Sewage Systems, July 2007, Washington State Department of Health, as amended. The application shall include specifications for the anticipated daily sewage load, the tank capacity, the alarm device, the overflow elevation, the location of the tank, and any other information pertinent to the installation.
- D. A minimum bond of five thousand dollars must be filed with the health officer or management authority to guarantee cleanup in case of accidental spill and/or repair of the system.
- E. A copy of a pumping contract with a certified OSS pumper must be filed with the department.
- F. An OSS installation permit must be obtained prior to installation of the tank.
- G. Monitoring and maintenance shall be in accordance with BOH 13.60.010. (R&R No. 08-03 § 124, 2008: R&R No. 99-01 § 2 (part), 3-19-99: R&R No. 3 Part 6 § 1, 12-19-86).

### 2. Proposed change

**Summary:** PHSKC proposes to eliminate the \$5,000 bond requirement and replaces this with a pumping contract that either specifies a predetermined pumping schedule or agrees to monitor with when a device that monitors tank levels and notifies property owner and pumper when tank needs to be pumped.

#### **Language:**

##### **13.52.010. Holding tanks**

- D. The owner shall enter into an active pumping contract with a certified OSS pumper and file a copy of the contract with the health officer. The owner shall maintain the contract at all times

until the holding tank has been decommissioned. The pumper shall notify the health officer if the contract is at any time canceled or not renewed by either party to the contract.

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

### **3. Reason for change**

Due to increased OSS failures in King County, it is becoming more common for a holding tank to be the only feasible, code-conforming option to replace failing OSS on difficult sites. However, our current management program has not proven to effectively address concerns with holding tanks overflowing or being used improperly. Additional management tools are needed to address concerns with public health risk while also allowing holding tank systems.

The bond requirement that currently exists for holding tanks is very difficult to track, is rarely renewed, and has not proven to provide a benefit when issues with holding tanks arise. Auto-dialers have been successfully used for other high-risk scenarios where it is vitally important to pump tanks in a timely manner, for example in large on-site sewage systems (LOSS).

Public input emphasized the importance of giving property owners a choice about how to maintain their OSS. The proposal provides two options to achieve timely pumping of a holding tank OSS, while requiring that all owners maintain a pumping contract in place to ensure timely pumping when needed.

### **4. Anticipated impact**

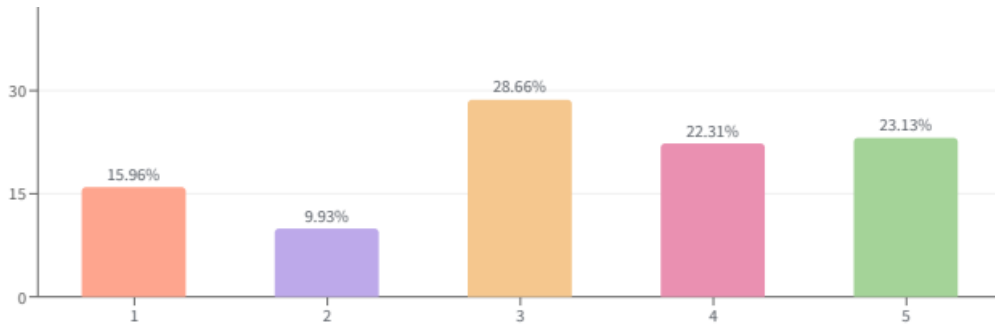
- Prevention of unpermitted discharges, leading to better protection of public health and water quality.
- If monitoring device option is selected, there will be an increased cost to holding tank installation by approximately \$1,000-2,000.
- More holding tanks can be approved to address failing OSS on difficult sites, allowing for continued use of developed properties.

### **5. Technical Advisory Committee feedback**

- Public Health needs to implement an effective method of enforcing pumping contracts and reporting requirements. This will have more impact on holding tank management than requiring a monitoring device.
- Greater oversight will also provide better data to inform management practices.

### **6. Community Input**

- a. Community comments:
  - i. Holding tanks as a permanent solution surprised some community members.
  - ii. Improved monitoring and documentation are needed to ensure proper pumping and prevent illegal discharge.
  - iii. In general, PHSKC should trust property owners to maintain their septic systems.
  - iv. It is important to give property owners choices about how to maintain their septic systems.
- b. Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	98	15.96 %
2	61	9.93 %
3	176	28.66 %
4	137	22.31 %

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ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
5	142	23.13 %

## 7. Technical evaluation and additional information

There are just over 100 holding tanks on record in King County. Of these, just over 30 have been pumped in the last month, and 40 have been pumped in the last 6 months (as of Feb 21, 2024). There is a remaining 60 holding tanks that have not been pumped recently. Because of the limitations in our current management structure, we do not know whether these tanks should have been pumped more recently.

The primary need for holding tank management is to ensure that tanks are pumped as needed to prevent sewage backups and surfacing sewage. When holding tanks are not managed properly, the results can be severe. For example, PHSKC has received two complaints in the last three years about holding tanks. They both had fairly comprehensive information about holding tank contents being dumped into surface water, one into a stream and one into Puget Sound. Because of the difficulty of documenting such dumping, PHSKC was not able to ensure that tanks were being



pumped, despite a high amount of resources invested (20+ hours, \$6,000+ per case). Different tools are needed than currently exist.

Many local health jurisdictions, including PHSKC, utilize pumping contracts as a tool for management. The contract generally specifies the following information:

- Certified pumper on contract to pump tank contents
- Frequency of pumping, determined based on expected water use and tank size
- Payment agreement
- Agreement that property owner is responsible to maintain active pumping contract at all times and acknowledgement that owner will be in violation of KCBOH Title 13 if no pumping contract is in place

This tool is helpful in providing routine service to pump the holding tanks, but it does not account for periods of high water use or other changes that may cause the tank to need to be pumped at a different time. To address this need, we propose using auto-dialers.

The Washington Large On-site Sewage System (LOSS) Program regularly requires auto-dialers for LOSS around Washington State. The auto-dialers typically call during high-level alarms or any other conditions that may result in a sewage overflow event. The auto-dialer contacts the operator on contract and some combination of owner, engineer, and maintenance staff. Washington State Department of Health is not included on the auto-dialer call list due to liability issues.

Auto-dialers cost approximately \$1,000<sup>1</sup>. The success of using these two tools (contracts and auto-dialers) to effectively manage holding tanks depends on PHSKC's ability to enforce current contracts. PHSKC is building a contract management and reminder system into the new Environmental Health Services permitting software.

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<sup>1</sup> <https://www.wholesalesepticsupply.com/products/cellular-auto-dialer-panel;>  
[https://www.septicproducts.com/upload/price\\_sheets/spi\\_price\\_sheet\\_-\\_oct\\_2022xlsx.pdf](https://www.septicproducts.com/upload/price_sheets/spi_price_sheet_-_oct_2022xlsx.pdf)

## King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum

**Date updated:** November 18, 2024  
**Version:** 3, Final  
**Subject:** Minimum trench spacing  
**Developed by:** Marissa KingTalik Health & Environmental Investigator Public Health  
Seattle & King County  
**Discussed with TAC:** August 27, 2024

### **1. Current code**

**Summary:** Minimum separation between drainfield trench side walls was initially established to prevent hydraulically overloading the soil between trenches, maximizing oxygen exchange (US EPA Manual 2002, 177), and to provide adequate space for machinery used to construct the trenches (Siegrist et al., 2000).

#### **Language:**

##### **13.48.010. Drainfield specifications**

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

### **2. Proposed change**

**Summary:** PHSKC proposes to reduce the minimum separation between drainfield trench side walls. At this time, we propose a four-foot separation from side wall to side wall for all soil types.

#### **Language:**

##### **13.48.010. Drainfield specifications**

A.8. Minimum separation between drainfield trench side walls shall not be less than four feet of undisturbed soil for soil types 1-6.

### **3. Reason for change:**

Initial evaluations that determined a minimum separation between trenches were conducted under the assumption that the side walls and bottom of the trench operated equally as an infiltrative surface. We are now aware of a reduced wetting pattern along the side walls of a trench compared to the bottom. As recent as Finch, et al. (2008), it was determined that very minimal infiltration occurs through the side wall in sandy loam soils and only 29-31% of flows infiltrated through the side wall in clay loam soils after a biomat began to form. Modern systems also have increased oxygen exchange via the required monitoring ports. There is limited data on the impact of utilizing larger versus smaller trench separations.

The current minimum spacing prohibits simple gravity and standard pressure systems on lots with adequate vertical separation but limited space. These lots are forced to use pretreated drip, incurring much higher installation and maintenance costs.

### **4. Anticipated impact:**

This change will increase the number of gravity and pressure systems designed and installed in King County, which will reduce the number of advanced treatment systems with drip dispersal

installed in King County. This change will have a significant financial benefit for property owners by reducing costs for septic system installation and maintenance while providing adequate treatment. It will also allow for more space on the property for further development, for example for accessory dwelling units.

**5. Technical Advisory Committee Feedback**

- The committee provided strong support to allow more compact drainfield designs. The 4-foot separation for all soil types was recommended by the committee.

**6. Community Input**

- This proposed change was not discussed in detail during community input sessions because it was developed later in the code revision process. The proposal was developed in response to comments about the importance of reducing costs, prioritizing OSS without advanced treatment, and interest in further property development.

**7. Technical evaluation and additional information:**

WAC 246-272B (2022) requires a minimum four and one-half foot spacing between side walls for all soil types whereas the Victorian Government (2024) requires a minimum distance between sidewalls of one meter (about three feet) for sandy loams and two meters (about six feet) for clay soils.

## Works Cited

- Finch, S. D., Radcliffe, D. E., & West, L. T. (2008). Modeling trench sidewall and bottom flow in On-Site wastewater systems. *Journal of Hydrologic Engineering*, 13(8), 693–701.  
[https://doi.org/10.1061/\(ASCE\)1084-0699\(2008\)13:8\(693\)](https://doi.org/10.1061/(ASCE)1084-0699(2008)13:8(693)). Accessed 12 Aug. 2024
- Public Health Seattle and King County Board of Health. *Title 13: On-Site Sewage*, KC BOH, 2015.  
<https://cdn.kingcounty.gov/-/media/king-county/depts/dph/documents/about-public-health/board-of-health/boh-code-title-13.pdf?rev=9112cb2aacbe499c835b21d2ad08bf92>. Accessed 12 Aug. 2024
- Siegrist, R. L., Tyler, E. J., & Jenssen, P. D. (2000).  
*Design and Performance of Onsite Wastewater Soil Absorption Systems*.  
[https://sswm.info/sites/default/files/reference\\_attachments/SIEGRIST%20et%20al%202000.%20Design%20and%20performance%20of%20onsite%20wastewater%20soil%20absorption%20systems.pdf](https://sswm.info/sites/default/files/reference_attachments/SIEGRIST%20et%20al%202000.%20Design%20and%20performance%20of%20onsite%20wastewater%20soil%20absorption%20systems.pdf). Accessed 12 Aug. 2024
- United States Environmental Protection Agency. Office of Water and Office of Research and Development, *Onsite Wastewater Treatment Systems Manual*, EPA, 2002.  
[https://www.epa.gov/sites/default/files/2015-06/documents/2004\\_07\\_07\\_septics\\_septic\\_2002\\_osdm\\_all.pdf](https://www.epa.gov/sites/default/files/2015-06/documents/2004_07_07_septics_septic_2002_osdm_all.pdf). Accessed 12 Aug. 2024
- Victorian Government. (2024). Guideline for onsite wastewater management. In *Guideline for Onsite Wastewater Management*. <https://www.epa.vic.gov.au/-/media/epa/files/publications/onsite-wastewater-management-pdf.pdf?la=en&hash=307B0E4007FC3DA0CB89A892AB9E00B9>. Accessed 12 Aug. 2024
- Washington Administrative Code. *Chapter 246-272B WAC Large On-Site Sewage Systems*, Washington State Department of Health, 2022.  
<https://app.leg.wa.gov/WAC/default.aspx?cite=246-272B&full=true&pdf=true>. Accessed 12 Aug. 2024

**Drainfield Sizing in King County - Technical Memorandum**

**Date updated:** November 18, 2024  
**Version:** 2, Final  
**To:** King County OSS Technical Advisory Committee  
**From:** Kyla Leyendekker, Margarita Ankoudinova and Marissa KingTalik, Health & Environmental Investigators, Public Health Seattle & King County  
**Subject:** Evaluation of Reduced Drainfield Sizing Allowance in Updated Chapter 246-272A WAC

**Summary**

The Washington Administrative Code Section 246-272a will soon be updating their code to increase hydraulic loading rates for different soil types, which will then reduce the size of on-site sewage system drainfield areas. Public Health Seattle and King County is concerned by the implications of increasing the hydraulic loading rate and would prefer to continue using our existing hydraulic loading rates. This apprehension is mainly based off information from the On Site Wastewater Treatment Systems February 2002 Manual and other data which will be referenced below. Washington state is already experiencing trends of increased single family residence home sizes and nutrient loading as it is related to health hazards and toxic algae blooms. Although new technology has decreased the amount of water that people use, it does not reduce nutrient loading rates and concentrates the contaminants. These concerns can be mitigated by continuing to use KC BOH Title 13 loading rates. The costs increase associated with a larger drainfield is minimal compared to reducing the drainfield size and adding a pre-treatment unit. However, PHSKC will alternatively propose to allow the increased hydraulic loading rate when used in conjunction with higher treatment standards and increased vertical separation than what the updated WAC requires.

**1) Current Hydraulic Loading Rate Requirements in both the WAC, KC BOH Title 13, and On Site Wastewater Treatment Systems Manual February 2002**

- a) “13.28.070 Required absorption area.
  - A. Single-family dwellings. For design purposes **one hundred fifty gallons/bedroom/day** shall be utilized in determining unit volume with a minimum of three bedrooms. For each additional bedroom OSS designs must use at least an additional one hundred twenty gallons/bedroom/day. Loading rates shall be determined according to soil texture type as outlined in Table 13.28-4. The finest textured soil in the selected vertical separation establishes the loading rate.” (Source: KC BOH Title 13, 2015)

**Table 13.28-4  
Maximum Hydraulic Loading Rate For Residential Sewage<sup>1</sup>**

<b>Soil Type</b>	<b>Soil Textural Classification Description</b>	<b>Loading Rate for Residential Effluent Using Gravity or Pressure Distribution (gal./sq.ft./day)<sup>5</sup></b>
1	Gravelly and very gravelly <sup>2</sup> coarse sands, all extremely gravelly <sup>3</sup> soils excluding Soil types 5 & 6, all soil type with greater than or equal to 90% rock fragments	1.0 <sup>4</sup>
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 <sup>6</sup>
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 <sup>6</sup>
6	Other silt loams, sandy clay loams, clay loams, silty clay loams.	0.2 <sup>6,7</sup>
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

Updated Chapter 246-272A WAC Hydraulic Loading Rates – 2024 Column B shows the WAC 246-272A Proposed Changes

- b) “Maximum hydraulic loading rates shall be based on the rates described in Table VIII, Maximum Hydraulic Loading Rate;”

**Table VIII**  
Maximum Hydraulic Loading Rate

Soil Type	Soil Textural Classification Description	Column A	Column B
		Loading Rate for Residential Septic Tank Effluent Using Gravity or Pressure Distribution gal./sq. ft./day	Loading Rate for Residential Effluent Meeting Treatment Level C & DL3 or Higher Effluent Quality Using Pressure Distribution gal./sq. ft./day
1	Gravelly and very gravelly coarse sands, all extremely gravelly soils excluding those with soil types 5 & 6 as the nongravel portion, all soil types with greater than or equal to 90% rock fragments.	1.0	1.2
2	Coarse sands.	1.0	1.2
3	Medium sands, loamy coarse sands, loamy medium sands.	0.8	1.0
4	Fine sands, loamy fine sands, sandy loams, loams.	0.6	0.8
5	Very fine sands, loamy very fine sands; or silt loams, sandy clay loams, clay loams and silty clay loams with a moderate structure or strong structure (excluding a platy structure).	0.4	0.56
6	Other silt loams, sandy clay loams, clay loams, silty clay loams.	0.2	0.2
7	Sandy clay, clay, silty clay and strongly cemented firm soils, soil with a moderate or strong platy structure, any soil with a massive structure, any soil with appreciable amounts of expanding clays.	((Not suitable)) Unsuitable	Unsuitable

Product Performance Requirements for Proprietary Treatment Products						
Treatment Component/Sequence Category	Product Performance Requirements					
Category 1. Designed to treat effluent anticipated to be equal to or less than treatment level E.	Treatment System Performance Testing Levels					
	Level	Parameters				
	CBOD <sub>5</sub> mg/L	TSS mg/L	O&G mg/L	FC col/100 mL	TN mg/L	E. coli cfu/100 mL
A	10	10	---	---	---	---
B	15	15	---	---	---	---
C	25	30	---	---	---	---
DL1	25	30	---	200	---	126
DL2	---	---	---	1,000	---	---
DL3	---	---	---	50,000	---	---
E	228	80	20	---	---	---
N	---	---	---	---	30 (or 50% reduction based on mass loading as required in WAC 246-272A-0320)	---

(Source: WA DOH WAC 246-272A)

- c) EPA On-Site Wastewater Treatment Systems Manual, February 2002, Page 172

**Table 4-3. Suggested hydraulic and organic loading rates for sizing infiltration surfaces**

Texture	Structure		Hydraulic loading (gal/ft <sup>2</sup> -day)		Organic loading (lb BOD/1000ft <sup>2</sup> -day)	
	Shape	Grade	BOD=150	BOD=30	BOD=150	BOD=30
Coarse sand, sand, loamy coarse sand, loamy sand	Single grain	Structureless	0.8	1.6	1.00	0.40
Fine sand, very fine sand, loamy fine sand, loamy very fine sand	Single grain	Structureless	0.4	1.0	0.50	0.25
Coarse sandy loam, sandy loam	Massive	Structureless	0.2	0.6	0.25	0.15
	Platy	Weak	0.2	0.5	0.25	0.13
		Moderate, strong				
	Prismatic, blocky, granular	Weak	0.4	0.7	0.50	0.18
		Moderate, strong	0.6	1.0	0.75	0.25
Fine sandy loam, very fine sandy loam	Massive	Structureless	0.2	0.5	0.25	0.13
	Platy	Weak, mod., strong				
	Prismatic, blocky, granular	Weak	0.2	0.6	0.25	0.15
		Moderate, strong	0.4	0.8	0.50	0.20
	Massive	Structureless	0.2	0.5	0.25	0.13
Loam	Platy	Weak, mod., strong				
	Prismatic, blocky, granular	Weak	0.4	0.6	0.50	0.15
		Moderate, strong	0.6	0.8	0.75	0.20
	Massive	Structureless	0.2	0.5	0.25	0.13
	Silt loam	Platy	Weak, mod., strong			
Prismatic, blocky, granular		Weak	0.4	0.6	0.50	0.15
		Moderate, strong	0.6	0.8	0.75	0.20
Massive		Structureless	0.2	0.5	0.25	0.13
Sandy clay loam, clay loam, silty clay loam		Platy	Weak, mod., strong			
	Prismatic, blocky, granular	Weak	0.2	0.3	0.25	0.08
		Moderate, strong	0.4	0.6	0.50	0.15
	Massive	Structureless				
	Sandy clay, clay, silty clay	Platy	Weak, mod., strong			
Prismatic, blocky, granular		Weak				
		Moderate, strong	0.2	0.3	0.25	0.08

Source: Adapted from Tyler, 2000.

**(Source:US EPA Manual, 2002)**

d) KC BOH Title 13.08.372 Typical Residential Sewage Strength Parameters

**13.08.372 Residential sewage.** "Residential sewage" means sewage having the consistency and strength typical of wastewater from domestic households. See Table 13.08-1 for residential sewage strength parameters.

**Table 13.08-1  
Residential Sewage Strength Parameters**

Parameter	Septic Tank Effluent Range (mg/L)
BOD <sub>5</sub>	130-230
CBOD <sub>5</sub>	Approximately 108-191
TSS	49-150
O and G	10-25

(R&R No. 08-03 § 66, 2008: R&R No. 99-01 § 2 (part), 3-19-99).

**(Source: KC BOH Title 13, 2015)**

**Inferences From Data In Tables 1a through 1d Above**

Table 4-3 from the EPA manual recommends hydraulic loading rates based on Biochemical Oxygen Demand over 5 days (BOD<sub>5</sub>) levels and the soil texture and structure. BOD<sub>5</sub> from a typical residence averages between 130-230 mg/l. Septic tank removal efficiencies are 30-50 percent (US EPA Manual 2002, 198). This would bring BOD<sub>5</sub> levels down to a range of potentially 65-115 mg/l. Table 4-3 of the EPA manual would be somewhere in the mid-range for hydraulic loading rates, which is more similar to our current KC BOH Title 13 code. The EPA manual has not been updated since 2002 and it is considered

the most reliable reference for designing on-site sewage systems. More scientific evidence is needed to determine if the hydraulic loading rates could potentially change in the future.

## **2) Concerns with Nutrient Pollution and Reduced Drainfield Sizing**

Nitrogen and phosphorus are some of the important nutrients that impact our groundwater. Having excess nutrients in our water can contribute to algal blooms and reduced oxygen levels, known as eutrophication, in our waterways (Borok, 2014). Excess nitrates in water may lead to a condition called blue baby syndrome or infant methemoglobinemia, which can potentially kill babies. Other risks involved with excess nitrates are cancer and birth defects (Bulletin Editorial Board 2024).

Based on a study done by Lauren Oldfield titled, “Estimation of Nutrient Loads from Septic Systems to Tributaries” differences between nutrient loading rates in evaluated watersheds “are attributed to the number of septic systems in the watershed, average population per household, and the average setback distance (i.e. distance between a septic system and closest tributary).” Densely populated areas that are on septic systems have higher nutrient loading rates into the aquifer (Oldfield, 2019). One pertinent example of this issue was what happened in Deschutes County, Oregon where nitrate concentrations in groundwater rose high enough to affect drinking water and public health. The Oregon Department of Environmental Quality issued a letter to Deschutes County commissioners stating that “continued unrestricted development” may reach a point where it may be impossible to recover from groundwater contamination without additional regulation and funding, largely due to many homes being built with septic systems (Bulletin Editorial Board 2024). This is concerning as King County is more densely populated than Deschutes County. In order to prevent similar groundwater contamination in King County, it is pertinent to keep drainfields larger.

An emerging issue to consider is the trend to use low flow fixtures inside of homes, such as low flush toilets, sinks with reduced flow, and appliances that use less water than before. The installation of low flow fixtures in homes helps reduce water usage, but the nutrient concentration can increase due to less water diluting it (WA DOH, 2014). Furthermore, Sara Heger describes the results of a 2009 study that shows as homes use less water, the septic tank effluent quality is affected. Alkalinity increased due to more concrete leaching and more conversion of organic nitrogen to ammonium due to increased contaminant concentrations. BOD5 in tank effluent is increasing as shown by median values for raw effluent at 420 mg/L and tank effluent at 216 mg/L. This is still a 49% removal, but the raw concentration is higher. Nitrogen and phosphorus concentrations do not significantly decrease from tank treatment. TSS settling does not appear to be affected by lower flows (Heger, 2019). As such a larger tank without aerobic treatment units can reduce BOD levels, but doesn’t have as much of an impact to nitrogen and phosphorus levels. A larger drainfield area can help increase nitrogen removal by providing more soil contact area and is an important factor to consider when designing septic systems (WA DOH, 2014).

## **3) Cost Analysis of Smaller Drainfields with Pre-treatment**

It is important to consider the cost-benefit ratio for maintaining existing loading rates. Increasing loading rates and decreasing drainfield size would allow for a lower cost of drainfield installation. The state proposes to allow for increased loading rates only with Treatment Level C and DL3 or higher. Treatment systems already cost more than simple gravity or pressure without pretreatment, so the cost of drainfield installation would only be lowered in cases where the applicant is already spending money on pretreatment. The increase in cost of additional drainfield is likely to be minimal in comparison to the cost of a pretreatment unit, especially considering these units incur increased maintenance costs compared to septic and pump tanks. By increasing system lifespan with a larger drainfield, we also hope to prevent additional costs down the line for drainfield repair/replacement. Also, reducing the drainfield size and



adding a pre-treatment unit may actually increase the cost of the overall installation, compared to just installing a larger drainfield.

#### 4) Conclusion

Based on the evidence and argument above, Public Health Seattle and King County OSS program recommends continuing to use KC BOH Title 13 code requirements, until further scientific evidence proves that reducing the drainfield area is sufficient to prevent excessive nutrient loading into groundwater. Given the high-density population of urban areas served by septic systems in King County, the current code requirements will prevent groundwater contamination. Our goal is to prevent public health threats similar to what Deschutes County Oregon is currently facing. Costs of system installation should not be significantly affected by this decision.

#### 5) For Consideration by the Technical Advisory Committee (TAC)

Alternatively, PHSKC proposes to combat the concerns with organic loading rate and nutrient density by allowing the increased hydraulic loading rates from WAC 246-272A Table VIII in conjunction with additional treatment requirements, increased vertical separation and an operating permit. The tabled below outlines the proposed requirements.

<b>Proposed Table</b>				
<b>Minimum Treatment Level and Effluent Distribution Method Required by Various Soil Types, Vertical Separation and Original Soil Depth Conditions for use of WAC 246-272A Table VIII Column B Maximum Hydraulic Loading Rate</b>				
<b>Vertical Separation in inches</b>	<b>Soil Type</b>			
	<b>1</b>	<b>2</b>	<b>3-4</b>	<b>5-6</b>
<18	Not allowed	Not allowed	Not allowed	Not allowed
>18<24	<b>A</b> – Pressure with timed dosing	<b>A</b> – Pressure with timed dosing	<b>A</b> – Pressure with timed dosing	<b>A</b> – Pressure with timed dosing
>24<36	<b>A</b> – Pressure with timed dosing	<b>A</b> – Pressure with timed dosing	<b>A</b> – Pressure with timed dosing	<b>A</b> – Pressure with timed dosing
>36<60	<b>A</b> – Pressure with timed dosing	<b>B</b> – Pressure with timed dosing	<b>B</b> – Pressure with timed dosing	<b>B</b> – Pressure with timed dosing
>60	<b>B</b> – Pressure with timed dosing	<b>C</b> – Pressure with timed dosing	<b>C</b> – Pressure with timed dosing	<b>B</b> – Pressure with timed dosing

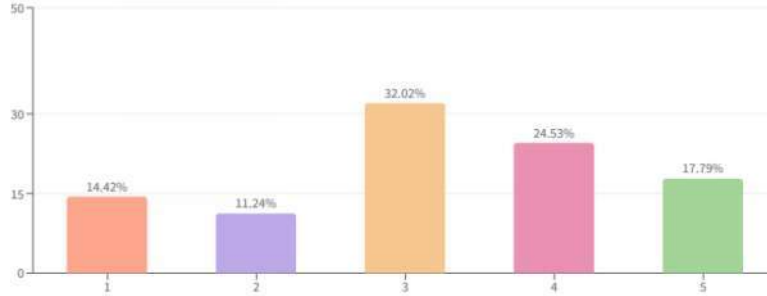
Based on discussion with the TAC, increased loading rates were not moved forward in the proposed code revisions. TAC members noted that an OSS designer can request a Health District waiver, showing that the site conditions support higher loading rates and that the proposed design meets minimum WAC requirements. This will ensure that public health and ground water protection is included in the proposed design. King County will work with the TAC to develop a memo to provide a structure for the design considerations needed to support reduced sized drainfields.

#### 6) Community Input

- Community comments:
  - **Support for smaller systems with pretreatment:** Participants supported allowing smaller septic systems if advanced pretreatment technologies ensured safety and environmental protection.

- **Addressing housing demands:** Smaller systems were seen as a solution to help increase housing affordability and meet demand, especially in areas with small lots or challenging soil conditions.

- Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	77	14.42 %
2	60	11.24 %
3	171	32.02 %
4	131	24.53 %
5	95	17.79 %

## Works Cited

- Borok, Aron. Oregon Department of Environmental Quality. *Oregon's Nutrient Management Program*, 2014. <https://www.oregon.gov/deq/FilterDocs/NutrientManageRep.pdf> Accessed 15 Feb. 2024
- Bulletin Editorial Board. "Editorial: Deschutes County Must Take Action on Nitrates in Drinking Water." *The Bulletin*, 16 Feb. 2024, [www.bendbulletin.com/opinion/editorial-deschutes-county-must-take-action-on-nitrates-in-drinking-water/article\\_d920bc58-ac1d-11ee-a213-17c8be108638.html](http://www.bendbulletin.com/opinion/editorial-deschutes-county-must-take-action-on-nitrates-in-drinking-water/article_d920bc58-ac1d-11ee-a213-17c8be108638.html). Accessed 20 Feb. 2024
- Heger, Sara. "How Water Use Changes Septic Tank Effluent." *Pumper*, 1 Oct. 2019. [https://www.pumper.com/online\\_exclusives/2019/10/how-water-use-changes-septic-tank-effluent](https://www.pumper.com/online_exclusives/2019/10/how-water-use-changes-septic-tank-effluent) Accessed 15 Feb. 2024
- King County and Vashon-Maury Island Groundwater Protection Committee. *Sustainability Indicators Per Capita Water Consumption*, 2012. <https://your.kingcounty.gov/dnrp/library/water-and-land/groundwater/VMI-GWPC/SI-2012/SI10-per-capita-2012.pdf> Accessed 15 Feb. 2024
- NeoMam Studios. "The Median Home Size in Every U.S. State in 2022." *Visual Capitalist*, 2 Dec. 2022, [www.visualcapitalist.com/cp/median-home-size-every-american-state-2022/](http://www.visualcapitalist.com/cp/median-home-size-every-american-state-2022/). Accessed 15 Feb. 2024
- Oldfield, Lauren, "Estimation of Nutrient Loads from Septic Systems to Tributaries in the Lake Erie Basin" (2019). Electronic Thesis and Dissertation Repository. 6057. <https://ir.lib.uwo.ca/etd/6057>
- Public Health Seattle and King County Board of Health. *Title 13: On-Site Sewage*, KC BOH, 2015. <https://cdn.kingcounty.gov/-/media/king-county/depts/dph/documents/about-public-health/board-of-health/boh-code-title-13.pdf?rev=9112cb2aacbe499c835b21d2ad08bf92>. Accessed 15 Feb. 2024.
- United States Environmental Protection Agency. Office of Water and Office of Research and Development, *Onsite Wastewater Treatment Systems Manual*, EPA, 2002. [https://www.epa.gov/sites/default/files/2015-06/documents/2004\\_07\\_07\\_septics\\_septic\\_2002\\_osdm\\_all.pdf](https://www.epa.gov/sites/default/files/2015-06/documents/2004_07_07_septics_septic_2002_osdm_all.pdf). Accessed 15 Feb. 2024
- United States Environmental Protection Agency. *Statistics and Facts*, EPA, 2023. <https://www.epa.gov/watersense/statistics-and-facts> Accessed 15 Feb. 2024
- Washington Administrative Code. *Chapter 246-272A WAC On-site Sewage Systems*, Washington State Department of Health, 2010. <https://app.leg.wa.gov/wac/default.aspx?cite=246-272a&full=true&pdf=true> Accessed 15 Feb. 2024
- Washington State Department of Health, *How Nitrogen from Septic Systems can Harm Water Quality*, 2014. <https://doh.wa.gov/sites/default/files/legacy/Documents/4450/337-142-Nitrogen-Removal-from-OSS-FactSheet.pdf> Accessed 15 Feb. 2024

**King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum**

**Date updated:** November 6, 2024  
**Version:** 3, Final  
**Subject:** Inspection Frequency Requirements  
**Developed by:** Lara Brezina, Lynn Schneider, Meagan Jackson  
**Discussed with TAC:** March 26, 2024

**1. Current code**

**Summary:** Routine preventative maintenance/performance monitoring inspections of on-site septic systems (OSS) are critical to ensure proper operation and to prolong the life of the OSS. Current Title 13 code requires OSS with proprietary technology to be inspected under a two-year service contract beginning 45 days after occupancy and then every six months during the initial two years of use. After that two-year period, the OSS is required to undergo routine inspections every six months, but a service contract is not required.

