

## DEFINITIONS

### Ground Water

Water that flows freely under the land until it returns to the surface at springs, swamps and shorelines.

### Septic System

Also known as an *Onsite Sewage Disposal System*, it consists of a large tank that separates out solids and a drain field that uses the soil to remove bacteria and absorb liquid.

### Nitrogen Reducing Unit

*Best Available Technology* unit added to septic systems that aerates tank contents to remove nitrogen. The Bay Restoration Fund offers grants for the full cost of installation.

### Rain Garden

A landscape design created to collect rain water from structures. Rain gardens allow water to slowly percolate thru the soil and remove pollutants before it leaves the property.

## RESOURCES IN CHARLES COUNTY

### Charles County Health Department

List of approved contractors for pump-outs and info on replacing failed systems. 301-609-6751

### Charles County Extension Service

Information on maintenance of septic systems and rain garden construction. 301-934-5404

### Bay Restoration Fund Program

Grants are available for installation of Nitrogen Reducing units to existing septic systems. Charles County residents can apply by contacting the Health Dept. at 301-609-6751. Other Maryland residents can apply through the Maryland Department of the Environment at 1-800-633-6101 or [www.mde.state.md.us](http://www.mde.state.md.us).

## PORT TOBACCO RIVER CONSERVANCY, INC.

A 501(c)(3) non-profit founded in 2001 to increase community awareness of high bacteria levels in the Port Tobacco River watershed. It has grown to 130 members with the expanded goal of restoring and protecting the 30,000 acre watershed from all pollutants.

## Accomplishments

- Bi-weekly water testing and stream assessments to track the source of bacteria and other pollutants.
- Obtained grants to construct a storm water demonstration project, and to develop a Watershed study and Restoration Plan.
- Community education.
- Increased participation of residents in restoration and prevention practices.
- Working with local/state/federal partners to create watershed wide solutions.

## Partners

Residents of Port Tobacco River watershed, Health Dept., Center for Watershed Protection, Chesapeake Bay Trust, National Fish and Wildlife Foundation, River Network, and many others.



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# Household Guide to Protecting

our  
**Water**  
Quality

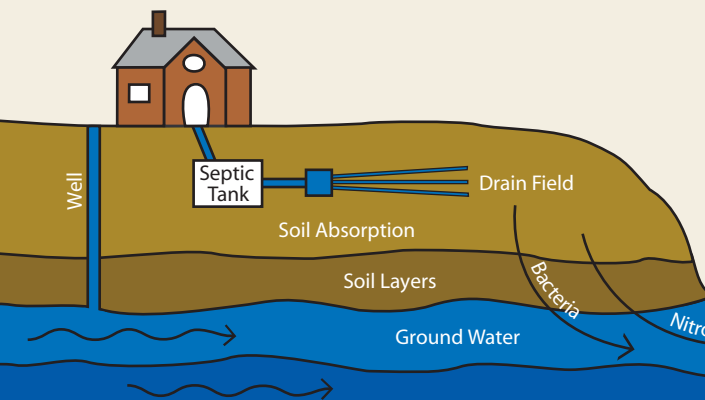
The Septic Connection

## The quality of our water is dependant on our actions

Charles County has thousands of septic systems. Flowing under our homes is an unseen “lake” known as groundwater which carries pollution from our septic systems to the rivers and ultimately the Chesapeake Bay. This pollution contaminates our drinking water as well as destroys habitats in the waterways.

Septic systems in use today do not remove the nitrogen that leaches into groundwater and surface waters. Nitrogen spurs algae growth which depletes oxygen from the water, causing dead zones, killing fish and other aquatic life.

Pathogens escape when septic systems malfunction. These pathogens can reach groundwater and cause human disease thru direct ingestion, recreational contact or consumption of contaminated shellfish.



EVERY  
HOMEOWNER  
SHOULD ACTIVELY  
PROTECT THE  
QUALITY OF  
GROUNDWATER  
BEFORE IT LEAVES  
THE PROPERTY

## WHAT CAN MY FAMILY DO?

### Septic

- Save Money. It costs \$120 to have a septic pumped vs \$8,000 to have it replaced.
- Pump the tank out at least every 3 years to ensure the drain field doesn't fail. **BY THE TIME YOU NOTICE A FAILURE, IT IS TOO LATE. DO NOT WAIT.**
- Protect the septic drain field from compaction and large roots.
- Don't overload your system. Spread household water use throughout the day and week.
- Install a nitrogen reducing component to your system. Nitrogen will enter into the ground water from the septic. Grants are available thru the Bay Restoration fund program.

### Home

- Direct the rain water from downspouts away from drainfields.
- Plant buffers and a rain garden (collection basin) to prevent rainwater from leaving the yard too fast.
- Limit use of high nitrogen fertilizer in yard and apply only in the fall.
- Never dump oils and chemicals into septic or on the ground - Recycle!
- Plant more trees, but not over the drain field.

### Community

- Attend workshops on rain gardens
- Participate in river clean up events
- Join your local watershed organization
- Cherish our beautiful land and rivers