

GET PUMPED! LONG ISLAND

Home Wastewater System Owner's Guide: Fact Sheet #1



Typical Home Wastewater Systems

WHERE DOES IT GO WHEN YOU GO?

Does your wastewater drain to a sewer or to a home wastewater system, such as a cesspool or septic system? Most homes on the North Shore of Nassau County and most homes in Suffolk County are not connected to a sewer system. Your local village, city, or town public works department should be able to tell you if your home is on a sewer system. Visit www.GetPumpedLI.org for a map which will give you a general idea if your home is connected to a sewer. You can also check your property survey, but note that home wastewater systems are not always indicated on them. If your home is not connected to a sewer, you have what is known as a home wastewater system and this *Owner's Guide* will serve as an invaluable resource for you.

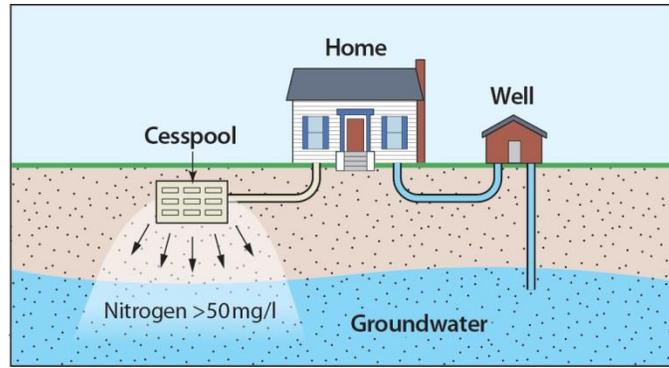
SEWER vs. CESSPOOL vs. SEPTIC SYSTEM

Some homes are fortunate enough to be connected to a sewer system whereby your wastewater is piped to a sewage treatment plant for treatment. Most non-sewered homes in Nassau and Suffolk counties built before 1972 have a single cesspool or leaching pool. If your home was built or substantially renovated since 1972 you may still have a cesspool system or a newer "septic system."

A home wastewater system is a recycling system which treats wastewater and returns it to the groundwater. The two common types on Long Island are cesspools and septic systems.



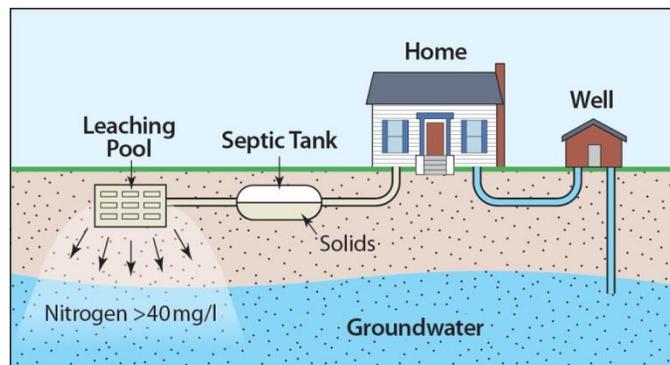
For more information please visit: www.GetPumpedLI.org



CESSPOOL

Image credit: NYS Center for Clean Water Technology

Prior to 1972, home wastewater systems consisted of a single cesspool, which were often constructed of blocks or bricks. Given their age, block cesspools are prone to dangerous collapses without warning and offer little treatment of wastewater (i.e., removal of disease causing pathogens) before being released into the ground. Since 1972, cesspools have been made of concrete rings. As these single cesspool systems aged, they were often updated by adding a new leaching pit consisting of a concrete ring or several rings stacked upon each other in line and after the original leaching pool. Even with these upgrades, however, cesspools still offer little treatment.

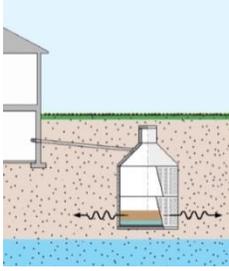


SEPTIC SYSTEM

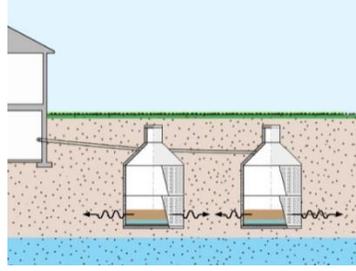
Image credit: NYS Center for Clean Water Technology

Newer septic systems consist of a septic tank to settle out solids and a leaching pool or cesspool rings, to disperse the liquid into the ground. If properly designed, installed, used, and maintained, these systems can work safely and efficiently for many years and offer treatment of wastewater. However, improper design, poor installation, abuse and/or lack of maintenance can lead to premature and costly failure.

