

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.	Cost: Permit cost of \$250-\$700 removed from total minor repair cost. Who is impacted: 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.	Cost: No anticipated impact. Who is impacted: 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.	Cost: Property owners will have a clear pathway to evaluate alternatives to expensive sewer connections. Anticipated lower costs to address failing OSS. Who is impacted: 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.	Cost: Reduced cost for situations where installation is delayed by more than two years. Who is impacted: 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.	Cost: No anticipated impact Who is impacted: 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.	Cost: No anticipated impact Who is impacted: 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.	Cost: No anticipated impact Who is impacted: 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>Cost: 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>Who is impacted: 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>Cost: Reduced cost for situations where installation is delayed by more than two years.</p> <p>Who is impacted: 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.	Cost: No anticipated direct impact other than to certified professionals in violation of standards of performance. Who is impacted: 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.	Cost: No anticipated impact. Who is impacted: 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.	Cost: No anticipated impact Who is impacted: 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.	Cost: No anticipated increase in cost because this is already implemented as a standard procedure. Who is impacted: 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.	Cost: Reduced ability to subdivide property may decrease property values by a very small amount. Who is impacted: 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.	Cost: No anticipated impact Who is impacted: 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.	Cost: Small additional cost to record the easement (approximately \$225) Who is impacted: 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.	Cost: Small increase to cost of OSS design on small properties where stormwater management facilities are necessary. Who is impacted: 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.	Cost: Lower cost for installation of OSS for ALQs (ADUs without a kitchen). Who is impacted: 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.	Cost: Small additional cost of control panel with external shutoff compared to cost of control panel without external shutoff. Who is impacted: 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.	Cost: Lower cost for installation of OSS for ADUs. Who is impacted: 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.	Cost: No anticipated impact. Who is impacted: 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

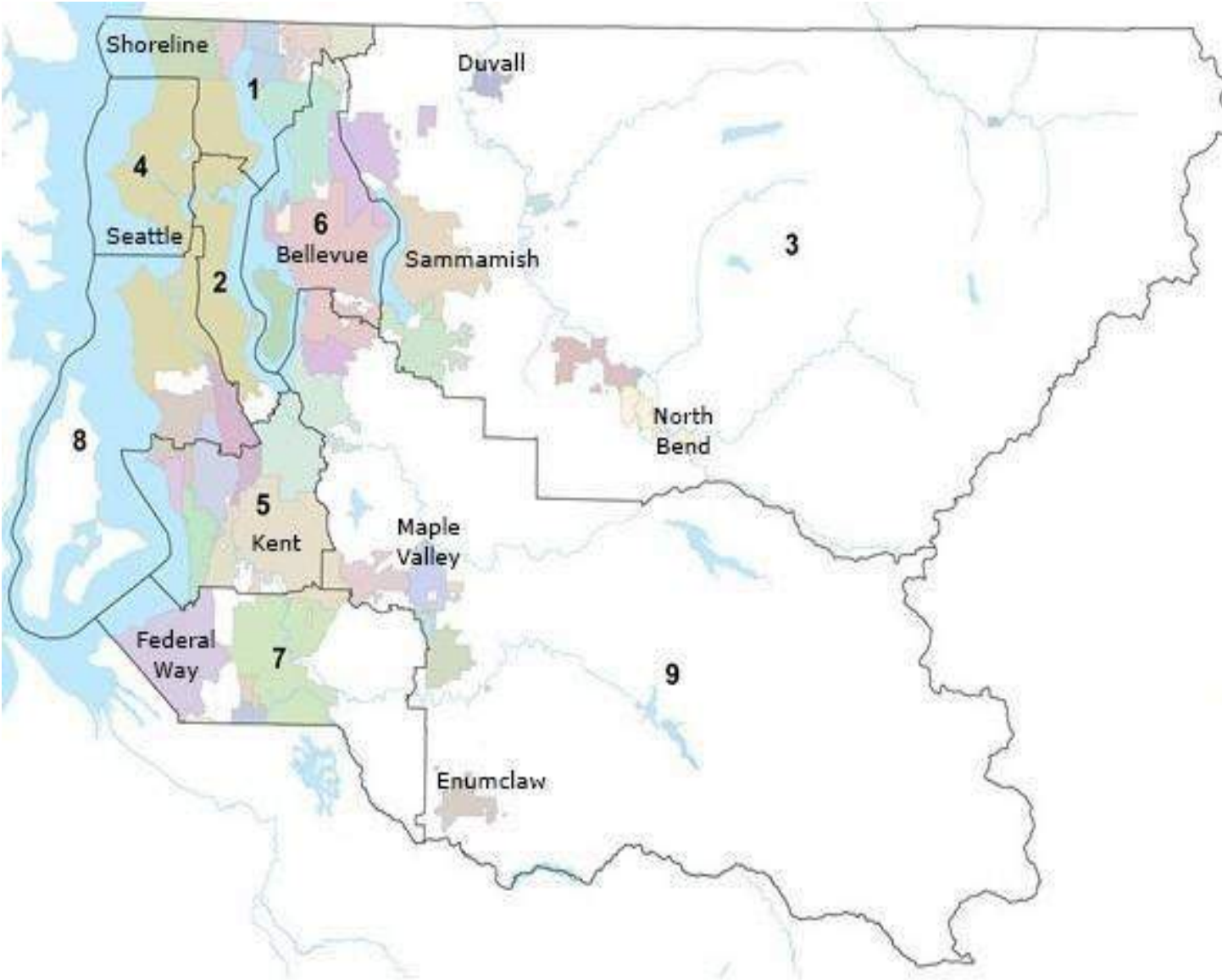
38	13.52.010	Specifies the requirements for design, installation, and monitoring of holding tank OSS.	Removes requirements to have \$5,000 bond for cleanup of spill or repair of system. Replaces this requirement with a requirement to follow a predetermined pumping schedule or install a device that monitors 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.	Cost: 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. Who is impacted: 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.	Cost: Reduced by the recording fee cost (approximately \$250). Who is impacted: 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.	Cost: No anticipated impact. Who is impacted: 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.	Cost: No anticipated impact. Who is impacted: 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.	Cost: No anticipated impact. Who is impacted: 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.	Cost: Reduced by the cost of one inspection per year (\$300-\$600). Who is impacted: 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.	Cost: No anticipated impacted. Who is impacted: 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.	Cost: No anticipated impact. Who is impacted: 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.	Cost: 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. Who is impacted: 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.	<p>Cost: Reduced cost to property owners because certified professional who is pumping a gravity OSS may also perform a routine inspection at the same time.</p> <p>Who is impacted: All owners of gravity OSS.</p> <p>This will also increase revenue-generating options for OSS pumpers.</p>	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.	<p>Cost: No anticipated impact.</p> <p>Who is impacted: Individuals seeking to become OSS pumpers.</p>	Voluntary substantive

