

2 Code Requirements

New septic tanks must meet code requirements in place today, even if the existing OSS was installed under older regulations. New septic tanks must:

- Have minimum 24" risers with access at grade
- Be watertight
- Have lids properly secured
- Have inlet & outlet baffles or tees
- Have an effluent filter installed in the outlet baffle that can be easily removed for cleaning



3 Bedding and Backfilling

Specific bedding & backfilling requirements vary with the shape & material of the tank. Tank manufacturer should ALWAYS be consulted prior to construction.

The hole for the septic tank should be dug 2 feet larger than the tank. Soils containing large boulders, massive rock edges, or other sharp objects that could potentially puncture the tank are not suitable. If these soils are present, it may be necessary to bed the tank with ASTM C-33 sand.



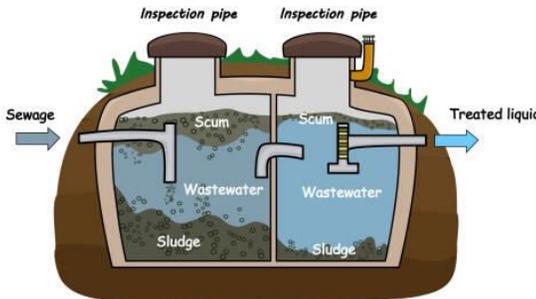
The tank should be placed on a level, uniform bearing surface. The EHU recommends bedding all tanks with pea gravel or ASTM C-33 sand to help protect the tank. These materials are considered self compacting.

The backfill material should be free-flowing and free of stones larger than 3" in diameter and other debris that could puncture the tank. It should be added in lifts and each lift compacted, unless using pea gravel or ASTM C-33 sand. Fiberglass tanks must be backfilled with a sand / gravel mixture and filled with water during the process to prevent collapse.

Why is my septic tank important?

A septic tank is the most commonly used pretreatment unit for onsite septic systems, treating raw wastewater (sewage) before it is discharged to the drainfield. The main function of the septic tank is to remove solids, oils, greases, and floating debris from raw wastewater. These materials are stored as sludge and scum layers in the tank and need to be pumped out periodically. The septic tank also reduces the waste strength of the wastewater. Both functions are accomplished by providing the wastewater a long residence time in the septic tank. If the sludge and scum material is not pumped when necessary, the residence time and treatment of the wastewater is reduced, and solids will overflow into the drainfield, eventually causing failure.

Septic Tank System



Cowlitz County Health & Human Services

- Environmental Health Unit -

Cowlitz County Administration Bldg.

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Cowlitz County

Homeowners Guide to Septic Tank Replacement



Access this
Information
Online



SCAN QR CODE

▶ How can I find my septic tank?

If you have a “record drawing” or “as-built”, locating the septic tank will be easy. Copies of some record drawings are available from our office. If one is not available, you or your pumper will need to use some investigative skills. If a crawl space is available, you may determine where the plumbing leaves the foundation wall. Then, use a probe bar to find the tank. Fiberglass or polyethylene tanks can be ruptured with a probe bar, so use caution. Probing works best if the tank is not more than 1 to 2 feet under the surface.



▶ What are some signs that my septic tank needs to be replaced?

If a steel tank, cracked concrete tank, or damaged fiberglass tank is found during a routine Operations & Maintenance inspection of your septic tank and drainfield, the tank needs to be replaced. Some other warning signs are odors, surfacing sewage, or soggy spots with lush green grass in the septic tank area; plumbing or septic tank backups; slow draining fixtures; or gurgling sounds in the plumbing system.

▶ What size septic tank do I need?

Septic tanks are sized based on the number of bedrooms in your house. The minimum tank size is **1000 gallons for a house with 3 bedrooms or less**. Each additional bedroom after 3 requires an extra 250 gallons (e.g., 5-bedroom house = 1500 gallons).

The above are requirements for MINIMUM tank sizes. It is never a bad idea to install a slightly larger tank than is required, especially with an older drainfield. A larger septic tank allows the wastewater a longer residence time in the tank, decreasing the waste strength of the wastewater before it enters the drainfield.

▶ What do I need to do with the County to install new septic tank?

Before a new septic tank can be installed, you will need to apply for a permit. Since most tank replacements fall in the line of “emergencies,” the Environmental Health Unit can issue most replacement permits over the counter. You will need to bring the following items with you when you apply for the permit:

- A completed application
- A site plan indicating where the current tank is and where the new tank is going, as well as the approximate location of the existing drainfield.
- The applicable repair permit fee



These documents are available at the EHU counter, and some are available on-line at: <https://www.co.cowlitz.wa.us/1609/EHU-Forms>

▶ Where can I purchase a new septic tank?

Only septic tanks on the WA State Department of Health (DOH) list of approved Onsite Sewage Tanks can be installed. View the full list here: <https://doh.wa.gov/sites/default/files/2022-02/337-046.pdf?uid=648b3b68712b3>

The following manufacturers are located in or near Cowlitz County and make tanks on the approved list:

Sound Placement Services	Willamette Greystone, Inc.
4562 Westside Highway Castle Rock, WA 360.274.7675	2405 NE 244th Ave Wood Village, OR 503.669.7612

▶ Can I install my own septic tank?

If you are the property owner AND you live in the home that the onsite septic system serves, you may install the septic tank according to the permit requirements. Developers and professionals must obtain a Sewage System Installer’s license through the Environmental Health Unit to install septic tanks (& onsite systems).

▶ What do I do with my existing (old) septic tank?

Existing septic tanks must have ALL septage removed by a licensed pumper. If the tank is a steel, concrete, or fiberglass tank, it should be removed from the ground & taken to a recycling or disposal facility. If the tank is concrete, the lids may be crushed in place and the tank backfilled, or it can be removed and taken to an approved disposal facility. Before the County will give final approval for the septic tank replacement, a pump receipt and decommission statement, detailing what was done to the existing tank, and a disposal receipt (if applicable) must be received.

▶ How do I get final approval of my repair permit?

- Before backfilling the tank, call the Environmental Health Unit for an inspection. The tank can be backfilled after a passing inspection from the EHU.
- Submit a record drawing, on a County provided form, with the location of the new tank and existing drain field area. The record drawing must include swing ties and a north directional arrow. Examples of how to properly draw a record drawing are available at the EHU counter.
- Submit a pump receipt and a signed existing tank decommission statement

▶ What requirements should I be aware of?

1 Location

The tank should be located where it can be easily accessed for septage removal and sited away from drainage swales or other depressions where water can collect. The following table lists important horizontal setbacks for septic tanks:

Drinking water well & surface water	50'
Pressurized water supply line	10'
Building foundation, in-ground swimming pool, deck footing, etc.	5'
Property or easement line	5'

(continued on back)