



Candidates are strongly encouraged to review the study materials listed below prior to sitting for the exam to become a certified installer for on-site sewage systems in Snohomish County.

Snohomish County Board of Health Code | Within Snohomish County Board of Health Code (SCBHC), see title 5 “Wastewater”. Review the chapters listed below along with their subsections. The current version of the code can be found on the Health Department website at <https://snohomish.boardofhealth.codes/SCBHC/5>.

- 5.10 Permit Application and Installation Procedures for New On-Site Sewage Systems
- 5.15 Repairs & Remodels
- 5.30 Use of Sand Filter/Mound System on Sites w/ 12” to 18” of Suitable Soil, Use of Boot w/ Sand Filter Liner
- 5.55 On-Site Sewage System Contractor Regulations

Chapter 246-272A WAC On-Site Sewage Systems | Within [chapter 246-272A WAC On-Site Sewage Systems](#), see the Definitions section and all sections under “Specific Requirements” (listed below for reference).

- 246-272A-0010 Definitions
- 246-272A-0200 Permit requirements.
- 246-272A-0210 Location. (***Pay special attention to the Minimum Horizontal Separations (setbacks) table***)
- 246-272A-0220 Soil and site evaluation.
- 246-272A-0230 Design requirements - General.
- 246-272A-0232 Design requirements - Septic tank sizing.
- 246-272A-0233 Design requirements – Pump chambers.
- 246-272A-0234 Design requirements - Soil dispersal components.
- 246-272A-0238 Design requirements - Facilitate operation, monitoring, and maintenance.
- 246-272A-0240 Holding tank sewage systems.
- 246-272A-0250 Installation.
- 246-272A-0260 Inspection.
- 246-272A-0265 Record drawings.
- 246-272A-0270 Operation, monitoring, and maintenance-Owner responsibilities.
- 246-272A-0275 Operation, monitoring, and maintenance-Food service establishments.
- 246-272A-0280 Repair of failures.
- 246-272A-0282 Minor repair of malfunctions
- 246-272A-0290 Expansions.
- 246-272A-0300 Abandonment.
- 246-272A-0310 Septage management.
- 246-272A-0320 Developments, subdivisions, and minimum land area requirements.
- 246-272A-0340 Approval of installers, pumpers, and maintenance service providers.
- 246-272A-0400 Technical advisory group (TAG).
- 246-272A-0410 Policy advisory group.
- 246-272A-0420 Waivers.
- 246-272A-0425 Required review of rules.
- 246-272A-0430 Enforcement.
- 246-272A-0440 Notice of decision - Adjudicative proceeding.
- 246-272A-0450 Severability.

Department Standards and Guidance (DS&G) Documents | DS&Gs can be found on Washington State Department of Health's [Wastewater Forms and Publications page](#). Review the specific DS&Gs listed below. Any others will not be in test materials but should be reviewed and used as reference for related installs in the future. Also see the List of Registered On-Site Treatment and Distribution Products.

Dosing Gravity Drainfield Systems
Glossary of Terms for Department Standards and Guidance
Gravelless Distribution Products
Intermittent Sand Filter Systems
Mound Systems
Pressure Distribution Systems
Proprietary On-Site Wastewater Treatment Products
Sand Lined Trench Systems
Stratified Sand Filter Treatment Systems
Subsurface Drip Systems
List of Registered On-Site Treatment and Distribution Products

Requirements for Water/Sewer Line Crossing | The information in the [Water/Sewer Perpendicular Line Crossing Requirement Memo](#) lists the specific requirements for installing a septic system for a design with these site conditions.

Electrical Work | Review the *first paragraph only* of [RCW 19.28.041 \(1\)](#) regarding who is allowed to do electrical work in Washington State.

Diagrams | Labelled diagrams of a [Septic Tank](#) and [Pump Tank](#) are available for reference.

Calculating Drawdown and Volume Per Dose for Float Installation | The design should contain the approved dose volume, drawdown, and gallons per inch. Install the float with the proper length of tether on the independent float stem to achieve the approved dose volume. If it is not listed in the design, the float swing can be determined based on the required dose volume and the gallons per inch of the pump chamber. See below for an example.