Attachment 2. Community Engagement Report



KING COUNTY OSS

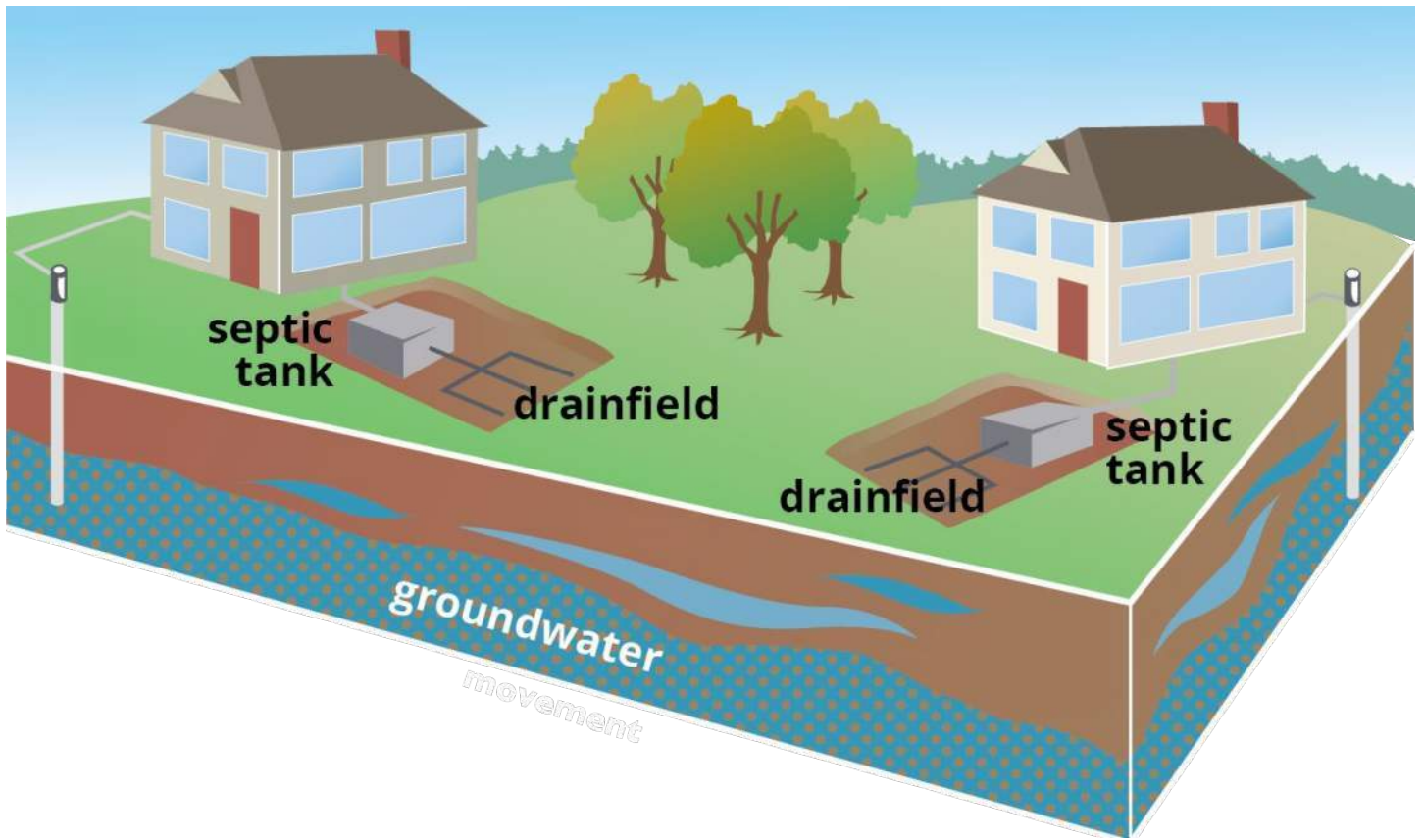
CODE REVISION COMMUNITY OUTREACH PROJECT

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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.

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

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:

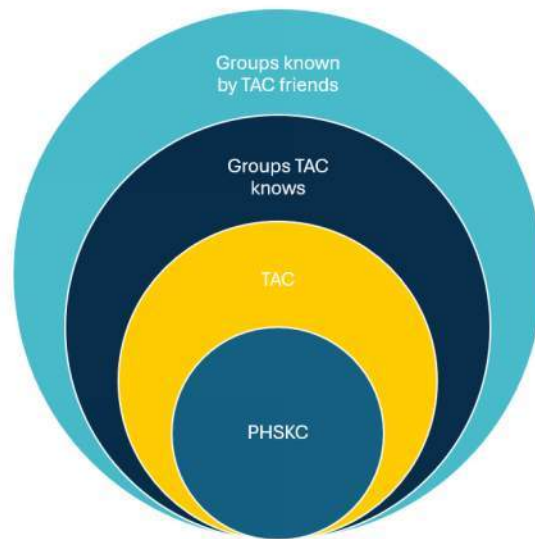
1) **Follow the energy.** Starting with our discussions with PHSKC and the TAC, we began building lists of community groups, professional associations, nonprofits and individuals who our core partners (PHSKC & TAC) identified as interested in, or affected by, OSS Code Revision. From initial outreach 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.

SNOWBALL ENGAGEMENT



SNOWBALL 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.

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.

