

Why should you be concerned about septic systems?

When septic systems are designed, constructed and maintained properly, they are an effective method of treating and disposing of household wastewater in coastal North Carolina. In contrast, poorly planned and maintained systems can fail and contribute to nonpoint source pollution and public health concerns.

In coastal North Carolina, failures may result in many negative impacts, including:

- **Nutrient loading of our coastal and estuarine waters**
- **Shellfish closures due to fecal coliform inputs**
- **Groundwater contamination**
- **Public health problems**
- **Expensive repairs and property damage**

Even properly functioning systems may release potentially harmful levels of nitrogen and synthetic chemicals into the soil and groundwater if septic systems are misused.

The health of your septic system and the environment depends on **YOUR** actions!

It is critical for each homeowner to consider the consequences of malfunctioning and misused septic systems and do what is necessary to prevent negative impacts.

INFORMATION CLEARINGHOUSE

Additional information about septic system health and other coastal environmental topics is available through the North Carolina Coastal Training Program at: www.NCCoastalTraining.net

A technical paper with more details about septic systems in coastal NC is available to the public through:

COASTAL TRAINING PROGRAM

Promoting informed coastal decisions through science-based education and training.



For more information about this and other publications, contact:

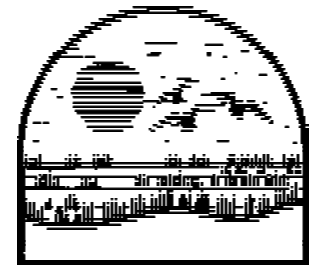
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What You Need to Know to Protect Your Investment and the Environment

Septic Systems in Coastal NC

BASICS FOR A HEALTHY COASTAL ENVIRONMENT



North Carolina National Estuarine Research Reserve

North Carolina Division of Coastal Management

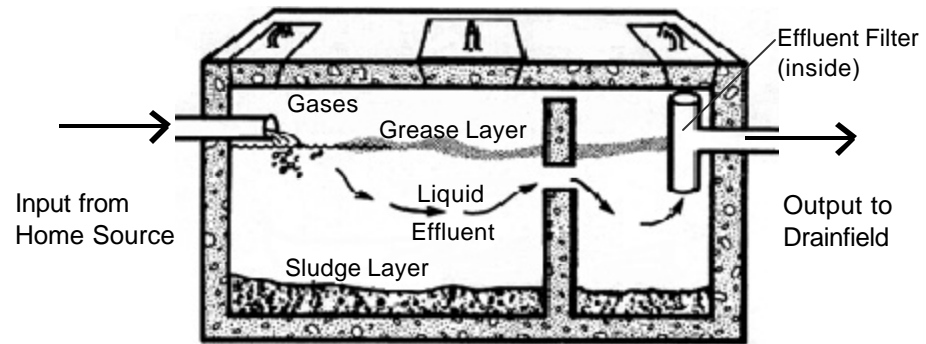
Septic System Shape Up!

- **Inspect and pump your septic tank every 3-5 years.** All tanks need to be pumped regularly by a trained professional to remove solids and prevent the soil in your drainfield from clogging.
- **Protect your drainfield.** Do not park on, drive over or build on top of drainfields. Grassy vegetation must be maintained to absorb nutrients from the soil, but trees should be avoided.
- **Do not add cleaners, yeast, additives or other chemicals to your tank.** These substances do not eliminate the need to pump your tank and can push solids out into your drainfield. They may also contain carcinogens that can get into our water supplies.
- **Reduce the amount of solids added to your wastewater.** The more solids you add, the more often the tank needs to be pumped and the higher the risk of drainfield failure.

Water Conservation

Good Habits for a Healthy Septic System

- **Check for and fix leaks in household fixtures.** Leaks can double the amount of wastewater generated.
- **Install low-flow toilets and shower heads.** While some low-flow toilets require double flushing and should be avoided, there are many effective and inexpensive toilets and shower heads that reduce water flow.
- **Spread out loads of laundry.** Washing machines can cause hydraulic overload, especially during and after rain.
- **Generally conserve the amount of water used.** Run only full washing machines and dishwashers, and turn off water when not in use. In general, the less water you use in the home, the better your septic system can function.



Generalized cross-section of a household septic tank

(Adapted from Hoover, M. T. 1997. "SoilFacts: Septic Systems and their Maintenance." North Carolina Cooperative Extension Service. <http://ces.soil.ncsu.edu/soilscience/publications/Soilfacts/AG-439-13/> Visited 11/9/01.)



Red Flags: Avoid Septic System Failure

There are many things to watch for that can indicate septic system problems or failure. Keep in mind, however, that there can also be problems beneath the land surface that may not be visible. Proper maintenance and use of septic systems are essential to preventing problems.

SIGNS OF SEPTIC SYSTEM FAILURE:

- **Wet spots or standing water** - Areas that remain wet after rain events or appear without precipitation should be investigated, since effluent can seep up from a failing system and puddle on the ground.
- **Odd growth patterns** - Green lines on your drainfield that follow the path of the pipes are normal; however, green blobs not in line with pipes, random patches of lush growth and bulls-eye patterns (dead areas surrounded by green growth) all indicate problems in the drainfield.
- **Slow drains or backups** - If wastewater is slow to drain and your plumbing is working properly, there may be a problem with backup in your septic tank.
- **Septic odor** - Easy to detect, odor is one of the best problem indicators.

PROPER MAINTENANCE TO PREVENT PROBLEMS:

- **Leaky fixtures** - One of the most common causes of septic failure, leaking fixtures can cause hydraulic overload. Toilets are particularly problematic and should be monitored for leaks.
- **Gutters, downspouts or paved surfaces pointing or draining toward your drainfield** - Excess water on the drainfield saturates the soil and prevents wastewater from being disposed of and treated properly. All paved surfaces and water-diversion devices should point water away from your drainfield.
- **Garbage disposal** - Food grinders can double the volume of solids in your wastewater. This causes septic tanks to fill faster and requires them to be pumped much more frequently. Disposals should not be used with septic systems.