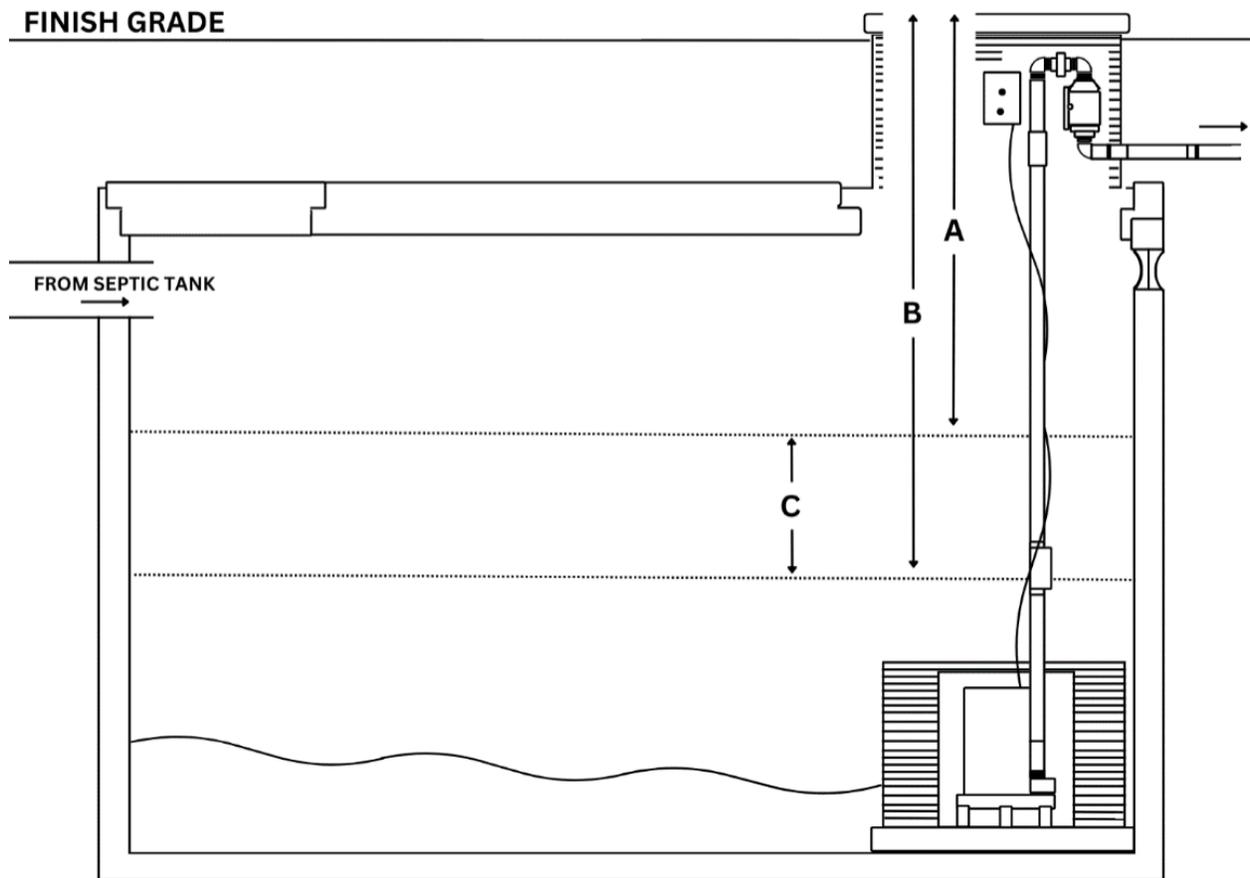
To determine float swing in inches: If the gallons per inch in the pump chamber is 12.5 gallons per inch, and the dose volume needed is 225 gallons, to determine the placement of floats to set the intended drawdown you would divide gallons per dose by gallons per inch in the pump chamber.

$$225 \text{ gallons per dose} \div 12.5 \text{ gallons per inch in the pump chamber} = 18 \text{ inch float swing}$$

Determining Dose Drawdown | To verify the system is dosing properly, the pump run time per cycle and drawdown should be checked. Take all water depth measurements from a fixed point such as the top of the riser to reduce errors. See diagram below. Use a flashlight if it's difficult to see the liquid surface.

1. Use a hose to run water into the pump chamber. Do not put the end of the hose directly into effluent to prevent any cross connection to the potable water source. Minimize water disturbance to the floats by placing the hose as far away from the float tree as possible.
2. Using a tape measure, take a liquid depth measurement (A) from the liquid surface to your fixed point as soon as the pump turns on. Write it down.
3. Quickly turn off the water source to the pump chamber.

4. Measure the liquid depth (B) in the pump chamber again when the pump turns off. Take the measurement from the same fixed point the measurement was taken in step 3. Write it down.
5. Subtract. $B - A = C$ (inches of effluent per dose).



Pump tank diagram showing drawdown measurements