

## **Managing your septic system**

A properly maintained septic system provides treatment and disposal of wastewater. Lack of maintenance of the septic tank or drainfield may lead to costly repairs and inconvenience. It even affects water quality. If filtration of wastewater becomes ineffective, nutrients accumulate, exceed the soil's filtration capacity and flow toward waterbodies. Due to ongoing problems with phosphorus accumulation in the Croton Reservoir, communities in the East of Hudson watershed now regulate septic system maintenance within their jurisdiction. The Towns of Pawling, East Fishkill, Beekman and the Village of Pawling now require homeowners to pump or inspect their septic systems once every five years. Homeowners must maintain their inspection records and work with the Dutchess County Department of Health to remediate any failing system. The following information is provided to assist you in caring for your septic system.

### **Septic system components**

A septic system has two parts: a septic tank designed to intercept, hold and partially treat solids contained in wastewater coming from the home, and a soil absorption field or drainfield to facilitate treatment and dispersal of clarified wastewater after it leaves the septic tank.

### **How the drainfield functions**

The drainfield receives partially treated effluent from the septic tank. It consists of a network of perforated pipes laid in gravel-filled trenches about 2 or 3 feet wide or in beds that are over 3 feet wide and 6 to 18 inches (or more) deep. The size and type of drainfield are determined by the estimated daily wastewater flow and local soil conditions. Wastewater trickles out of the perforated pipes, through the gravel layer and into the soil. Physical and biological purification processes take place as the effluent percolates down toward groundwater. These processes work best where the soil is somewhat dry and permeable and contains plenty of oxygen for several feet below the drainfield. Some systems include a dosing chamber or distribution box in the pipe leading from the septic tank to the drainfield for regulating the release of wastewater into the drainfield. This promotes optimal treatment and dispersal of the wastewater and prolongs the life of the drainfield. The life-span of a well-maintained system can be 20 or 30 years or more.

### **Signs of system failure**

- odors, surfacing sewage, wet spots or lush vegetation on or near the drainfield
- plumbing or septic tank backups
- Slow-draining fixtures
- Gurgling sounds in the plumbing system

If you notice any of these signs or if you suspect and other problems with your septic system, contact Dutchess County Department of Health at (845)486-3400 or your septic system contractor for assistance.

## **Servicing the septic tank**

Regular servicing of the septic tank is the single most important maintenance requirement of a septic system. Required frequency of service depends on the septic tank size, the number of persons in the household and whether the occupants are minimizing the release of unnecessary solids into the wastewater. **Per new regulations, septic systems must be inspected every 5 years. Depending on your particular usage it may need to be pumped more frequently.**

### **How do I determine when to pump?**

As a general rule, the tank will require pumping when any of the following occurs: the top of the sludge deposit is within 12 inches of the bottom of the outlet baffle; the bottom of the floating scum mat is within 6 inches of the bottom of the outlet baffle; the top of the floating scum mat is within 1 inch of the top of the outlet baffle or; the floating scum mat is more than 12 inches thick.

### **Should I use special products to enhance the operation of my septic tank?**

No. Though many products claim to improve septic tank performance or reduce the need for routine pumping they have not been found to make a significant difference. Some of these products can actually cause solids to be carried into the drainfield and lead to premature clogging. Other products containing organic solvents can contribute to groundwater contamination.

### **Safety considerations**

Certain features of the septic tank can cause serious injury or death, so the tank should be treated with extreme caution.

- Never enter the septic tank. It contains life-threatening gases and little oxygen
- Explosion or electrical shock can occur when lights, appliances or tools are used in or near the septic tank. Smoking can also trigger an explosion.
- Infectious diseases can be acquired from contact with liquids and solids in the septic tank.
- Secure exposed manhole covers and inspection ports to prevent tampering or entry by children
- If sewer gas odors are detected in the home, immediately call a plumber or septic system maintenance firm. Evacuate the building if the odor is strong.
- Keep children and spectators away when the septic system is being maintained or excavated.

For more information on proper maintenance of your septic system please contact the Dutchess County Department of Health or review helpful materials regarding septic systems at the Cornell Cooperative Extension website: <http://waterquality.cce.cornell.edu/septic.htm>

Information for this brochure was prepared by Dutchess County Soil and Water Conservation District with funds from the Dutchess County MS4 Committee. DCSWCD thanks Michigan State University Extension and Cornell Cooperative Extension for the information provided herein.

**Septic system design and layout**

Date system installed \_\_\_\_\_ Installer \_\_\_\_\_ Phone \_\_\_\_\_

Tank size (gallons) \_\_\_\_\_ Capacity (bedrooms) \_\_\_\_\_

Use the grid below to sketch the location of your septic system components in relation to your house.



**Preventative maintenance record**

Work done	Date	Pumping Co./phone	Cost	Comments

Things to keep in mind...

- Inspect your system every 1-3 years and pump your tank every 3-5 years
- Use water efficiently
- Don't dispose of household hazardous wastes in sinks or toilets
- Plant only grass over and near your septic system. Roots from nearby trees or shrubs might clog and damage the drainfield.
- Don't drive or park vehicles on any part of your septic system. Doing so can compact the soil in your drainfield or damage the pipes, tank or other septic system components.