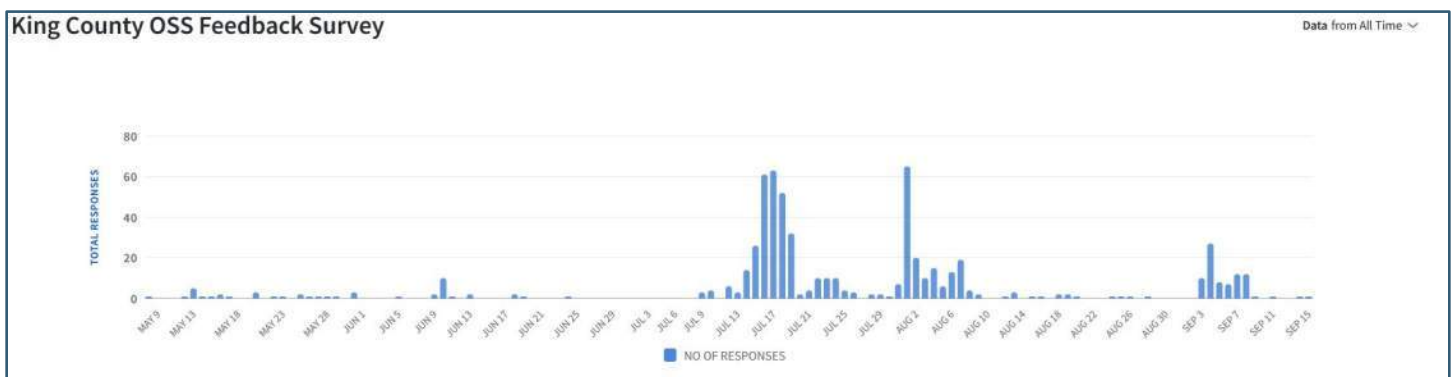
Necessity and Extent of Regulations

- **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.

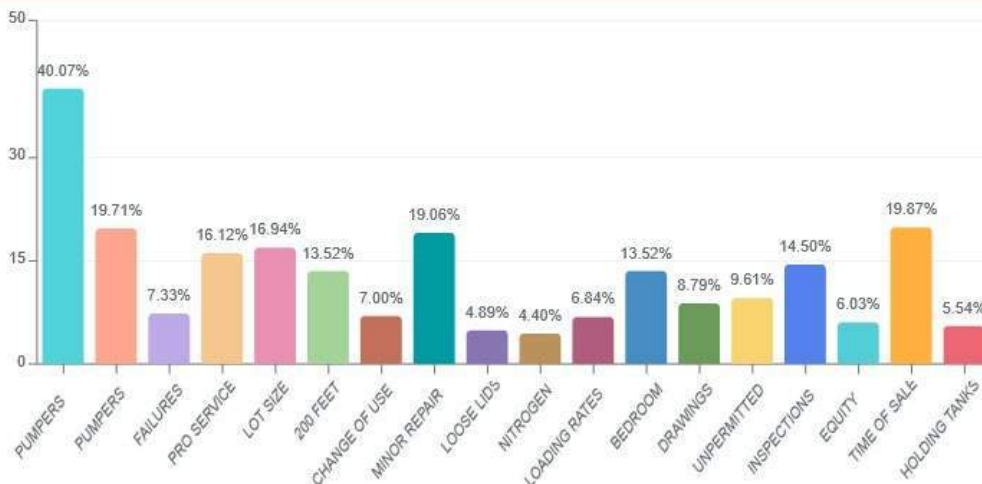
WHAT'S IMPORTANT TO YOU? 3 Questions

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



54

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.

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.

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



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



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.	No change to proposed rule. No specific recommendation.
Like the idea of pursuing grants to convert OSS to sewer in urban areas.	No change to proposed rule. 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.	No change to proposed rule. 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.	No changes to proposed rule. 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.	No change to proposed rule. 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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<p>Opposes proposed changes. Believes county should focus on public sewers instead of on-site sewage systems to address water quality issues.</p>	<p>No proposed change to rule. No specific recommendation.</p>
<p>Opposes proposed changes. Believes that SB 5503 was not taken into consideration and that sewer overflows are the greater problem.</p>	<p>No change to proposed rule. 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.</p>
<p>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.</p>	<p>No change to proposed rule. PHSKC has completed an in-depth review of code revision options, including an extensive community input and public comment period.</p>
<p>Opposes proposed changes. Believes information was distributed appropriately and changes may unreasonably limit the rights of property owners.</p>	<p>No change to proposed rule. 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.</p>
<p>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.</p>	<p>No change to proposed rule. 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.</p>
<p>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</p>	<p>No change to proposed rule. 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.</p>
<p>Opposes proposed changes. Believes code revision should be postponed to allow more time for public comment.</p>	<p>No change to proposed rule. 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.</p>

Opposes proposed changes. Believes changes are not clear and will increase costs.	No change to proposed rule. 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 www.kingcounty.gov/oss/alerts .
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.	No proposed change to rule. 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.	No change to proposed rule. 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

Comment Received	Response from PHSKC
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.	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. No specific recommendation.
Be clear that gravity systems can still be built.	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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

Comment Received	Response from PHSKC
Request that the public comments be extended to meet the minimum standard of 30-day.	No change to proposed rules. 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.	No change to proposed rule. PHSKC pursues grant opportunities, when available, to help bridge the wastewater gap in communities in need.
Fine those who have failures.	No change to proposed rule. 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.	No change to proposed rule. 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 septic) is aware of this. Fall City Community Association should be notified. As we are a rural unincorporated town. FCCA is our community info.	No change to proposed rule. 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	No change to proposed rule. 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?	No change to proposed rule. 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.	No changes to proposed rule. 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 adress an OSS failure.
Shouldn't the County already know how many septics 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.	No change to proposed rule. 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.	No change to proposed rule. 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?	No change to proposed rule. 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 https://kingcounty.gov/en/legacy/elected/executive/equity-social-justice/tools-resources.aspx .
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	No change to proposed rule. 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 adress 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”	No change to proposed rule. 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”	No change to proposed rule. 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.	No change to the proposed rule. 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.	No changes to proposed rule. 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”	Adopt rule with amendment. 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	No change to proposed rule. 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

Title Section	Comment Received	Response from PHSKC
13.08	Bedroom definition: remove double negative from proposed language	Proposed rule has been revised per comment. Double negative has been replaced with positive language to improve clarity.
13.08	In the definition for bedroom the double negative is confusing	Proposed rule has been revised per comment. 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	Adopt rule with amendment. 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.	No change to proposed rule. 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”	No change to proposed rule. 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."	No change to proposed rule. 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".	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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!	No changes to proposed rule. 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.	Adopt rule with amendment. 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?	No change to proposed rule. BOH 13.08.226 includes a definition of a minor repair.