**Language:**

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

A. The owner shall cause monitoring of the performance of any OSS at a frequency and by a qualified person as specified in Table 13.60-1.

**Table 13.60-1  
Minimum Frequency of Preventive Maintenance/Performance Monitoring**

	Gravity System <sup>4</sup>	Public Domain Technology <sup>2</sup>	Proprietary Technology <sup>3,5</sup>	Commercial and Food Establishment	Non-Discharging Toilets <sup>6</sup>
<b>Initial<sup>1</sup> Inspection</b>	6 months	6 months	45 days	45 days	N/A
<b>Regular Inspection frequency</b>	Every 3 years	Annually	Every 6 months	Annually or 6 months Depending on Technology used	Annually
<b>Who May Perform the Inspection</b>	Owner or Licensed Maintainer or Licensed OSS Pumper	Licensed Maintainer	Licensed Maintainer	Licensed Maintainer	Owner

**Table 13.60-1 Explanatory Notes**

1. The initial inspection is to be performed at the time interval indicated following occupancy.
2. Public domain technology includes such systems as: mounds, intermittent sand filters and pressure distribution.
3. Proprietary Technology includes such systems as: ATUs, Glendon up-flow filters, Advantex pack bed filters and subsurface drip.
4. At least an annual septic tank maintenance check is required if the structure served is equipped with a garbage grinder waste disposal unit. If a screened outlet baffle is present an annual check is recommended. Pumpers shall report each pumping event to the health officer in accordance with BOH chapter 13.68.
5. Table 13.60-1 specifies the minimum required monitoring frequency. A more stringent monitoring frequency shall be used if recommended by the manufacturer.
6. This monitoring is in addition to that required for the OSS receiving the building's nontoilet liquid waste.

**2. Proposed change**

**Summary:** PHSKC proposes that the minimum routine inspection frequency for OSS with proprietary technology be changed to the frequency recommended by the manufacturer, except no less than annually. This is consistent with WAC 246-272A. PHSKC does not propose any changes to the timing of the initial inspection.

**Language:**

Excerpt from Table 13.60-1

	Proprietary Technology <sup>5</sup>	Commercial and Food Establishment
<b>Initial Inspection</b>	45 days	45 days
<b>Regular Inspection frequency</b>	Annually	Annually
<b>Who May Perform the Inspection</b>	Licensed Maintainer	Licensed Maintainer

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

**3. Reason for change:**

Current Title 13 code is more restrictive than can be reasonably implemented. WAC requirements have shown to be sufficient to ensure on-going operation of OSS. In the case of proprietary technology where the manufacturer recommends more frequent maintenance inspections, that schedule would still be required.

**4. Anticipated impact:**

- PHSKC does not currently track and implement the increased inspection frequency requirement for proprietary systems.
- Reduced inspection frequency would reduce costs to those who have been having their OSS inspected every 6 months by approximately \$500 per year.
- Annual inspection frequency is more likely to be manageable for PHSKC to begin tracking and implementing.

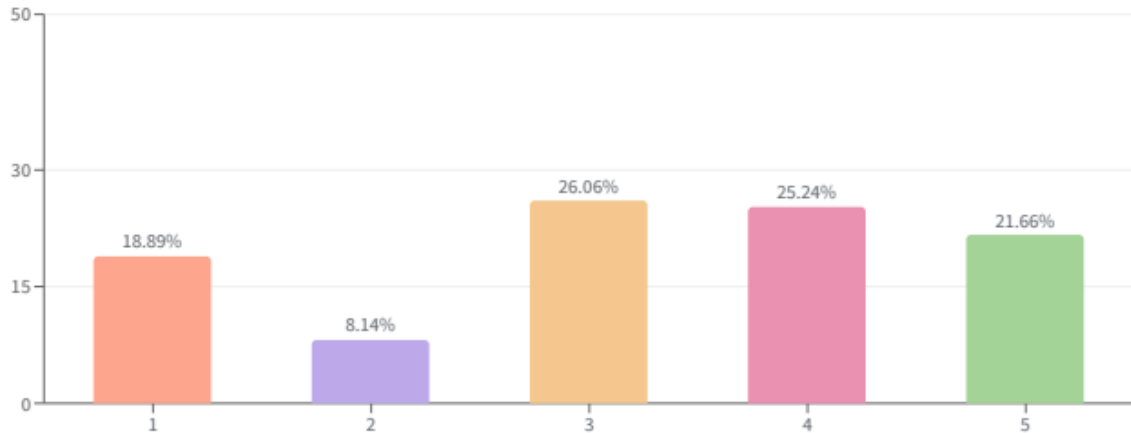
**5. Technical Advisory Committee Feedback**

- The OSS industry representative advocated to keep the required inspection frequency at 6 months because conditions may change quickly. By reducing the inspection frequency to every 12 months, issues may arise and not be corrected in a timely manner which can threaten the integrity of the OSS.
- TAC supports the need for routine inspections. Additional support structures are needed to ensure that inspections take place, for example sending reminders, ensuring that maintenance contracts are transferred to new owners, etc.

**6. Community Input**

- Community comments:
  - **Reevaluation of stringent OSS inspection requirements:** Positive feedback on the idea to make inspection requirements more flexible, especially for lower-risk systems, while still maintaining public health standards.
  - **Support for aligning proprietary system inspections with state standards:** Participants agreed that inspections for proprietary systems should be annual, not semi-annual, to reduce burden.
  - **Concerns about long-term costs for advanced systems:** Some voiced worries about the higher maintenance costs and complexity of advanced systems compared to older systems.

- **Excessive inspection frequencies for gravity-fed systems:** Attendees raised concerns about overly frequent inspections for simple systems like gravity-fed ones, with suggestions for a reminder program to help homeowners keep up with maintenance.
- **Strong interest in owners inspecting their own systems:** Many property owners expressed an interest in performing their own inspections. They requested more training in how to do this to ensure that their system is properly functioning while also meeting inspection requirements.
- Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	116	18.89 %
2	50	8.14 %
3	160	26.06 %
4	155	25.24 %
5	133	21.66 %

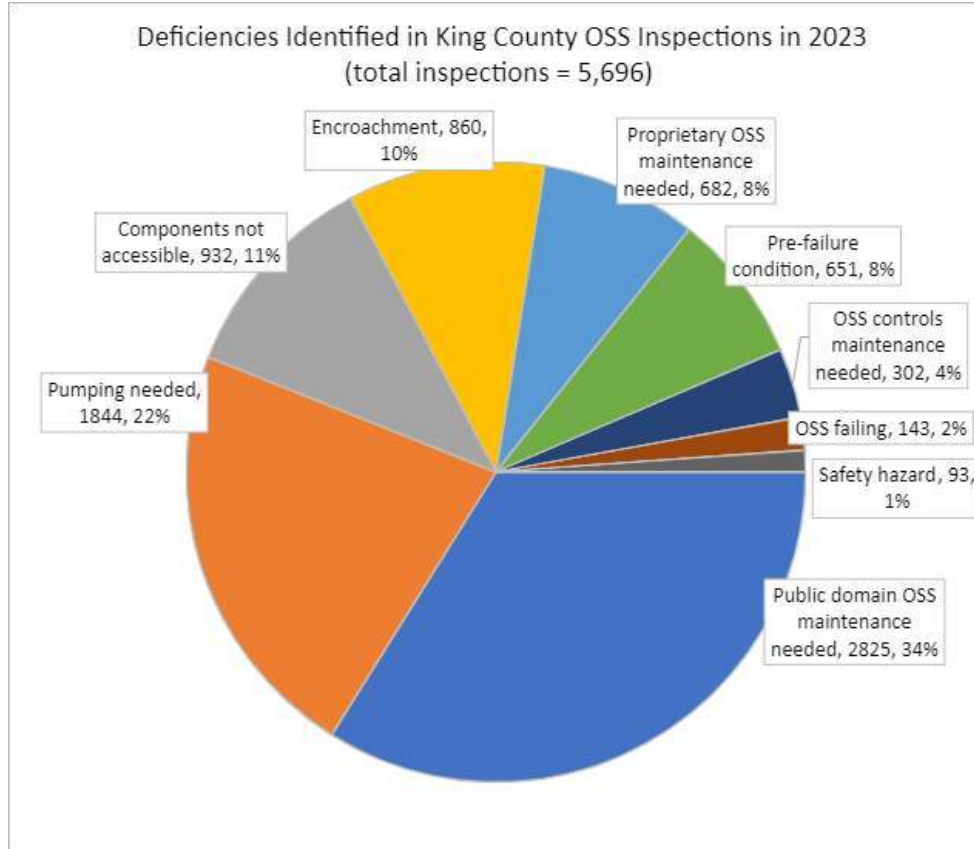
**7. Technical evaluation and additional information:**

Proprietary technology is a sewage treatment and distribution technology, method, or material which is subject to a patent or trademark. The Washington Department of Health (DOH) reviews and lists proprietary treatment products based upon detailed information demonstrating that the proprietary treatment product meets or exceeds performance testing requirements. This review process requires the manufacturer of a proprietary technology to provide comprehensive and detailed operation and maintenance instructions including a maintenance schedule for all critical components.

After initial installation, a 2-year initial service policy must be furnished to the owner by the installer. This service policy must contain provisions for four inspection/service visits (scheduled

once every 6 months over the 2-year period) during which electrical, mechanical, and other applicable components are inspected, adjusted, and serviced.

In 2023, a total of 5,696 OSS inspections were reported to Public Health. Of these, 2,998 (53%) reported at least one deficiency, and there were a total of 8,332 deficiencies reported. The graph below shows the breakout of which deficiencies were most prevalent. It is important to note that many of these deficiencies (e.g. pumping needed, maintenance needed for controls) could result in premature failures if not addressed. Often when issues arise, a property owner is alerted to enlist professional services by an alarm.



WA DOH RS&G for Proprietary On-Site Wastewater Treatment Products provides the following general guidance:

**Table 3.**  
**Relationship Between Site Limitations and System Complexity for Conventional and Alternative On-Site Sewage Treatment Systems**

Issue	Characteristics / Level of Limitation and Complexity		
	Lower	←←←←←←←←	→→→→→→→→ Higher
<b>Site Limitation</b>	Meets state rules for <i>conventional gravity system</i>	Meets state rules for <i>conventional pressure distribution system</i>	<b>Limitation increases with</b> - <i>less</i> vertical separation, smaller lot sizes, less horizontal separation, and, <i>greater</i> surface slope, wastewater flow, wastewater strength, etc.
<b>System Complexity</b>	Gravity-flow (no pumps, controls, etc.)	Pressurized distribution (requires pumps & controls)	<b>Complexity increases with</b> - <i>increasing</i> reliance upon, or combinations of: pumps; blowers; motors; mechanical, electronic, or computer-operated controls & warning devices; disinfection (materials & equipment); reduction in deficiencies; quality control of artificial (non-original soil) treatment media, etc.

## King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum

**Date updated:** October 31, 2024  
**Version:** 3, Final  
**Subject:** Incorporating protections against unsecured tank lids  
**Developed by:** Meagan Jackson, Interim Assistant Division Director  
**Discussed with TAC:** March 12, 2024

### 1. Current code

**Summary:** Existing code does not have any language about ensuring that lids are secured.

**Language:** N/A

### 2. Proposed change

**Summary:** Require that property owner ensure that OSS access lids are secured at all times. Require that certified professionals secure tank access lids or provide clearly visible marking and notification to residents before leaving a site after inspection or pumping. The requirement to ensure that tank access lids are secured to minimize injury or unauthorized access will be included in Title 13, and more details will be included in a program policy.

Example from TPCHD code: All tank accesses shall be designed to allow for monitoring and maintenance and shall be secured to minimize injury or unauthorized access in a manner approved by the health officer.

**Language:**

#### **13.60.005 Operation and maintenance.**

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

#### **13.60.010 Monitoring of residential, community or commercial systems.**

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

### 3. Reason for change

Unsecured tank access lids are a significant risk of injury. Over the past several years, at least 3 deaths have occurred in Washington due to people falling into unsecured tanks, including 1 in King County. It is often young children who fall into tanks when they are unsecured.

The risk of an unsecured lid is very high, and with minimal efforts we can significantly reduce this risk.

### 4. Anticipated impact

- Certified professionals and Health & Environmental Investigators will need to have supplies such as caution tape, stakes, screws, and lids readily available when on site. This presents a slight cost.



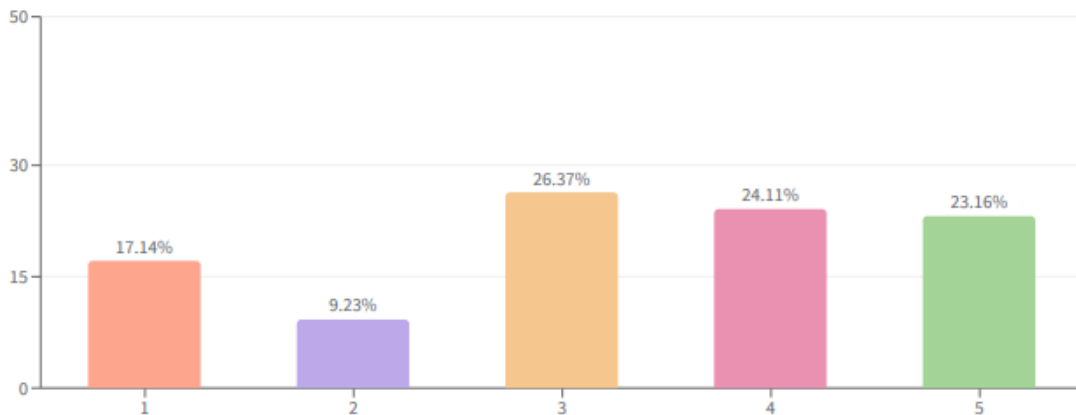
- OSS Program workload will slightly increase due to tracking reporting of secured lids and performing quality control site visits.
- Risk to life safety will be significantly reduced.
- There is no significant cost impact to property owners or residents.

**5. Technical Advisory Committee feedback**

- The primary responsibility for secured lids needs to lie with the property owner. They are ultimately responsible, and industry professionals cannot ensure compliance.
- It is of vital importance to protect the life safety of children, and this is one way to do that.
- Industry professionals requested flyers or other materials on unsecured lids and their dangers, which they could share with property owners and residents.

**6. Community Input**

- Community comments: Generally strong support for adding language to protect against loose lids.
- Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	91	17.14 %
2	49	9.23 %
3	140	26.37 %
4	128	24.11 %
5	123	23.16 %

## **7. Technical evaluation and additional information**

Tacoma-Pierce County Health Department has already implemented this requirement.

In addition to requiring that certified professionals verify that a tank lid was secured on an inspection report (or clearly explain why it was not secured and how the lid was marked to prevent access), PHSKC Health & Environmental Investigators will also ensure that lids are secured when they are on site. If they are not able to secure lids, they will use caution tape to mark the area with the unsecured lid and notify the resident/leave a door hanger at the property.

PHSKC will perform occasional quality control inspections after an inspection/pumping is completed. If a report falsely documents that all lids are secured, PHSKC will start an investigation to determine if the certified professional was responsible for the unsecured lid. If so, the certified professional will be fined for non-compliance with Title 13.

PHSKC has increased education and outreach regarding this important life safety issue. PHSKC will continue to provide this information to residents and welcomes any advice about how to improve/expand this work.

## King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum

**Date updated:** November 6, 2024  
**Version:** 3, Final  
**Subject:** Changing Time of Sale Inspection timelines and clarifying waiver requirements  
**Developed by:** Meagan Jackson, Interim Assistant Division Director  
**Discussed with TAC:** March 12, 2024

### 1. Current code

**Summary:** OSS Time of Sale (TOS) inspections are required within 6 months of a property transfer in King County. The seller is responsible to get the inspection by a certified maintainer. A seller can apply for a waiver if a) an inspection has been performed in the last 6 months (and the inspection did not identify any correctable deficiencies), b) the home has never been occupied, or c) a new permitted OSS was installed and the first inspection per Title 13 is not due yet (45 days use for proprietary OSS, 6 months use for gravity and public domain technology).

#### **Language:**

##### **13.60.030 Operation and maintenance at time of sale.**

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

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

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

3. A monitoring and performance inspection is not required if such an inspection was performed within the previous 6 months.

4. At the time of property transfer, the owner shall provide, to the buyer, maintenance records, if available, in addition to the completed seller disclosure statement in accordance with chapter 64.06 RCW for residential real property transfers. (R&R No. 08-03 § 145, 2008).

### 2. Proposed change

**Summary:** PHSKC proposes to make the following changes.

- Extend timeline so that a TOS inspection is not required if an equivalent inspection was performed within the previous 12 months.
- If a property is sold by a different seller within the 12-month timeframe, an updated TOS inspection is required.
- Update language to indicate that certified maintainer should create a reconciled site sketch and not a record drawing (which only licensed designers and professional engineers are allowed to create).

#### **Language:**

##### **13.60.030 Operation and maintenance at time of sale.**

- B. If no record drawing is on file with the department, the OSM shall prepare a site sketch and include it with the O&M report submitted to the department.
- C. If a record drawing is on file with the department but does not accurately depict the OSS, the OSM shall prepare a site sketch and include it with the O&M report submitted to the department.
- D. A property transfer monitoring and performance inspection is not required if such an inspection was performed within the previous twelve months, provided the property has not been transferred since the most recent inspection.

### **3. Reason for change**

Due to WAC revisions, a statewide requirement for all OSS in Washington to be inspected prior to property transfer will be instated as of January 1, 2027. The WAC allows for a TOS inspection to be waived if the property is in compliance with WAC inspection requirements, which are every 3 years for gravity systems and every 1 year for all other systems. To align more closely with this code requirement while also maintaining consistency and clear requirements across different system types, we propose to require a TOS inspection within 1 year of the property transfer.

Consistency across county lines will ensure clarity and benefit all impacted parties.

When a property transfers, the wastewater generation generally changes significantly, which can put stress on an OSS and result in new problems with the OSS. Due to this, a new TOS inspection will be required if a property is sold again within a 12-month period.

### **4. Anticipated impact**

We anticipate that these changes will provide more consistency with other counties, resulting in easier compliance at the time of sale, while maintaining a good level of OSS evaluation before transferring the property to a new owner.

The changes may result in a slight decrease in cost to sellers whose sales are delayed past the 6-month timeframe. This is a rare occurrence.

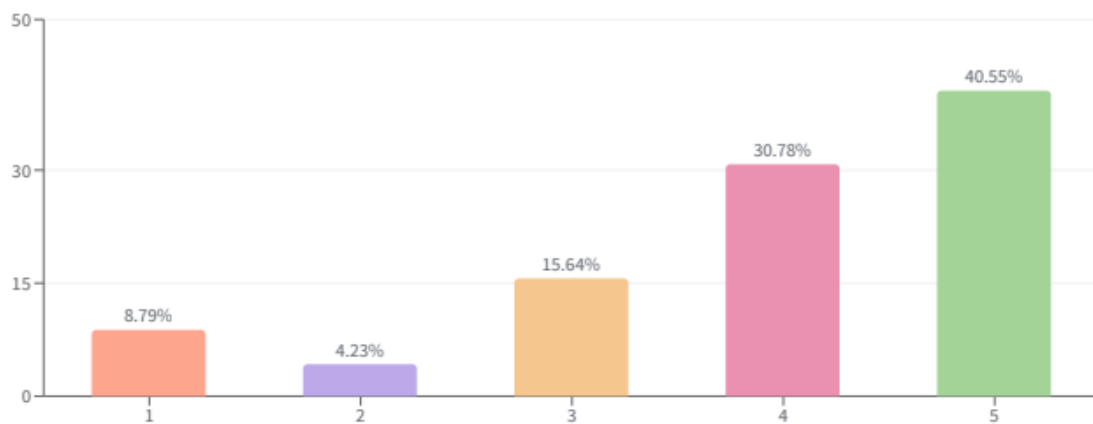
### **5. Technical Advisory Committee feedback**

- OSS industry representatives advocated to keep the 6-month timing for TOS inspections because OSS conditions can change quickly. By extending the valid timeline of a TOS inspection, buyers may not receive important information about the status of the OSS.
- Realtor representative commented that consistency across counties is important because realtors often work across county lines. Because 12 months is an acceptable timeline for everywhere else in Washington State, King County should also allow for 12 months.
- Issues with OSS after a new buyer moves in are more common when the house was unoccupied during the TOS inspection.
- Another important issue related to TOS inspection is the difficulty in communicating the importance of maintenance to new buyers. If a maintenance contract is in place, it is rarely transferred to the new owner. One idea was to require a homeowner walk through with a certified professional or PHSKC inspector within 6 months of occupying a new home.

### **6. Community Input**

- a. Community comments:
  - **General support for extending inspection validity:** Most participants supported extending septic inspection validity from 6 to 12 months, citing reduced costs for sellers and smoother real estate transactions.

- **Debate over timeframe length:** Some felt 12 months was still too short given the long lifespan of septic systems, suggesting it could be extended even further. Others felt that 6 months was the appropriate timeframe in order to provide the best possible information to the buyer. They stated that 6 months is working right now, so there is no need to change it.
  - **Real estate perspective:** Realtors found value in maintaining a shorter inspection timeline for system oversight, but appreciated the flexibility of a longer period, especially for longer home sale processes.
  - **Alignment with state regulations:** The proposed extension to 12 months would align with state regulations and accommodate longer home sale timelines, which was supported by most property owners.
- b. Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	54	8.79 %
2	26	4.23 %
3	96	15.64 %
4	189	30.78 %
5	249	40.55 %

## 7. Technical evaluation and additional information

### **Waiver policy:**

The OSS Program also grants waivers to the TOS inspection requirement under certain conditions that show that an OSS inspection will not provide additional information necessary for the seller’s disclosure requirements. The waiver process will be updated and clearly defined in a policy.

The TOS inspection is more thorough than a routine inspection, specifically due to the stress test requirement. A single routine inspection most likely does not provide the level of system evaluation that is anticipated through a TOS inspection. Therefore, the policy will indicate that there must be a pattern of on-going routine maintenance in order to waive the TOS inspection due to a routine inspection having been performed in the last 12 months.

**Revised WAC language:**

**246-272A-0270 (1)** The OSS owner is responsible for operating, monitoring, and maintaining the OSS to minimize the risk of failure, and shall:

(k) At the time of property transfer:

(i) Provide to the buyer all available OSS maintenance and repair records in addition to the completed seller disclosure statement in accordance with chapter 64.06 RCW for residential real property transfers;

(ii) Beginning February 1, 2027, obtain an inspection, as required in WAC 246-272A-0260(5), by a third-party inspector authorized by the local health officer. The local health officer may:

(A) Remove the requirement for an inspection at the time of property transfer if the local health jurisdiction has evidence that the OSS is in compliance with (e) of this subsection and the OSS was inspected by a third-party inspector authorized by the local health officer

(B) Verify the results of the property inspection for compliance with WAC 246-272A-0260; and

(C) Require additional inspections and other requirements not listed in WAC 246-272A-0260.

(iii) Beginning February 1, 2027, obtain an inspection of proprietary treatment products per the product manufacturer recommendations, as required in WAC 246-272A-0260, by a third-party inspector authorized by the local health officer. The local health officer may:

(A) Remove the requirement for an inspection at the time of property transfer if the local health jurisdiction has evidence that the OSS is in compliance with (e) of this subsection and the OSS was inspected by a third-party inspector authorized by the local health officer;

(B) Verify the results of the property inspection for compliance with WAC 246-272A-0260; and

(C) Require additional inspections and other requirements not listed in WAC 246-272A-0260;

(iv) Submit the results of the inspection, and any additional information or reports required by the local health officer, to the local health jurisdiction, using an inspection report form approved by the local health officer. The local health officer may require a compliance schedule for repair of a failure discovered during the property transfer inspection.

**WAC 246-272A-0270 (1)**

(e) Obtain an inspection, as required in WAC 246-272A-0260(5), by a maintenance service provider authorized by the local health officer of all OSS and property to determine functionality, maintenance needs and compliance with this chapter and local rules, and any permits:

(i) At least once every three years, unless more frequent inspections are specified by the local health officer, for all OSS consisting solely of a sewage tank and gravity SSAS;

- (ii) Annually for all other OSS unless more frequent inspections are specified by the local health officer;
- (iii) Submit the results of the inspection to the local health jurisdiction, using a form approved by the local health officer and in compliance with WAC 246-272A-0260(5);

**WAC 246-272A-0260**

(5) To comply with the requirements of WAC 246-272A-0270 (1)(e) or (k), an inspection must include, at a minimum:

(a) Inspection and evaluation of:

- (i) The status of all sewage tanks including baffles, effluent filters, tank contents such as water level, scum, sludge, solids, water tightness, and general structural conditions;
- (ii) The status of all lids, accesses, and risers;
- (iii) The OSS and reserve area for any indicators of OSS failure or conditions that may impact system function, operation, or repair; and
- (iv) Any other components such as distribution boxes;

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

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

(6) Evidence of an OSS property transfer inspection as required in WAC 246-272A-0270 (1)(k) must be provided to the local health jurisdiction on a form approved by the local health officer, including at a minimum:

- (a) All applicable information from subsection (5) of this section;
- (b) The address of the property served by the OSS;
- (c) The date of the inspection;
- (d) The permitted type and design flow for known OSS; and
- (e) Verification that the record drawing is accurate, if it exists, or an OSS site plan showing the location of all system components relative to structures and prominent site features.

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

## King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum

**Date updated:** October 30, 2024  
**Version:** 3, Final  
**Subject:** Failure reporting requirements  
**Developed by:** Corrina Marote, Equitable Wastewater Program Manager  
**Discussed with TAC:** February 27, 2024

### 1. Current code

**Summary:** Operations and maintenance/performance reports shall be submitted to the property owner and health officer within 30 days of the inspection.

**Language:** 13.60.010.G. The person conducting the maintenance and performance monitoring inspection shall submit a system operation and maintenance/performance monitoring report, on forms provided by the health officer, to the owner at the time of the inspection and to the health officer accompanied by a filing fee as specified in the fee schedule within 30 days of the inspection.

### 2. Proposed change

**Summary:** If surfacing effluent or sewage backing up into a structure is observed and cannot be repaired during the same maintenance/performance inspection, a report shall be submitted within 5 business days.

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

### 3. Reason for change:

Public Health is responsible to ensure that failures are addressed in a timely manner to prevent public exposure to untreated sewage. In order to do this effectively, we need to have good information about the state of an OSS. This timeline was decided on after much discussion with various parties who recommended both shorter and longer timeframes. No fee will be assessed for the report of a failure. Additionally, due to concerns about the lack of clarity in the word failure, proposed code language specifies that this requirement only applies to failures where effluent is surfacing or sewage is backing up into a structure.

### 4. Anticipated impact

- No anticipated cost impact.
- Prevention of sewage discharges, leading to better protection of public health and water quality.
- Change in staff workflow as staff will prioritize following up on failures over other work.

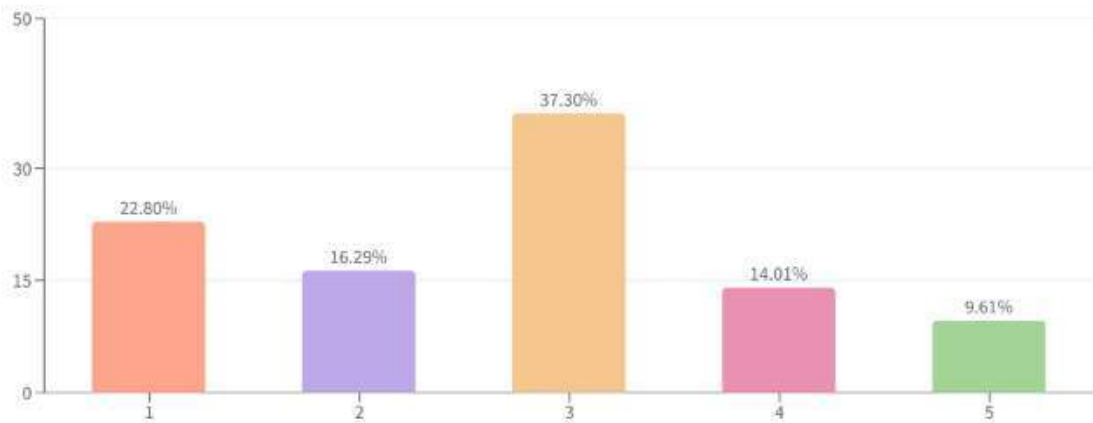
### 5. Technical Advisory Committee feedback



- Industry professionals understand the need for Public Health to respond to failures in a timely manner. Industry representatives shared that at least 3 business days are needed to submit a report to King County, although most preferred a longer timeframe to allow for time to address issues and communicate with customers.
- Many TAC members were in support of shorter reporting timelines (24-48 hours).
- Request to clarify reporting requirements if repair is scheduled for following day and to explain how Public Health responds if repairs are in progress.
- It is important to capture data on failures to understand failure patterns, property types impacted, reasons prompting failures, etc.

## 6. Community Input

- Community comments:
  - **Debate over septic failure reporting time:** Many community members advocated for keeping the existing 30-day reporting requirement. They shared that they need time to work with contractors to figure out a solution and do not want the County involved before that.
  - **Timely reporting critical for sensitive areas:** Other participants emphasized the need for quicker reporting of septic failures, especially near sensitive ecosystems like shellfish beds. They said that it would be best to align reporting timelines with area characteristics, for example having a shorter timeframe for urban areas or areas close to sensitive ecosystems.
  - **Three-business-day reporting window:** A proposal was made to give professionals at least three business days to report failures, allowing property owners time to address the issue while maintaining health and environmental safety.
- Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	140	22.80 %
2	100	16.29 %
3	229	37.30 %
4	86	14.01 %
5	59	9.61 %

## 7. Technical evaluation and additional information

Public Health will also publicly post response protocols to clarify the response process for different types of failures and repairs. Public Health almost always contacts the certified professional who submitted the report before taking action to ensure that a failure is repaired. If the maintenance report documents follow up actions scheduled to take place, Public Health does not visit the property and follows up with the certified professional and/or property owner after that date.

