



## ONSITE WASTEWATER TREATMENT SYSTEM (OWTS) MAINTENANCE MYTHS & FACTS

DIVISION OF ENVIRONMENTAL HEALTH - TOMPKINS COUNTY HEALTH DEPARTMENT  
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- **Myth:** A septic tank needs to be pumped only after it fills up with solids.
  - **Fact:** Not all solids will bio-degrade completely in an onsite wastewater treatment system. If the tank gets too full of solids, they will pass into the system downstream from the tank and cause failure. Septic tank pumping is needed when the combined depth of scum and solids equals  $\frac{1}{4}$  of the total depth. Generally, this means that after 2-4 years of use the tank should be pumped.
- **Myth:** If the soil where an onsite wastewater treatment system is located is permeable (well-drained) the septic tank will never need to be pumped.
  - **Fact:** No matter how well drained the soil is the onsite wastewater treatment system will eventually become clogged by overflowing solids and scum if the septic tank is not pumped periodically.
- **Myth:** Adding septic tank additives (such as cleaners, conditioners, or yeast) eliminates the need for pumping the tank, and will help the onsite wastewater treatment system operate better.
  - **Fact:** Septic tank additives have not been shown to be beneficial and may result in actual harm to the system or groundwater. In any case, additives are no substitute for pumping.
- **Myth:** Seepage pits and absorption fields will function well in any type of soil.
  - **Fact:** These types of systems are not suitable where the soil is poorly drained, the water table is high, or when bedrock is close to the ground surface.
- **Myth:** Septic Tank Effluent (clarified sewage from a septic tank) is harmless.
  - **Fact:** Septic tank effluent contains potentially dangerous pathogens and other harmful substances.

- **Myth:** The treatment field requires no maintenance.
  - **Fact:** Tree roots, ponding surface water, heavy equipment over the system, covering by a driveway, leaking faucets, or excessive water use can negatively affect the system's operation. These factors must be avoided.
- **Myth:** Flushing cigarette butts, grease, disposable diapers, sanitary napkins, tampons, facial tissues, paper towels, diaper liners, food, transmission oils, etc. down the toilet or drains will not harm the system.
  - **Fact:** Since these items do not readily decompose, they could contribute to rapid failure (clogging) of the onsite wastewater treatment system and in addition can cause blockage in your plumbing or contaminate groundwater.

### Helpful Hints

- ✓ Installing water saving fixtures on faucets and showerheads will reduce overloading the system.
- ✓ **DO NOT** plant a garden over the disposal system.
- ✓ **DO NOT** drive over the septic tank or the disposal system (absorption field, bed, or sand filter).
- ✓ When the septic tank is pumped, have the contractor check the septic baffles to make sure they are in place and not deteriorated.

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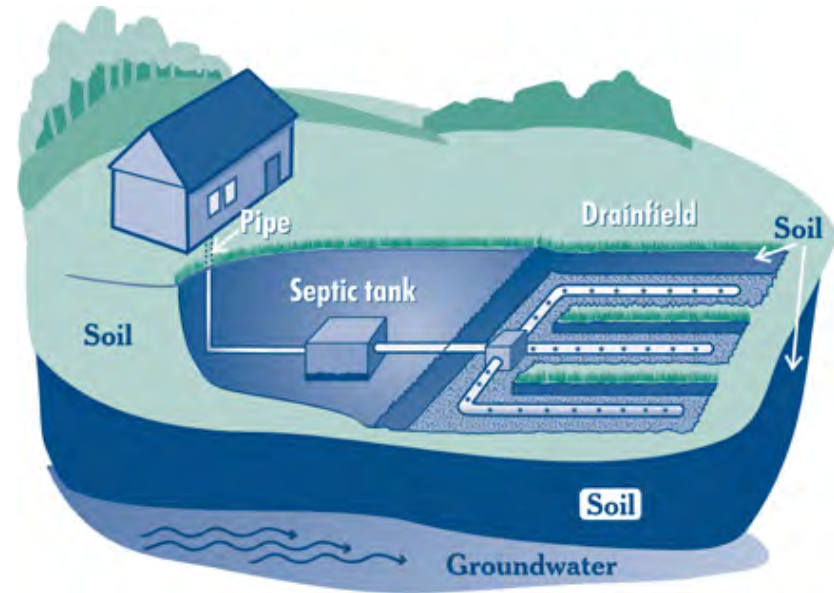
An onsite wastewater treatment system (OWTS) consists typically of a house sewer, septic tank, distribution box, and treatment field.

- The septic tank traps solids by slowing the speed liquid wastes are traveling. The tank allows heavier solids to settle to the bottom of the tank forming "sludge" and lighter solids float to the top forming a "scum" layer. Bacteria biologically decompose the sewage. The septic tank effluent is mostly clarified sewage with some non-settable solids and plenty of bacteria. The effluent is hazardous and must be disposed of by a properly designed, sized, and functioning treatment field.
- The distribution box distributes the effluent evenly into the disposal field.
- The treatment field consists of either an absorption field or bed, sand filter, or seepage pit depending upon soil and other building conditions. The field, bed, or pit introduces sewage into the ground where final treatment by bacteria and other organisms occurs. Sand filters treat the sewage in layers of gravel and sand; the treated effluent is discharged to a downstream trench system.
- Some OWTS have a pump chamber just after the septic tank to pump effluent to a higher elevation. Pump chambers contain a submersible pump and are used to accommodate the grade of the lot or to avoid contact with high groundwater.

### Other Information That You Should Know

- A properly functioning onsite wastewater treatment system does not just "get rid of" the wastes but uses physical and biological processes to "treat" the wastewater and eliminate harmful substances and pathogens. These processes ensure that water eventually entering the soil from your system does not contaminate the ground water from which you may draw your drinking water.

- The Tompkins County Sanitary Code requires that a Construction Permit be obtained prior to construction of or enlarging any building, or replacing an existing system, septic tank, or pump chamber. The permit process includes soil tests, an onsite wastewater treatment system design based on soil conditions and the anticipated quality and quantity of wastewater, and inspections during construction.
- The staff of the Environmental Health Division will be pleased to address any questions regarding onsite wastewater treatment systems, maintenance, permitting, construction, etc.



Typical OWTS with septic tank, distribution box, and treatment field

#### Information Sources:

"Waste Treatment Handbook Individual Household Systems", NYS Health Department

"Consumers Guide to Home Water Supply Systems and Home Sewage Disposal Systems", Tompkins County Health Dept.

"Septic Systems - Operations and Maintenance", NYS Health Department