13.08.342	Ahead of “OSS” add “pressure distribution and”	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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	No change to proposed rule. 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.	Adopt rule with amendment. 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 https://www.kingcountyoss.info/BOH-OSS-appeal-determination for transparency.	No change to proposed rule. 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	No change to proposed rule. 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.	Adopt rule with amendment. 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.	Adopt rule with amendment. 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)	No change to proposed rule. 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.	Adopt rule with amendment. 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.	No change to proposed rule. 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	No change to the proposed rule. 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>No change to the proposed rule. 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>No change to proposed rule. 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>Adopt rule with amendment. 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 set back 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>Adopt rule with amendment. 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>No change to proposed rule. 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>No change to proposed rule. 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.	Adopt rule with amendment. 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.	Adopt rule with amendment. 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.	No change to proposed rule. 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"	No change to proposed rule. 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"	No change to proposed rule. 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"	No change to proposed rule. 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"	No change to proposed rule. 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?	Adopt rule with amendment. 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.	Adopt rule with amendment. Proposed rule has been updated to ensure consistent requirement of 100 foot setback to surface water

Table 11: KC BOH Title 13.24

Title Section	Comment Received	Response from PHSKC
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.	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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	No change to proposed rule. 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.	No change to proposed rule. 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.”	No change to proposed rule. 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.”	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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”.	No change to proposed rule. 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.	Adopt rule with amendment. 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	Adopt rule with amendment. Table 13-28.1 was revised to provide greater clarity.
13.28.070	Change to 150 to 120 in A part 1.	No change to proposed rule. 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

Title Section	Comment Received	Response from PHSKC
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	No change to proposed rule. 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”	No change to proposed rule. 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.	No change to proposed rule. 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	No change to proposed rule. 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

Title Section	Comment Received	Response from PHSKC
13.40.030	Change one thousand five hundred to one thousand.	No change to proposed rule. 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

Title Section	Comment Received	Response from PHSKC
13.48.010	Strike under 2 “meet treatment level B or greater”	No change to proposed rule. 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.	No change to proposed rule. 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.	Adopt rule with amendment. 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.	No change to proposed rule. 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	Adopt rule with amendment. 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	No change to proposed rule. 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.	No change to proposed rule. 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.	Adopt rule with amendment. 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.	No change to proposed rule. 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	No change to proposed rule. 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).	No change to proposed rule. 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	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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

Title Section	Comment Received	Response from PHSKC
13.60.005; 13.64.020	"secured" not clearly defined; "remodel" and "alter" should be specified to exclude changes unrelated to OSS usage	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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.	No change to proposed rule. 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>No change to proposed rule. 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>Comment Received</p>	<p>Response from PHSKC</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>No change to proposed rule. This is outside the scope of Title 13 code revisions.</p>
<p>Consider exploring green systems such as methane digestive systems.</p>	<p>No change to proposed rule. 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>No change to the proposed rule. 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>No change to proposed rule. 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>No change to proposed rule. 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>No change to proposed rule. 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>No change to proposed rule. 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.

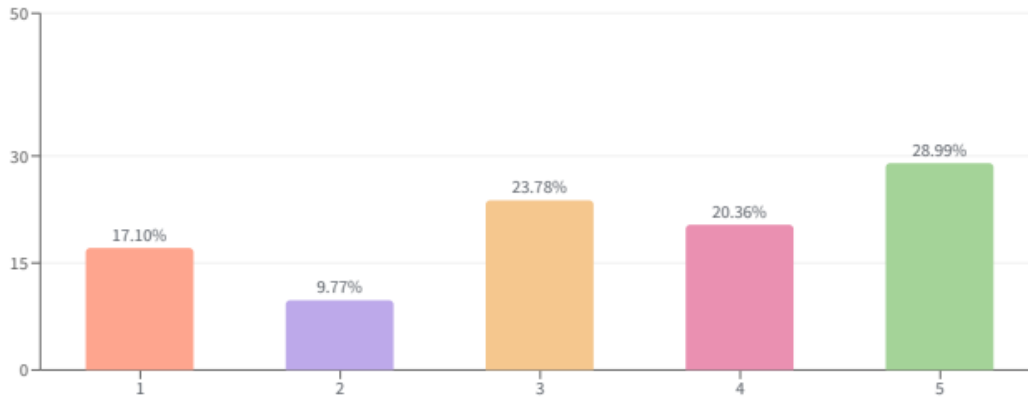
5. Technical Advisory Committee Feedback

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.

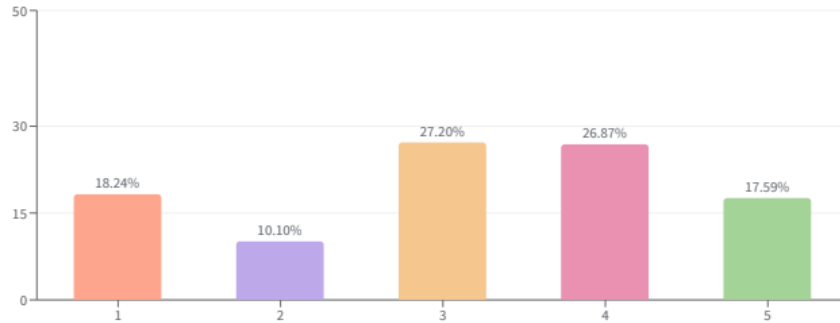
With a focus on enforcing a consistent standard of service, OSS industry members already operating with integrity stand to benefit from enhanced credibility and client trust, while the industry as a whole may see improved stability and consistency. Proposed fines will increase the financial impact to 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 sewer 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.

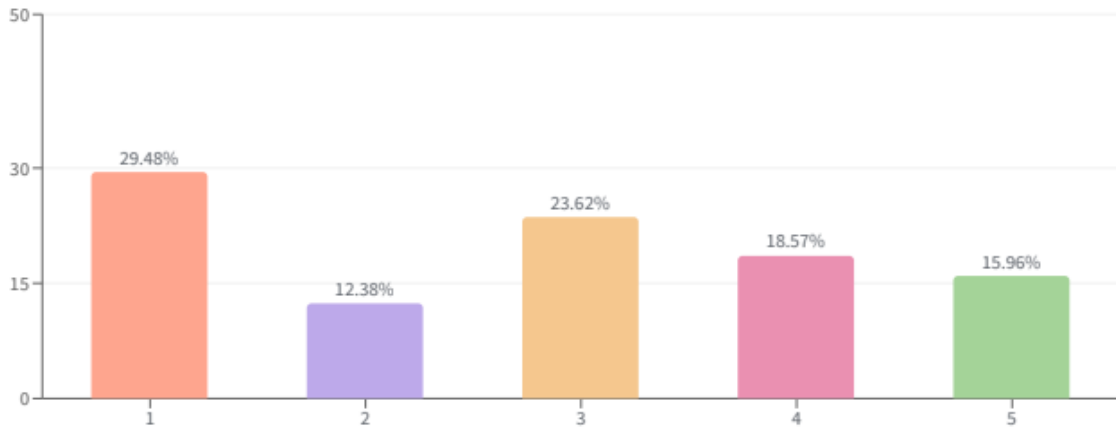
6. TAC feedback

- 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 ⁴	Public Domain Technology ²	Proprietary Technology ^{3,5}	Commercial and Food Establishment	Non-Discharging Toilets ⁶
Initial¹ Inspection	6 months	6 months	45 days	45 days	N/A
Regular Inspection frequency	Every 3 years	Annually	Every 6 months	Annually or 6 months	Annually
Who May Perform the Inspection	Owner or Licensed Maintainer or Licensed OSS Pumper	Licensed Maintainer	Licensed Maintainer	Licensed Maintainer	Owner