**King County Board of Health Title 13 Code Revision 2024 - Technical Memorandum**

**Date updated:** November 15, 2024  
**Version:** 3, Final  
**Subject:** Change of Use Inspection Requirement for Commercial Septic Systems  
**Developed by:** Doug Jones, Lara Brezina  
**Discussed with TAC:** March 12, 2024

**1. Current code**

**Summary:**

Current code requires commercial establishments served by on-site sewage systems (OSS) to perform preventative maintenance and monitoring, including monitoring of the effluent quality (waste strength). PHSKC reviews proposed changes of use for commercial properties when required by local building departments in association with building permits.

**Language:**

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

I. 2. At least an annual inspection of OSS serving food establishments shall be conducted.

**13.64.020 - Remodeling – approval required**

D. Any applicant for a permit for a change of use in a commercial structure served by an OSS shall obtain the health officer's review and approval of the OSS before the OSS may be utilized to serve the new use in the structure. Any such applicant for a change in use approval for the continued use of the OSS shall submit a written application for approval by the health officer. The application shall include information detailing any processes or uses which may impact the wastewater characteristics and flows of the existing OSS.

**2. Proposed change**

**Summary:** PHSKC proposes to require evaluations of OSS by licensed OSS designers or professional engineers when reviewing changes in operation for commercial and foodservice establishments, or when reviewing a change from residential use to commercial use. In conjunction with reviewing the most recent inspection, PHSKC will require a review of proposed processes to determine the change in waste strength that the proposed use may cause. Monitoring of water usage and of sewage quality may be a part of the review. For food service establishments, a change of menu that would require a plan review for the food service permit will also require a review of the anticipated waste strength and treatment capacity of the OSS by a licensed OSS designer or professional engineer. If the OSS records are missing, incomplete or inaccurate, an updated drawing of the OSS showing all components will be required. A Time of Sale inspection cannot be used in place of a change of use evaluation.

**Language:**

**13.64.020 - Remodeling – approval required**

D. Any applicant changing use in a commercial structure served by an OSS, or for a change of use from residential to commercial in a structure served by an OSS, shall obtain the health officer's review and approval of the OSS before the OSS may be utilized to serve the new use in the structure. Any such applicant for a change in use approval for the continued use of the OSS shall cause the application for approval by the health officer to be submitted by a licensed OSS designer or professional engineer on forms provided by the health officer. The application shall include

information detailing the anticipated wastewater strength of the proposed use and any processes or uses which may impact the wastewater characteristics and flows of the existing OSS.

### 3. Reason for change

An OSS that serves a commercial establishment has an increased risk for failure when the waste strength is increased beyond the design capacity of the OSS or when the OSS is not monitored and maintained on a regular basis. The risk of exposure to untreated sewage is also higher on commercial properties that have customers and employees visiting the premises. Proactive monitoring and maintenance of OSS and regular evaluation of the sewage quality will help ensure that the septic systems serving commercial establishments are able to adequately treat waste and operate for longer periods, reducing the need for costly OSS replacements.

### 4. Anticipated impact

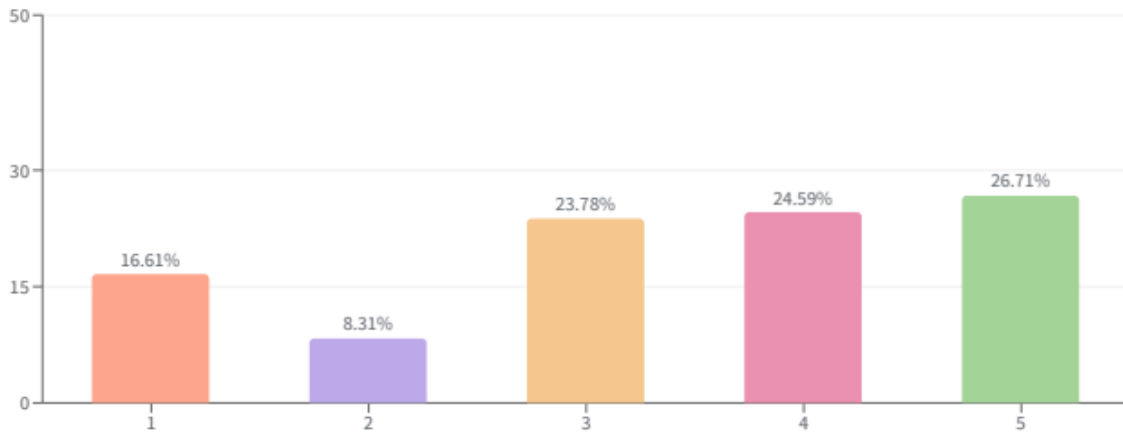
- Better operation and maintenance of commercial OSS leading to better treatment of effluent and better protection of public health and water quality.
- Longer operational life of OSS serving commercial establishments.
- Reduced failures of these OSS, leading to better water quality and reduced costs to the establishment for expensive septic system replacements.
- Increased cost to owner/buyer of commercial property before starting new business. Anticipated cost of change of use evaluation is \$2,000-3,000. Additional costs may be incurred if the OSS must be upgraded to meet the proposed use of the property.

### 5. Technical Advisory Committee Feedback

- OSS industry and realtor representatives requested a definition for “high strength” wastewater, specifically, what are the parameters BOD, TOS, O&G, or facility dependent. With further discussion, it was suggested to use the definition in the WAC which is constituent levels higher than residential wastewater.
- Categories such as residential, non-residential, & commercial were suggested for consistency.
- The realtor representative commented that residential to food establishment or residential to childcare changes of use are not unusual and agreed the need exists to address this in the code.
- OSS industry representative remarked that standard residential strength parameters are based on analysis from 20 years ago and recommended updating these parameters.

### 6. Community Input

- Community comments:
  - **Support for aligning OSS capacity with property use:** Participants agreed that changes in property use, such as converting a house into a daycare or adult family home, could significantly impact OSS capacity and should be reflected in system requirements.
  - **Regular inspections for commercial changes:** Suggestions were made for regular inspections of properties undergoing commercial changes to ensure OSS systems continue to meet the increased capacity demands.
  - **Emphasis on matching OSS to actual use:** Discussions highlighted the importance of ensuring OSS systems are appropriate for the property's real use, particularly in cases where homes are converted for business purposes.
- Survey results (1 – bad idea; 5 – great idea):



ANSWER CHOICES	RESPONSES	RESPONSE PERCENTAGE
1	102	16.61 %
2	51	8.31 %
3	146	23.78 %
4	151	24.59 %
5	164	26.71 %

**7. Technical evaluation and additional information**

Sewage from commercial establishments can vary substantially from one establishment to the next. Even among similar types of commercial establishments, such as food service establishments, the wastewater pollutant loading can vary widely from establishment to establishment and even within the same establishment when processes are changed, or menu items are added or changed. As an example, preparing additional dessert items can add fat and sugar to the waste stream, which are much harder to break down than typical residential sewage. The absence of bathing and laundry activities can further concentrate pollutants. This results in sewage of a higher waste strength than residential sewage. For commercial establishments that are served by septic systems, changes to the waste strength may require alterations to the septic system to provide adequate treatment of the sewage.

- PHSKC is notified of change of use when a property owner submits a building permit application and/or a food plan application.
- Reviews of records for King County foodservice establishments served by OSS indicate that failures and replacements of OSS occur more frequently than residential OSS.
- There are 137 food service establishments served by OSS in King County. Additional data analysis is needed to determine number of commercial establishments on OSS.
- Studies suggest that changes in commercial processes, including menu changes, can result in significant changes in waste strength. This proposed change will allow PHSKC to better

manage commercial OSS by addressing these changes at the permitting stage to allow for better treatment and reduce the incidence of OSS failure due to excessive waste strength.

- Examples of articles on foodservice and commercial waste strength:

[food\\_waste.pdf \(tamu.edu\)](#)

[Wastewater Quality / Strength / and Content](#)



# King County

## Department of Local Services – Permitting Division

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### State Environmental Policy Act (SEPA) Non-Project Action Determination of Non-Significance (DNS)

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- Name of Proposal:** Proposed amendments to the codes and regulations pertaining to On-site Septic Systems (OSS) within King County, WA.
- Description of Proposal:** Revise the King County Board of Health (BOH) Title 13 OSS Code related to oversight of permitting and installation of new and replacement OSS, reviewing land division and development for suitability of OSS, operations and maintenance (O&M), and certification of OSS professionals in King County, including clarifying connection to sewer, where allowed, and the development standards that apply.
- Additional information about the proposal can be found here:  
[Public notices - King County, Washington](#)  
And here:  
[On-site sewage system code revision process - King County, Washington](#)
- Proponent/Contact:** **Meagan Jackson, Interim Assistant Division Director-  
Environmental Health Services  
Public Health—Seattle & King County  
401 Fifth Avenue, Suite 1100  
Seattle, WA 98104  
206-263-0547  
mejackson@kingcounty.gov**
- Location of Proposal:** King County
- Lead Agency:** King County Department of Local Services
- Responsible Official:** Ty Peterson  
**Position/Title:** Product Line Manager – Commercial / Resource  
**Address/Phone:** 919 SW Grady Way, Suite 300  
Renton, WA 98057  
Ty.Peterson@kingcounty.gov  
Phone: 206-477-0449

**Threshold Determination: Determination of Non-Significance (DNS)**

The responsible official finds that the above-described proposal does not pose a probable significant adverse impact to the environment. This finding is made pursuant to RCW 43.21C, KCC 20.44 and WAC 197-11, after reviewing the environmental checklist and other information on file with the lead agency, considering the extent to which the proposed action will cause adverse environmental effects in excess of those addressed by existing regulations, and considering mitigation measures which the agency or the proponent will implement as part of the proposal. The responsible official finds this information reasonably sufficient to evaluate the environmental impact of this proposal and conclude the proposed action will not have a significant impact to current or continued use of the environment. THIS INFORMATION IS AVAILABLE TO THE PUBLIC ON REQUEST

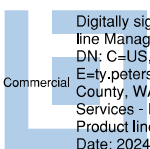
(for a nominal copying fee or by email).

THIS DETERMINATION OF NON-SIGNIFICANCE (DNS) is issued under Washington Administrative Code (WAC) 197-11-340(2). The adopting agency will not act on this proposal until after **December 11, 2024**. Comments must be received by King County Department of Local Services – Permitting Division prior to **4:00 PM** on that date.

For additional information, please contact the proponent’s contact or the responsible official listed above.

**Address for comments:** King County Department of Local Services – Permitting Division)  
919 SW Grady Way, Suite 300  
Renton, WA 98057  
ATTN: Ty Peterson  
E-mail: Ty.Peterson@kingcounty.gov

**Public Hearing:** A public hearing on the proposed amendments is scheduled for November 21, 2024 before the King County Board of Health. Information on the public hearing and how to submit public comment can be found at this website:  
[Board of Health meeting agenda - King County, Washington](#)

 Digitally signed by Ty Peterson, Product line Manager - Commercial  
DN: C=US,  
E=ty.peterson@kingcounty.gov, O="King County, WA", OU=Department of Local Services - Permitting, CN="Ty Peterson, Product line Manager - Commercial"  
Date: 2024.11.18 19:12:50-08'00'

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Ty Peterson, SEPA Official

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11/20/2024  
Date effective



# Attachment 5. Washington State Department of Commerce Confirmation Letters



STATE OF WASHINGTON  
DEPARTMENT OF COMMERCE  
1011 Plum Street SE • PO Box 42525 • Olympia, Washington 98504-2525 • (360) 725-4000  
[www.commerce.wa.gov](http://www.commerce.wa.gov)

09/30/2024

Mx. Chris Jensen  
Comprehensive Planning Manager  
King County  
35030 SE Douglas Street Suite 210  
Snoqualmie, WA 98065

Sent Via Electronic Mail

Re: King County--2024-S-7542--Request for Expedited Review / Notice of Intent to Adopt Amendment

Dear Mx. Jensen:

Thank you for sending the Washington State Department of Commerce (Commerce) the Request for Expedited Review / Notice of Intent to Adopt Amendment as required under [RCW 36.70A.106](#). We received your submittal with the following description.

**Proposed revisions to King County Board of Health codes, Title 13 – On-site Sewage Systems to comply with recent changes to WAC 246-272A, improve the codes, and incorporate the latest best science.**

We received your submittal on 09/30/2024 and processed it with the Submittal ID 2024-S-7542. Please keep this letter as documentation that you have met this procedural requirement. Your 60-day notice period ends on 11/29/2024.

You requested expedited review under [RCW 36.70A.106\(3\)\(b\)](#). We have forwarded a copy of this notice to other state agencies for expedited review and comment. If one or more state agencies indicate that they will be commenting, then Commerce will deny expedited review and the standard 60-day review period (from date received) will apply. Commerce will notify you by e-mail regarding of approval or denial of your expedited review request. If approved for expedited review, then final adoption may occur no earlier than fifteen calendar days after the original date of receipt by Commerce.

If you have any questions, please contact Growth Management Services at [reviewteam@commerce.wa.gov](mailto:reviewteam@commerce.wa.gov), or call Jeff Aken, (360) 725-2869.

Sincerely,

Review Team  
Growth Management Services

Page: 1 of 1

# Attachment 6. Washington State Department of Commerce confirmation email, October 14, 2024

Jackson, Meagan

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**From:** COM GMU Review Team <reviewteam@commerce.wa.gov>  
**Sent:** Monday, October 14, 2024 7:56 AM  
**To:** Jensen, Chris  
**Subject:** King County - Expedited Review Request Granted for Submittal ID: 2024-S-7542

[EXTERNAL Email Notice! ] External communication is important to us. Be cautious of phishing attempts. Do not click or open suspicious links or attachments.

Dear Mx. Jensen,

Your request for an Expedited Review has been granted for: Proposed revisions to King County Board of Health codes, Title 13 - On-site Sewage Systems to comply with recent changes to WAC 246-272A, improve the codes, and incorporate the latest best science.

As of receipt of this email, you have met the Growth Management notice to state agency requirements in RCW 36.70A.106 for this submittal. Please keep this email as confirmation.

