Conventional Onsite Wastewater Treatment Systems (OWTS)

1 in 5 American homes rely on a septic system to treat household wastewater on their property

Conventional onsite wastewater treatment systems (OWTS; i.e. septic systems) usually consist of a septic tank followed by a drainfield (also called a leachfield or soil treatment or absorption area). Additional components, like a distribution box, may also be present. Well designed, installed, and maintained septic systems can effectively remove pathogens (disease-causing organisms) and other contaminants found in wastewater. Routine maintenance, including septic tank pumping, is necessary to ensure proper wastewater treatment and is the key to extending a system's lifespan.

Septic systems provide simple, effective wastewater treatment when correctly designed, installed and maintained

A wastewater professional should do a thorough inspection of your system every 1- 3 years to ensure the system is functioning correctly

Septic tanks require regular pumping to remove solids that accumulate in the tank. Most tanks need to be pumped every 2-5 years, depending on system use and condition

Advanced wastewater treatment may be needed in coastal or other sensitive areas to remove specific contaminants conventional systems are not designed to treat

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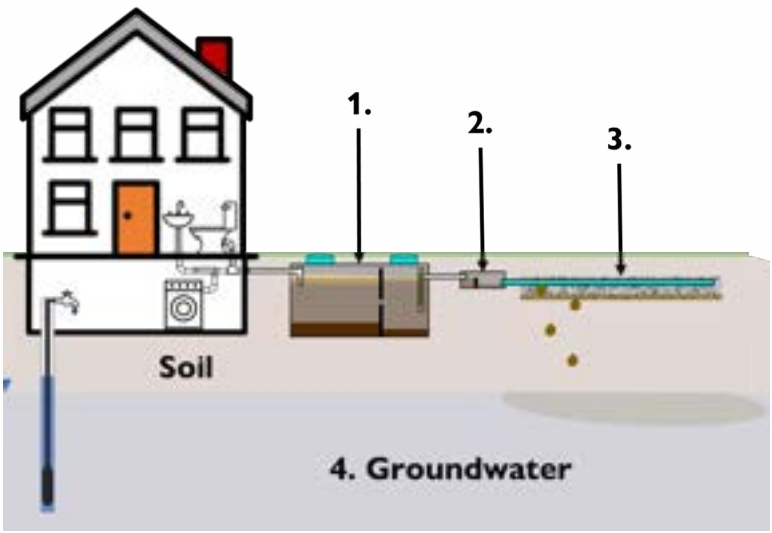
How conventional OWTS work

1. All wastewater from the home is collected and delivered to the septic tank by the building sewer pipe. The function of the septic tank is to trap and store solids, allowing only liquid to enter the drainfield.

2. The liquid leaving the tank contains many pollutants and pathogens. In many systems, the liquid will first be piped to a distribution box (D-box), which spreads wastewater to all parts of the drainfield for treatment.



3. Drainfields are designed to spread wastewater over a large area of native soil, allowing physical, biological and chemical processes within the soil to treat the wastewater. There are many different drainfield configurations available to property owners. Drainfield design at each site depends on the amount of wastewater needing treatment, the soil type, and distance to the groundwater table below.

4. After treatment by the soil, the wastewater reaches the groundwater below the drainfield, where it is further diluted and recharges the local groundwater supply.

Protect your investment

DO'S

- **Have your system inspected and pumped regularly.** Solids build-up rates vary. Your septic professional can determine an appropriate pumping schedule for your particular system (typically every 2-5 years)
- **Install an effluent filter** and provide an added layer of protection for your drainfield! Effluent screens must be cleaned regularly (typically every 6 months - 2 years)
- **Follow best practices** for **conserving water** and basic care (**septic system do's and dont's**) to protect your system and extend its life
- If you have a **private drinking water well**, get your water **tested annually**

DON'TS

- **Flush anything except toilet paper** and what comes out of your body
- **Flush or rinse toxic or poisonous substances** into your system
- **Allow water softener system backwash** water into your system
- **Use an in-sink kitchen garbage disposal**
- **Drive on or place heavy objects on the drainfield** or cover it with a hard surface (e.g., asphalt)
- Allow **stormwater to pool** near or run into your system
- **Plant trees or shrubs near the drainfield**
- Use any system component as a **footing or structural support**

For more information and resources, visit uri.edu/septic