

# CAPE COD WASTE WATER

If most homes on Cape Cod have onsite wastewater treatment and the wastewater coming out of the system eventually ends up in the Cape Cod aquifer, it is important to take care of both what goes into and what comes out of your system.

## 80% OF THE NITROGEN

that enters Cape Cod's watersheds is from septic systems.

CAPE COD AREA WIDE WATER QUALITY MANAGEMENT PLAN UPDATE 2015, 5-1



Cape Cod has less than 4% of the population of the Commonwealth [of Massachusetts] but

## 20% OF THE SEPTIC SYSTEMS

CAPE COD AREA WIDE WATER QUALITY MANAGEMENT PLAN UPDATE 2015, 1-1

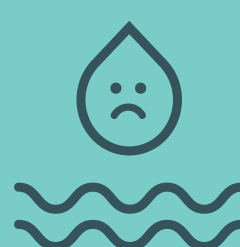


Nitrogen is released from

## EVEN THE NEWEST TITLE 5 SYSTEM



## NITROGEN CAUSES DETERIORATION



of groundwater, lakes, ponds, bays and coastal water quality.

QUOTES FROM THE CAPE COD AREA WIDE WATER QUALITY MANAGEMENT PLAN UPDATE (2015)

### WHAT IS WASTEWATER?

Wastewater is water that has been used. Wastewater could be gray water if it is from sinks, dishes, and washing machines or as black water if it is from a toilet. It may also be characterized as domestic (ex. from a household) or as industrial (ex. from a factory).

### WHY TREAT WASTEWATER?

Wastewater is treated so as to remove as much as possible — including solids, nutrients like nitrogen and phosphorus, viruses, bacteria, as well as contaminants of emerging concern — from the used water before it eventually makes its way into the Cape Cod aquifer and even back to the tap!

### WHAT DOES IT MEAN TO BE ON SEWER?

A home "on sewer" means that the used water is carried to a wastewater treatment plant to be combined with other wastewater and treated to established standards. The treatment of wastewater is put into the hands of a larger treatment system instead of being done in your backyard, as is done with onsite wastewater systems.

Several towns on Cape Cod currently have larger wastewater treatment facilities. Please see the Cape Cod Area Wide Water Quality Management Plan Update (2015) for more information.

Estimates for solving the Capewide problem through traditional centralized treatment range from

## \$4.2 TO \$6.2 BILLION

CAPE COD COMMISSION 2013



## WHAT ARE SOME DIFFERENT TYPES OF ONSITE WASTEWATER TREATMENT SYSTEMS?



### CESSPOOL

A cesspool is a pit which provides wastewater a place for both the solids to settle and also for liquid to disperse to the surrounding soil.

CAPE COD AQUIFER



### SEPTIC SYSTEM

AKA Conventional Title 5

A septic system is a combination of components beginning when wastewater from a home enters a septic tank. Solids settle to the bottom of the tank and begin to break down and scum, made up of fats, floats. The liquid in between the solids and floating scum then move to a distribution box which disperses the liquid into the leaching field (also known as the soil absorption system) where organisms in the soil break down the liquid further.

CAPE COD AQUIFER



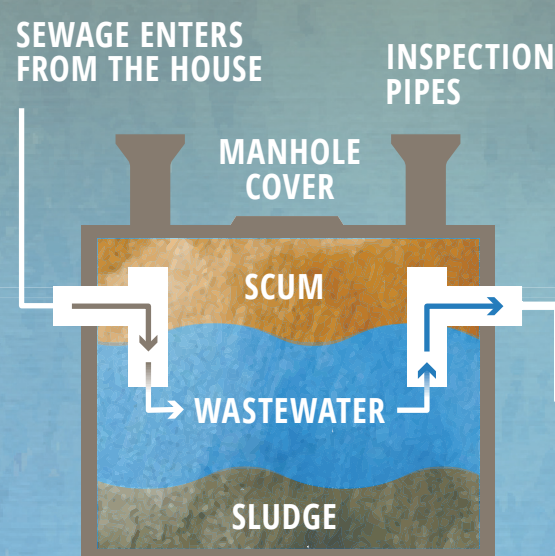
### INNOVATIVE/ALTERNATIVE I/A SEPTIC SYSTEM

An Innovative/Alternative (I/A) septic system is a variation of a septic system with either more or fewer parts/components than a conventional septic system and which provides higher treatment by promoting advantageous bacterial growth.

Barnstable County also has the Massachusetts Alternative Septic System Test Center (MASSTC) where new technology is tested out to find more ways to treat wastewater.

Visit [www.masstc.org](http://www.masstc.org) to learn more.

CAPE COD AQUIFER



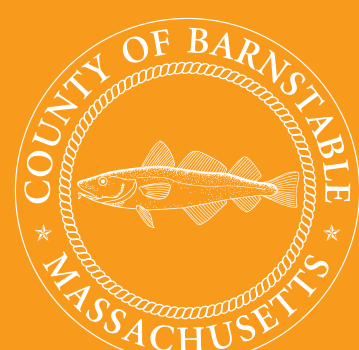
### SEPTIC TANK DIAGRAM

Scum is made up of fats from things like soap, grease, and cooking oil. These fats float on the surface of water.

Solids are the heavy, organic material from wastewater that sink to the bottom of the tank. This is what gets pumped by a septic hauler.

Learn more about how to take care of your septic system in our Home Tips section.

WASTEWATER GOES TO LEACH FIELD/SOIL ABSORPTION SYSTEM AND EVENTUALLY TO THE CAPE COD AQUIFER



CAPE COD  
GROUNDWATER GUARDIANS

## TAKE CARE OF YOUR SYSTEM

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