CONVENTIONAL SEPTIC SYSTEMS

When properly designed, installed, and maintained, septic systems help keep your water supply safe. They replenish groundwater, and they are considered a permanent disposal option. All septic systems need regular maintenance. It is much less expensive to keep them operating properly through regular inspections and pumping than to replace them if they fail. With proper care a conventional septic system can be long lasting and cost effective.

There are two major parts to a conventional septic system

THE SEPTIC TANK

The septic tank separates solids from liquid before sending wastewater to the drainfield. A layer of sludge settles at the bottom and a layer of scum forms at the top so only the cleanest wastewater goes into the ground. Keeping solids in the tank and out of the drainfield is the best way to prolong system life.

Modern tank features include:
• Water tightness, solids gradually build up and must be pumped out regularly.
• Access risers allow easy entry for inspection and pumping.
• A low-cost effluent filter to help keep solids in the tank and protect your drainfield.

THE DRAINFIELD

Drainfields distribute the wastewater to the soil. Two types commonly used are disposal trenches and leaching chambers.

A Trench-type drainfield consists of two or more parallel stone-lined ditches, each with a perforated pipe that allows incoming liquid wastewater to seep into the soil. A distribution box located between the tank and the drainfield splits wastewater flow to the different lines.

Leaching chambers are bottomless concrete boxes with open, grated sides. Two types are commonly used. "Galleys" are 4 ft. x 4 ft. x 4 ft. units installed as deep as 10 feet below ground. "Flow distributors" are shallow 8 ft. x 4 ft. x 18 in. units. Both types of seepage pits are generally installed in a series of three or more. Liquid effluent flows directly from the tank into the seepage pit where it seeps out the side walls and bottom.

WHAT'S IN YOUR BACKYARD?

Forty percent of Rhode Islanders get their drinking water from groundwater or small local reservoirs. Outdated cesspools and failing septic systems are a major source of pollution to these water supplies. What you flush down your toilets directly affects the water you drink and the waters you fish, swim, and boat in.

What YOU can do:
• Inspect your septic system regularly
• Pump and repair it as needed
• If you have a cesspool, plan to replace it

Rhode Island Regional Water Quality Program
University of Rhode Island College of Environmental & Life Sciences
Department of Natural Resources Science
Cooperative Extension On-Site Wastewater Training Center