If you have any questions, please contact Jeff Aken at (360) 725-2869 or by email at [jeff.aken@commerce.wa.gov](mailto:jeff.aken@commerce.wa.gov).

~~~ ONLINE TRACKING SYSTEM AVAILABLE ~~~~

Log into our new PlanView system at <https://secureaccess.wa.gov/com/planview> where you can keep up with this submittal status, reprint communications and update your contact information.

Don't have a user account? Reply to this email to request one and attach a completed PlanView User Request Form.

Have questions about using PlanView? Use the PlanView User Manual for assistance at <https://www.commerce.wa.gov/serving-communities/growth-management/washington-department-of-commerce-growth-management-submitting-materials/>.

Sincerely,

Review Team  
Growth Management Services

# Attachment 7. Letter of support from King County Child Death Review Board, November 13, 2024

November 13, 2024

King County Board of Health  
In care of Board of Health Administrator  
Public Health—Seattle & King County  
401 5<sup>th</sup> Ave, Suite 1100  
Seattle, WA 98104

Re: Letter of Support for Public Health Seattle-King County’s Proposed Code Revision to Require Secured On-site Sewage System Lids

Dear King County Board of Health Members,

Public Health-Seattle & King County has been facilitating Child Death Reviews with community partners for over 30 years to review the causes of childhood deaths and pursue system changes that prevent child injury and deaths. In November 2020, the Child Death Review Committee, under the Child Mortality Prevention Program reviewed a tragic incident where a two-year-old child fell into a septic tank and drowned in addition to other preventable drowning cases. Unfortunately, this was not a one-off incident. In Washington alone, a child dies from falling into a septic tank approximately once every two years. During the review in November 2020, The Child Death Review Committee had identified increased regulation for OSS in King County and community education as necessary actions to prevent a repeat of such incidents.

King County’s Child Death Review Committee is in full support of proposed code revisions listed below, which are coming before the King County Board of Health. The OSS Program, in collaboration with community representatives and other partners, has identified clear, direct mechanisms to address the life safety risk of unsecured septic tank lids. These include two proposed revisions to the King County Board of Health Code, Chapter 13:

- New requirement for OSS owners to ensure that all tank lids are secured to prevent accidental entry
- New requirement for anyone servicing an OSS to secure all tank lids prior to leaving the property, or to visibly mark the area and notify the resident and property owner if the tank access point was unable to be secured

Adopting these proposed requirements is an essential step to stop child deaths that can be easily prevented. It also contributes to Public Health – Seattle & King County’s efforts to address racism as a public health crisis – many of the aging OSS in King County are in marginalized communities. As an additional step, the OSS Program has informed the Board that they are seeking funding to provide culturally relevant education about OSS maintenance, including information about securing tank lids. Education is a vitally important next step in ensuring that property owners and residents can take the precautions necessary to keep their kids safe.

No more kids should be falling into septic tanks. Please adopt these proposed code revisions so that no more children die or nearly die in this way.

Sincerely,

Michelle, Whitney, Djenom

Michelle Sarju  
Parent Child Health Administrator  
Public Health – Seattle & King County

Whitney Taylor  
Child Mortality Prevention Program Manager  
Public Health – Seattle & King County

Djenom Benjamin  
Child Mortality Prevention Program Manager  
Public Health – Seattle & King County

On behalf of 2020 Child Death Review Board Members:

Kim Beeson, Puget Sound Educational Service District  
Shaquita Bell, Seattle Board Certified Pediatrician  
Sarah Benrath, Odessa Brown Children’s Clinic  
Emily Claire Brown, MD, Seattle Children’s Hospital  
Karyn Brownson, PHSKC VIP  
Amy Bullard, King County Prosecuting Attorney’s Office – DV Unit  
Meg Cary, MD, King County Department of Community and Human Services  
Caitlin Crumm, MD, Seattle Children’s Protection Program  
Pat Ellis, Kent Fire Department/Puget Sound Regional Fire Authority  
Noble Erickson, Youth Eastside Services  
Nate Geerdes, King County Medical Examiner’s Office  
Tony Gomez, PHSKC

Will Hitchcock, Washington State Department of Health, Safe Kids  
Andrea Hoopes, MD, Kaiser Permanente  
Katie Johnson, Seattle Children’s Hospital Protection Program  
Hilary Karasz, PHSKC  
Jennifer McCarthy, Department of Children, Youth, and Families  
Erika Miller, SCH  
Erin Morgan, University of Washington  
Norene Roberts, King County Superior Court, Child Advocacy Center  
Mike Ryan, Bellevue Fire Department/Eastside Fire and Rescue  
Lois Schipper, King County Department of Youth Detention  
Adrienne Schlatter, SCH  
Charlie Scoma, Seattle Police Department, Chaplain

Sanrda Shanahan, King County Regional DV  
Firearms Enforcement Unit  
Sarah Stempki, SCH  
Lauren Truscott, Seattle Police Department  
Colleen Wayne, King County Medical Examiner's  
Office  
Rebecca Wiester, MD, Seattle  
Children's/Harborview  
Kim Wilson, Seattle Children's Protection  
Program

## Attachment 8. Letter of comment from Seattle King County Realtors, November 15, 2024



**DATE:** November 15, 2024

**TO:** King County Board of Health  
c/o Meagan Jackson - Delivery: e-mail only to [mejackson@kingcounty.gov](mailto:mejackson@kingcounty.gov)

**FROM:** Sam Pace, Housing Specialist  
Seattle King County REALTORS®

**RE:** Critically Important Need for Revision of KC-BOH Septic Regulations to Adaptively Accommodate Best Available Septic Science/Technology to Support Housing Attainability & Affordability in Rural King County, and Help Minimize Larger Carbon Footprints Resulting from Multi-County Commutes

Greetings:

I am writing to the King County Board of Health on behalf of the 6,000+ members of Seattle King County REALTORS® regarding important improvements needed in the revisions to King County's on-site sewer (septic) regulations.

King County's housing market has been characterized by drastic rises in both prices and rents, pushing many families and individuals to seek more affordable alternatives in other rural areas, and other counties.

King County's current septic regulations impose significant and constraining limitations on building homes in the rural areas of King County, which in-turn contributes significantly to:

- Exacerbating the challenge of meeting the critically pressing need for housing that working families can afford - especially new less-expensive Accessory Dwelling Units (ADUs), and
- Fostering multi-county sprawl which produces multi-county commutes - and resulting larger carbon footprints - that are fundamentally inconsistent with King County's progressive environmental values.

King County's housing market has been characterized by drastic rises in both prices and rents, pushing many families and individuals to seek more affordable housing alternatives in other rural areas, and other counties, even as they continue to be employed here. Respectfully, it is clear beyond any serious question that King County is lagging well-behind neighboring jurisdictions in approving, and implementing, needed revisions to its on-site sewer (septic) regulations.

Other jurisdictions, including Pierce and Thurston counties (as well as state regulations) have moved forward to embrace the Best Available Science associated with emerging septic technologies. King County should adopt similarly aggressive, progressive, and environmentally responsible approaches.

For example, both neighboring counties have moved forward to accommodate more cluster septic systems, which can help significantly with siting additional housing to address:

- The State’s housing crisis - where King County continues to be “Ground Zero” despite the “Emergency Declarations” by the King County Executive, and Seattle’s Mayor, 9-years ago on November 2, 2015.
- The larger carbon footprint that is produced when we do not have enough housing for everyone who needs a place to live, and households are forced into multi-county commutes.
- The continuing failure of the County (for more than three decades) to effectively...  
*“Plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock”*

The foregoing language - which King County is required to comply with - is contained in RCW 36.70A.020(4) - which is the *Housing Goal* in Washington’s Growth Management Act (GMA). The state legislature made clear this Housing Goal in .020(4) stands on an equal footing with every other goal in GMA. Under state law, it cannot be relegated to a subordinated position.

King County lags far behind in these regards.

We recognize - and appreciate - some of the minor adjustments being proposed regarding spacing of drain field lines, extending the time-period inspections are valid (to make the County regulations consistent with the existing state law), and process revisions for small projects. But these small, nuanced, adjustments at the margin, fall far-short of the much more aggressive approach that is needed to accommodate housing under the KC-BOH’s septic regulations... and more importantly, the approach that is warranted by the best available septic science, and emerging septic technology. The County’s current septic system requirements impose prohibitive costs, and lengthy approval processes, even for the most modest project.

Implementing adaptive policies that incorporate modern science and technology will help to alleviate this bottleneck, and support growth in a responsible way that also prioritizes public health and responsible environmental stewardship.

In this regard, we would draw your attention to, and associate ourselves with, the written comments you have received on this issue from Pam McCain. As you know, Pam McCain has served as a member of King County Board of Health’s *OSS Technical Advisory Committee* team since its inception in 2022, has decades of professional experience working with septic systems and rural properties, and serves-on (and been chair of) the rural city Planning Commission where she lives.

Thank you for the opportunity to offer these comments of-record. We appreciate it.

Sincerely,  
 SEATTLE KING COUNTY REALTORS®

*Sam Pace*

E. B. “Sam” Pace, Jr., JD, MBA, GRI  
 Housing Specialist  
[Sam@SamPace.com](mailto:Sam@SamPace.com) ♦ (253) 569-2663

cc: Taylor Shanaman, Pam McCain, Randy Banneker

Subject: Request for Review and Adaptation of Septic Regulations to Support Affordable Housing in Rural King County

Dear King County Board of Health,

I am reaching out on behalf of residents, potential homeowners, REALTORS and developers within King County to address an urgent matter affecting our rural communities: the need for a flexible and innovative approach to septic regulations. I have been a member of the OSS Technical Advisory Committee team since its inception in 2022 and I have found these regulations currently impose considerable limitations on building in rural areas, contributing to a significant challenge in meeting the demand for affordable housing.

As you are aware, King County’s housing market has experienced a drastic rise in costs, pushing many families and individuals to seek more affordable alternatives in other rural areas. However, with current septic system requirements, even modest projects face prohibitive costs and lengthy approvals. By implementing adaptive policies that incorporate modern science and technology, we can help alleviate this bottleneck and support growth in a responsible way that also prioritizes public health and environmental stewardship.

Today’s advances in septic system technology provide promising solutions. For example Pierce and Thurston Counties have implemented more cluster septic systems which have shown great benefits for housing expansion. I encourage King County to adopt similarly progressive approaches. King County has made some movement on “compaction” of drain fields, however, additional steps are needed to keep pace with housing demands. ADU’s have been promoted to assist in the housing shortage but the current septic regulations severely restrict modifications to existing drain fields needed to accommodate AADU’s or DADU’s.

This request aims not only to address the immediate housing challenges but also to position King County as a leader in sustainable, affordable rural development. Thank you for your time and consideration.



Pam McCain  
Managing Broker, Realtor®  
John L. Scott Inc  
(253) 569-5859  
[pammccain@johnlscott.com](mailto:pammccain@johnlscott.com)



# Attachment 9. Letter of support from Washington State Department of Health, November 1, 2024



STATE OF WASHINGTON  
**DEPARTMENT OF HEALTH**  
OFFICE of ENVIRONMENTAL HEALTH and SAFETY  
[wastewatermgmt@doh.wa.gov](mailto:wastewatermgmt@doh.wa.gov)  
PO Box 47824, Olympia, WA 98504  
(360) 236-3330 ■ 711 Washington Relay Service

November 1, 2024

King County Board of Health  
In care of Board of Health Administrator  
Public Health—Seattle & King County  
401 5<sup>th</sup> Ave, Suite 1100  
Seattle, WA 98104

## **Re: Letter of Support for Public Health Seattle-King County's Proposed OSS Code Revisions**

Dear King County Board of Health Members,

I am writing as a representative of the Wastewater Management Section, Office of Environmental Health and Safety, Washington State Department of Health and have been a non-voting advisory member of the Public Health Seattle and King County OSS Technical Advisory Committee. The Washington State Board of Health adopted the changes to Chapter 246-272A WAC on January 10, 2024. These changes were made to address a number of issues that were found by local and state agencies, industry professionals, and the general public.

Through the OSS Technical Advisory Committee and multiple public meetings in various communities around King County and in online spaces, public comments and concerns were received, and many were incorporated into the proposed local OSS code revisions. With these public comments, county regulations have been tailored to meet the needs of the county and protect public and environmental health, while maintaining the minimums of the state onsite code.

We commend the staff at Public Health Seattle and King County for providing ample opportunities for public input and listening to their concerns while balancing the needs of the community and industry professionals.

The Wastewater Management Section at the Washington State Department of Health is in full support of the proposed code revisions coming before the King County Board of Health on November 21.

Respectfully,

A handwritten signature in blue ink that reads "Roger Parker".

Roger Parker, RS, CHES  
OSS Technical Assistance Lead  
Wastewater Management Section  
Office of Environmental Health & Safety

# Attachment 10. KC DLS Permitting SEPA Memo Determination of Non-Significance, December 17, 2024




**King County**  
**Permitting Division**  
**Department of Local Services**  
919 Southwest Grady Way, Suite 300  
Renton, WA 98057  
**206-296-6600** TTY Relay: 711  
www.kingcounty.gov

## MEMORANDUM

Date: December 17, 2024

To: Meagan Jackson, Environmental Health Services. Public Health – Seattle & King County

From: Ty Peterson, DLS – Permitting Division 

Re: State Environmental Policy Act (SEPA) Threshold Determination of Non-significance (DNS) for a non-project action identified as: Proposed amendments to the codes and regulations pertaining to On-site Septic Systems (OSS) within King County, WA.

---

Meagan,

As a SEPA official within the Permitting Division of the Department of Local Services, I was tasked with performing the SEPA review and threshold determination under SEPA for the proposed amendments to the Title 13 of the King County Code pertaining to On-site Septic Systems.

As part of that process, I reviewed the SEPA checklist, proposed ordinance, existing codes, regulations and policies.

A DNS was issued and published on November 20, 2024, with a comment period ending December 11, 2024. No substantive comments were received. No further action as it relates to this SEPA review and the DNS is necessary at this time.

I have included a copy of Threshold Determination and newspaper affidavit of publication.

**Attachment 11. Affidavit of Publication in the Seattle Times of DLS Permitting SEPA DNS Comment Period, November 20, 2024**

# The Seattle Times

**AFFIDAVIT OF PUBLICATION**

Janet Chan  
KC DLS Permitting  
919 SW Grady Way Ste 300  
Renton WA 98057

**STATE OF WASHINGTON, COUNTIES OF KING AND SNOHOMISH**

The undersigned, on oath states that he/she is an authorized representative of The Seattle Times Company, publisher of The Seattle Times of general circulation published daily in King and Snohomish Counties, State of Washington. The Seattle Times has been approved as a legal newspaper by orders of the Superior Court of King and Snohomish Counties.

The notice, in the exact form annexed, was published in the regular and entire issue of said paper or papers and distributed to its subscribers during all of the said period.

11/20/2024

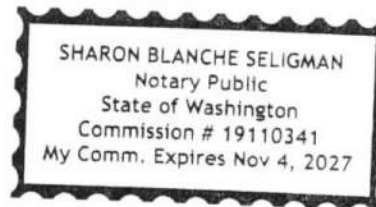
Agent Frankie Flight Signature Frankie Flight

Subscribed and sworn to before me on Nov 20, 2024

Sharon Seligman Sharon Seligman

(Notary Signature) Notary Public in and for the State of Washington, residing at Seattle

Publication Cost: \$192.50  
Order No: 88681  
Customer No: 306  
PO #: (BOH) Title 13  
OSS C



The Seattle Times  
 1000 Denny Way  
 Seattle, Washington 98109-5340

# The Seattle Times

KC DLS Permitting  
 Janet Chan  
 919 SW Grady Way Ste 300  
 Renton, WA 98057

| Invoice          |                    |
|------------------|--------------------|
| Order #:         | 88681              |
| Order Ref #:     | SEPA Determination |
| Date:            | 11/15/2024         |
| Advertiser #:    | 306                |
| Advertiser Name: | KC DLS Permitting  |
| Agency #:        |                    |
| Agency Name:     |                    |
| Due Date:        | 12/0/2024          |

Print

| Ad No. | Date       | Description                                                                                                                  | Position                   | Format                       | Net Amount |
|--------|------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------|------------|
| 467168 | 11/20/2024 | (BOH) Title 13 OSS Code KING COUNTY DEPARTMENT OF LOCAL SERVICES, PERMITTING DIVISION 919 SW Grady Way, Suite 300, Renton, W | Seattle Times - CL- Legals | 1.65 x 5.36 in x 1.0000 col. | \$ 192.50  |

| Summary          |           |
|------------------|-----------|
| Total Net Amount | \$ 192.50 |
| Taxes            | \$ 0.00   |
| Total Amount     | \$ 192.50 |
| Prepaid          | \$ 0.00   |
| Amount Due       | \$ 192.50 |

Please Return Below Portion With Your Payment (Thank You)

| Order # | Advertiser # | Advertiser Name   | Agency # | Agency Name | Amount Due |
|---------|--------------|-------------------|----------|-------------|------------|
| 88681   | 306          | KC DLS Permitting |          |             | \$ 192.50  |

| Remittance Address                                                                  | Please indicate any changes to your billing information: |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|
| The Seattle Times<br>PO Box C34805<br>Seattle, WA 98124-1805<br>Tel: (206) 464-3200 |                                                          |

**KING COUNTY DEPARTMENT OF  
LOCAL SERVICES,  
PERMITTING DIVISION  
919 SW Grady Way, Suite 300,  
Renton, WA 98057**

**NOTICE OF: STATE ENVIRONMENTAL  
POLICY ACT (SEPA) DETERMINATION  
OF NONSIGNIFICANCE  
(DNS) - Non-Project Action**

**Proponent: Public Health – Seattle &  
King County**

**Proposal:** Proposed amendment to Title 13 of the King County Code by the King County Board of Health. Revise the King County Board of Health (BOH) Title 13 OSS Code related to oversight of permitting and installation of new and replacement On-Site Septic Systems (OSS), reviewing land division and development for suitability of OSS, operations and maintenance (O&M), and certification of OSS professionals in King County, including clarifying connection to sewer, where allowed, and the development standards that apply.

Additional information about the proposal can be found here:

Public notices - King County, Washington

And here:

On-site sewage system code revision process - King County, Washington

**COMMENT PROCEDURES:** This Determination of Non-significance (DNS) is issued under Washington Administrative Code (WAC) 197-11-340. The Permitting Division has determined after review of the proposed legislation, an environmental checklist and associated documents, that existing State of Washington and King County regulations and codes are sufficient to address potential impacts associated with the proposed legislation. Therefore, An Environmental Impact Statement (EIS) is not required. The issuance of this DNS does NOT constitute approval or adoption of the subject legislation.

You may comment on this DNS by submitting comments to the address or email below. Email is preferred. Comments must be received no later than 4:00 pm on December 11, 2024. The King County Board of Health will not act until after the comment period.

King County Department of Local Services – Permitting Division  
919 SW Grady Way, Suite 300  
Renton, WA 98057  
ATTN: Ty Peterson  
E-mail: Ty.Peterson@kingcounty.gov

**PUBLIC HEARING:** A public hearing on the proposed amendments is scheduled for November 21, 2024 before the King County Board of Health. Information on the public hearing and how to submit public comment can be found at this website: Board of Health meeting agenda - King County, Washington

Publication Cost: \$192.50  
Order No: 88681  
Customer No: 306  
PO #: (BOH) Title 13  
OSS C

**S1**

02/20/2025

Correcting typographic and other technical errors in Rule & Regulation.

Sponsor: \_\_\_\_\_

Drafter: R. Welyczko

Proposed No.: R&R 24-05

1 **STRIKING AMENDMENT TO PROPOSED RULE & REGULATION 24-05,**

2 **VERSION 1**

3 On page 6, beginning on line 114, strike everything through line 2112, and insert:

4 "BE IT ADOPTED BY THE KING COUNTY BOARD OF HEALTH:

5 NEW SECTION. SECTION 1. There is hereby added a new section to BOH

6 chapter 13.04 to read as follows:

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

8 A. Except as otherwise specifically provided in this title, chapter 246-272A

9 WAC, Washington On-site Sewage System Regulations, as amended, are hereby adopted  
10 and by this reference made a part of this title.

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

14 NEW SECTION. SECTION 2. There is hereby added a new section to BOH

15 chapter 13.04 to read as follows:

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16           **Equity impact review.** Whenever the health officer performs review of an on-  
17 site sewage system local management plan under WAC 246-272A-0015, the health  
18 officer will conduct an equity impact review in accordance with King County Ordinance  
19 16948 and report the results of the review to the King County Board of Health before  
20 approving a revised local management plan.

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

23           **Connection to public sewer.**

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

33           B. For existing development located within ((or outside)) the Urban Growth Area  
34 and which is within two hundred feet of a public sewer, where an on-site sewage system  
35 is operating, the owner shall abandon the on-site sewage system in accordance with WAC  
36 246-272A-0300 and connect the sanitary drainage system to the public sewer when the  
37 sewer authority permits such connection and when:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

79 e. Information shall be provided as part of the well location application to  
80 include, at minimum, a completely dimensioned plot plan, drawn to a scale not smaller  
81 than one inch equals one hundred feet accurately showing the location of the proposed  
82 water well relative to property boundary lines, existing and proposed OSS components  
83 including OSS reserve area, existing and proposed structures, roads and driveways,

84 surface water, direction of surface drainage, a designated well protection sanitary control  
85 area, and any other features relevant to the siting of a water well location.

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

90 2. Water well protection covenant: The property owner shall establish a water  
91 well protection sanitary control area by providing a recorded protective covenant  
92 prohibiting, within a horizontal distance of not less than one hundred feet of the well,  
93 potential sources of contamination as described in BOH 12.24.010 and WAC 173-160-  
94 171.

95 3. Demonstrate adequate water quantity by:

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

101 b. Providing, in all other areas, adequate information to the satisfaction of the  
102 health officer to demonstrate the aquifer's capability to provide four hundred gallons per  
103 day. This information may include well logs or pumping reports from neighboring wells  
104 utilizing the same aquifer. The neighboring well or wells shall be shown on a map of the  
105 surrounding area identifying both the subject property and the location of the well or

106 wells identified as neighboring. The map shall be included with the OSS site design  
107 application submittal.

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

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

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

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

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

118 C. A private spring on a lot five acres or greater or a lot created prior to May 18,  
119 1972, that complies with all of the following conditions prior to application for OSS site  
120 design approval:

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

124 2. The application shall include: a recorded protective covenant of no less than  
125 two hundred feet up slope and one hundred feet down slope from the spring prohibiting  
126 any potential sources of contamination as described in BOH 13.04.070 B.2., a spring  
127 location plot plan, a detailed spring construction plan, and information demonstrating

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128 acceptable water quality and quantity as specified in BOH 12.20.040 and chapter 246-291  
129 WAC.

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

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

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

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

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

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

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

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

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

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

- 156 a. estimated daily and weekly and annual demand;
- 157 b. available catchment area and estimated annual rainwater capture;
- 158 c. roofing materials used;
- 159 d. storage capacity of and materials used in the construction of the rainwater  
160 catchment system;
- 161 e. treatment specifications including filtrations and disinfection system  
162 specifications; and
- 163 f. operation and maintenance requirements.

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

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

- 170 a. the estimated daily, weekly and annual water supply furnished by the  
171 rainwater catchment system;
- 172 b. that the water supply from the rainwater catchment system may be limited  
173 due to variations in rainfall or usage; and

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

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

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

181 **Abbreviations.**

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

183 B. "ATU" means Aerobic Treatment Unit.

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

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

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

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

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

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

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

194 K. "O and G," means oil and grease, a component of sewage typically originating  
195 from foodstuffs, which are animal fats or vegetable oils, or consisting of compounds of

196 ~~alcohol or glycerol with fatty acids, which are soaps and lotions. The quantity of O and G~~  
197 ~~is typically expressed in mg/L.~~

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

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

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

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

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

204 SECTION 6. R&R 3, Part 1, Section 5, as amended, and BOH 13.08.020 are

205 hereby amended to read as follows:

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

211 NEW SECTION. SECTION 7. There is hereby added a new section to BOH

212 chapter 13.08 to read as follows:

213 **Bedroom.** "Bedroom" means a room used for sleeping and that includes a  
214 window, a door, and a closet. "Bedroom" does not include a room smaller than seventy  
215 square feet in area with a closet, or an entry way with a closet. For the purposes of this  
216 title, "window" includes a means of egress, other than a door, under section R310.1 of the  
217 International Residential Code, 2018 edition.

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

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

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

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

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

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

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

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

227            SECTION 9. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.152 are

228 hereby amended to read as follows:

229            **Failure.** "Failure" means a condition of an on-site sewage system or ~~((side~~

230 ~~sewer))~~ component that threatens the public health by inadequately treating sewage or by

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

232 public. Examples of failure include:

233            A. Sewage~~((,seepage or effluent))~~ on the surface of the ground;

234            B. Sewage~~((,seepage or effluent))~~ backing up into a structure caused by slow soil

235 absorption of septic tank effluent;

236            C. Sewage~~((,seepage or effluent))~~ leaking from a ~~((septic tank, pump chamber,~~

237 ~~holding tank, conveyance))~~ sewage tank or collection system;

238            D. Cesspools~~((;))~~ or seepage pits ~~((and pit privies))~~ where evidence of

239 groundwater or surface water quality degradation exists;



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

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

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

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

248 ~~((Limited))~~ Minor repair. "~~((Limited))~~ Minor repair" means the replacement,  
249 addition or alteration of ~~((a))~~ any of the following broken or malfunctioning ~~((building~~  
250 ~~sewer pipe, sewage tank lid, sewage tank baffles, sewage tank pumps, pump control~~  
251 ~~floats, pipes connecting multiple sewage tanks and drainfield inspection boxes and ports))~~  
252 OSS components where the subsurface soil absorption system is not failing;

253 A. Building sewer pipe;

254 B. Sewage tank lids and risers;

255 C. Sewage tank baffles;

256 D. Sewage tank pumps;

257 E. Pump control floats;

258 F. Pipes connecting multiple sewage tanks;

259 G. Drainfield inspection boxes and ports;

260 H. Control panels and timers;

261 I. Components of a proprietary treatment unit;

262 J. UV disinfection units; or

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

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

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

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

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

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

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

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

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

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

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

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

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

305 **Repair.** "Repair" means the ~~((replacement, reconstruction or relocation of, or~~  
306 ~~addition or alteration to, a sewage tank, distribution box, tight line, or other~~  
307 ~~appurtenances of an existing OSS, and including any replacement, reconstruction or~~  
308 ~~relocation of, or addition or alteration to a soil absorption system))~~ relocation.

309 replacement, or reconstruction of a failed OSS or any failed component of an OSS, other  
310 than a minor repair, in order to restore the OSS to nonfailure status.

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

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

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

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

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

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

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

333            **Public meetings—Procedure.**

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

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

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

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

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

352            **Appeal for reconsideration—Filing.** The appeal for reconsideration shall be in  
353 writing, submitted on one or more forms prescribed by the health officer, and shall be

354 filed with the health officer not later than 5:00 p.m. of the (~~sixtieth (60th)~~) ninetieth  
355 calendar day following the date of the decision or order that is the subject of the appeal.  
356 The appeal shall cite with particularity the decision or order appealed from, and shall  
357 contain a statement of the reason for the appeal and what relief is sought. The appeal  
358 shall be accompanied by any technical reports or other exhibits, prepared at the  
359 appellant's own expense, which the appellant wishes the committee and the health officer  
360 to consider.

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

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

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

- 368 1. Sanitary, agricultural or civil engineer licensed by the state of Washington;
- 369 2. On-site sewage system designer;
- 370 3. Seattle Master Builders Association representative;
- 371 4. Seattle-King County Board of Realtors representative;
