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 has less than 4% of the population of the Commonwealth of Massachusetts but

20% OF THE SEPTIC SYSTEMS

Nitrogen is released from

EVEN THE NEWEST TITLE 5 SYSTEM

NITROGEN CAUSES DETERIORATION of groundwater, lakes, ponds, bays and coastal water quality.

WHAT IS WASTEWATER?

Wastewater is water that has been used. Wastewater could be grey 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 (i.e., from a household) or industrial (i.e., from a factory).

WHY TREAT WASTEWATER?

Wastewater is treated so as to remove as much as possible — including solids, nutrients like nitrogen and phosphorous, 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 Water Quality Management Plan Update (2015) for more information.

WHAT ARE SOME DIFFERENT TYPES OF ONSITE WASTEWATER TREATMENT SYSTEMS?

ESTIMATES FOR SOLVING THE CAPEWIDE PROBLEM THROUGH TRADITIONAL CENTRALIZED TREATMENT RANGE FROM $4.2 TO $6.2 BILLION

CESSPOOL

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

SEPTIC TANK

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 the tank, known as the effluent or sewer, then moves to a distribution box which dispenses the liquid into the leaching field (also known as the soil absorption system) where organisms in the soil break down the liquid further.

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 Title 5 septic system and which provides higher treatment (i.e., promoting advantageous bacterial growth).

CAPE COD AQUIFER

Visit www.masstc.org to learn more.

WHAT IS WASTEWATER TREATMENT?

Wastewater goes to leach field/soil absorption system and eventually to the Cape Cod aquifer.

SEPTIC TANK DIAGRAM

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

MATERIALS ON LEACH FIELD

There are also the many organic materials from wastewater that sink to the bottom of the tank. This is called sludge/liquid sludge.

Visit www.capecodgroundwater.org to learn more.