Table 13.60-1 Explanatory Notes

1. The initial inspection is to be performed at the time interval indicated following occupancy.
2. Public domain technology includes such systems as: mounds, intermittent sand filters and pressure distribution.
3. Proprietary Technology includes such systems as: ATUs, Glendon up-flow filters, Advantex pack bed filters and subsurface drip.
4. At least an annual septic tank maintenance check is required if the structure served is equipped with a garbage grinder waste disposal unit. If a screened outlet baffle is present an annual check 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:

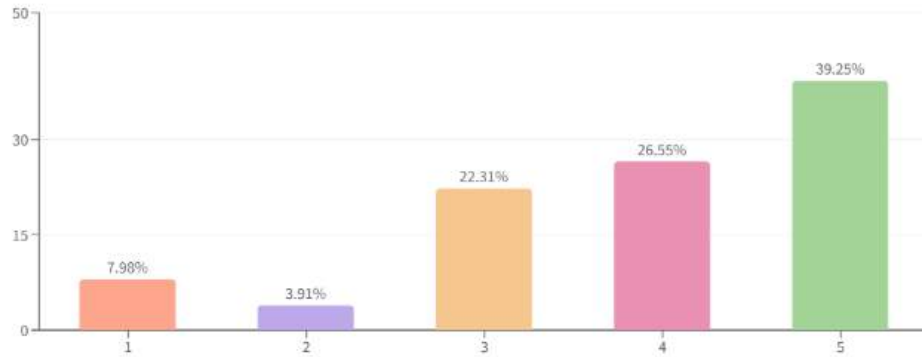
This change is expected to improve access to routine maintenance services for gravity OSS, making it easier and more affordable for property owners to keep their systems in good working condition. The requirement for additional training, exams, and continuing education will ensure that pumpers are qualified 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.

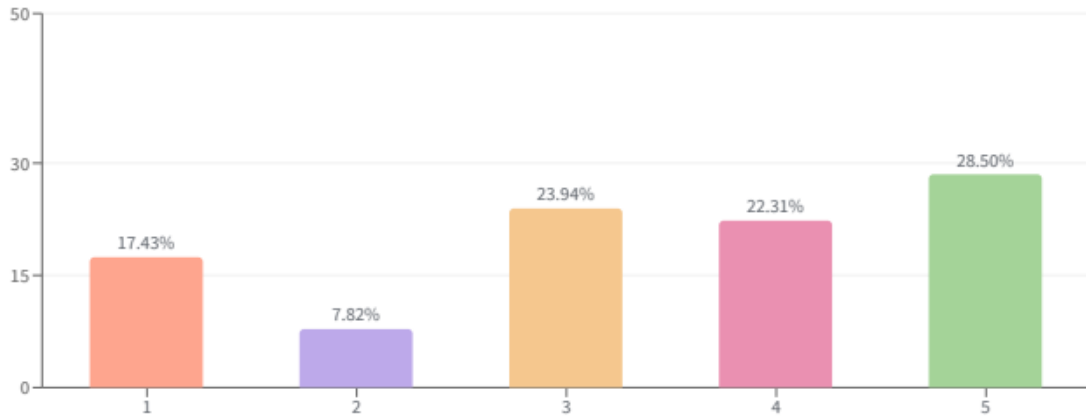
5. Technical Advisory Committee Feedback

- 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

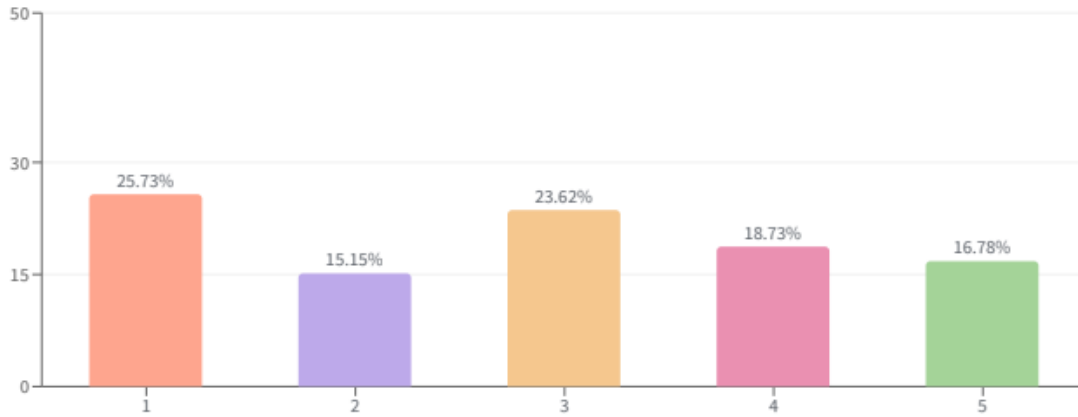
- There is no anticipated increase in cost due to the nitrogen treatment requirements because this is already implemented as a standard procedure
- According to a GIS analysis of subdividable parcels in King County, approximately 35 parcels will not be able to be subdivided due to the new minimum lot 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
Minimum Land Area	Public Water Supply	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.
	Nonpublic Water Supply	2.5 acres ¹	1.0 acre	1.0 acre	1.0 acre	2.0 acres	2.0 acres
Minimum Usable Land Area		2,000 sq. ft.	2,000 sq. ft.	2,500 sq. ft.	3,333 sq. ft.	5,000 sq. ft.	10,000 sq. ft.