- 372 5. A representative of a nonprofit, nonpartisan public affairs or environmental  
373 affairs organization;
- 374 6. On-site sewage system maintainer;
- 375 7. A consumer representing the King County Unincorporated Area Councils;
- 376 8. Representative of incorporated cities;

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- 377 9. Representative of a sewer utility district;
- 378 10. On-site sewage system installer;
- 379 11. On-site sewage system pumper; (~~and~~)
- 380 12. Field Sanitarian;
- 381 13. A representative of a federally recognized tribe or an organization under
- 382 Title 26 U.S.C. Sec. 501(c)(3) of the Federal Internal Revenue Code of 1986, as
- 383 amended, registered in Washington that serves American Indian and Alaska Native
- 384 people and provides services within King County;
- 385 14. A consumer representing users of OSS within the Urban Growth Area of
- 386 King County;
- 387 15. A consumer representing users of OSS within a Marine Recovery Area or
- 388 Shellfish Protection District within King County; and
- 389 16. A consumer representing users of OSS serving commercial properties in
- 390 King County.
- 391 B. In addition to the voting members, any combination of the following may be
- 392 appointed by the health officer to serve as ex officio members of the committee:
- 393 1. A King County department of natural resources and parks representative;
- 394 2. A Washington state Department of Ecology representative.
- 395 3. A Washington state Department of Health representative; and
- 396 4. A United States Department of Agriculture, Natural Resource Conservation
- 397 Service representative.
- 398 SECTION 22. R&R 3, Part 2, Section 1, as amended, and BOH 13.20.010 are
- 399 hereby amended to read as follows:

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400           **Permits -- general.**

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

417           B. The application submitted for an OSS (~~(construction)~~) installation permit shall  
418 be accompanied by an approved site design application or approved repair proposal. The  
419 permit application for a new OSS to serve a building shall be accompanied by evidence  
420 that the responsible building official has issued a building permit authorizing construction  
421 of that building.



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

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

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

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

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

440 H. Each (~~(construction)~~) installation permit issued pursuant to this title for an  
441 OSS installation or repair is nontransferable and is valid only for the designer or installer  
442 named thereon and for the type of OSS construction or repair for which the permit has  
443 been issued. A new (~~(construction)~~) installation permit shall be obtained in the event of

444 change of designer or installer performing the work, or in the type of OSS for which a  
445 permit has previously been issued.

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

448 **Installer certification.**

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

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

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

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

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

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

470 C. ~~((+))~~ As a condition of certification ~~((the))~~;

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

474 2. ((The health officer may suspend or revoke any master or associate installer's  
475 certificate of competency, pursuant to BOH chapter 1.08)) A first-time applicant for a  
476 master or associate installer's certificate of competency shall submit payment of the  
477 examination fee as set forth in the fee schedule and attain a passing score on the  
478 applicable certification examination; and

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

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

487 E. An installer may renew the certificate ((on or before January 15 of the year  
488 following expiration without taking the examination specified by this section, but only  
489 if)) upon submittal, to the health officer, of a completed renewal application and fee

490 payment as specified in the fee schedule under BOH chapter 2.18, accompanied by  
491 evidence that at least one CEU credit has been earned by the master or associate installer  
492 during the previous calendar year, except that:

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

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

500 4.) 1. A master or associate installer submitting the renewal application after  
501 January 15 of the year following expiration shall, in addition to the applicable certificate  
502 fee, pay a late fee of twenty five percent of the renewal amount, and provide evidence of  
503 completion of at least one CEU credit during the previous calendar year; and

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

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

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

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

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

528           **Maintainer certification.**

529           A. ~~((Unless))~~ Except as otherwise specified in this title, including BOH  
530 13.20.040 and 13.60.010 relating to homeowners, it is unlawful to conduct performance  
531 monitoring inspections ~~((of and/or perform))~~, preventive maintenance service, ~~((to~~  
532 ~~include making limited))~~ or minor repairs to on-site sewage systems~~(s)~~ without a  
533 currently valid OSM certificate of competency.

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

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

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

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

544 ~~((4. The health officer shall examine the applicant except that the health officer~~  
545 ~~may waive the examination for the designer who is performing monitoring of only these~~  
546 ~~systems designed by that person. The health officer may deny the application if in the~~  
547 ~~health officer's judgment the applicant is for any reason, including previous findings of~~  
548 ~~negligence, incompetence, misrepresentation or failure to comply with this title, not~~  
549 ~~qualified to monitor and maintain on-site sewage systems))~~ 3. Evidence of two years of

550 full-time equivalent employment with relevant OSS experience within the five-year  
551 period preceding application submittal; and

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

555 C.~~(4.)~~ As a condition of certification ~~((the))~~;

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

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

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

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

569 ~~3-)) D.~~ The OSM certificate of competency shall expire December 31 of each  
570 year. ~~((The holder of such certificate may renew the certificate on or before January 15~~  
571 ~~of the year following expiration without taking the examination specified by this section,~~  
572 ~~but only if:~~

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

577 ~~b. the applicant submits evidence of bonding as specified by BOH~~  
578 ~~13.20.035.C.1; and~~

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

581 ~~4. The on-site system))~~ A maintainer may not conduct performance monitoring  
582 inspections or perform preventive maintenance of on-site sewage systems after December  
583 31, unless the certification has been renewed.

584 ~~((5-))~~ E. A maintainer may renew the OSM certificate of competency on or  
585 before January 15 of the year following expiration upon submittal, to the health officer,  
586 of a completed renewal application, accompanied by evidence that at least one CEU  
587 credit has been earned by the maintainer during the previous calendar year, and fee  
588 payment as specified under BOH chapter 2.18, except that:

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

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

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

600 G. The health officer may hold informational((/)) or educational meetings for all  
601 holders of OSM certificates of competency. A minimum of four weeks' notice of the



602 meeting time and location shall be sent to each maintainer. Unless otherwise specified by  
603 the health officer, attendance at the meeting shall be mandatory for all maintainers.  
604 Failure to attend the required meetings without prior approval of the health officer shall  
605 be cause for the health officer to withhold recertification until ~~((an OSM examination is~~  
606 ~~successfully completed))~~ the maintainer retakes and attains a passing score on the  
607 certification examination specified in this section.

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

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

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

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

- 619 1. The area where the drainfield and reserve area are to be located has a  
620 minimum of four feet of original permeable soil, and a minimum vertical separation of  
621 three feet is maintained~~((+))~~;
- 622 2. Not more than one system is designed in any twelve-month period~~((+))~~;
- 623 3. A gravity soil absorption system is proposed; ~~((and))~~
- 624 4. The property is not adjacent to a ~~((marine))~~ shoreline;

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

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

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

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

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

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

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

641           D. A resident owner of a single-family residence may monitor the performance of  
642 and perform prescribed preventive maintenance services, including minor repairs, for a  
643 gravity OSS ~~((and for))~~ or the septic tank component of an alternative OSS<sub>2</sub> or, upon  
644 approval from the health officer<sub>2</sub>, for a low-pressure distribution system.

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

647           **Application.**

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

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

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

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

672            **Determination of minimum lot size.**

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

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

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

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

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

687            2. Soil type and depth;

688            3. Area drainage and lot drainage;

689            4. Protection of surface and ground water;

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

692            6. Source of domestic water;

- 693 7. Topography, geology and ground cover;
- 694 8. Climatic conditions;
- 695 9. Activity or land use, present and anticipated;
- 696 10. Growth patterns;
- 697 11. Individual and accumulated gross effects on water quality;
- 698 12. Availability of a one hundred percent reserve area for system replacement;
- 699 13. Anticipated sewage volume - as determined by number of lots and
- 700 development;
- 701 14. Effect on other properties;
- 702 15. Compliance with zoning, critical area development restrictions including the
- 703 critical aquifer recharge area requirements under K.C.C. 21A.24.316, as amended, and
- 704 other code requirements of the governing agency as applicable.
- 705 C. The minimum lot size requirement for creating subdivisions involving single-
- 706 family residences or mobile home parks shall be determined by the soil type as outlined
- 707 in Table 13.24-1.

708 **Table 13.24-1**

709 **Minimum Land Area Requirement**

710 **Single-Family Residence or**

711 **Unit Volume of Sewage**

| Type of<br>Water<br>Supply | Soil Type |   |   |   |   |   |
|----------------------------|-----------|---|---|---|---|---|
|                            | 1         | 2 | 3 | 4 | 5 | 6 |
|                            |           |   |   |   |   |   |

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

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

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

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

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

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

725 1. A vicinity map providing precise directions to the parcel or parcels;

726           2. Signage or flagging at the identified entry point to the parcel or parcels;  
727           3. Critical area review, including critical aquifer recharge area classification,  
728 with all buffers and setbacks shown on the plot plan;  
729           4. A minimum of two soil logs per proposed lot shall be provided prior to  
730 department preliminary review. Such soil logs shall be excavated in accordance with the  
731 requirements of BOH 13.28.050. The soil log or logs must clearly show that within the  
732 lot area designated for the OSS the vertical separation specified in Table 13.28-1, and  
733 minimum lot sizes specified in Table 13.24-1 are provided((-)); and  
734           5. A scaled plot plan of the proposed subdivision depicting the land area  
735 proposed for an initial on-site system and a contiguous one hundred percent (100%)  
736 system reserve area and soil log locations. The plot plan shall also identify any wells,  
737 surface water bodies and other features relevant to the siting of an on-site sewage system  
738 on the proposed and adjacent parcels.  
739           B. The applicant shall submit the following information to the health officer and  
740 obtain the health officer's final approval of the development proposal:  
741           1. A minimum of four soil logs per proposed lot shall be provided. Such soil  
742 logs shall be excavated in accordance with BOH 13.28.050. Each soil log shall clearly  
743 show that the vertical separation specified in Table 13.28-1 is provided((-));  
744           2. A scaled plot plan identifying sufficient area for a drainfield and a contiguous  
745 one hundred percent reserve area for each lot shall be submitted after road cuts have been  
746 made, any plat development site grading affecting the OSS area completed, and drainage  
747 plan completed. Such a plot plan shall also include any soil log locations, road cuts,

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

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

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

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

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

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

760 applications to determine the compatibility of the proposed subdivision or short  
761 subdivision with the existing OSS. Factors that the health officer may consider include,  
762 but are not limited to, the following:

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

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

765 c. condition of the existing OSS;

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

768 e. ultimate purpose of the remodeling; and

769 f. approved source of water.



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

772            **Application submittal, review, approval.**

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

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

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

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

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

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

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

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

802           a. approximate address of property;

803           b. parcel number and legal description of property;

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

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

806           e. size of the parcel;

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

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

811           h. type of development for which site design application is being made, for  
812 example: single-family, multi-family or commercial; and type of permit, for example:

813 new installation(=) or repair(~~(- or limited repair)~~) of an existing OSS;

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

816 j. date of testing;

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

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

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

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

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

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

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

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

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

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

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

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

844 (1) wells, other water sources and water supply lines;  
845 (2) surface water and storm water infiltration areas;  
846 (3) abandoned wells;  
847 (4) outcrops of bedrock and restrictive layers;  
848 (5) buildings;  
849 (6) property lines and lines of easements;  
850 (7) drainage structures such as footing drains, curtain drains, and drainage  
851 ditches;  
852 (8) cuts, banks, and fills;  
853 (9) driveways and parking areas;  
854 (10) existing OSS; and  
855 (11) underground utilities((+));

856 3. A completely dimensioned overall parcel plot plan, drawn to a one inch  
857 equals twenty feet scale, or the largest scale that will allow the parcel plot plan to be

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858 presented on a single page, no smaller than eight and one-half by eleven inches and no  
859 larger than eleven by seventeen inches, accurately showing:

- 860 a. site drainage characteristics including direction of surface drainage;
- 861 b. an arrow indicating north;
- 862 c. topographical contours at two foot intervals over the OSS area and all other  
863 areas containing features relevant to the design and installation of an adequate and  
864 efficient OSS;
- 865 d. maximum building footprints, wastewater tanks and primary and reserve  
866 soil absorption system locations;
- 867 e. all locations of and routes to soil log excavations, with such locations and  
868 routes clearly identified by appropriate signage or flagging on the property;
- 869 f. locations of and routes to potable water sources near property lines (drilled  
870 wells within one hundred feet and all other sources within two hundred feet, and all well  
871 heads, with such locations and routes clearly identified by appropriate signage or flagging  
872 on the property;
- 873 g. location of property and easement lines;
- 874 h. location and description of design control point or points within the  
875 designated drainfield area; and
- 876 i. the boundaries of the SSAS detail drawing((-));

877 4. Construction plans and specifications showing:

- 878 a. plumbing stub elevation; and
- 879 b. vertical section detail drawings depicting dimensions of wastewater tank  
880 details to include minimum and maximum elevation of installation, maximum depth of

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881 cover over tanks, acceptable seasonal groundwater table elevation at all tank locations,  
882 and depth of required bedding material. For drainfields, minimum and maximum  
883 drainfield width and depth, vertical separation and amount of cover material and  
884 placement if any, and any other OSS components to be constructed at the site((-));

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

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

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

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

- 901 a. soil type; and
- 902 b. hydraulic loading rate in the soil absorption component.

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

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

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

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

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

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

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

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

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

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

930 **General design requirements.**

931 A. Collection systems will be designed to comply with criteria set forth in  
932 Criteria for Sewage Works Design, Washington state Department of Ecology, November  
933 2007 or as thereafter amended.

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

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

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

945 D. OSS for lots created after July 1, 1984, shall be located on the same lot as the  
946 buildings they are designed to serve. Any existing OSS which is failing and for which  
947 there is insufficient area on the lot to repair the system may be replaced by an OSS  
948 located off-site provided proof of easements is submitted to the health officer. Proof of



949 lot creation date must be provided when requesting use of a drainfield easement for new  
950 construction. All drainfield easements shall be surveyed and permanently marked, and  
951 the soils within the easements protected against disturbance. Approval shall be subject to  
952 such additional conditions as deemed necessary by the health officer to protect public  
953 health.

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

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

966 G. All types of drains installed for the purpose of affecting vertical separation  
967 shall be verified as effective during the winter water table season as outlined in BOH  
968 13.28.060.C.

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

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

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

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

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

982 M. The connection of an accessory dwelling unit as defined under K.C.C. Title  
983 21A or accessory living quarters as defined in this title to an OSS ~~((is))~~ designed for or in  
984 use by a single-family residence or commercial structure may be permitted provided that  
985 public health and groundwater quality are not affected, and the OSS is designed for the  
986 anticipated increased flow. For the purposes of this title, including the determination of  
987 required absorption areas, loading rates, and minimum capacities for septic tanks, each  
988 bedroom in an accessory dwelling unit or accessory living quarter shall be included in the  
989 total number of bedrooms to be served by the OSS in addition to the bedrooms in the  
990 primary residence. An accessory dwelling unit or accessory living quarter with no  
991 bedroom shall be deemed equivalent to one bedroom within the single-family primary  
992 residence associated with the accessory dwelling unit or accessory living quarter. In  
993 medical hardship cases as described in K.C.C. 21A.32.170, the health officer may allow  
994 the temporary connection of a mobile home or temporary dwelling to an existing OSS

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995 designed only for a single-family residence provided that neither public health nor  
996 groundwater quality are negatively affected.

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

999 O. No part of an OSS shall be constructed in the ~~((zero-rise))~~ FEMA floodway of  
1000 a flood hazard area as described by K.C.C. Title 21A. New OSS to serve new  
1001 subdivisions shall be located outside the limits of a flood hazard area. The installation of  
1002 new OSS within the flood fringe area of the one-hundred-year flood plain, as determined  
1003 by ~~((DES))~~ DLS or the local building official, may be allowed if the applicant  
1004 demonstrates that:

- 1005 1. The proposed building parcel is an existing legal building site;
- 1006 2. No feasible alternative site outside the flood hazard area is available;
- 1007 3. Wastewater tanks and electrical components will be flood-proofed to the  
1008 flood protection elevation;
- 1009 4. A conforming subsurface soil absorption system can be installed; and
- 1010 5. ~~((DES))~~ DLS or the local building official permits the development which  
1011 is proposed to be served by the OSS.

1012 P. No part of a SSAS including the drainrock shall be located in fill material or  
1013 disturbed soils.

1014 Q. SSAS shall be constructed with observation ports terminating within utility  
1015 boxes adjustable to final grade over the ends of the drainfield pipes, or other methods of  
1016 drainfield detection approved by the health officer to aid in the future locating of these  
1017 components.

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1018 R. OSS shall not be permitted where a minimum vertical separation of three feet  
 1019 of permeable soil below the infiltrative surface cannot be maintained except as provided  
 1020 in Table 13.28-1. The health officer may require greater vertical separation as needed to  
 1021 protect public health when the aquifer is used for a potable water supply.

1022 **Table 13.28-1**

1023 **Minimum Treatment Level, Bacteria Level, and Effluent Distribution Method**  
 1024 **Required by Various Soil Types, Vertical Separation, and Original Soil Depth**  
 1025 **Conditions**

| Vertical Separation (in inches) | Soil Type                                                                               |                                                              |                                                              |                                                              |
|---------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|
|                                 | 1                                                                                       | 2                                                            | 3-4                                                          | 5-6 <sup>3</sup>                                             |
|                                 | <b><u>Minimum Treatment Level, Bacteria Level, and Effluent Distribution Method</u></b> |                                                              |                                                              |                                                              |
|                                 | <b><u>Distribution Method</u></b>                                                       |                                                              |                                                              |                                                              |
| <u>12&lt;18</u> <sup>1,2</sup>  | <b><u>A &amp; BL1</u></b> -<br>pressure with<br>timed dosing                            | <b><u>B &amp; BL2</u></b> -<br>pressure with<br>timed dosing | <b><u>B &amp; BL2</u></b> -<br>pressure with<br>timed dosing | <b><u>B &amp; BL2</u></b> -<br>pressure with<br>timed dosing |
| ((>18<24))<br><u>≥18&lt;24</u>  | <b><u>B &amp; BL2</u></b> -<br>pressure with<br>timed dosing                            | <b><u>B &amp; BL2</u></b> -<br>pressure with<br>timed dosing | <b><u>B &amp; BL2</u></b> -<br>pressure with<br>timed dosing | <b><u>B &amp; BL2</u></b> -<br>pressure with<br>timed dosing |
| ((>24<36))<br><u>≥24&lt;36</u>  | <b><u>B &amp; BL2</u></b> -<br>pressure with<br>timed dosing                            | <b><u>C &amp; BL3</u></b> -<br>pressure with<br>timed dosing | E-pressure<br>with timed<br>dosing                           | E-pressure<br>with timed<br>dosing                           |

|                                                 |                                                       |                                    |                                                            |                                                            |
|-------------------------------------------------|-------------------------------------------------------|------------------------------------|------------------------------------------------------------|------------------------------------------------------------|
| <del>((&gt;36&lt;60))</del><br><u>≥36&lt;60</u> | <b>B &amp; BL2 -</b><br>pressure with<br>timed dosing | E-pressure<br>with timed<br>dosing | <del>E-((pressure<br/>with timed<br/>dosing))gravity</del> | <del>E-((pressure<br/>with timed<br/>dosing))gravity</del> |
| <del>((&gt;)) ≥60</del>                         | <b>C &amp; BL2 -</b><br>pressure with<br>timed dosing | E-gravity                          | E-gravity                                                  | <del>E-((pressure<br/>with timed<br/>dosing))gravity</del> |

1026 **Table 13.28-1 Explanatory Notes**

1027 1. Except as provided in footnote 2, the minimum required original,  
1028 undisturbed, permeable soil depth is eighteen inches.

1029 2. For existing lots of record where the original undisturbed soil depth above a  
1030 restrictive layer is between 12 and 18 inches the following is required:

1031 a. Minimum lot size is 5 acres. Any lot area placed into a separate sensitive  
1032 area protection tract in accordance with King County Code Section 21A.24.180 may also  
1033 be included in the computation of the minimum five (5) acre lot size required by this  
1034 section.

1035 b. The owner shall file a covenant with the King County records and elections  
1036 division agreeing not to subdivide the parcel utilizing the OSS to less than 5 acres until  
1037 public sewer service is provided.

1038 c. A water table study shall be conducted during a time of high seasonal water  
1039 table to establish available soil depth.

1040 d. A system meeting treatment level A, or two treatment level B systems in  
1041 combination meeting treatment level A without the use of disinfection, such as a mound  
1042 preceded by an intermittent sandfilter, shall be used.

1043            3. SSAS in soil type 6 must utilize pressure distribution with timed dosing.

1044            S. Disinfection may not be used:

1045            1. To achieve ~~((the fecal coliform requirements to meet treatment levels A or B~~

1046 ~~in Type 1 soils; or treatment level C))~~ BL1 or BL2 in Type 1 soils; or

1047            2. To achieve BL3; or

1048            3. On lots with less than eighteen inches of soil; or

1049            ~~((3-))~~ 4. In a critical aquifer recharge area.

1050            T. The coarsest textured soil within the vertical separation selected determines

1051 the minimum treatment level and method of distribution.

1052            U. Based upon the treatment capacity and design flow the designer of an OSS

1053 shall establish the operational capacity of the system. This information shall be included

1054 with the design application and record drawing submission.

1055            V. Any reduction in horizontal separation for a pressure sewer line crossing a

1056 surface water source shall meet the requirements of the publication, Granting Waivers

1057 from State On-site Sewage System Regulations, chapter 246-272A WAC, as amended,

1058 published by the Washington state Department of Health.

1059            W. All OSS must comply with the applicable treatment levels contained in Table

1060 13.28-1 and applicable setbacks contained in Table 13.28-2; though the health officer

1061 may grant any setback reduction authorized under Table 13.28-2 only in response to a

1062 written request for such reduction from the designer of record if the request includes all

1063 reasons for the proposed reduction and describes all mitigation measures required under

1064 this title or as may be required by the health officer in the exercise of reasonable

1065 discretion for the protection of the public health.

1066 X. In preparing any OSS site design application, the designer shall consider:  
1067 1. CBOD5, TSS and O and G;  
1068 2. Other parameters that can adversely affect treatment anywhere along the  
1069 treatment sequence. Examples include pH, temperature and dissolved oxygen;  
1070 3. The sensitivity of the site where the OSS will be installed, such as shellfish  
1071 growing areas, designated swimming areas, and other areas identified in the management  
1072 plan.

1073 Y. ~~(Nitrogen contributions, where nitrogen has been identified as a contaminant~~  
1074 ~~of concern by the management plan, shall be addressed through either lot size or~~  
1075 ~~treatment, or both.)) The applicant for development in a critical aquifer recharge area~~  
1076 shall include, in the application, evidence of compliance with K.C.C. 21A.24.316, as  
1077 amended, including evidence of compliance with the critical aquifer recharge area  
1078 requirements.

1079 Z. Design and installation of OSS with electrical components shall include a  
1080 readily accessible control panel exterior to the structure served by the OSS and meeting  
1081 the following standards:

1082 1. Located in an external location between three and five feet in elevation above  
1083 finished grade, meeting state of Washington Department of Labor and Industry's  
1084 electrical safety requirements;

1085 2. Includes an electrical power control switch to enable power shutoff to the  
1086 OSS for maintenance or repair without the need for access to any circuit breaker panels  
1087 or other power controls within the structure served by the OSS;

1088 3. Connected to dedicated electrical circuits with the alarm and pump circuits  
 1089 independent of one another;

1090 4. Contains audible and visual alarms to alert the owner or occupant of a system  
 1091 deficiency or malfunction; and

1092 5. Includes a remote notification device for the alarm system when the OSS  
 1093 alarm notification device is located over 100 feet from the building it serves, such as an  
 1094 auto-dialer or telemetry notification system, to notify the respective monitoring and  
 1095 maintenance service provider or the property owner or occupant of alarm events.

1096 **Table 13.28-2**

1097 **Minimum Horizontal Separations**

1098 **(Setbacks)**

|                                   | <b>MEASURE FROM</b>                                            |                                                                                          |                                                                                     |
|-----------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Items Requiring Setback</b>    | <b>Edge of soil dispersal component trench or reserve area</b> | <b>Septic tank, holding tank, containment vessel, pump chamber, and distribution box</b> | <b>Building sewer, collection, and nonperforated distribution line <sup>1</sup></b> |
