

Minimum Residential Septic System Design Flow – Waiver/Variance Guidance



July 14, 2016 • Technical Guidance for Health Department Staff and Industry Professionals

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Waiver/Variance Guidance for Minimum Residential Septic System Design Flow of 360 gallons per day

Code Requirement:

Environmental Health Code [Chapter 2 – On-Site Sewage, Section 21(D)(3)] requires that all single-family residences be designed based on a minimum wastewater flow of 360 gallons per day (gpd). Because this is a minimum Code requirement, any proposed reduction must be approved through a formal waiver/variance process. This process is outlined in Environmental Health Code Chapter 1 – General Provisions (Section 14). The minimum design flow requirement applies to home proposals of three or fewer bedrooms; single-family residences with more than three bedrooms must have higher minimum design flows.

Intent:

The required minimum design flow (360 gpd for single-family residences) provides a safety factor in the design and approval of residential On-Site Septic Systems (OSS), and protects public health and water quality from contamination as a result of poorly-treated or untreated wastewater. In addition, the minimum design flow helps assure long-term proper function of the OSS and allow the full, normal use of the residence throughout its existence.

An approved reduction of the OSS minimum design flow by the waiver/variance process assumes below-average occupancy based on a reduced number of bedrooms (see definition). Furthermore, the Board of Health intends that all persons subject to the Environmental Health Code (EHC) are provided fair, equitable, and reasonable treatment, and that the health officer shall be allowed discretion in the application of these regulations as may be necessary to protect, preserve, promote, and improve public health and safety in Pierce County.

Purpose:

The purpose of this guidance is to clarify the mitigating measures necessary to receive Health Department approval of a reduced minimum design flow by meeting the intent of the requirements by alternative methods.

This waiver/variance guidance applies to both the primary and reserve drainfield areas. The minimum design flow available under this guidance is 240 gpd [the minimum design flow per the Washington Administrative Code (WAC)].

Any further proposed reduction to the 240 gpd minimum standard per the WAC can only be addressed by a separate Washington Department of Health (WDOH) Class 'C' waiver/variance process.

Application:

This guidance applies to all Health Department-regulated single-family residential development activities with potential impact to an existing and/or newly-proposed OSS.

Code References:

- Washington Department of Health (WDOH), WAC Chapter 246-272A-0230 (d) (i) (E)
- Health Department Code Chapter 2, On-Site Sewage, Section 21 (D) (3)

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Approval Conditions (for a waiver/variance from 360 gpd to a minimum of 240 gpd):

- Separate waiver/variance applications and fees are required for each onsite sewage system design proposal seeking a reduction from the 360 gpd minimum design flow.
- The design proposal must include the use of pressure distribution (Treatment Level 'E') with time-dosing at a minimum; no gravity distribution allowed.
- Building floor plans must be reviewed by Health Department staff prior to release of the building permit to confirm a consistent permitting proposal and that the home will contain no more than two (2) bedrooms (per included definition).
- The property owner must sign and record a Notice to Title prior to the Health Department's approval of the structure for occupancy (prior to record drawing approval). The Health Department has established a required [Notice template](#) for use that provides required acknowledgement by the property owner of potential property limitations as a result of the approved variance.

Environmental Health Code Chapters 1, 2 & 3 (Definitions):

- *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 (EHC Chapter 2, §3).
- *Board of Health:* The Tacoma-Pierce County Board of Health, formed pursuant to Chapter 70.05 RCW (EHC Chapter 1, §6).

- *Design Flow:* The maximum volume of sewage a residence, structure, or other facility is estimated to generate in a 24 hour period. It incorporates both an operating capacity and a surge capacity for the system during periodic heavy use events. The sizing and design of the on-site sewage system components are based on the design flow (EHC Chapter 2, §3).
- *Health Department or Department:* The Tacoma-Pierce County Health Department (EHC Chapter 2, §3).
- *Health Officer:* The health officer of the Tacoma-Pierce County Health Department as provided for in RCW 70.05.050 or his/her designee. An authorized representative of the health officer (EHC Chapter 2, §3).
- *Variance:* An alternative method of meeting a specific requirement or requirements of the EHC and which provides equivalent or superior protection of public health, safety and/or the environment; requires approval by the health officer via an administrative process (EHC Chapter 1, §14).
- *Waiver:* Allowing regulated actions or activities that do not meet one or more requirements of the EHC; requires approval by the health officer via an administrative process (EHC Chapter 1, §14).

Resources:

- *Environmental Health Code, [Chapter 1, General Provisions](#)*
- *Environmental Health Code, [Chapter 2, On-Site Sewage Regulation](#)*
- *Environmental Health Code, [Chapter 3, Water Regulations](#)*
- *Washington Administrative Code, [Chapter 246-272A](#)*