¹OSS 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 Area¹

Water Supply Type	Maximum Daily TN Load	Soil Type ²					
		1	2	3	4	5	6
Public	mg per sq. ft.	3.8	6.3	5.1	4.3	3.9	3.6
	lb per acre	0.36	0.60	0.49	0.41	0.37	0.34
Nonpublic	mg per sq. ft.	1.9	1.9	1.9	1.9	0.9	0.9
	lb per acre	0.18	0.18	0.18	0.18	0.09	0.09

¹Based on 60 mg/L TN and 360 gal/day OSS effluent.

²As 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

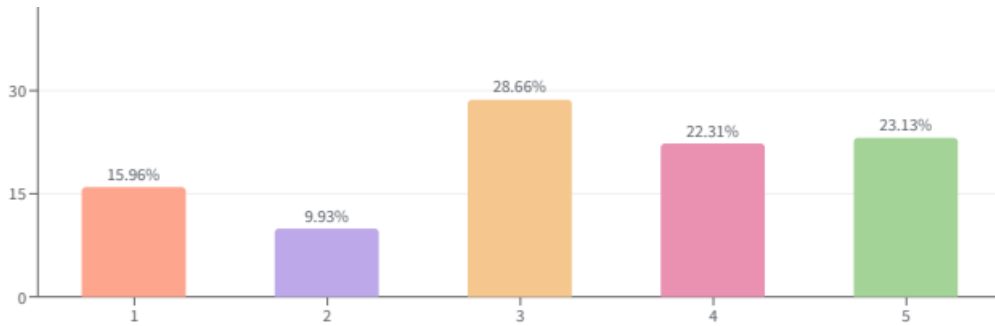
- Public Health needs to implement an effective method of enforcing pumping contracts and reporting requirements. This will have more impact on holding tank management than requiring a monitoring device.
- Greater oversight will also provide better data to inform management practices.

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 %

Made with SurveySparrow

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 \$1,000¹. 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.

¹ <https://www.wholesalesepticsupply.com/products/cellular-auto-dialer-panel;>
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. 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. 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 Sewage¹**

Soil Type	Soil Textural Classification Description	Loading Rate for Residential Effluent Using Gravity or Pressure Distribution (gal./sq.ft./day)⁵
1	Gravelly and very gravelly ² coarse sands, all extremely gravelly ³ soils excluding Soil types 5 & 6, all soil type with greater than or equal to 90% rock fragments	1.0 ⁴
2	Coarse sands	1.0
3	Medium sands, loamy coarse sands, loamy medium sands.	0.8
4	Fine sands, loamy fine sands, sandy loams, loams.	0.6 ⁶
5	Very fine sands, loamy very fine sands; or silt loams, sandy clay loams, clay loams and silty clay loams with a moderate structure or strong structure (excluding a platy structure).	0.4 ⁶
6	Other silt loams, sandy clay loams, clay loams, silty clay loams.	0.2 ^{6,7}
7	Sandy clay, silty clay and strongly cemented firm soils, soil with a moderate or strong platy structure, any soil with a massive structure, any soil with appreciable amounts of expanding clays.	Not suitable

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 ₅ 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 ² -day)		Organic loading (lb BOD/1000ft ² -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 ₅	130-230
CBOD ₅	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 (BOD₅) levels and the soil texture and structure. BOD₅ 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 BOD₅ 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.

Proposed Table				
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				
Vertical Separation in inches	Soil Type			
	1	2	3-4	5-6
<18	Not allowed	Not allowed	Not allowed	Not allowed
>18<24	A – Pressure with timed dosing	A – Pressure with timed dosing	A – Pressure with timed dosing	A – Pressure with timed dosing
>24<36	A – Pressure with timed dosing	A – Pressure with timed dosing	A – Pressure with timed dosing	A – Pressure with timed dosing
>36<60	A – Pressure with timed dosing	B – Pressure with timed dosing	B – Pressure with timed dosing	B – Pressure with timed dosing
>60	B – Pressure with timed dosing	C – Pressure with timed dosing	C – Pressure with timed dosing	B – Pressure with timed dosing

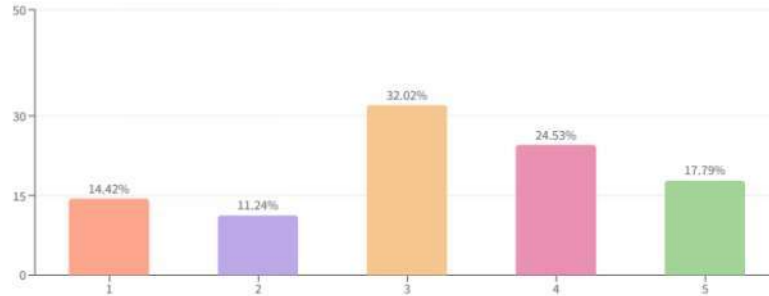
Based on discussion with the TAC, increased loading rates were not moved forward in the proposed code revisions. TAC members noted that an OSS designer can request a Health District waiver, showing that the site conditions support higher loading rates and that the proposed design meets minimum WAC requirements. 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. 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 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/. 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. 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.

	Gravity System ⁴	Public Domain Technology ²	Proprietary Technology ^{3,5}	Commercial and Food Establishment	Non-Discharging Toilets ⁶
Initial¹ Inspection	6 months	6 months	45 days	45 days	N/A
Regular Inspection frequency	Every 3 years	Annually	Every 6 months	Annually or 6 months Depending on Technology used	Annually
Who May Perform the Inspection	Owner or Licensed Maintainer or Licensed OSS Pumper	Licensed Maintainer	Licensed Maintainer	Licensed Maintainer	Owner

Table 13.60-1 Explanatory Notes

1. The initial inspection is to be performed at the time interval indicated following occupancy.
2. Public domain technology includes such systems as: mounds, intermittent sand filters and pressure distribution.
3. Proprietary Technology includes such systems as: ATUs, Glendon up-flow filters, Advantex pack bed filters and subsurface drip.
4. At least an annual septic tank maintenance check is required if the structure served is equipped with a garbage grinder waste disposal unit. If a screened outlet baffle is present an annual check 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 ⁵	Commercial and Food Establishment
Initial Inspection	45 days	45 days
Regular Inspection frequency	Annually	Annually
Who May Perform the Inspection	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.