| Potable Water Source <sup>2</sup> |                                                                |                                                                                          |                                                                                     |
| -- Private well                   | 100 ft.                                                        | 100 ft.                                                                                  | 100 ft.                                                                             |
| -- Public drinking water well     | 100 ft.                                                        | 100 ft.                                                                                  | 100 ft.                                                                             |
| -- Drinking water                 | 200 ft.                                                        | 200 ft.                                                                                  | 200 ft.                                                                             |



|                                                                    |                                                                              |               |               |
|--------------------------------------------------------------------|------------------------------------------------------------------------------|---------------|---------------|
| spring/dug well <sup>3</sup>                                       |                                                                              |               |               |
| <u>Non-potable water source</u> <sup>2</sup>                       | <u>100 ft</u>                                                                | <u>100 ft</u> | <u>100 ft</u> |
| Pressurized water supply line <sup>4</sup>                         | 10 ft.                                                                       | 10 ft.        | 10 ft.        |
| Properly decommissioned well <sup>5</sup>                          | 10 ft.                                                                       | 10 ft.        | N/A           |
| Surface water <sup>2, 6, 7</sup>                                   | 100ft.                                                                       | 50 ft.        | 10 ft.        |
| Seasonal water <sup>2, 7</sup>                                     | 30 ft.                                                                       | 15 ft.        |               |
| Swimming Pools                                                     |                                                                              |               |               |
| A. Down-gradient <sup>8</sup>                                      | A. 15ft + height of the cut. Need not exceed 30 ft.                          | 5 ft.         | 2 ft.         |
| B. Up-gradient <sup>8</sup>                                        | 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 <sup>8</sup>                                      | A. 15 ft. + height of foundation cut. Need not exceed 30 ft. <sup>8, 9</sup> | 5 ft.         | 2 ft.         |
| B. Up-gradient <sup>8</sup>                                        | B. 10 ft.                                                                    | 5 ft.         | 2 ft.         |
| Property or easement                                               | 10 ft. <sup>10, 11</sup>                                                     | 5 ft.         | N/A           |

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|                                                                           |                                                                       |                             |                   |
|---------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------|-------------------|
| line                                                                      |                                                                       |                             |                   |
| Decks (first floor) with post and pier supports                           | 5 ft.                                                                 | 5 ft.                       | N/A <sup>15</sup> |
| 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 <sup>8</sup>                                             | A. 15 ft. + height of excavation. Need not exceed 30 ft. <sup>9</sup> | N/A                         | N/A               |
| B. Up-gradient <sup>8</sup>                                               | B. 5 ft.                                                              |                             |                   |
| Interceptor/curtain drains/footing drains.                                |                                                                       |                             |                   |
| -- Down-gradient <sup>8</sup>                                             | 30 ft.                                                                | 5 ft.                       | N/A               |
| -- Up-gradient <sup>8</sup>                                               | 10 ft.                                                                | N/A                         | N/A               |
| <u>Lined<sup>16</sup> stormwater detention pond<sup>17</sup></u>          |                                                                       |                             |                   |

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|                                                                                 |                                                                            |                   |                     |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------|---------------------|
| -- Down-gradient                                                                | <u>100 ft</u> <sup>18</sup>                                                | <u>N/A</u>        | <u>N/A</u>          |
| -- Up-gradient                                                                  | <u>100 ft</u> <sup>19</sup>                                                | <u>N/A</u>        | <u>N/A</u>          |
| <u>Unlined</u> <sup>16</sup> stormwater infiltration pond <sup>17</sup>         | <u>100 ft.</u>                                                             | <u>50 ft.</u>     | <u>10 ft.</u>       |
| <u>Irrigation canal or irrigation pond</u> <sup>17</sup>                        | <u>100 ft.</u>                                                             | <u>50 ft.</u>     | <u>10 ft.</u>       |
| <u>Subsurface stormwater infiltration or dispersion component</u> <sup>17</sup> |                                                                            |                   |                     |
| -- Down-gradient                                                                | <u>100 ft</u> <sup>18</sup>                                                | <u>10 ft.</u>     | <u>N/A</u>          |
| -- Up-gradient                                                                  | <u>100 ft</u> <sup>18</sup>                                                | <u>10 ft.</u>     | <u>N/A</u>          |
| <del>((Infiltration and Dispersion Trenches</del>                               |                                                                            |                   |                     |
| <del>A. Down gradient</del>                                                     | <del>30 ft.</del>                                                          | <del>10 ft.</del> | <del>5 ft.</del>    |
| <del>B. Up gradient</del>                                                       | <del>100 ft.</del> <sup>14</sup>                                           | <del>30 ft.</del> | <del>5 ft.)</del> ) |
| Down-gradient cuts or banks 5 ft. or less in vertical height                    | 15 ft. + height of bank<br><sup>9, 13</sup>                                |                   |                     |
| Down-gradient cuts or banks greater than 5 ft. in vertical height with at       | 15 ft. + height of bank but shall not be less than 25 ft. <sup>9, 12</sup> | N/A               | N/A                 |

|                                                                                                                                                                                                    |                                                                         |     |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----|-----|
| least 5 ft of original, undisturbed soil above a restrictive layer due to a structural or textural change <sup>8</sup>                                                                             |                                                                         |     |     |
| 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 <sup>8</sup> | 15 ft. + height of bank but shall not be less than 50 ft. <sup>12</sup> | N/A | N/A |

Table 13.28-2 Explanatory Notes

1099

1100 1. "Building sewer" as defined by the most current edition of the Uniform  
 1101 Plumbing Code. "Nonperforated distribution" also includes pressure sewer transport  
 1102 lines.

1103 2. With excessively permeable soils or other sites where conditions indicate a  
 1104 greater potential for ground or surface water contamination or pollution such as  
 1105 unconfined aquifers, shallow or saturated soils, dug wells, and improperly abandoned  
 1106 wells, the distance from any water supply or surface water may be increased by the health  
 1107 officer.

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1108 3. Setbacks from private or public springs and from shallow wells without intact  
1109 casings or those wells which are not constructed in accordance with chapter 173-160  
1110 WAC and are utilized as a source of drinking water shall comply with BOH 13.04.070.C.

1111 4. The health officer may approve a sewer transport line crossing a water supply  
1112 line (~~if the sewer line~~) when there is no other reasonable means to keep them from  
1113 crossing and if the sewer line is constructed(~~(+)~~) in accordance with Section 2.4 of the  
1114 Department of Ecology's Criteria for Sewage Works Design, revised November 2007 or  
1115 equivalent.

1116 5. Before any component may be placed within one hundred feet of a well, the  
1117 designer shall submit a "decommissioned water well report" completed by a licensed well  
1118 driller, which verifies that appropriate decommissioning procedures noted in chapter 173-  
1119 160 WAC were followed.

1120 6. Setback measured from ordinary high water mark of surface water. Greater  
1121 setback may be required to prevent pollution. The health officer will state reasons for  
1122 greater setback to applicant in writing.

1123 7. This separation may not be reduced by culverting of streams without prior  
1124 written approval for the culverting from King County or applicable building official, but  
1125 in no case shall this separation be less than fifteen feet plus the height of the excavation  
1126 which contains the culvert. Need not exceed thirty feet.

1127 8. The item is down-gradient when liquid will flow toward it upon encountering a  
1128 water table or a restrictive layer. The item is up-gradient when liquid will flow away  
1129 from it upon encountering a water table or restrictive layer.

1130 9. May be reduced to ten feet by the health officer when bottom of infiltrative  
1131 surface is downgradient from the base of the foundation cut or wastewater tank  
1132 excavation, or there is at least five feet of original undisturbed unsaturated soil above a  
1133 restrictive layer formed due to a structural or textural change.

1134 10. May be reduced five feet by the health officer in repairs to existing systems,  
1135 in setbacks to easements or where a confirmed property line is up-gradient from the soil  
1136 absorption component. A survey may be required by the health officer to ensure  
1137 compliance with setback requirements.

1138 11. This distance may be increased to thirty feet by the health officer where cuts  
1139 or construction on neighboring properties may affect the system.

1140 12. Need not exceed one hundred feet.

1141 13. May be reduced to ten feet when the bottom of the infiltrative surface is  
1142 below the base of the cut or bank and no restrictive layer or layer formed due to a  
1143 structural or textural change is intersected or there is at least five feet of original,  
1144 undisturbed soil above a restrictive layer or layer due to a structural change.

1145 14. The health officer may reduce this setback to thirty feet if the soil depth is  
1146 four feet or greater and is soil type 1, 2 or 3.

1147 15. Any sewer clean-out shall be accessible for OSS maintenance or repair.

1148 16. "Lined" means any component that has the intended function of detaining the  
1149 stormwater with no intention of dispersal into surrounding soil.

1150 17. Infiltration or discharge from stormwater management facilities must be  
1151 located downgradient of the primary and reserve drainfield areas unless the site design  
1152 application submitted to the health officer clearly demonstrates that site topography

1153 prevents discharged flows from stormwater management facilities from intersecting the  
1154 OSS drainfield and the design is consistent with local stormwater management authority  
1155 rules and policies.

1156 18. The health officer may reduce this setback to not less than 30 feet upon  
1157 finding that the OSS site design application clearly demonstrates that the setback  
1158 reduction presents no increased risk of effluent from the OSS entering any component of  
1159 a stormwater management system.

1160 19. The health officer may reduce this setback to not less than 10 feet upon  
1161 finding that the OSS site design application clearly demonstrates that the setback  
1162 reduction presents no increased risk of effluent from the OSS entering any component of  
1163 a stormwater management system.

1164 SECTION 32. R&R 3, Part 4, Section 7, as amended, and BOH 13.28.070 are  
1165 hereby amended to read as follows:

1166 **Required absorption area.**

1167 A. Single-family dwellings.

1168 1. For design purposes a minimum design flow of one hundred fifty gallons((/))  
1169 per bedroom((/)) per day shall be utilized in determining unit volume with a minimum of  
1170 three bedrooms.

1171 2. For each additional bedroom OSS designs must use at least an additional one  
1172 hundred ~~((twenty))~~ fifty gallons((/)) per bedroom((/)) per day.

1173 3. For single-family residences with additional accessory dwelling units or  
1174 accessory living quarters served by the same OSS, the minimum design flow for each  
1175 additional dwelling is one hundred fifty gallons per bedroom per day.

1176 4. For accessory dwelling units or accessory living quarters served by their own  
 1177 OSS not connected to the OSS serving the primary single-family residence, a minimum  
 1178 design flow of one hundred fifty gallons per bedroom per day shall be utilized in  
 1179 determining unit volume with a minimum of two bedrooms.

1180 5. Loading rates shall be determined according to soil texture type as outlined in  
 1181 Table 13.28-4. The finest textured soil in the selected vertical separation establishes the  
 1182 loading rate.

1183 **Table 13.28-4**

1184 **Maximum Hydraulic Loading Rate for Residential Sewage<sup>1</sup>**

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



|   |                                                                                                                                                                                                  |                    |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 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 <sup>6</sup>   |
| 6 | Other silt loams, sandy clay loams, clay loams, silty clay loams.                                                                                                                                | 0.2 <sup>6,7</sup> |
| 7 | Sandy clay, silty clay and strongly cemented firm soils, soil with a moderate or strong platy structure, any soil with a massive structure, any soil with appreciable amounts of expanding clays | Not suitable       |

**Table 13.28-4 Explanatory Notes**

1185

1186 1. Compacted soils, cemented soils, and/or poor soil structure may require a  
1187 reduction of the loading rate or render the soil unsuitable for OSS.

1188 2. Very Gravelly = >35% and <60% gravel and coarse fragments, by volume.

1189 3. Extremely Gravelly = (~~>60%~~) ≥60% gravel and coarse fragments, by  
1190 volume.

1191 4. Due to the highly permeable nature of type 1 soil, only systems (~~which~~) that  
1192 meet or exceed the treatment levels required in Table 13.28-1 may be installed.

1193 5. The loading rate listed for the soil type present in the nongravel portion is to  
1194 be used for calculating the minimum absorption area required. The value is to be  
1195 determined from this table.

1196 6. OSS installed in soil texture type 4, type 5<sub>1</sub> or type 6 shall be constructed  
1197 during dry weather (defined as at least two consecutive weeks without appreciable

1198 rainfall) and dry soil conditions to minimize compaction and smearing during excavation,  
1199 as verified at the site.

1200 7. SSAS in soil type 6 must utilize pressure distribution.

1201 B. Buildings other than single-family residences.

1202 1. Soil dispersal components having daily design flow between one thousand  
1203 and three thousand five hundred gallons of sewage per day shall:

1204 a. be located only on soil types 1 through 5;

1205 b. be located only on slopes of less than thirty percent, or seventeen degrees;

1206 and

1207 c. have pressure distribution and timed dosing.

1208 2. Schools with OSS and who use laboratories and shop facilities shall have  
1209 plumbing drains for these facilities directed to holding tanks separate from the common  
1210 wastewater drains to the OSS.

1211 3. For OSS treating sewage from a nonresidential source, the designer shall  
1212 provide the following:

1213 a. information showing that none of the chemicals or other materials listed in  
1214 BOH 13.04.058 will be introduced into the OSS; and

1215 b. a site-specific design providing the treatment level equal to or greater than  
1216 the treatment level required of sewage from a residential source.

1217 4. The owner of an OSS for a commercial development not classified as a  
1218 community on-site system shall file a covenant declaring that the owner is responsible for  
1219 the operation, monitoring, and maintenance of the OSS in accordance with this title.

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1220 5. Required absorption area must be determined by using one of the following  
 1221 methods:  
 1222 a. by using the figures given in Table 13.28-5, or the Onsite Wastewater  
 1223 Treatment Systems Manual, EPA/625/R-00/008, as amended, then using the appropriate  
 1224 application rate from Table 13.28-4; or  
 1225 b. by determining average water meter readings for one year from at least three  
 1226 similar establishments and adding a minimum safety factor of fifty percent. Both  
 1227 operating capacity and surge capacity must be determined.  
 1228 6. The minimum SSAS area must be not less than two hundred square feet.

1229 **Table 13.28-5**

| <b>Type of Establishment<sup>1</sup></b>                                                                                 | <b>Gallons Per Person Per Day</b> |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 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<br>(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                                                               | 75                                |

|                                                                                                             |     |
|-------------------------------------------------------------------------------------------------------------|-----|
| bedroom)                                                                                                    |     |
| 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                                          | 50  |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| showers – per space)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |
| 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 |
| <p>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:</p> <p>(A) Design Standards for Large On-site Sewage Systems, 1993, Washington State Department of Health (available upon request to the department); or</p> <p>(B) Criteria for Sewage Works Design, revised November 2007, Washington State Department of Ecology (available online).</p> |    |

1230 <sup>1</sup>For buildings other than single-family residences the requirements of Section  
1231 13.28.020(B) shall be met.

1232 SECTION 33. R&R 3, Part 5, Section 2(A), as amended, and BOH 13.36.010 are  
1233 hereby amended to read as follows:

1234 **Design standards.**

1235 A. No septic tank, effluent pump tank, sewage holding tank, grease trap or any  
1236 other sewage tank may be installed in King County unless:

1237 1. The tank is included on the DOH publication, List of Approved On-site  
1238 Sewage Tanks;

1239 2. The tank conforms to the DOH publication, Recommended Standards and  
1240 Guidance for Performance, Application, Design, Construction, Installation and Testing  
1241 On-site Sewage System Tanks, July 1, 2007, as amended; and

1242 3. The health officer has approved plans for the tank installation. Such plans  
1243 shall show all dimensions, reinforcing, structural details and other pertinent data as  
1244 required by the health officer. Upon approval by the health officer, the plans will be  
1245 assigned an official number.

1246 B. ~~((Tanks made of materials other than concrete shall be approved by the  
1247 secretary prior to approval by the health officer.~~

1248 ~~E.))~~ C. No pre-cast wastewater tank may be installed except those which are  
1249 included on the registered list and have been clearly and legibly marked on the upper  
1250 surface of the lid showing the number assigned by the health officer, name of the  
1251 manufacturer, tank model number, tank capacity in gallons and date of manufacture.

1252 ~~((D.))~~ D. No metal septic tanks shall be installed in areas under the jurisdiction of  
1253 the department.

1254 ~~((E.))~~ E. All septic tanks, whether they are installed or used singly, in series or in  
1255 a divided system, must be designed according to waste load and in no case shall have a  
1256 total capacity of less than one thousand five hundred gallons, except by written  
1257 permission of the health officer.

1258 **Minimum Capacities for**  
1259 **Single-Family Residence Septic Tanks**

| <b>Number of Bedrooms</b>                      | <b>Minimum Liquid Capacity Below Outlet Invert<br/>(Gallons)</b> |
|------------------------------------------------|------------------------------------------------------------------|
| 4 or less                                      | 1500                                                             |
| Each additional bedroom,<br>add                | 250                                                              |
| Garbage grinder installed,<br>add <sup>1</sup> | 250                                                              |

1260 1. Use of garbage grinders increases settleable and floatable solids accumulations in the  
1261 septic tank, increases wastewater strength and thus increases the potential for system  
1262 failure especially if frequent and regular tank monitoring and maintenance is not  
1263 performed. Therefore, use of garbage grinders is not recommended (See Section  
1264 13.60.005(a)(3)).

1265 ~~((F-))~~ E. No septic tank with a compartment smaller than two hundred fifty  
1266 gallons liquid capacity may be installed.

1267 ~~((G-))~~ F. A septic tank designed to service any facility except a single-family  
1268 residence or multiple family housing shall have a liquid capacity at least equal to three  
1269 times the projected design flow, with a minimum of one thousand five hundred gallons.  
1270 Septic tanks serving multiple family housing shall have a minimum liquid capacity equal  
1271 to two times the projected design flow but not less than one thousand five hundred  
1272 gallons.

1273 ~~((H-))~~ G. All septic tanks or combinations of tanks installed shall provide at least  
1274 two compartments. No wastewater tanks may be joined below the normal inverts unless  
1275 otherwise preapproved by the health officer.

1276            ~~((I))~~ H. When multi-compartment tanks or two or more tanks in series are used,  
1277 the first compartment or tank shall have a liquid capacity of two-thirds to three quarters  
1278 of total required liquid capacity.

1279            ~~((J))~~ I. The minimum liquid capacity of a tank receiving intermittent use shall be  
1280 determined from the maximum expected daily waste load, but shall in no case be less  
1281 than one thousand five hundred gallons.

1282            ~~((K))~~ J. The plan review fee shall be as specified in the fee schedule, payable at  
1283 the time of initial plan submission. In addition to the initial plan review fee, a revision  
1284 review fee shall be assessed as specified in the fee schedule, payable at the time of  
1285 completion of the plan review, for review of any resubmissions, corrections, or additions  
1286 required.

1287            SECTION 34. R&R 3, Part 5, Section 3(C), and BOH 13.40.030, are hereby  
1288 amended to read as follows:

1289            **Size requirement.** The dosing tank shall be of sufficient size so as to provide the  
1290 total volume required (~~((one day's total dosing gallonage plus one day's estimated waste~~  
1291 ~~volume but))~~ for two days of the design flow and shall not be less than one thousand five  
1292 hundred gallons.

1293            SECTION 35. R&R 3, Part 5, Section 5, and BOH 13.48.010 are hereby  
1294 amended to read as follows:

1295            **Specifications.**

1296            A. No OSS may be constructed unless there has first been a soil evaluation for  
1297 the site completed in the manner described in BOH 13.28.050 to determine type, size and



1298 location of the OSS. SSAS design and construction shall be in accordance with the  
1299 following:

1300 1. Maximum bottom width of trenches shall be twenty-four inches except a  
1301 maximum width of up to thirty-six inches may be allowed provided that:

1302 a. for soil types 1 through 4 the SSAS is at least pressure distribution in  
1303 accordance with BOH 13.48.060 (pressure distribution systems); and

1304 b. for soil types 5 and 6 the effluent shall meet the next higher treatment level  
1305 as indicated in table 13.28-1 unless treatment level B is already required prior to  
1306 discharge to the SSAS; and

1307 c. the slope does not exceed thirty percent.

1308 2. Beds are allowed only in excessively permeable soils consisting of very  
1309 gravelly coarse sands or coarser, extremely gravelly soils. SSAS installed in beds must  
1310 be pressure distribution and meet treatment level B or greater.

1311 3. The maximum depth of soil cover over the top of SSAS drainrock shall not  
1312 exceed twenty-four inches except by written permission of the health officer. The  
1313 infiltrative surface or bottom of the drainfield shall not be deeper than thirty-six inches  
1314 below the finished grade.

1315 4. The minimum depth of soil cover over drainrock shall not be less than twelve  
1316 inches unless otherwise authorized by the health officer.

1317 5. Minimum depth of drainrock under drainfield lines shall not be less than six  
1318 inches.

1319 6. The amount of drainrock over drainfield lines shall not be less than two  
1320 inches.

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1321 7. Drainrock shall be clean, washed, uniformly graded, nondeteriorating gravel,  
1322 size (~~three eighths inches to seven eighths inches or three quarters inches to one and-~~)  
1323 three-fourths of an inch to two and one-half inches with no visible fine particles adhering  
1324 to gravel surfaces and with the percent by weight passing the U.S. No. 200 sieve not  
1325 greater than 0.5 percent.

1326 8. Minimum separation between drainfield trench side walls shall not be less  
1327 than four feet of undisturbed soil (~~for soil texture types 1, 2, and 3 and shall not be less~~  
1328 ~~than six feet for soil texture type 4, 5 and 6~~).

1329 9. Individual laterals greater than one hundred feet in length must use pressure  
1330 distribution.

1331 10. No gravelless drainfield system may be installed unless it satisfies the  
1332 requirements of BOH 13.52.054.

1333 11. The designer shall specify, in the OSS design, the SSAS cover material to be  
1334 used and shall verify, in the record drawing, that the cover material used conforms with  
1335 the design specifications.

1336 B. Horizontal separations shall be maintained in accordance with BOH  
1337 13.28.030W and Table 13.28- 2.

1338 C. No drainfield pipes shall be installed unless all fittings are rigidly joined  
1339 together in accordance with the pipe manufacturer's directions.

1340 D. Approved rigid drainfield pipe, such as PVC, shall be used, but only if stakes  
1341 are placed in the trench center at not more than five-foot intervals to maintain grade and a  
1342 transit level laser or equally accurate instrument shall be used to assure that proper grade  
1343 is maintained.

1344 E. No drainfield shall be installed that requires a change in grade and earth cover  
1345 unless terracing is accomplished by the use of a suitable plastic or concrete drop box or  
1346 by use of rigid plastic pipe with glued joints (overflow stepdown). Such installation shall  
1347 have an earth dam twenty-four inches thick preceding terracing. Earth dams shall consist  
1348 of original undisturbed soil.

1349 F. Not less than one drainfield trench monitoring port of at least four inches in  
1350 diameter, which is anchored, with an easily removable cover that extends to finished  
1351 grade, shall be installed down to the infiltrative surface in each drainfield lateral.

1352 G. No OSS shall be installed unless the pipe lines between the building and the  
1353 septic tank, the septic tank and the distribution box, under paved areas, and within ten  
1354 feet of any buildings, shall be constructed of plastic, or cast-iron pipe laid with watertight  
1355 joints. The pipe materials shall conform to material specifications of the Uniform  
1356 Plumbing Code.

1357 H. No drainfield shall be installed that, after installation of the gravel over the  
1358 pipe, is not then covered with a geotextile barrier material that meets the specifications of  
1359 Section 5, Design Standards for Large On-site Sewage Systems, December 1993,  
1360 amended July 1994, Washington State Department of Health, as amended.

1361 I. No drainfield shall be installed under driveways, roadways, parking areas,  
1362 paved areas or under areas subject to compaction by vehicular traffic.

1363 J. Pipe used for construction of gravity drainfield lines shall be a minimum of  
1364 four inches inside diameter and constructed of rigid materials conforming with ASTM  
1365 F481-02, as amended.

1366 K. Pipe used for construction of tightline must comply with the current Uniform  
1367 Plumbing Code.

1368 L. SSAS shall be installed in undisturbed native soil. Trees or tree stumps greater  
1369 than eighteen inches in diameter, when measured two feet above grade, shall be left  
1370 standing, cut at ground level, burned in place, or managed by other methods acceptable to  
1371 the health officer that will avoid disturbing the soil.

1372 SECTION 36. R&R 3, Part 6, Section 1, as amended, and BOH 13.52.010 are  
1373 hereby amended to read as follows:

1374 **Holding tanks.**

1375 A. Sewage holding tanks may be permitted only for controlled, nonresidential  
1376 usage or as an interim method to handle emergency situations or to correct existing  
1377 problem systems; provided, that an on-site system management program satisfactory to  
1378 the health officer has been established to assure on-going operation and maintenance.

1379 B. ~~((In addition, t))~~The applicant ~~((must))~~ for a holding tank shall provide a no-  
1380 protest agreement with the sewerage authority or a signed petition supporting formation  
1381 of a ULID if the property is within a sewer service area.

1382 C. ~~((Design plans shall be submitted))~~ The applicant shall submit holding tank  
1383 design plans in conformance with this title to the health officer for review. The ~~((design~~  
1384 ~~and))~~ owner shall ensure that holding tank maintenance and operation ((shall be in  
1385 ~~accordance))~~ conform with this title and with Guidelines for Holding Tank Sewage  
1386 Systems, July 2007, Washington State Department of Health, as amended. The  
1387 application shall include specifications for the anticipated daily sewage load, the tank

1388 capacity, the alarm device, the overflow elevation, the location of the tank, and any other  
1389 information pertinent to the installation.

1390 D. ~~((A minimum bond of five thousand dollars must be filed with the health  
1391 officer or management authority to guarantee cleanup in case of accidental spill and/or  
1392 repair of the system.~~

1393 E. ~~A copy of a pumping contract with a certified OSS pumper must be filed with  
1394 the department))~~ The owner shall enter into an active pumping contract with a certified  
1395 OSS pumper and file a copy of the contract with the health officer. The owner shall  
1396 maintain the contract at all times until the holding tank has been decommissioned. The  
1397 pumper shall notify the health officer if the contract is at any time canceled or not  
1398 renewed by either party to the contract.

1399 F. The owner or applicant shall obtain ~~((A))~~ an OSS installation permit ~~((must be  
1400 obtained))~~ prior to installation of the tank.

1401 G. ~~((Monitoring))~~ The owner shall cause monitoring and maintenance ~~((shall))~~ of  
1402 the tank to be performed in accordance with BOH 13.60.010. The owner shall ensure  
1403 that pumping of the holding tank occurs at least as frequently as specified under the  
1404 approved holding tank design, or, alternatively, that the holding tank installation includes  
1405 technology to monitor septage levels in the tank and notify the owner and contracted  
1406 pumper if ninety percent of the tank capacity is exceeded.

1407 SECTION 37. R&R No. 3, Part 7, Section 5, and BOH 13.56.050 are each hereby  
1408 amended to read as follows:

1409 **Record drawing.**

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1410 A. ~~((Whenever a designer approves an installation,))~~ Within thirty days after  
1411 approving an OSS installation and notifying the health officer of system completion, the  
1412 designer shall prepare, sign, and submit electronically to the health officer a completely  
1413 scaled and dimensioned record drawing and certification of the approved OSS ~~((shall be~~  
1414 ~~prepared in triplicate by the designer of the system on forms provided by the health~~  