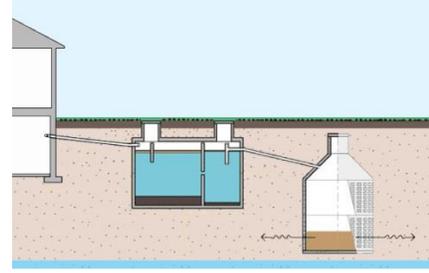
Cesspool and septic systems can vary widely, but in Nassau and Suffolk counties they usually consist of one of the following:



CESSPOOL



SERIES OF CESSPOOLS



SEPTIC TANK + LEACHING PIT

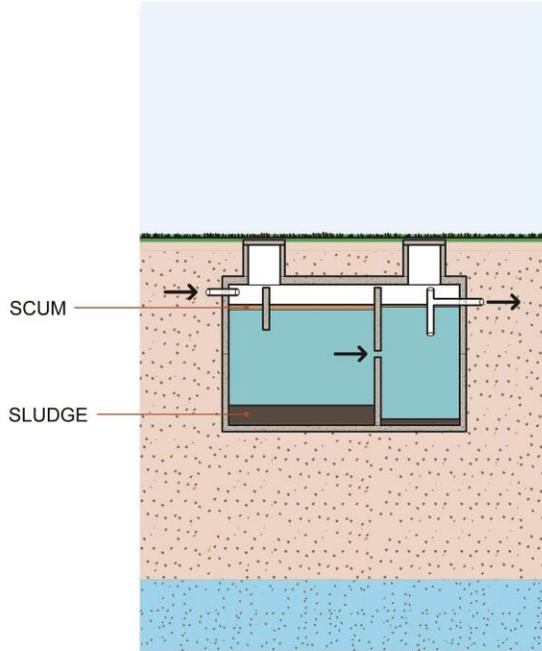
Image credits: Peconic Green Growth

THE SEPTIC SYSTEM

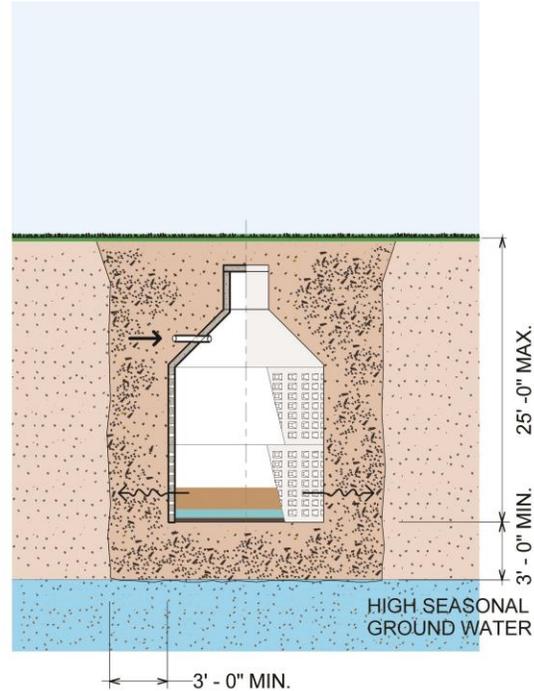
A septic system, if you have one, consists of a septic tank and a leaching pit in that order. Wastewater is discharged directly from your house to a water tight septic tank which provides the first step in treatment. The septic tank retains the waste for a day or more to enable solids to settle out. During this time, the heavier solids settle to the bottom to form a *sludge* layer and lighter solids, greases, and oils float to the top to form a *scum* layer. The liquid layer in the center then drains off into the leaching pit which then drains through the ground and into the groundwater. All groundwater ultimately makes its way into our bays and harbors.

The Septic Tank

The primary purpose of the septic tank is to protect the leaching pit from becoming clogged by solids suspended in the wastewater. The septic tank also helps “digest” or breaks down your wastewater. Microscopic organisms are naturally present in the tank and break down much of the solids into liquids and gases, thereby reducing the volume of sludge and scum. Microorganisms are working for you 24/7, so it is important to not kill them off by pouring toxic chemicals (even commercial tank additives or enzymes) down the drain or toilet. In the process, carbon dioxide, hydrogen sulfide, and the other gases produced must be vented from the tank through the plumbing vent on your roof. Only about 40 percent of the sludge and scum volume can be reduced in this manner, however, so the tank must be pumped regularly to remove the accumulated solids. If you don't pump the tank regularly, it will fill with sludge, oils, and grease. This can result in your leaching pit becoming clogged or wastewater backing up in your home.



PREFERRED TWO-CHAMBERED
SEPTIC TANK



LEACHING PIT

Image Credits: Peconic Green Growth

The Leaching Pit (Soil Absorption Area)

The leaching pit (soil absorption area) is the place where the liquid coming from the septic tank (called effluent) returns to the soil and eventually to groundwater (source of Long Island's drinking water).

In general, the leaching pit must be located on permeable, dry soils. Municipal codes generally specify a vertical separation space between the bottom of the leaching area and the water table, ledge or bedrock, or other limiting factors. Horizontal separation distances to wells, streams, and other features are also usually specified. When these separation distances are maintained, the soil will help act as a biological filter and treatment unit, removing pathogens (harmful bacteria and viruses) from the effluent, returning the treated wastewater to the water table. It should be noted, however, that conventional septic systems and cesspools are not designed to remove all potential pollutants such as nitrogen, chemicals, and pharmaceuticals.



For more information please visit: www.GetPumpedLI.org

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