



You may not be aware of it, but your home septic system is hurting the Chester River. The question is: how much?

Bacteria

There are hundreds of thousands of residential septic systems in Maryland, processing 100 million gallons of sewage daily, and 7,200 of those are in the Chester River watershed in Kent and Queen Anne's counties.

Properly maintained septic systems remove bacteria from sewage, and thus from groundwater. Because groundwater eventually finds its way into our waterways, septic systems are critical to keeping the Chesapeake Bay and the Chester River clean. (See illustration on next page)

But many residential systems are old and don't work well. A failing system can leave bacteria-laden water on or near the surface of your yard, which ultimately drains into the river. This is especially true when the system is heavily used, or surface water intrudes or during periods of heavy rain.

Nitrogen

Actually, today's septic systems need to do more than remove bacteria if they are to keep the Chester clean. They need to remove nitrogen as well.

Nitrogen is a nutrient in sewage that flows in groundwater from septic systems into our Chester. There it contributes to algal growth, which depletes oxygen, leading to fish kills and loss of underwater grasses, which is habitat for waterfowl and crabs.

Conventional septic systems were not designed to remove nitrogen. Unless a nitrogen removal unit has already been installed on your septic system your septic system is contributing a nutrient that harms the river.

And the contribution is significant: It is estimated that the average person using a public sewage system contributes 2 pounds of nitrogen to the environment a year, whereas a person using septic contributes 9 pounds annually. An estimated 10 percent of all nitrogen entering the Chester comes from home septic.

What Can You Do?

As part of Maryland's efforts to restore the Chesapeake Bay and its tributaries, the Maryland Department of the Environment (MDE) now offers grants to homeowners who want to upgrade their septic systems, with a priority on homes in the Critical Area, so that they will remove at least 60% of nitrogen.

Those upgrades, called Best Available Technology (BAT) Biological Nutrient Removal (BNR) systems can reduce your septic nutrient output by an estimated 60 percent which is significant! If the state approves your application for an upgrade it will pay for the cost of the nitrogen removal unit, its installation, as well as the first five years of maintenance – a value of up to \$25,000.

The state finances septic upgrades, just as it does cover crops for farmers, from the Bay Restoration Fund. That, in turn, is funded by the "flush tax," which every homeowner pays annually.

The Chester River Association strongly supports home septic upgrades, because if enough of us who live in the watershed begin to upgrade we can bring back the river's health.

What Else You Can Do

You can also help improve the river's health by making sure your existing septic system is properly maintained. Here are tips for doing so:

- Have your septic tank pumped out every 2-3 years. This will keep the drain field open and add years to the system's life, saving you money and making you a better steward of the river's health.
- Keep water flow to a minimum, by installing water-saver shower heads and by running your clothes washer and dishwasher fully loaded. Fix leaky faucets and running toilets immediately.
- Do not use a garbage disposal. This will add solids that may clog the system and cause it to fail prematurely, costing you money.

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- Never put cigarette butts, sanitary supplies, paint, chemicals, cooking oil, old medicines, paper towels or any tissue but toilet paper into your toilets. These can harm the septic system.
- Do not plant shrubs or trees over your system. Do not park or drive heavy vehicles over it. Do not allow standing water to collect over it or drain into it.

Where To Call

For information on applying for home septic upgrades:

- In Kent, call John Beskid, Director of Environmental Health, Kent County Health Dept., 410-778-2142. Email: jbeskid@dnhm.state.md.us.

- In Queen Anne's, call John Boris, at MDE, 1-800-633-6101. Email: JBoris@mde.state.md.us
- Jennifer Hicks, Septic Specialist, Chester River Association, 410-810-7556. Email: jhicks@chesterriverassociation.org
- Also, visit MDE website at www.mde.state.md.us/Water/CBWRF/index.asp

Visit us at our Chestertown office or learn more about CRA and the Chester Riverkeeper program at our website, www.chesterriverassociation.org.

All information from Maryland Department of Environment.