1415 ~~officer. These forms shall then be signed by the designer and within thirty days of~~  
1416 ~~notifying the health officer of system completion all three complete copies shall be~~  
1417 ~~submitted)).~~ Where an installation, alteration or repair is undertaken without a design  
1418 prepared by a designer, the installer or OSM performing the installation, alteration or  
1419 repair shall provide a reconciled ~~((record drawing))~~ site sketch to the health officer and  
1420 the OSS owner at the time of final inspection.

1421 B. The following details are required for all record drawings:

1422 1. An accurate plot plan, with measurements and directions accurate to within  
1423 one-half of one foot, showing the locations of the essential components of the OSS  
1424 including:

1425 a. all sewage tanks, tank pump out lids, tank inspection access ports and depth  
1426 of tank burial.

1427 b. all plumbing stub outlets.

1428 c. building sewer line between building and septic tank.

1429 d. effluent transport line between septic tank and distribution box or inspection  
1430 box.

1431 e. the ends, and all changes in direction, of installed and found buried pipes  
1432 and electrical cables that are part of the OSS.

- 1433 f. the distribution/inspection box.
- 1434 g. all soil absorption system laterals and permanent visible marker locations.
- 1435 The length and width of each individual drainfield lateral shall be shown to scale and the
- 1436 total number of lineal feet and square footage of laterals specified on the drawing. A
- 1437 dimensioned reserve soil absorption system area shall be included. h.
- 1438 h. the location of any unusual construction features such as step downs(( $\nabla$ )) in
- 1439 the drainfield laterals(( $\nabla$ )) must be clearly indicated.
- 1440 i. distance between any drainfield laterals and the edges of any fill soils, cuts,
- 1441 banks, terraces, foundations, property lines, lakes, streams, wells or other water sources,
- 1442 water lines, driveways and impermeable surfaces.
- 1443 j. the location and detail of soil absorption system inspection ports.
- 1444 k. location and depth of permeable cover added after installation.
- 1445 l. if ~~((a pump system))~~ the OSS contains a pump, the pump size, manufacturer,
- 1446 model, pump cycle duration, dose in gallons/cycle and pump timer settings.
- 1447 m. location, size, shape, and placement of all buildings on the building site
- 1448 showing their relation to the OSS and to any easements, underground oil storage tanks,
- 1449 utility lines and property lines.
- 1450 n. location, direction of flow, and discharge point of all ground and/or surface
- 1451 water interceptor drains and on-site stormwater infiltration systems.
- 1452 o. orientation of drawing with north direction by arrow.
- 1453 p. location of private water supply (well, spring, etc.).
- 1454 q. location of design control point.

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1455           2. Clearly Indicated Scale using the appropriate scaled increments shown on a  
1456 typical engineering scale. Recommended scale of one inch equals twenty feet. Scales  
1457 utilizing ratios smaller than one inch equals thirty feet are not acceptable.

1458           3. One copy of an OSS owner's operating, maintenance and technical  
1459 specifications manual which includes:

1460           a. system performance specifications, including initial settings of electrical or  
1461 mechanical devices needed to operate the system as intended by the designer and  
1462 installer;

1463           b. system operating instructions, including ~~((- for proprietary products,))~~  
1464 manufacturer's standard product literature for proprietary products;

1465           c. system preventive maintenance instructions and service schedule;

1466           d. make, model and/or performance specifications of all system components;

1467 ~~((and))~~

1468           e. check list and schedule for routine monitoring inspections, effluent sampling  
1469 and reports~~((-)); and~~

1470           f. record that materials and equipment meet the specifications contained in the  
1471 design.

1472           4. Copy of recorded "notice on title" required by BOH 13.56.054, and an  
1473 operation and maintenance services agreement as applicable.

1474           5. Copy of OSS installation permit.

1475           6. Documentation describing the waste strength range within which the OSS is  
1476 designed to operate.

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1477            SECTION 38. R&R 99-01, Section 2 (Part), as amended, and BOH 13.56.054 are  
1478 hereby amended to read as follows:

1479            **Notice on title.**

1480            A. New Systems. The owner shall record a notice on title with the King County  
1481 records and election division. This notice shall include all of the owner's responsibilities  
1482 described in BOH 13.60.005 and Table 13.60-1.

1483            B. Existing systems.

1484            1. Prior to sale or transfer of property ownership, if the building is served by an  
1485 OSS and the notice on title required by this section has not been recorded, then the owner  
1486 shall record the notice as set forth in BOH 13.56.054.A. At the time of sale the seller  
1487 shall obtain the buyer's signature acknowledging receipt of a copy of this recorded notice.

1488            2. At the time of sale or transfer of property ownership, the buyer or transferee  
1489 of a property served by an OSS shall forward to the health officer a fee as set forth in the  
1490 fee schedule and submit a signed copy of the notice on title as set forth in BOH  
1491 13.56.054.A.

1492            ~~((3. At the time a building is remodeled or expanded, if it is not connected to  
1493 public sewer and the notice on title required by this section has not been recorded, then  
1494 the owner shall record the notice as set forth in BOH 13.56.054.A.))~~

1495            SECTION 39. R&R 99-01, Section 2 (part), as amended, and BOH 13.60.005 are  
1496 hereby amended to read as follows:

1497            **Operation and maintenance.**

1498            A. The OSS owner is responsible for the continuous proper operation and  
1499 maintenance of the OSS, and shall:

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- 1500           1. Determine the level of solids and scum in the septic tank at least once every  
1501 three years for residential systems with no garbage grinder and once every year if a  
1502 garbage grinder is installed and, unless otherwise provided in writing by the health  
1503 officer, once every year for commercial systems((-));
- 1504           2. Employ an approved pumper to remove the septage from the tank when the  
1505 level of solids and scum indicates that removal is necessary((-));
- 1506           3. Cause preventive maintenance/system performance monitoring inspections to  
1507 be conducted and any indicated service to be performed by an approved person at a  
1508 minimum frequency in accordance with Table 13.60-1 unless otherwise established by  
1509 the health officer((-));
- 1510           4. Secure and renew contracts, as needed, to fulfill the OSS operation and  
1511 maintenance requirements of Table 13.60-1((-));
- 1512           5. Operate and maintain all OSS in accordance with this title, with pertinent  
1513 alternative system guidelines issued by the DOH and with the approved OSS owner's  
1514 operating and maintenance instruction manual((-));
- 1515           6. Protect the OSS area including the reserve area from:
- 1516           a. cover by structures or impervious material;
- 1517           b. surface drainage;
- 1518           c. soil compaction, for example, by vehicular traffic or livestock; and
- 1519           d. damage by soil removal and grade alteration((-));
- 1520           7. Maintain the flow of sewage to the OSS at or below the approved operating  
1521 capacity and sewage quality standards for residential strength waste water((-));

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1522 8. Direct drains, such as footing or roof drains away from the area where the  
1523 OSS is located((-));

1524 9. At time of property transfer, provide the buyer with maintenance records, if  
1525 available, in addition to the completed seller disclosure statement in accordance with  
1526 chapter 64.06 RCW for residential real property transfers; and

1527 10. Ensure that all tank access lids are secured to minimize risk of injury or  
1528 unauthorized access.

1529 B. The owner shall not allow:

1530 1. Use or introduction of strong bases, strong acids or organic solvents into an  
1531 OSS for the purpose of system cleaning;

1532 2. Use of a sewage system additive unless it is specifically approved by the  
1533 DOH; or

1534 3. Use of an OSS to dispose of waste components atypical of residential  
1535 wastewater, for example, but not limited to, petroleum products, paints, solvents, or  
1536 pesticides.

1537 SECTION 40. R&R 3, Part 8, Section 1, as amended, and BOH 13.60.010 are  
1538 hereby amended to read as follows:

1539 **Monitoring of residential, community or commercial systems.**

1540 A. The owner shall cause ((~~monitoring of the~~)) performance monitoring and  
1541 preventive maintenance inspections of any OSS at a frequency and by a qualified person  
1542 as specified in Table 13.60-1.

1543 B. For all system types, service access and monitoring ports to finished grade are  
1544 required for all system components. Specific component requirement include the  
1545 following:

1546 1. Septic tanks shall have service access maintenance ports and monitoring ports  
1547 for the inlet and outlet. If effluent filters are used, access to the filter at finished grade is  
1548 required;

1549 2. Surge, flow equalization or other sewage tanks shall be accessible for  
1550 monitoring and maintenance;

1551 3. All pretreatment units shall have service access maintenance ports and  
1552 monitoring ports;

1553 4. Pump chambers, tanks and vaults shall have service access maintenance  
1554 ports;

1555 5. Disinfection units shall have service access and be installed to facilitate  
1556 complete maintenance and cleaning;

1557 6. Soil dispersal components shall have monitoring ports for both distribution  
1558 devices such as valves or other controls and the infiltrative surface; and

1559 7. Any person providing service to an OSS shall secure tank access lids after  
1560 servicing the OSS or provide clearly visible marking and notification to the property  
1561 owner and occupants before leaving the site.

1562 C. Systems using pumps shall have accessible controls and warning devices.

1563 D. To facilitate maintenance and safety, control panels shall be located in line of  
1564 sight of the pump tank.

1565 E. OSS serving food establishments require, at a minimum, an annual  
 1566 performance monitoring and preventive maintenance inspection and periodic pumping as  
 1567 needed.

1568 F. ~~((Operation and maintenance))~~ Performance monitoring and preventive  
 1569 maintenance inspections of any OSS in a marine recovery area shall be performed by a  
 1570 licensed OSS maintainer and at a frequency determined by the health officer based upon  
 1571 type, size, age, system condition, and system location, but not less than once per year. If  
 1572 no accurate record drawing for the OSS has been prepared and filed with the department,  
 1573 the licensed OSS maintainer performing the ~~((maintenance and performance monitoring))~~  
 1574 inspection shall prepare and submit to the health officer a reconciled ~~((record drawing))~~  
 1575 site sketch together with the ~~((system))~~ operation and performance monitoring report  
 1576 required under this chapter.

1577 **Table 13.60-1**

1578 **Minimum Frequency of ~~((Preventive Maintenance/))~~ Performance Monitoring and**  
 1579 **Preventive Maintenance Inspections**

|                                       | Gravity System <u>without Pump</u> <sup>4</sup> | Public Domain Technology <sup>2</sup> | Proprietary Technology <sup>3,5</sup> | Commercial and Food Establishment | Non-Discharging Toilets <sup>6</sup> |
|---------------------------------------|-------------------------------------------------|---------------------------------------|---------------------------------------|-----------------------------------|--------------------------------------|
| <b>Initial<sup>1</sup> Inspection</b> | 6 months                                        | 6 months                              | 45 days                               | 45 days                           | N/A                                  |
| <b>Regular</b>                        | Every 3                                         | Annually                              | <del>((Every 6</del>                  | Annually <del>((or</del>          | Annually                             |

|                                       |                                                                    |                        |                             |                                                             |       |
|---------------------------------------|--------------------------------------------------------------------|------------------------|-----------------------------|-------------------------------------------------------------|-------|
| <b>Inspection frequency</b>           | years                                                              |                        | months))<br><u>Annually</u> | <del>6 months</del><br>depending on<br>Technology<br>used)) |       |
| <b>Who May Perform the Inspection</b> | Owner or<br>Licensed<br>Maintainer<br>or Licensed<br>OSS<br>Pumper | Licensed<br>Maintainer | Licensed<br>Maintainer      | Licensed<br>Maintainer                                      | Owner |

**Table 13.60-1 Explanatory Notes**

1580

1581

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

1582

1583

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

1584

1585

3. Proprietary Technology includes such systems as((±)) ATUs, Glendon up-flow filters, Advantex pack bed filters<sub>2</sub> and subsurface drip.

1586

1587

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

1588

1589

1590

1591

1592 5. Table 13.60-1 specifies the minimum required monitoring frequency. A more  
1593 stringent monitoring frequency shall be used if recommended by the manufacturer.

1594 6. This monitoring is in addition to that required for the OSS receiving the building's  
1595 nontoilet liquid waste.

1596 G. The person conducting the ~~((maintenance and))~~ performance monitoring and  
1597 preventive maintenance inspection shall submit ~~((a system))~~ an operation and  
1598 ~~((maintenance/))~~ performance monitoring report, on forms provided by the health officer,  
1599 to the owner at the time of the inspection and to the health officer accompanied by a  
1600 filing fee as specified in the fee schedule within thirty days of the inspection.

1601 H. Any person holding a King County OSS certificate of competency or  
1602 Washington state on-site sewage system designer or professional engineer license who  
1603 observes effluent surfacing from an OSS component or sewage backing up into a  
1604 structure shall report the failure on forms provided by the health officer within five  
1605 business days of observing the failure.

1606 I. The fee for each ~~((OSS monitoring/performance inspection))~~ monitoring report  
1607 required by the health officer shall be in accordance with the fee schedule.

1608 ~~((I. Preventive maintenance and monitoring))~~ J.1. For any commercial  
1609 development using OSS, performance monitoring and preventive maintenance inspection  
1610 of the OSS ~~((performance and)), including~~ quality of effluent, shall be required ~~((for any~~  
1611 commercial development using OSS).

1612 ~~((I.))~~ 2. The minimum frequency and the type of inspection required shall be in  
1613 accordance with Table 13.60-1 unless otherwise established by the health officer.

1614            ~~((2-))~~ 3. At least an annual inspection of OSS serving food establishments shall  
1615 be conducted.

1616            ~~((1-))~~ K. For properties where required performance monitoring and~~((/or))~~  
1617 preventive maintenance inspections are at least thirty days overdue the health officer may  
1618 notify the owner that the OSS is not in compliance with these rules. The health officer  
1619 may, in addition to provisions of BOH chapter 1.08 of this code, cause a notice of  
1620 noncompliance to be recorded with the real property records for the subject lot.

1621            SECTION 41. R&R 08-03, Section 145, and BOH 13.60.030 are hereby  
1622 amended to read as follows:

1623            **Operation and maintenance at time of sale.**

1624            A. The seller or grantor of any single-family or multiple family residential  
1625 property served by an OSS shall, prior to transfer of title to the property, have a property  
1626 transfer monitoring and performance inspection performed by a licensed OSM. The  
1627 licensed OSM shall file with the department an on-site system report and applicable fee  
1628 in accordance with the fee schedule.

1629            ~~((1-))~~ B. If no record drawing is on file with the department, the OSM shall  
1630 prepare a ~~((record drawing))~~ site sketch and include it with the O&M report submitted to  
1631 the department.

1632            ~~((2-))~~ C. If a record drawing is on file with the department but does not  
1633 accurately depict the OSS, the OSM shall prepare a ~~((reconciled record drawing))~~ site  
1634 sketch and include it with the O&M report submitted to the department.



1635            ~~((3.))~~ D. A property transfer monitoring and performance inspection is not  
1636 required if such an inspection was performed within the previous ~~((6 months.))~~ twelve  
1637 months, provided the property has not been transferred since the most recent inspection.

1638            ~~((4.))~~ E. At the time of property transfer, the owner shall provide, to the buyer,  
1639 maintenance records, if available, in addition to the completed seller disclosure statement  
1640 in accordance with chapter 64.06 RCW for residential real property transfers.

1641            SECTION 42. R&R No. 3, Part 9, Section 1, as amended, and BOH 13.64.010  
1642 are each hereby amended to read as follows:

1643            **Repairs of failing OSS.**

1644            A. This title shall be applied to the maximum extent permitted by the site for any  
1645 repair necessitated by the failure of an existing OSS. The health officer may waive  
1646 compliance with these requirements if a conforming repair is not feasible and if in the  
1647 health officer's judgment the repaired system will not have an adverse effect on public  
1648 health, but the repaired system shall not discharge onto the surface of the ground, into  
1649 surface waters, or otherwise fail.

1650            B. The health officer ~~((may))~~ shall require a site design in accordance with BOH  
1651 chapter 13.28 for the repair or replacement of a failing soil absorption component ~~((and if~~  
1652 ~~deemed necessary))~~ or for a ~~((limited))~~ repair. Prior to designing the repair system, the  
1653 designer shall consider the contributing factors of the failure to enable the repair to  
1654 address identified causes of the failure, and shall include this information in any design or  
1655 repair proposal to the department. ~~((The health officer shall require a site design in~~  
1656 ~~accordance with chapter 13.28 for the repair or replacement of a failing soil absorption~~  
1657 ~~component and if deemed necessary for a limited repair.))~~

1658 C. It is unlawful to repair an OSS without ~~((a))~~ a department approved OSS  
 1659 ~~((limited))~~ repair permit, except that a permit is not required for a minor repair as defined  
 1660 under BOH chapter 13.08.

1661 **Table 13.64-1**  
 1662 **Minimum Treatment Level and Bacteria Level Required for Repair or Replacement**  
 1663 **of Soil Absorption Components on Sites not Meeting Vertical and/or Horizontal**  
 1664 **Separation Requirements of this Title**

| Vertical<br>Separation<br>(in inches)     | Horizontal Separation <sup>1</sup>                |            |            |                                 |                         |                         |                                  |                         |                         |                                |                       |            |            |
|-------------------------------------------|---------------------------------------------------|------------|------------|---------------------------------|-------------------------|-------------------------|----------------------------------|-------------------------|-------------------------|--------------------------------|-----------------------|------------|------------|
|                                           | <del>((&lt;25))</del> < 30 feet <sup>2,3</sup>    |            |            | <del>((25-&lt;50))</del> ≥ 30 < |                         |                         | <del>((50-&lt;100))</del> ≥ 50 < |                         |                         | <del>((&gt;100))</del> ≥       |                       |            |            |
|                                           | 50 feet <sup>2,3</sup>                            |            |            | 100 feet <sup>2,3</sup>         |                         |                         | 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        |            |
|                                           | <b>Minimum Treatment Level and Bacteria Level</b> |            |            |                                 |                         |                         |                                  |                         |                         |                                |                       |            |            |
| < 12                                      | A &<br>BL1                                        | A &<br>BL1 | A &<br>BL1 | A &<br>BL1                      | A &<br>BL1              | A &<br>BL1              | A &<br>BL1                       | A &<br>BL1              | A &<br>BL1              | <del>((B))</del><br>A &<br>BL1 | B &<br>BL2            | B &<br>BL2 | B &<br>BL2 |
| <del>((&gt;12-&lt;18))</del><br>≥ 12 < 18 | A &<br>BL1                                        | A &<br>BL1 | A &<br>BL1 | A &<br>BL1                      | B &<br>BL2              | B &<br>BL2              | A &<br>BL1                       | B &<br>BL2              | B &<br>BL2              | B &<br>BL2                     | Conforming<br>Systems |            |            |
| <del>((&gt;18-&lt;24))</del><br>≥ 18 < 24 | A &<br>BL1                                        | A &<br>BL1 | A &<br>BL1 | A &<br>BL1                      | B &<br>BL2              | B &<br>BL2              | A &<br>BL1                       | B &<br>BL2              | B &<br>BL2              | <del>((C))</del><br>B &<br>BL2 |                       |            |            |
| <del>((&gt;24-&lt;36))</del><br>≥ 24 < 36 | A &<br>BL1                                        | B &<br>BL2 | B &<br>BL2 | B &<br>BL2                      | <del>((C))</del><br>B & | <del>((C))</del><br>B & | B &<br>BL2                       | <del>((C))</del><br>B & | <del>((C))</del><br>B & | C &<br>BL3                     |                       |            |            |

|                            |            |            |            |            |            |            |            |            |                    |  |
|----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------------|--|
| <u>36</u>                  |            |            |            |            | <u>BL2</u> | <u>BL2</u> |            | <u>BL2</u> |                    |  |
| <del>(<u>&gt;36</u>)</del> | A &        | B &        | B &        | B &        | C &        | C &        | B &        | C &        | <del>((E))</del> C |  |
| <u>≥ 36</u>                | <u>BL1</u> | <u>BL2</u> | <u>BL2</u> | <u>BL2</u> | <u>BL3</u> | <u>BL3</u> | <u>BL2</u> | <u>BL3</u> | <u>&amp; BL3</u>   |  |

**Table 13.64-1 Explanatory Notes**

1665

1666 The horizontal separation indicated in this table is the distance between the soil  
 1667 dispersal component and the surface water, well, or spring. If the soil dispersal  
 1668 component is up-gradient of a surface water, well, or spring to be used as a potable water  
 1669 source, or beach where shellfish are harvested, the next higher treatment level shall apply  
 1670 unless treatment level A and BL1 is already required.

1671 1. The Treatment Levels refer to effluent quality achieved before discharge to  
 1672 unsaturated subsurface soil.

1673 2. Alternative systems which meet the Treatment Level without disinfection are  
 1674 required when the repair OSS is adjacent to fresh water bodies.

1675 3. When adjacent to fresh surface water bodies the next higher Treatment Level  
 1676 ~~((A))~~ shall be provided unless Treatment Level A and BL1 is already provided.

1677 D. The treatment level required for repair or replacement of soil absorption  
 1678 components of an existing failed OSS when conforming vertical separation and  
 1679 conforming horizontal separation to surface water and/or to individual private wells is not  
 1680 possible shall be in accordance with Table 13.64-1.

1681 E. Alterations or repairs to an OSS shall be documented in a repair record  
 1682 drawing submitted to the health officer for final approval at time of final inspection,  
 1683 unless a full design application was submitted for the repair.

1684 F. ~~((The owner receiving a Table 13.64-1 repair permit where treatment Level A~~  
1685 ~~or B is required shall:~~

- 1686 1. ~~Immediately report any OSS failure to the health officer;~~
- 1687 2. ~~Continuously operate, maintain and monitor the OSS performance in~~  
1688 ~~accordance with the appropriate recommended standards and guidance for the technology~~  
1689 ~~in use; and~~
- 1690 3. ~~Report the results of the OSS maintenance and monitoring to the health~~  
1691 ~~officer quarterly when Treatment Level A is required and annually when Treatment Level~~  
1692 ~~B is required.~~

1693 G.) The owner receiving a permit shall file a "notice on title" in accordance with  
1694 13.56.054 and the notice shall include:

- 1695 1. A notarized agreement to comply with the conditions of BOH 13.64.010.F  
1696 above; and
- 1697 2. A disclosure that a nonconforming OSS has been installed to correct a failure  
1698 because a conforming OSS is not feasible due to site and soil limitations and that due to  
1699 the OSS nonconformity the system is not authorized to support new building construction  
1700 or expansions or major alterations of the existing structure.

1701 ~~((H.))~~ G. The health officer may authorize in writing a horizontal separation of  
1702 not less than seventy-five feet between an OSS dispersal component and an individual  
1703 private drilled well, but only if:

- 1704 1. ~~((†))~~The well is located on the same parcel as the property served by the OSS;

1705 2. ~~((†))~~The OSS is designed and operated to provide treatment level A or  
1706 treatment performance beyond that accomplished by meeting the vertical separation and  
1707 effluent distribution requirements described in Table 13.64-1; and

1708 3. ~~((†))~~The owner monitors drinking water quality for coliform and nitrate and  
1709 periodically submits drinking water quality reports to the health officer at least annually.

1710 ~~((†))~~ H. For any designed repair, the designer shall include, on the record  
1711 drawing document, the operating capacity of the repaired OSS and provide a copy of the  
1712 record drawing document to the owner.

1713 ~~((†))~~ L. For any repair required to be performed in accordance with Table 13.64-1  
1714 of this title, disinfection may not be used to achieve the fecal coliform requirements to  
1715 meet:

1716 1. Treatment levels ~~((A or B))~~ BL1 or BL2 where there is less than eighteen  
1717 inches of vertical separation~~((:))~~; or

1718 2. Treatment levels ~~((A or B))~~ BL1 or BL2 in type 1 soils; or

1719 3. Treatment level ~~((C))~~ BL3.

1720 ~~((K))~~ J. Except as provided in BOH 13.20.040, OSS repairs shall be supervised  
1721 by an OSS master installer certified pursuant to BOH 13.20.020 and 13.20.030.

1722 ~~((L))~~ K. When the work of repairing an existing OSS has been completed, but  
1723 before it is closed and covered, the installer shall notify the owner and the person who  
1724 designed the repair ~~((and owner shall be notified))~~ that the work has been completed.

1725 The person who designed the repair shall then proceed as described in BOH 13.56.030~~((:))~~  
1726 ~~subsections))~~ B. and C. The person designing the repair shall then call for the health  
1727 officer to inspect the system.

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1728 L. For a ~~((limited))~~ minor repair, the installer or maintainer shall submit a  
1729 ~~((limited))~~ minor repair report to the health officer within five working days after  
1730 completing the repair with a site sketch documenting any changes in OSS components.

1731 M. Unless otherwise directed by the health officer, OSS repairs shall not be  
1732 covered until the health officer has given approval.

1733 SECTION 43. R&R 3, Part 9, Section 2, as amended, and BOH 13.64.020 are  
1734 hereby amended to read as follows:

1735 **Remodeling – approval required.**

1736 A. Existing buildings or structures to which additions, alterations, or  
1737 improvements which would impact the operation of the OSS are made after the effective  
1738 date of this title shall be served by an OSS complying with this title ~~((; provided,~~  
1739 ~~however)), except that the health officer may waive compliance with these requirements  
1740 for existing buildings or structures when the addition, alterations, repairs, or  
1741 improvements to the building or structure are compatible with and do not adversely  
1742 impact the OSS including the potential reserve area, do not affect the adequacy of the  
1743 system to treat the sewage over the remaining useful life of the building or structure, and  
1744 do not adversely affect the ability of the continued operation of the system to protect  
1745 public health, surface water quality, or groundwater quality.~~

1746 B. Applications for approval by the health officer of existing OSS serving  
1747 existing buildings undergoing addition, alteration, repair, or improvement shall be made  
1748 as provided in this section. The application shall be made on forms furnished by the  
1749 health officer.

1750 C.1. The health officer will review all applications to determine the compatibility  
1751 of the proposed addition, alteration, repair, or improvement with the existing OSS.

1752 ~~((1-))~~ 2. Factors that the health officer may consider include, but are not limited  
1753 to, the following:

1754 a. location of SSAS in relation to foundation and existing improvements;

1755 b. size of SSAS in relation to proposed use;

1756 c. condition of the existing OSS;

1757 d. ~~((useful anticipated life of the existing on-site sewage disposal system;~~

1758 ~~e-))~~ potential for reconstruction and repair of the existing on-site sewage  
1759 disposal system;

1760 ~~((f-))~~ e. ultimate purpose of the remodeling; and

1761 ~~((g-))~~ f. approved source of water.

1762 ~~((2-))~~ 3. The health officer may require the applicant to furnish such exhibits and  
1763 information as may be deemed relevant and necessary to the application.

1764 D. Any applicant ~~((for a permit for a change))~~ changing ~~((of))~~ use in a  
1765 commercial structure served by an OSS, or for a change of use from residential to  
1766 commercial in a structure served by an OSS, shall obtain the health officer's review and  
1767 approval of the OSS before the OSS may be utilized to serve the new use in the structure.

1768 Any such applicant for a change in use approval for the continued use of the OSS shall

1769 ~~((submit a written))~~ cause the application for approval by the health officer to be

1770 submitted by a licensed OSS designer or professional engineer on forms provided by the

1771 health officer. The application shall include information detailing the anticipated

1772 wastewater strength of the proposed use and any processes or uses which may impact the  
1773 wastewater characteristics and flows of the existing OSS.

1774 E. The nonrefundable fee for such a review shall be as specified in the fee  
1775 schedule, payable to the department. No charge shall be made for applications for  
1776 projects that are determined to be categorically exempt by the health officer.

1777 SECTION 44. R&R 3, Part 11, Section 1, as amended, and BOH 13.68.010 are  
1778 hereby amended to read as follows:

1779 **Pumper certification requirements.**

1780 A. It is unlawful for any person to carry on or engage in the business of pumping  
1781 out the contents of septic tanks, cesspools, grease traps, seepage pits, vault privies,  
1782 portable toilets, and other receptacles of human sewage or to transport over the highways  
1783 or to dispose of the contents therefrom in King County unless the pumper business  
1784 operator and in addition, each employee of the OSS pumper who engages in OSS  
1785 pumping activities, holds a valid certificate of competency and each vehicle has an  
1786 annual inspection tab issued by the health officer in accordance with this title for  
1787 conducting such business. The following liquid waste pumper's certificate of  
1788 competency classifications are established:

- 1789 1. OSS pumper;
- 1790 2. Grease trap~~((/))~~ or interceptor pumper;
- 1791 3. ~~((Vessel))~~ Watercraft sewage holding tank pumper;
- 1792 4. Portable toilet pumper; and
- 1793 5. Miscellaneous sewage pumper.



1794 B. All persons holding a valid pumper registration on the effective date of these  
1795 regulations will be classified by the health officer in accordance with subsection((s)) A.1.  
1796 through ~~((A))~~4 of this section.

1797 C. A holder of an OSS pumper classification certificate of competency may, in  
1798 addition to the pumping and transporting activity under this section, conduct routine  
1799 preventive maintenance and performance monitoring inspections of gravity OSS, except  
1800 that an OSS inspection at time of property sale under BOH 13.60.030 shall be performed  
1801 by a licensed OSS maintainer. A liquid waste pumper of any classification may not  
1802 perform minor repairs on any OSS component other than lids, risers, baffles, and building  
1803 sewer tightlines.

1804 D. An applicant may be issued a certificate under such terms, conditions orders  
1805 and direction as the health officer may deem necessary for the protection of public health.  
1806 The health officer may waive any specific condition required by this chapter for  
1807 certification when, in the opinion of the health officer, the condition duplicates a  
1808 requirement of another regulatory agency and which the applicant has fulfilled.

1809 E. As a condition of certification, a pumper shall consistently demonstrate  
1810 reasonable care and skill in performing work governed by this title, meet the  
1811 requirements of the King County OSS code of performance and ethics, and comply with  
1812 all the terms and conditions of these and all other applicable rules and regulations.

1813 SECTION 45. R&R 3, Part 11, Section 2, as amended, and BOH 13.68.020 are  