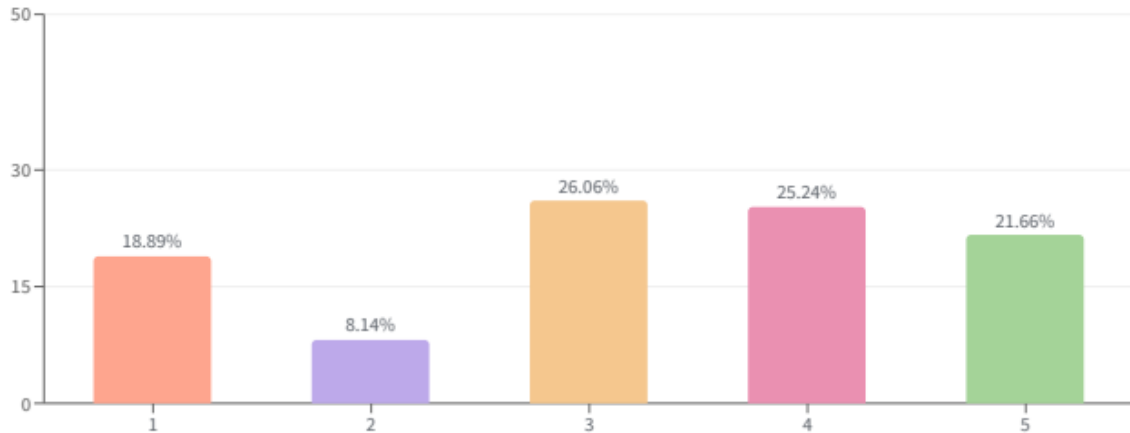
5. Technical Advisory Committee Feedback

- 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 %

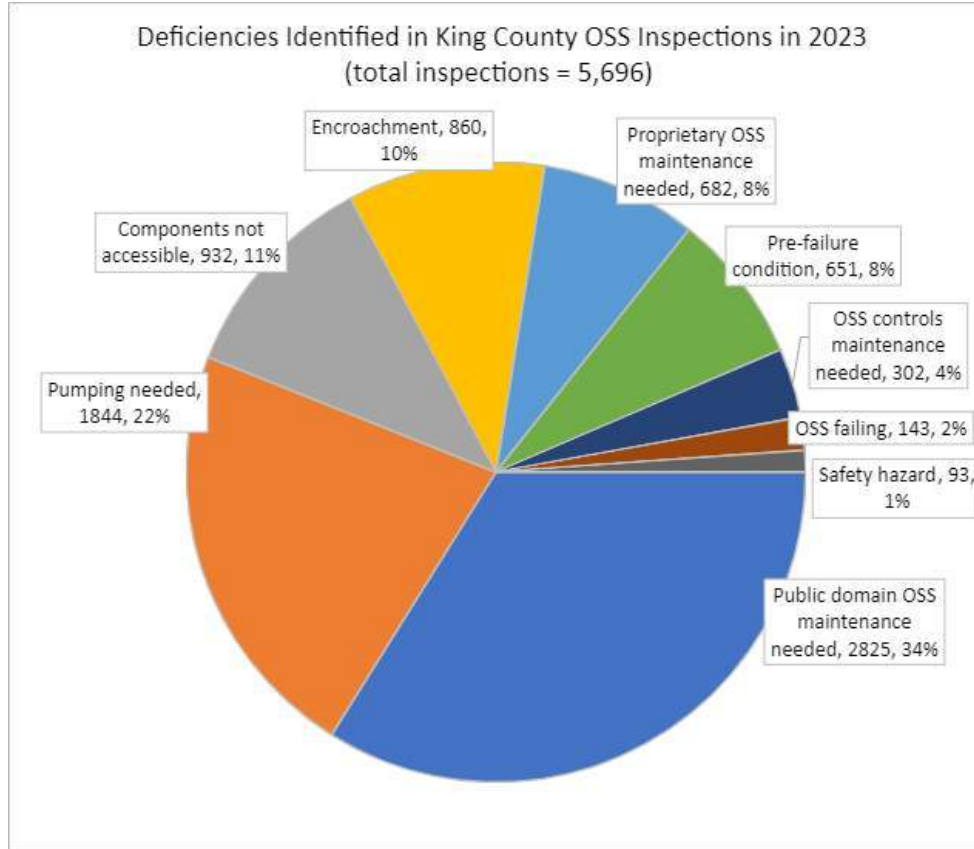
7. Technical evaluation and additional information:

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
Site Limitation	Meets state rules for <i>conventional gravity system</i>	Meets state rules for <i>conventional pressure distribution system</i>	Limitation increases with - <i>less</i> vertical separation, smaller lot sizes, less horizontal separation, and, <i>greater</i> surface slope, wastewater flow, wastewater strength, etc.
System Complexity	Gravity-flow (no pumps, controls, etc.)	Pressurized distribution (requires pumps & controls)	Complexity increases with - <i>increasing</i> reliance upon, or combinations of: pumps; blowers; motors; mechanical, electronic, or computer-operated controls & warning devices; disinfection (materials & equipment); reduction in drainfield size; 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.

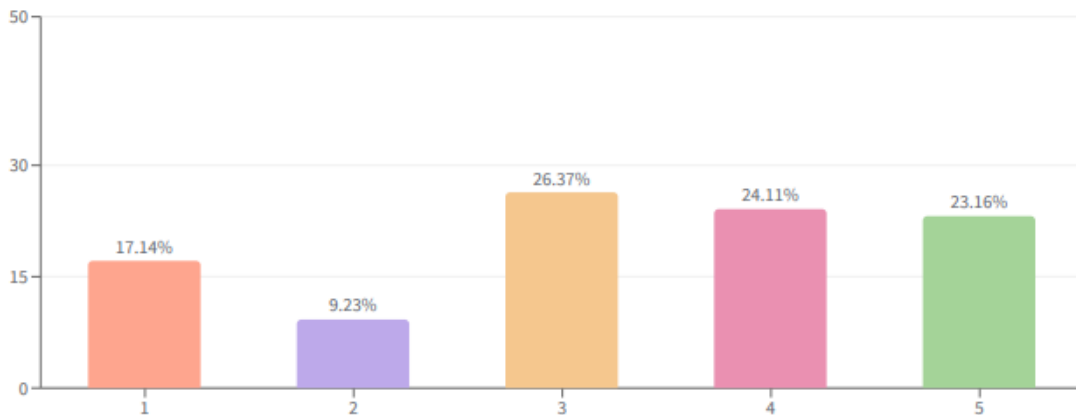
- OSS Program workload will slightly increase due to tracking reporting of secured lids and performing quality control site visits.
- Risk to life safety will be significantly reduced.
- There is no significant cost impact to property owners or residents.