1814 hereby amended to read as follows;

1815 **Application.** ~~((All applications for pumper certification under this title shall be~~  
1816 ~~submitted)) An applicant for a pumper certificate of competency shall submit the~~

1817 application to the health officer(~~(-- The application shall state the applicant's name in full;~~  
1818 ~~if a partnership, then the names of the partners, the relation of the applicant to the firm or~~  
1819 ~~partnership; the name of the corporation if a corporation; the place of business and place~~  
1820 ~~of residence of the applicant; each of the partners in the business, if a partnership; and the~~  
1821 ~~place of business of the corporation, if a corporation. The applicant shall also provide))~~  
1822 and shall include the following with the application:

1823 A. If an individual, the applicant's name in full, signature, place of residence, and  
1824 name and place of business;

1825 B. If a partnership or corporation, the names of the partners or officers, the  
1826 relation of the applicant to the partnership or corporation, the signature of the managing  
1827 partner or authorized officer, and the name and primary place of business of the  
1828 partnership or corporation;

1829 C. ~~((#))~~The number and identification of all vehicles to be used;

1830 D. ~~((#))~~The type, location and name of all the sites that the applicant will use to  
1831 dispose of the contents of septic tanks, cesspools, grease traps, grease interceptors,  
1832 seepage pits, vault privies, portable toilets and other receptacles of human sewage;  
1833 ~~((and))~~

1834 E. A valid disposal site letter of authorization including the name and address of  
1835 the person, firm, or corporation who is responsible for the operation of each disposal  
1836 site(~~(-- A valid disposal site letter of authorization must accompany the application. The~~  
1837 application shall be signed by the authorized officer of the corporation, if a corporation,  
1838 or by the managing partner, if a partnership, or by the individual owner, if owned by an  
1839 individual, and by the individual applicant)); and

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1840 F. A signed attestation that the applicant for a new or renewal pumper certificate  
1841 of competency is familiar with and agrees to perform all OSS services in accordance with  
1842 the requirements of this title and the King County OSS code of performance and ethics.

1843 SECTION 46. R&R 3, Part 11, Section 3, as amended, and BOH 13.68.030 are  
1844 hereby amended to read as follows:

1845 **Examination and inspection.**

1846 A. Except as described in BOH 13.68.010.B., a pumper's certificate of  
1847 competency and ~~((/or))~~ vehicle inspection tab, as applicable, shall be issued to the  
1848 applicant only after:

1849 1. Completion of a course of instruction given by ~~((a))~~ one or more qualified  
1850 ~~((person(s)))~~ persons acceptable to the health officer and which covers, as applicable to  
1851 the certificate of competency classification, basic sanitation principles affecting public  
1852 health, on-site sewage concepts, details of proper servicing of sewage tanks ~~((or other~~  
1853 ~~receptacles of human sewage))~~ and all components of a gravity OSS, and the transporting  
1854 and disposing of sewage, septage, sludge, or fats, oils and grease;

1855 2. Satisfactory completion of an examination relevant to the pumper certificate  
1856 of competency classification, which may include but not necessarily be limited to the  
1857 applicant's knowledge of sanitation principles affecting public health, ~~((knowledge of~~  
1858 ~~principles of on-site sewage system))~~ OSS operations, ~~((knowledge of))~~ sewage tanks  
1859 ~~((and/or portable toilet))~~ and all components of a gravity OSS, servicing procedures, and  
1860 knowledge of regulations governing disposal of septage, sewage, ~~and~~ ~~((/or))~~ fats, oils, ~~and~~  
1861 grease ~~((, and))~~. The examination may also include an assessment of the reliability of the  
1862 applicant in observing sanitation laws, regulations, and directions, plus other pertinent

1863 information as deemed necessary by the health officer, ~~((except that the grease))~~ Grease  
1864 trap((+) or interceptor pumpers, ~~((vessel))~~ watercraft sewage holding tank pumpers,  
1865 ~~((and))~~ portable toilet pumpers, and miscellaneous sewage pumpers may be exempted  
1866 from such examination upon satisfactory completion of an industry certification~~((+))~~ or  
1867 training program, or both, acceptable to the health officer. The fee for such an  
1868 examination or evaluation of training documentation shall be as specified in the fee  
1869 schedule payable in advance and nonrefundable;

1870 3. Annual inspection and approval of the applicant's equipment to be used in the  
1871 performance of the business;

1872 4. The business operator provides the health officer with evidence of  
1873 compliance with state of Washington minimum bonding requirements as stated in chapter  
1874 18.27 RCW and contractor's liability insurance for at least fifty thousand dollars; and

1875 5. Business operators, other than OSS pumpers, sign and provide to the health  
1876 officer a statement certifying that all employees working in contact with equipment  
1877 potentially contaminated by sewage have successfully completed a course of instruction  
1878 given by a qualified person or persons acceptable to the health officer which covers basic  
1879 sanitation principles affecting public health.

1880 B. Certificate of competency and vehicle inspection fees shall be as specified in  
1881 the fee schedule.

1882 C. After certification has been approved by the health officer, the applicant will  
1883 be issued a certification of competency registration number. The business owner shall  
1884 permanently affix said number preceded by the letters "KC No." on each of the  
1885 applicant's collection vehicles. ~~((Said))~~ The numbers must be in a contrasting color to

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1886 that of the vehicle and in letters at least three inches high and placed along with the  
1887 annual wastewater vehicle tab in a conspicuous place designated by the health officer. In  
1888 addition, the name of the operating firm shall be conspicuously displayed on both sides of  
1889 the truck.

1890 D.1. Certificates shall expire December 31(~~(st)~~) of each year.

1891 ~~((1-))~~ 2. The health officer may renew certificates of competency provided that  
1892 the applicant submits not later than December 31(~~(st)~~) a complete renewal application  
1893 accompanied by(~~(s)~~) a fee as set forth in the fee schedule, authorization for continued use  
1894 of all disposal sites, a completed annual vehicle inspection report, and proof of minimum  
1895 bonding and insurance requirements(~~(s and)~~).

1896 ~~((2-))~~ 3. Complete applications for renewal submitted after January 15 shall be  
1897 subject to a late fee in the amount of one-half the renewal fee, after January 31 double the  
1898 renewal fee and after February 10 a renewal shall not be granted without passing a  
1899 competency examination.

1900 SECTION 47. R&R 3, Part 11, Section 5, as amended, and BOH 13.68.050 are  
1901 hereby amended to read as follows:

1902 **Revocation of certificate of competency and inspection certificates.** ~~((Any~~  
1903 ~~certificate of competency and inspection certificate issued under this title may be~~  
1904 ~~suspended or revoked for cause by the health officer pursuant to)) The health officer may  
1905 assess civil penalty fines of up to one-thousand dollars per violation per day against any  
1906 holder of an OSS pumper's certificate of competency, or institute probationary  
1907 requirements, or suspend or revoke a pumper's certificate of competency for the pumper's  
1908 failure to comply with this title or the King County OSS code of performance and ethics.~~

1909            SECTION 48. R&R 99-01, Section 2 (part), and BOH 13.08.024 are hereby  
1910 repealed.

1911            SECTION 49. R&R 08-03, Section 12, and BOH 13.08.055 are hereby repealed.

1912            SECTION 50. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.060  
1913 are hereby repealed.

1914            SECTION 51. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.070  
1915 are hereby repealed.

1916            SECTION 52. R&R 99-01, Section 2 (part), and BOH 13.08.072 are hereby  
1917 repealed.

1918            SECTION 53. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.084 are  
1919 hereby repealed.

1920            SECTION 54. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.090  
1921 are hereby repealed.

1922            SECTION 55. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.114 are  
1923 hereby repealed.

1924            SECTION 56. R&R 08-03, Section 21, and BOH 13.08.115 are hereby repealed.

1925            SECTION 57. R&R 08-03, Section 23, and BOH 13.08.117 are hereby repealed.

1926            SECTION 58. R&R 08-03, Section 27, and BOH 13.08.131 are hereby repealed.

1927            SECTION 59. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.132 are  
1928 hereby repealed.

1929            SECTION 60. R&R 99-01, Section 2 (part), and BOH 13.08.134 are hereby  
1930 repealed.

1931            SECTION 61. R&R 08-03, Section 30, and BOH 13.08.141 are hereby repealed.

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1932            SECTION 62. R&R 08-03, Section 32, and BOH 13.08.151 are hereby repealed.

1933            SECTION 63. R&R 08-03, Section 34, and BOH 13.08.154 are hereby repealed.

1934            SECTION 64. R&R 09-03, Section 37, and BOH 13.08.175 are hereby repealed.

1935            SECTION 65. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.180

1936 are hereby repealed.

1937            SECTION 66. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.190

1938 are hereby repealed.

1939            SECTION 67. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.202 are

1940 hereby repealed.

1941            SECTION 68. R&R 08-03, Section 40, and BOH 13.08.205 are hereby repealed.

1942            SECTION 69. R&R 99-01, Section 2 (part), and BOH 13.08.212 are hereby

1943 repealed.

1944            SECTION 70. R&R 08-03, Section 41, and BOH 13.08.213 are hereby repealed.

1945            SECTION 71. R&R 99-01, Section 2 (part), and BOH 13.08.226 are hereby

1946 repealed.

1947            SECTION 72. R&R 08-03, Section 47, and BOH 13.08.257 are hereby repealed.

1948            SECTION 73. R&R 08-03, Section 49, and BOH 13.08.261 are hereby repealed.

1949            SECTION 74. R&R 08-03, Section 50, and BOH 13.08.263 are hereby repealed.

1950            SECTION 75. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.280

1951 are hereby repealed.

1952            SECTION 76. R&R 08-03, Section 55, and BOH 13.08.287 are hereby repealed.

1953            SECTION 77. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.290

1954 are hereby repealed.

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1955            SECTION 78. R&R 08-03, Section 56, and BOH 13.08.305 are hereby repealed.

1956            SECTION 79. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.320  
1957 are hereby repealed.

1958            SECTION 80. R&R 08-03, Section 57, and BOH 13.08.3215 are hereby  
1959 repealed.

1960            SECTION 81. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.322 are  
1961 hereby repealed.

1962            SECTION 82. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.324 are  
1963 hereby repealed.

1964            SECTION 83. R&R 08-03, Section 60, and BOH 13.08.327 are hereby repealed.

1965            SECTION 84. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.330  
1966 are hereby repealed.

1967            SECTION 85. R&R 99-01, Section 2 (part), and BOH 13.08.341 are hereby  
1968 repealed.

1969            SECTION 86. R&R No. 08-03, Section 61, and BOH 13.08.346 are hereby  
1970 repealed.

1971            SECTION 87. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.372 are  
1972 hereby repealed.

1973            SECTION 88. R&R 99-01, Section 2 (part), and BOH 13.08.402 are hereby  
1974 repealed.

1975            SECTION 89. R&R 99-01, Section 2 (part), and BOH 13.08.406 are hereby  
1976 repealed.

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1977            SECTION 90. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.410  
1978 are hereby repealed.

1979            SECTION 91. R&R 08-03, Section 69, and BOH 13.08.424 are hereby repealed.

1980            SECTION 92. R&R 99-01, Section 2 (part), and BOH 13.08.426 are hereby  
1981 repealed.

1982            SECTION 93. R&R No. 08-03, Section 72, and BOH 13.08.465 are hereby  
1983 repealed.

1984            SECTION 94. R&R No. 3, Part 1, Section 5, as amended, and BOH 13.08.470  
1985 are hereby repealed.

1986            SECTION 95. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.472 are  
1987 hereby repealed.

1988            SECTION 96. R&R 08-03, Section 74, and BOH 13.08.477 are hereby repealed.

1989            SECTION 97. R&R 08-03, Section 76, and BOH 13.08.482 are hereby repealed.

1990            SECTION 98. R&R 99-01, Section 2 (part), as amended, and BOH 13.08.484 are  
1991 hereby repealed.

1992            SECTION 99. R&R 09-03, Section 79, and BOH 13.08.493 are hereby repealed.

1993            SECTION 100. R&R 08-03, Section 80, and BOH 13.08.4934 are hereby  
1994 repealed.

1995            SECTION 101. R&R 08-03, Section 81, and BOH 13.08.4937 are hereby  
1996 repealed.

1997            SECTION 102. R&R 3, Part 1, Section 5 (part), as amended, and BOH 13.08.500  
1998 are hereby repealed.

1999            SECTION 103. R&R 08-03, Section 87, and BOH 13.08.505 are hereby  
2000 repealed.

2001            SECTION 104. R&R 99-01, Section 2 (part), and BOH 13.08.512 are hereby  
2002 repealed.

2003            SECTION 105. R&R 99-01, Section 2 (part), and BOH 13.08.516 are hereby  
2004 repealed.

2005            SECTION 106. R&R 08-03, Section 88, and BOH 13.08.520 are hereby  
2006 repealed.

2007            SECTION 107. **Effective date.** This rule takes effect April 1, 2025.

2008            SECTION 108. **Severability.** If any provision of this rule or its application to  
2009 any person or circumstance is held invalid, the remainder of the rule or the application of  
2010 the provision to other persons or circumstances is not affected."

2011 **EFFECT/INTENT prepared by R. Welyczko: *Corrects errors inadvertently carried***  
2012 ***over in BOH R&R 24-05 from previous rule amendment drafts, including restoring an***  
2013 ***omitted definition and correcting formatting and typographic errors, table headings,***  
2014 ***mathematical symbols, and an erroneous setback distance value.***

02/20/2025

On-site sewage rule title  
technical corrections

Sponsor: \_\_\_\_\_

Drafter: R. Welyczko

Proposed No.: R&R 24-05

1 **TITLE AMENDMENT TO PROPOSED RULE & REGULATION 24-05,**

2 **VERSION 1**

3 On page 1, beginning on line 1, strike lines 1 through 113, and insert:

4 "A RULE AND REGULATION relating to on-site  
5 sewage treatment and disposal systems; amending R&R  
6 3, Part 13, Section 1, as amended, and BOH 13.04.050,  
7 R&R 3, Part 13, Section 3, as amended, and BOH  
8 13.04.070, R&R 99-01, Section 2 (part), as amended, and  
9 BOH 13.08.018, R&R 3, Part 1, Section 5, as amended,  
10 and BOH 13.08.020, R&R 3, Part 1, Section 5 (part), as  
11 amended, and BOH 13.08.140, R&R 99-01, Section 2  
12 (part), as amended, and BOH 13.08.152, R&R 99-01,  
13 Section 2 (part), and BOH 13.08.226, R&R 99-01,  
14 Section 2 (part), as amended, and BOH 13.08.284, R&R  
15 3, Part 1, Section 5 (part), as amended, and BOH  
16 13.08.300, R&R 99-01, Section 2, and BOH 13.08.342,  
17 R&R 3, Part 1, Section 5 (part), as amended, and BOH

18 13.08.350, R&R 3, Part 1, Section 5 (part), as amended,  
19 and R&R 13.08.380, R&R 3, Part 1, Section 5 (part), as  
20 amended, and BOH 13.08.490, R&R 3, Part 10, Section  
21 2, as amended, and BOH 13.12.030, R&R 3, Part 10,  
22 Section 3(B), as amended, and BOH 13.12.050, R&R 3,  
23 Part 12, Section 1, as amended, and BOH 13.16.010,  
24 R&R 3, Part 2, Section 1, as amended, and BOH  
25 13.20.010, R&R 3, Part 2, Section 2(B), as amended, and  
26 BOH 13.20.030, R&R 99-01, Section 2, as amended, and  
27 BOH 13.20.035, R&R 3, Part 2, Section 3, as amended,  
28 and BOH 13.20.040, R&R 3, Part 3, Section 1, and BOH  
29 13.24.010, R&R 3, Part 3, Section 2, as amended, and  
30 BOH 13.24.020, R&R 3, Part 3, Section 3, as amended,  
31 and BOH 13.24.030, R&R 3, Part 3, Sections 1 and 4, as  
32 amended, and BOH 13.28.010, R&R 3, Part 4, Section 2,  
33 as amended, and BOH 13.28.020, R&R 3, Part 4, Section  
34 3, as amended, and BOH 13.28.030, R&R 3, Part 4,  
35 Section 7, as amended, and BOH 13.28.070, R&R 3, Part  
36 5, Section 2(A), as amended, and BOH 13.36.010, R&R  
37 3, Part 5, Section 3(C), and BOH 13.40.030, R&R 3, Part  
38 5, Section 5, and BOH 13.48.010, R&R 3, Part 6, Section  
39 1, as amended, and BOH 13.52.010, R&R 3, Part 7,  
40 Section 5, and BOH 13.56.050, R&R 99-01, Section 2

41 (Part), as amended, and BOH 13.56.054, R&R 99-01,  
42 Section 2 (part), as amended, and BOH 13.60.005, R&R  
43 3, Part 8, Section 1, as amended, and BOH 13.60.010 ,  
44 R&R 08-03, Section 145, and BOH 13.60.030, R&R 3,  
45 Part 9, Section 1, as amended, and BOH 13.64.010, R&R  
46 3, Part 9, Section 2, as amended, and BOH 13.64.020,  
47 R&R 3, Part 11, Section 1, as amended, and BOH  
48 13.68.010, R&R 3, Part 11, Section 2, as amended, and  
49 BOH 13.68.020, R&R 3, Part 11, Section 3, as amended,  
50 and BOH 13.68.030, and R&R 3, Part 11, Section 5, as  
51 amended, and BOH 13.68.050, adding new sections to  
52 BOH chapter 13.04, adding new sections to BOH chapter  
53 13.08, recodifying BOH 13.08.226, repealing R&R 99-  
54 01, Section 2 (part), and BOH 13.08.024, R&R 08-03,  
55 Section 12, and BOH 13.08.055, R&R 3, Part 1, Section  
56 5 (part), as amended, and BOH 13.08.060, R&R 3, Part 1,  
57 Section 5 (part), as amended, and BOH 13.08.070, R&R  
58 99-01, Section 2 (part), and BOH 13.08.072, R&R 99-01,  
59 Section 2 (part), as amended, and BOH 13.08.084, R&R  
60 3, Part 1, Section 5 (part), as amended, and BOH  
61 13.08.090, R&R 99-01, Section 2 (part), as amended, and  
62 BOH 13.08.114, R&R 08-03, Section 21, and BOH  
63 13.08.115, R&R 08-03, Section 23, and BOH 13.08.117,

64 R&R 08-03, Section 27, and BOH 13.08.131, R&R 99-  
65 01, Section 2 (part), as amended, and BOH 13.08.132,  
66 R&R 99-01, Section 2 (part), and BOH 13.08.134, R&R  
67 08-03, Section 30, and BOH 13.08.141, R&R 08-03,  
68 Section 32, and BOH 13.08.151, R&R 08-03, Section 34,  
69 and BOH 13.08.154, R&R 09-03, Section 37, and BOH  
70 13.08.175, R&R 3, Part 1, Section 5 (part), as amended,  
71 and BOH 13.08.180, R&R 3, Part 1, Section 5 (part), as  
72 amended, and BOH 13.08.190, R&R 99-01, Section 2  
73 (part), as amended, and BOH 13.08.202, R&R 08-03,  
74 Section 40, and BOH 13.08.205, R&R 99-01, Section 2  
75 (part), and BOH 13.08.212, R&R 08-03, Section 41, and  
76 BOH 13.08.213, R&R 99-01, Section 2 (part), and BOH  
77 13.08.226, R&R 08-03, Section 47, and BOH 13.08.257,  
78 R&R 08-03, Section 49, and BOH 13.08.261, R&R 08-  
79 03, Section 50, and BOH 13.08.263, R&R 3, Part 1,  
80 Section 5 (part), as amended, and BOH 13.08.280, R&R  
81 08-03, Section 55, and BOH 13.08.287, R&R 3, Part 1,  
82 Section 5 (part), as amended, and BOH 13.08.290, R&R  
83 08-03, Section 56, and BOH 13.08.305, R&R 3, Part 1,  
84 Section 5 (part), as amended, and BOH 13.08.320,  
85 R&R 08-03, Section 57, and BOH 13.08.3215, R&R 99-  
86 01, Section 2 (part), as amended, and BOH 13.08.322,

87 R&R 99-01, Section 2 (part), as amended, and BOH  
88 13.08.324, R&R 08-03, Section 60, and BOH 13.08.327,  
89 2R&R 3, Part 1, Section 5 (part), as amended, and BOH  
90 13.08.330, R&R 99-01, Section 2 (part), and BOH  
91 13.08.341, R&R 08-03, Section 61, and BOH 13.08.346,  
92 R&R 99-01, Section 2 (part), as amended, and BOH  
93 13.08.372, R&R 99-01, Section 2 (part), and BOH  
94 13.08.402, R&R 99-01, Section 2 (part), and BOH  
95 13.08.406, R&R 3, Part 1, Section 5 (part), as amended,  
96 and BOH 13.08.410, R&R 08-03, Section 69, and BOH  
97 13.08.424, R&R 99-01, Section 2 (part), and BOH  
98 13.08.426, R&R 08-03, Section 72, and BOH 13.08.465,  
99 R&R 3, Part 1, Section 5, as amended, and BOH  
100 13.08.470, R&R 99-01, Section 2 (part), as amended, and  
101 BOH 13.08.472, R&R 08-03, Section 74, and BOH  
102 13.08.477, R&R 08-03, Section 76, and BOH 13.08.482,  
103 R&R 99-01, Section 2 (part), as amended, and BOH  
104 13.08.484, R&R 09-03, Section 79, and BOH 13.08.493,  
105 R&R 08-03, Section 80, and BOH 13.08.4934, R&R 08-  
106 03, Section 81, and BOH 13.08.4937, R&R 99-01,  
107 Section 2 (part), as amended, and BOH 13.08.496, R&R  
108 3, Part 1, Section 5 (part), as amended, and BOH  
109 13.08.500, R&R 08-03, Section 87, and BOH 13.08.505,

110 R&R 99-01, Section 2 (part), and BOH 13.08.512, R&R  
111 99-01, Section 2 (part), and BOH 13.08.516, R&R 08-03,  
112 Section 88, and BOH 13.08.520, prescribing penalties,  
113 and establishing an effective date; enacted pursuant to  
114 RCW 43.20.050 and 70.05.060, including the latest  
115 amendments or revisions thereto.

116 **EFFECT/INTENT prepared by R. Welyczko: *Technical corrections to correct the***  
117 ***code section citation for BOH 13.08.018 and to retain the definition of "repair" under***  
118 ***BOH 13.08.350.***





**Signature Report**

**Resolution**

**Proposed No. 25-03.1**

**Sponsors**

1           A RESOLUTION recognizing and honoring Dr. Jeffrey S.  
2           Duchin for his decades of dedicated public health  
3           leadership and mentorship, his instrumental role in  
4           responding to infectious disease threats, including the  
5           COVID-19 pandemic, and his contributions to scientific  
6           research, local and national public health policy.

7           WHEREAS, Dr. Jeffrey S. Duchin has dedicated over 30 years to public health,  
8           including serving as Health Officer for Seattle & King County, where he provided critical  
9           guidance and expertise in protecting community health, and

10          WHEREAS, Dr. Duchin is recognized locally and nationally as a trusted,  
11          accessible and important voice promoting the public's health, communicating vital  
12          information and guidance about the most pressing public health issues, and

13          WHEREAS, Dr. Duchin played a pivotal role in leading King County's public  
14          health response to the COVID-19 pandemic, providing clear, science-based guidance and  
15          ensuring equitable access to medical resources while navigating unprecedented  
16          challenges, and

17          WHEREAS, Dr. Duchin previously led King County's response to the 2009 H1N1  
18          pandemic, managing the allocation of limited vaccine supplies and mitigating the impact  
19          of the outbreak on the community, and

20 WHEREAS, Dr. Duchin collaborated with the Centers for Disease Control and  
21 Prevention to establish a syndromic surveillance system in preparation for the 1999  
22 World Trade Organization Ministerial in Seattle, which later expanded to enhance early  
23 outbreak detection and public health preparedness across multiple diseases, including  
24 COVID-19, and

25 WHEREAS, Dr. Duchin's leadership in regional infectious disease response led to  
26 the development of the Northwest Healthcare Response Network, strengthening  
27 healthcare system collaboration in emergency preparedness, and

28 WHEREAS, Dr. Duchin has served at the national level as a member of the U.S.  
29 Advisory Committee on Immunization Practices, the National Academy of Medicine's  
30 Forum on Microbial Threats, and multiple Centers for Disease Control and Prevention  
31 and public health advisory committees, contributing to national policies on disease  
32 prevention and response, and

33 WHEREAS, Dr. Duchin has made significant contributions to scientific literature,  
34 authoring over 100 peer-reviewed articles on communicable diseases, pandemic  
35 response, and public health preparedness, including pioneering work on Hantavirus  
36 Pulmonary Syndrome, and

37 WHEREAS, Dr. Duchin has mentored and trained future public health leaders,  
38 overseeing the development of the CDC Epidemic Intelligence Service Officers and  
39 fostering excellence in disease investigation and epidemiology, and

40 WHEREAS, Dr. Duchin has been recognized as a Fellow of both the American  
41 College of Physicians and the Infectious Diseases Society of America, and has served as

42 a professor and mentor at the University of Washington in the Schools of Medicine and  
43 Public Health, advancing public health education and research;

44 NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF HEALTH OF  
45 KING COUNTY:

46 The Board and Public Health - Seattle & King County express our deepest  
47 gratitude to Dr. Jeffrey S. Duchin for exceptional service, leadership, and dedication to  
48 protecting the health and well-being of our community.

KING COUNTY BOARD OF HEALTH  
KING COUNTY, WASHINGTON

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Teresa Mosqueda, Chair

ATTEST:

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Melani Hay, Clerk of the Board

**Attachments:** None

# 2026-2031 MEDIC ONE/EMS LEVY BRIEFING

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Board of Health, February 20, 2025

Presented by:

Michele Plorde, EMS Division Director

# Overview

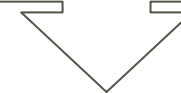
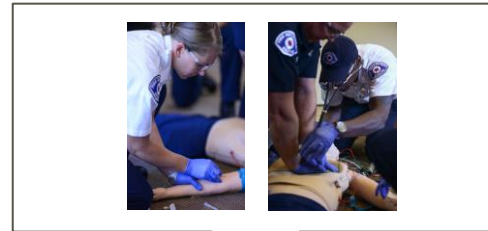
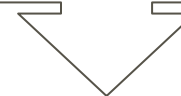
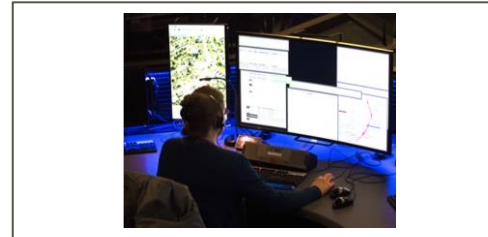
- Current 6-year Medic One/EMS levy expires December 31, 2025
- Hosted a regional 8-month process rooted in partnerships and consensus-building
- Developed recommendations for Strategic Plan and finance plan (levy) for King County voters to renew in 2025
- Next step: Legislative approval process

# What is Medic One/EMS?

**Any time you call 9-1-1 for a medical emergency, you are using the Medic One/EMS system. Known worldwide for excellence and innovation.**

- Serves over **2.3 million people** throughout King County and provides lifesaving services on average **every 2 minutes**.
- In 2024, the Medic One/EMS system responded to over **255,000 calls** in King County.
- In 2023, the survival rate for cardiac arrest was **51%** throughout the region.
- Because of our strong program, cardiac arrest patients are **2 to 3 times more likely to survive** here compared to other cities.

# What happens when you dial 9-1-1?

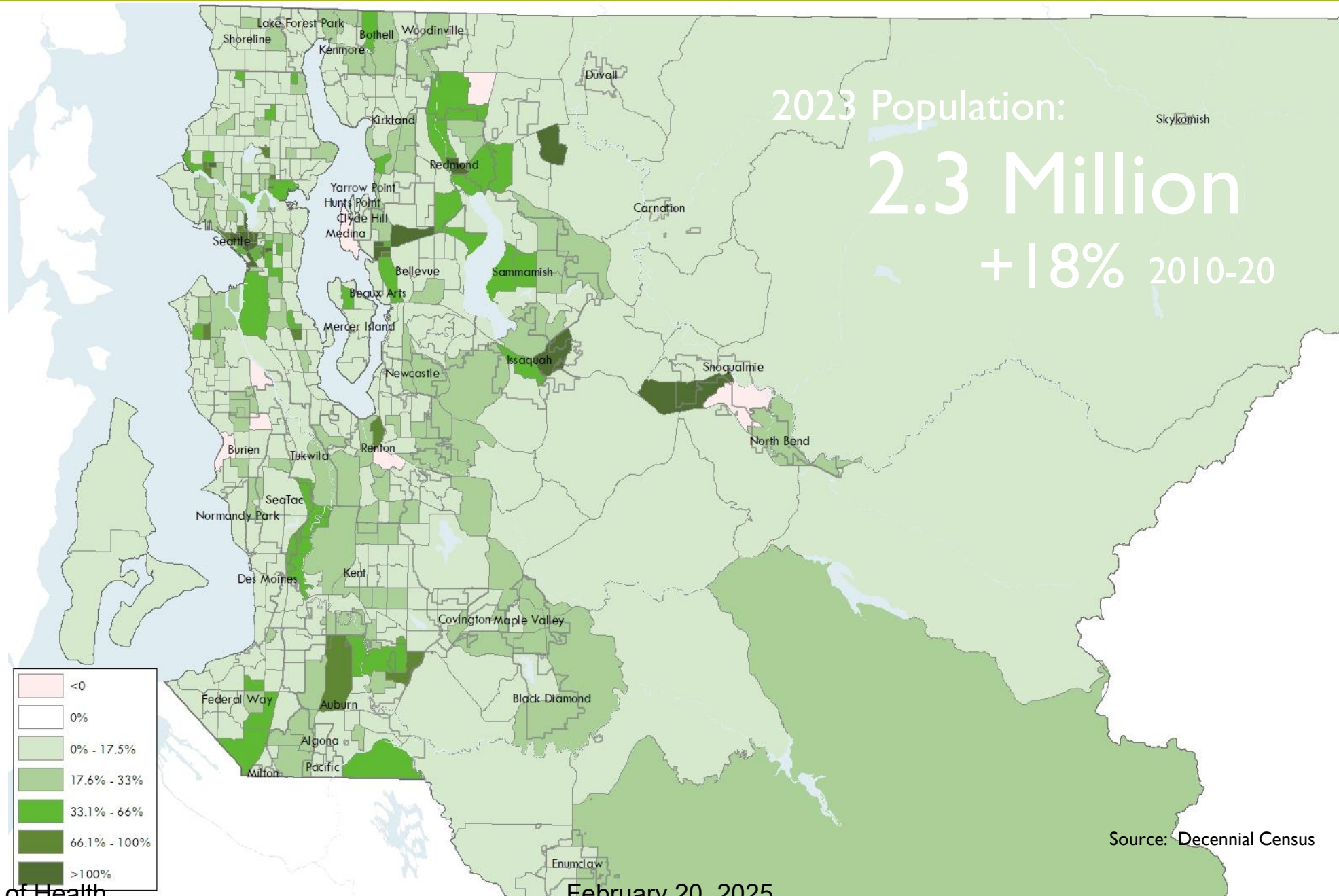


# Why does our system work so well?

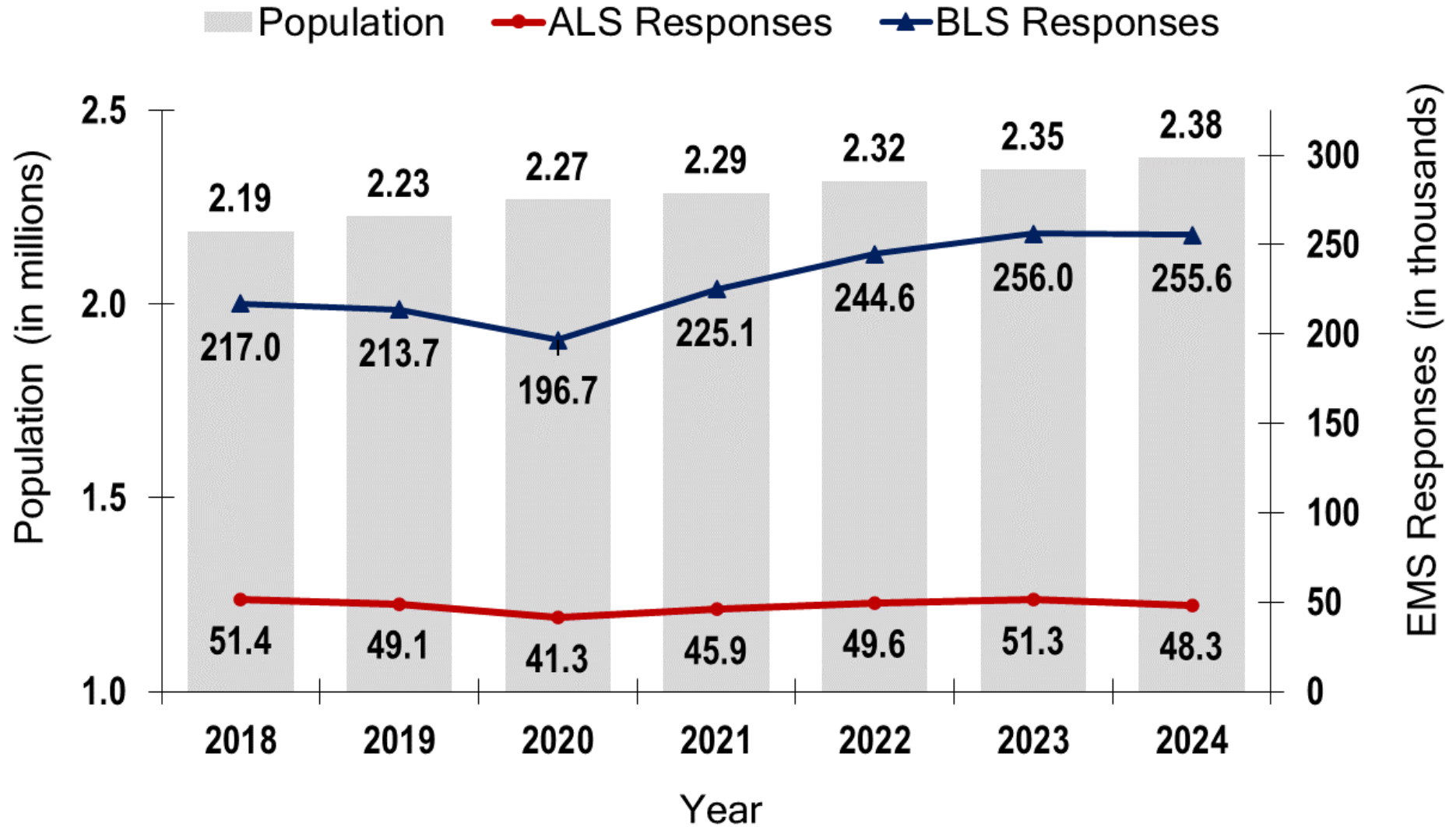
**Achieve high survival rates because of the unique configuration of our system. It includes the following key components:**

- Regional system based on partnerships.
- Uses a tiered response model founded on medicine and science.
- Equity-driven and committed to providing high-quality care.
- Uses innovative strategies to obtain superior medical outcomes and continually improve.
- Funded by an EMS levy which has proven to be reliable and stable.

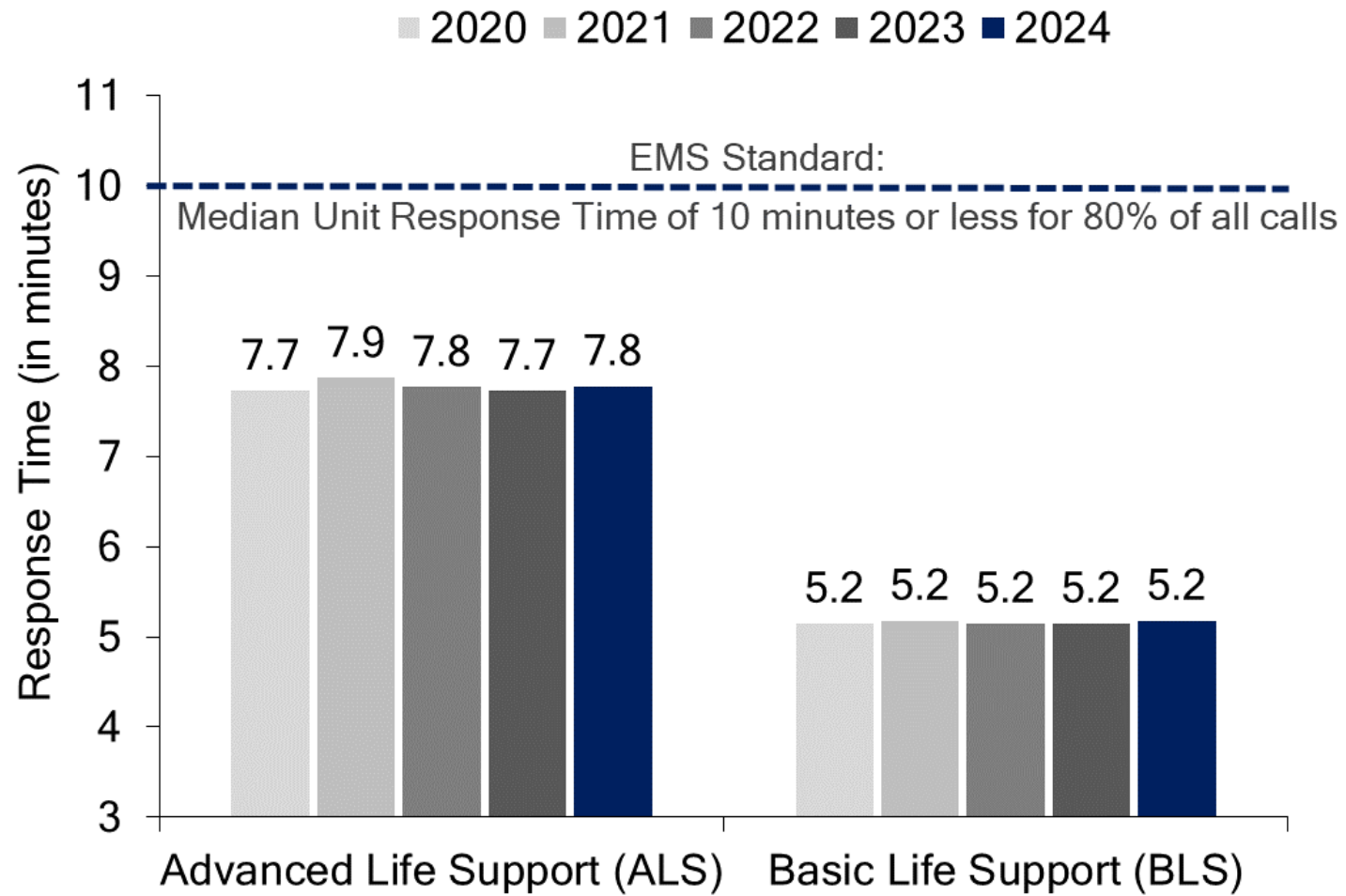




# Population and EMS Call Volume

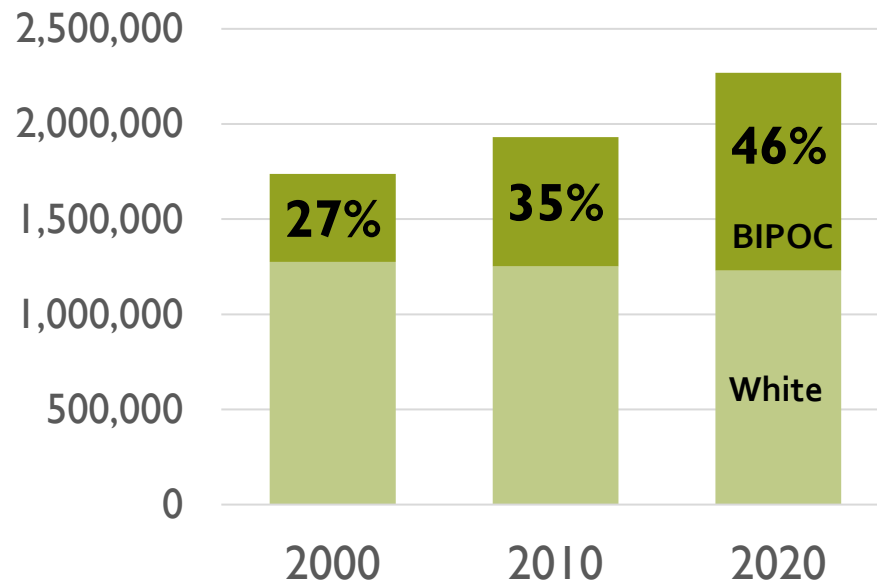


## 2020-2024 Median Unit Response Time (in minutes) (Time of unit dispatch to arrival at scene)

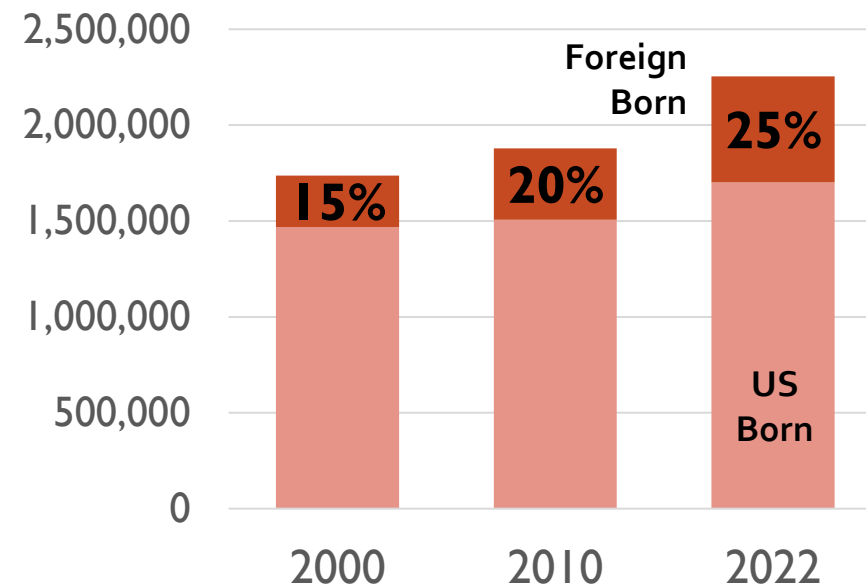


# Increasing Diversity

100% of net population growth 2010-20  
was in Communities of Color,  
particularly Asian, Hispanic, and  
Multiracial communities

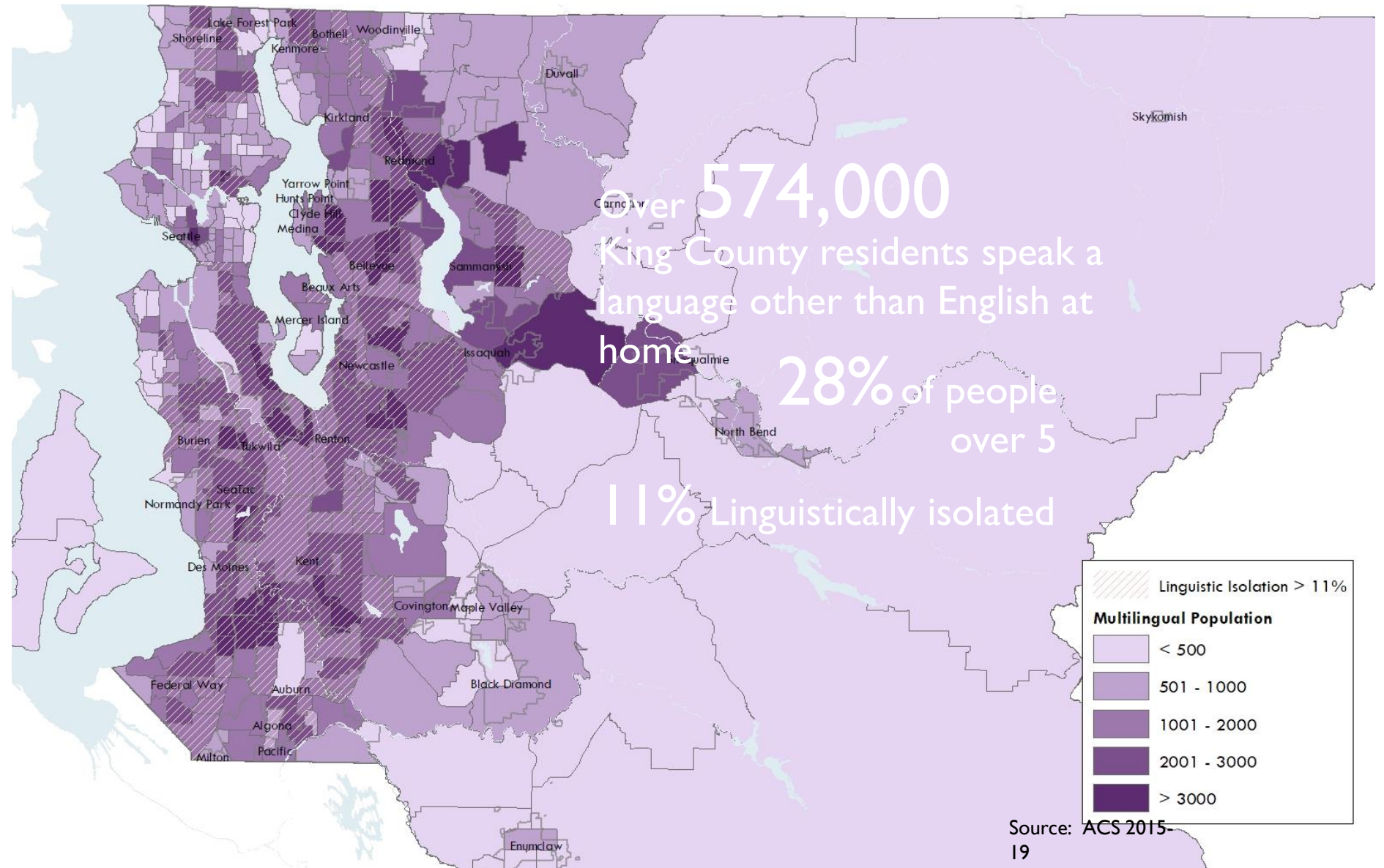


King County Residents born outside  
the US increased 48% 2010-22



Source: Decennial Census, ACS 2018-22

# Multilingual Population



# Creating the next Strategic Plan

- Identify our programmatic needs.
- Develop our financial plan.
- Provide sufficient reserves.
- Recommend levy length, rate and ballot timing.

# 2020-2025 Medic One/EMS levy facts

- 6-year levy
- Starting rate of 26.5 cents/\$1,000 AV
- Generate \$1.115 billion over 6 years (Seattle/King County split)
- KC programs funded by levy (\$664.2m):
  - Advanced Life Support (ALS) - paramedic services
  - Basic Life Support (BLS) - FF/EMT services
  - Regional Services - core programs that support direct services
  - Strategic Initiatives - pilot projects
  - Reserves - unanticipated expenses
- Cost to the homeowner (2020): \$159\*

\* \$600,000 King County median residence value in 2020 per King County Assessor

# EMS Advisory Task Force

- Governing body: **20 elected officials** and decision-makers
- Representatives:
  - Cities with 50,000+ in population (11)
  - Sound Cities Assn (3)
  - Fire Commissioners (3)
  - King County Council (2)
- Chaired by KC Executive Office (1)
- Four Subcommittees (chaired by a TF member): ALS, BLS, Regional Services, and Finance



# KEY TASK FORCE RECOMMENDATIONS

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# ALS Subcommittee Recommendations

**1. CONTINUE using the ALS allocation** to determine ALS costs. Inflate annually using CPI-W +1% and appropriate vehicle inflator.

**2. INCLUDE a “place holder”** in the Financial Plan to potentially fund a 12-hour unit in the 3rd (2028) and 5th (2030) years of the levy.

**3. CONTINUE using reserves and contingencies to cover costs** that fall outside the allocation.

# BLS Subcommittee Recommendations

**1. INCREASE total BLS funding** by \$5 million in the first year of the levy:

- a. \$3 million to BLS Basic Allocation.
- b. \$2 million to Mobile Integrated Healthcare (MIH).

**2. INFLATE funding annually** at CPI-W + 1%.

**3. DISTRIBUTE NEW BLS funding and annual increases** using a more equitable distribution methodology of 60% call volume/40% AV.

**4. SUPPORT mental wellness and equity and inclusion efforts** proposed by the King County Fire Chiefs Association.

# Regional Services/ Strategic Initiatives Subcommittee Recommendations

**1. CONTINUE delivering programs** that provide essential support to the system.

**2. ENHANCE programs** to meet regional needs, including

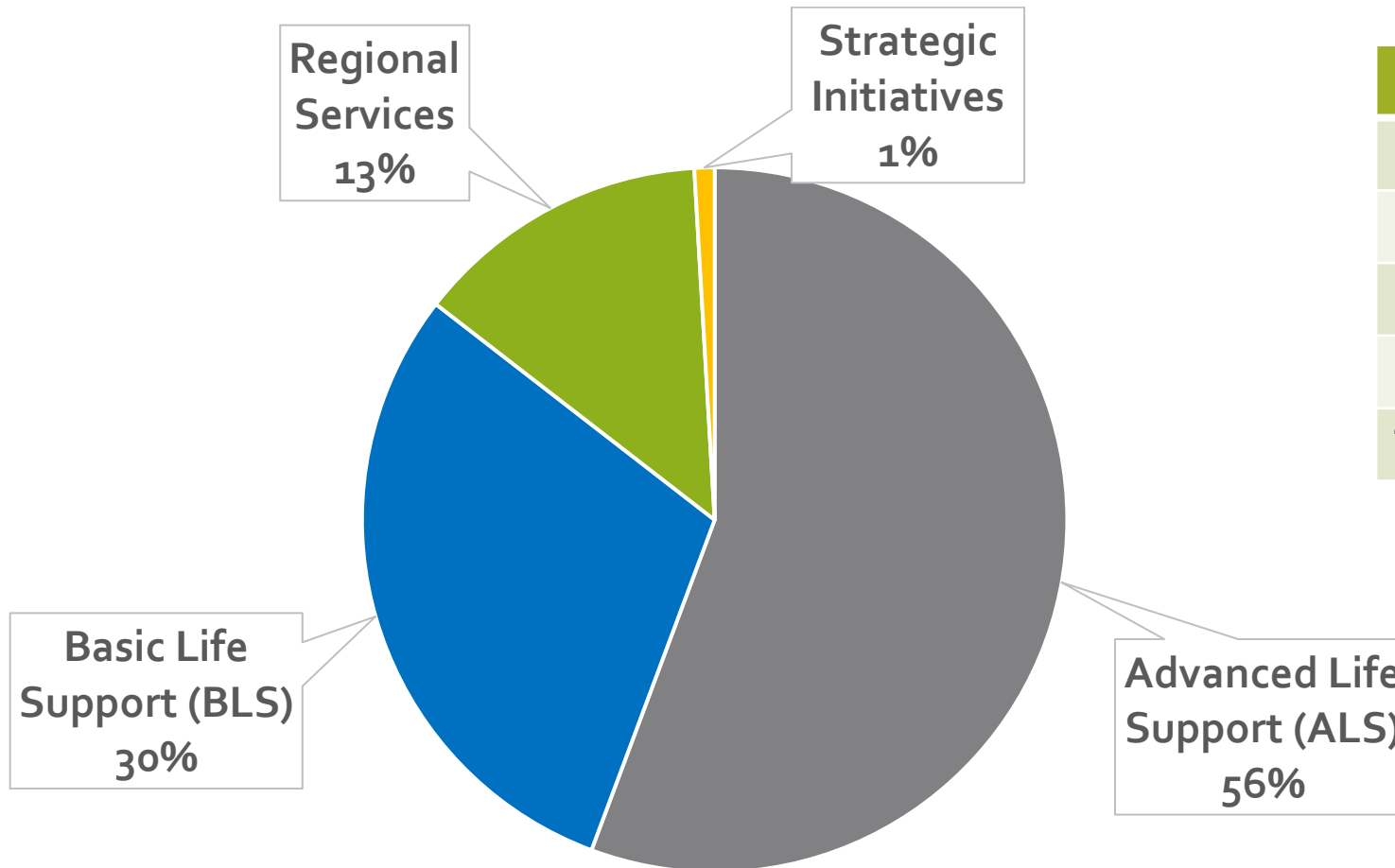
- expanding Initial EMT Training
- renewing the Telephone Referral Program.

**3. MAINTAIN AND DEVELOP Strategic Initiatives** that leverage previous investments made by the region to improve patient care and outcomes:

- Continue ECHO (Community-based partnerships)
- Continue PRIME (Data systems improvements)
- New: Emergency Medical Dispatch (technical improvements)

# KC EMS Programs

## DISTRIBUTION BY PROGRAM – KC EMS Fund



| Program      | \$s in millions |
|--------------|-----------------|
| ALS          | \$511.8         |
| BLS          | \$273.9         |
| Reg'l Svcs   | \$124.9         |
| SI           | \$8.5           |
| <b>TOTAL</b> | <b>\$919.1</b>  |

# Finance Subcommittee Recommendations

**1. CONDUCT a risk analysis** to determine appropriate reserve funding to help safeguard the Medic One/EMS system from unforeseen financial risk.

**2. INCORPORATE sufficient reserves and contingencies** to mitigate financial risk and provide flexibility.

# MAIN DRIVERS – REVENUES

- Beginning Assessed Valuation (AV) determine starting level of new levy
- New Construction levels
- Split between Seattle and King County (based on AV)
- Amount of reserves to carry forward from 2020-2025 levy

# MAIN DRIVERS – Expenditures & Reserves

- Number of ALS units and cost per unit
- Cost escalators (inflaters)
- Adds of new or enhanced services and funding
  
- Reserves and Contingencies



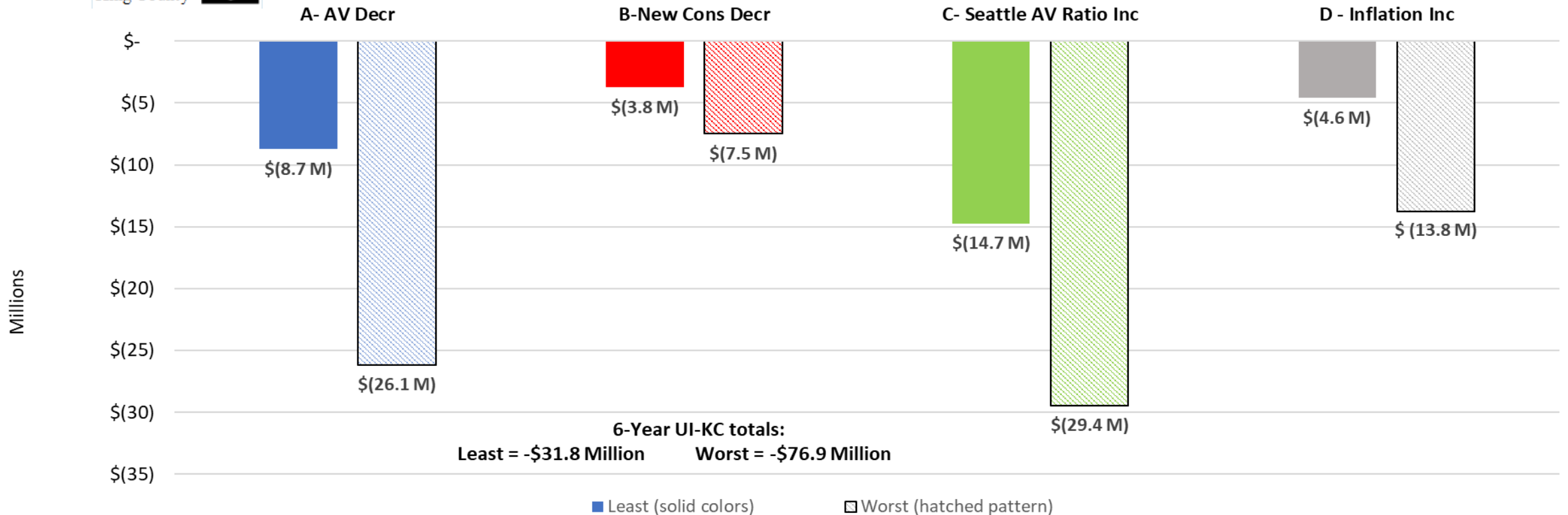
# Risk Analysis / What-If Scenarios

## King County Impact for 25.0 cent levy

**All 4 Scenarios:  
6-Year Total Impacts For Least and Worst Cases**



**Assumes new levy rate = 25 cents**



# Recommended 2026-2031 EMS Levy Financial Summary

| Financial Summary                                            | Total<br><i>(in millions)</i> |
|--------------------------------------------------------------|-------------------------------|
| Total Expenditures                                           | \$1,438.0                     |
| Reserves (Programmatic & Rainy Day)                          | \$67.7                        |
| <b>TOTAL Expenditures &amp; Reserves</b>                     | <b>\$1,505.7</b>              |
| 2026-2031 Property Tax Forecast ( <i>25 cent levy rate</i> ) | \$1,470.8                     |
| Other Revenues (KC EMS Fund)                                 | \$17.5                        |
| Carryforward from 2020-2025                                  | \$64.4                        |
| <b>TOTAL Available Revenues</b>                              | <b>\$1,552.7</b>              |
| Funds available for KC Supplemental/Economic Reserves        | \$47.0                        |

**Risk Analysis Range:** Least = -\$31.8 Million      Worst = -\$76.9 Million

# Recommended 2026-2031 EMS Levy

(in millions)

| <b>FINANCIAL PLAN</b>                   | <b>Seattle</b> | <b>KC EMS</b>    | <b>Total</b>     |
|-----------------------------------------|----------------|------------------|------------------|
| Property Taxes                          | \$518.9        | \$951.9          | \$1,470.8        |
| Other Revenues (KC EMS Fund)            |                | \$17.5           | \$17.5           |
| Carryforward from 2020-2025             |                | \$64.4           | \$64.4           |
| <b>TOTAL Revenue</b>                    | <b>\$518.9</b> | <b>\$1,033.8</b> | <b>\$1,552.7</b> |
| Total Expenditures                      | \$518.9        | \$919.1          | \$1,438.0        |
| Reserves                                |                | \$67.7           | \$67.7           |
| <b>TOTAL Expenditures with Reserves</b> | <b>\$518.9</b> | <b>\$986.8</b>   | <b>\$1,505.7</b> |
| KC Supplemental/Economic Reserves       |                | \$47.0           | \$47.0           |

**Risk Analysis Range: Least = -\$31.8 Million Worst = -\$76.9 Million**

# Finance Subcommittee Recommendations

- 1. CONDUCT a risk analysis** to determine appropriate reserve funding to help safeguard the Medic One/EMS system from unforeseen financial risk.
- 2. INCORPORATE sufficient reserves and contingencies** to mitigate financial risk and provide flexibility.
- 3. SUPPORT forwarding a Financial Plan**, with expenditures and reserves projected at \$1.5 billion over the six-year span, and a 25-cent levy rate.

# Summary:

- ✓ **Supported subcommittee programmatic recommendations**
- ✓ **Levy Rate: 25.0 cents**
  - ✓ Annual cost to the homeowner: \$212 (average \$850,000 home)
- ✓ **Length: 6 years (2026-2031)**
- ✓ **Ballot Timing: General Election in Nov 2025**

# QUESTIONS?

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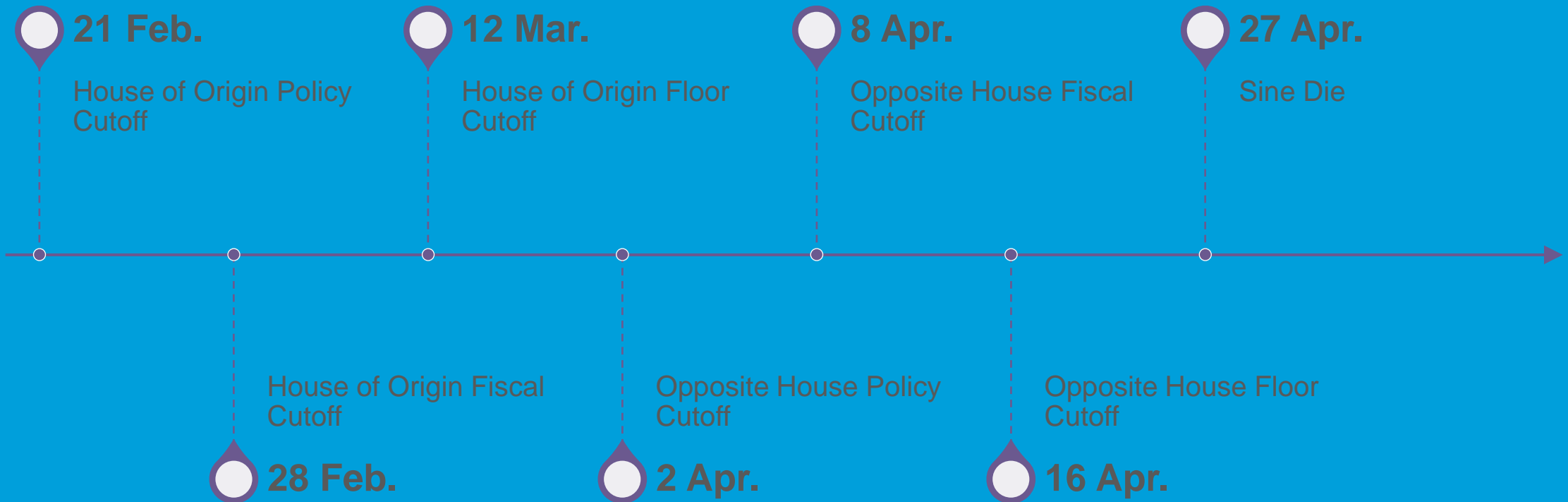
**Joy Carpine-Cazzanti, Board Administrator**

[kcbohadmin@kingcounty.gov](mailto:kcbohadmin@kingcounty.gov)

# 2025 State Legislative Update

Simon Vila, Government Relations Officer

# Key Dates





# Public Health – Seattle & King County Focuses

- Budget, Revenue, Foundational Public Health Services (FPHS)
- Racism as a Public Health Crisis
- Community Health and Well Being
- Overdose Prevention
- Gun Violence
- Food Access
- Homelessness, Housing, and Health
- Healthcare Access
- Injury Prevention
- Tobacco and Cannabis
- Environmental Health and Climate Change

# Questions

*Contact:*

*[kcbohadmin@kingcounty.gov](mailto:kcbohadmin@kingcounty.gov)*