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

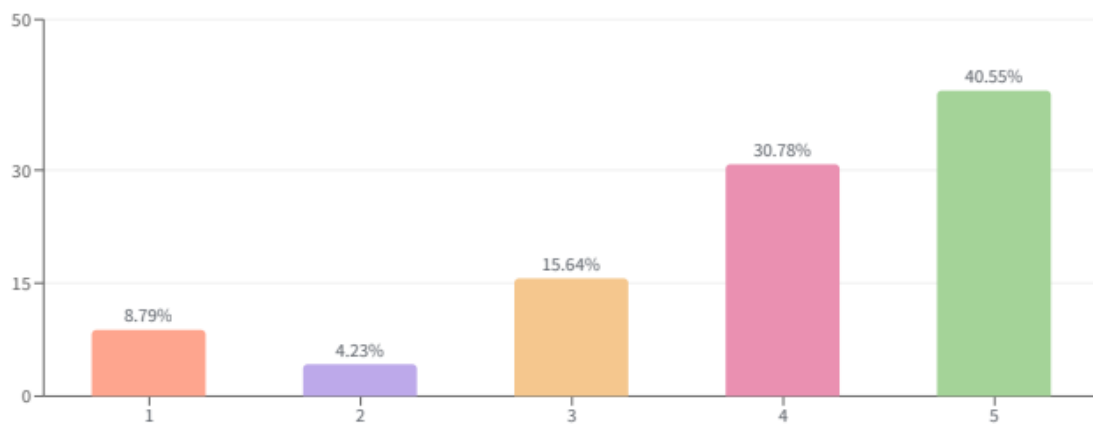
- OSS industry representatives advocated to keep the 6-month timing for TOS inspections because OSS conditions can change quickly. By extending the valid timeline of a TOS inspection, buyers may not receive important information about the status of the OSS.
- Realtor representative commented that consistency 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

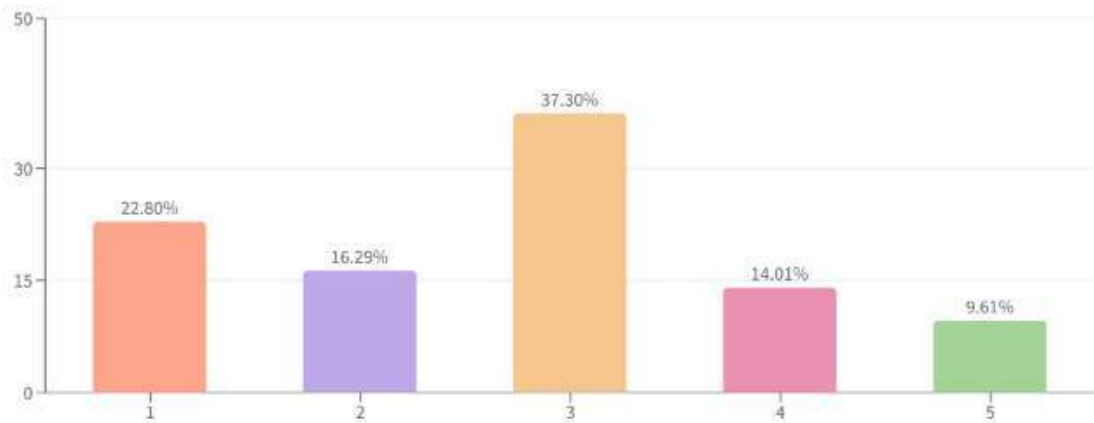
- No anticipated cost impact.
- Prevention of sewage discharges, leading to better protection of public health and water quality.
- Change in staff workflow as staff will prioritize following up on failures over other work.

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

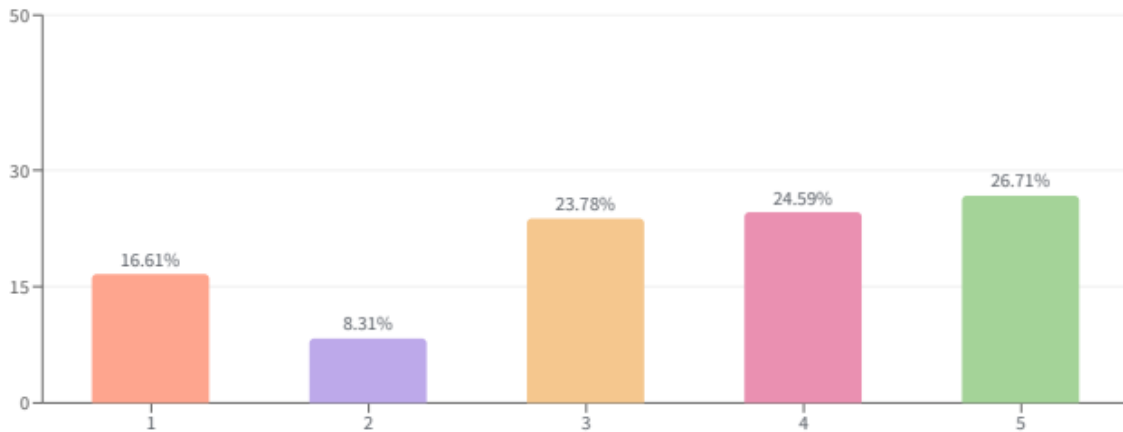
- Better operation and maintenance of commercial OSS leading to better treatment of effluent and better protection of public health and water quality.
- Longer operational life of OSS serving commercial establishments.
- Reduced failures of these OSS, leading to better water quality and reduced costs 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

State Environmental Policy Act (SEPA) Non-Project Action Determination of Non-Significance (DNS)

- 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

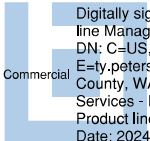
(for a nominal copying fee or by email).

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'

Ty Peterson, SEPA Official

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

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, or call Jeff Aken, (360) 725-2869.

Sincerely,

Review Team
Growth Management Services

Attachment 6. Washington State Department of Commerce confirmation email, October 14, 2024

Jackson, Meagan

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.

~~~ 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 Stempski, 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.



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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

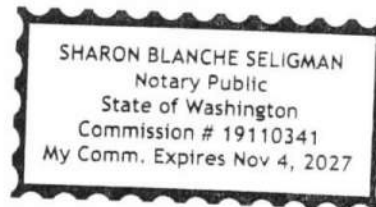
Agent Frankie Flight Signature Frankie Flight

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