

# SEPTIC TANKS

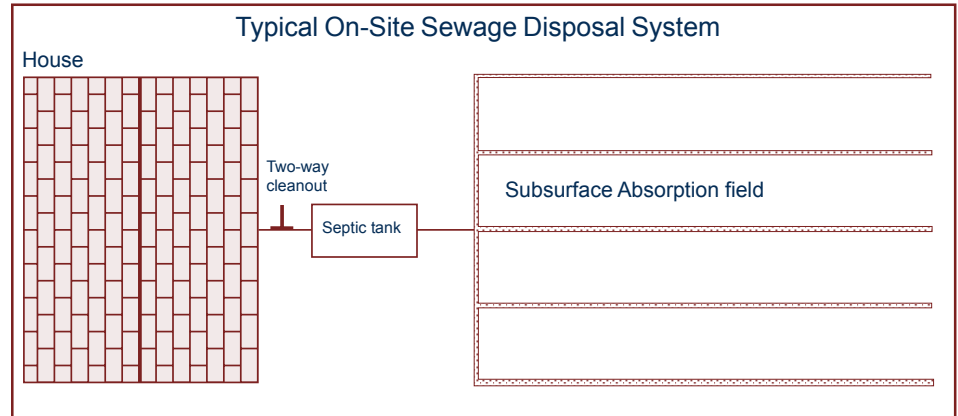
## WHAT ARE THEY?

**S** eptic tanks are the most commonly used method of primary treatment for on-site sewage disposal systems. They are used in conjunction with several secondary treatment systems, including subsurface absorption fields, constructed wetlands and lagoons (oxidation ponds). Septic tanks are watertight and can be made of pre-cast concrete, fiberglass or plastic. In Oklahoma, septic tanks must have a minimum capacity of 1,000 gallons. Septic tanks are made in a variety of shapes (round, rectangular, short or long) to accommodate different sites.

## HOW DO THEY WORK?

**H** ousehold wastewater flows into the septic tank where the liquid wastes are separated from the solid wastes. Grease and other wastes that float form a scum layer at the top of the septic tank. This material is retained in the tank by vertical baffles.

The heavier solids settle to the bottom. The settling process takes about 24 hours. Naturally occurring anaerobic bacteria break down and digest the organic material found in the wastewater. This process produces sludge that accumulates at the bottom of the septic tank. The sludge and settled solids must be periodically removed to insure that they do not block the outlet or spill into the secondary treatment system.



A properly designed and maintained septic tank will allow only the clarified effluent to discharge from the septic tank into a secondary treatment system.

## MAINTENANCE

**D** o not wait until your system shows signs of failure to begin maintenance. You should have a professional inspect your septic tank once a year. Solids that accumulate in the septic tank need to be periodically removed before problems occur. Keep a detailed record of inspections, pumping, repairs and other maintenance.

## WHEN TO PUMP YOUR SEPTIC TANK

**I** f the sludge and surface scum combined are one-third or more

of the liquid depth of your tank, have its contents pumped and properly disposed of by a contractor licensed by the DEQ. To prevent possible damage to the baffles and/or tees, be sure the contractor uses the manhole and not the inspection ports for pumping. Have all contents removed from the tank. It is not necessary to leave anything in the tank for seeding. Incoming sewage contains all of the necessary bacteria to maintain proper treatment. It is also not necessary to scrub and/or disinfect the tank after pumping. It is always a good policy to be present when your tank is being pumped.

For a list of individuals licensed to pump septic tanks in your area, contact your local DEQ office or look in your telephone directory.

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY  
ENVIRONMENTAL COMPLAINTS AND LOCAL SERVICES

P.O. Box 1677

Oklahoma City, OK 73101-1677

(405) 702-6222

or 1-800-522-0206



# TIPS TO KEEP YOUR SEPTIC TANK WORKING PROPERLY

- **Mark the location of your septic tank.** This will help prevent activities that may damage the tank, like someone driving a vehicle over the tank.
- **Conserve water.** A 1,000 gallon septic tank is designed to treat no more than 300 gallons of wastewater per day. Retention time in the septic tank is important. Putting too much water into your septic tank does not allow enough time for the solids to break down and separate.
- **Do not use biological or chemical additives.** More than enough bacteria are naturally present in your system to provide the necessary treatment and no product eliminates the need for periodic pumping and inspection. Some products can kill the beneficial bacteria in the tank. This will lead to improper treatment and cause the solids to clog the secondary treatment system.
- **Minimize or eliminate the use of a garbage disposal.** Food wastes can fill your septic tank quickly, causing the tank to require more frequent pumping. Also, food wastes that float can increase the thickness of the scum layer. If it becomes too thick, solids could spill into and clog the secondary treatment system. If you plan to use a garbage disposal,

increase the size of the tank by 20% and have the tank pumped every one to two years. (Try composting food wastes instead.)

- **Do not flush** paper towels, newspapers, rags, plastics, sanitary napkins, tampons, condoms, disposable diapers, dental floss, cat litter, grease, cooking oil, cigarette butts, coffee grounds or other non-biodegradable materials. The microorganisms in the septic tank can not readily break down these materials.
- **Do not flush** harmful substances such as pesticides, disinfectant, acid, medicine, paint, varnish, solvents, photo developing solutions, thinners, gasoline, used motor oil or chlorine.
- **Minimize the use of harmful** substances such as bleach and drain cleaners. These substances can kill the naturally occurring microorganisms in your system that are essential to proper function. Normal household use of soap, detergents and other household cleaners should not cause problems.
- **Do not drain water from** whirlpools or hot tubs into the system, especially if the water is chlorinated.



## HOW TO FIND THE LOCATION OF YOUR SEPTIC TANK

If you were not present when your house was built, you may not know the location of your septic tank. Sometimes they are difficult to locate. Here are a few tips that might help you locate your septic tank:

- If you are present when your septic tank is installed, place a marker over the tank manhole cover.
- The original inspection/ approval report for your on-site sewage disposal system should show the location of the septic tank. If you do not have a copy, you may obtain a copy at your local DEQ office.
- Contact the previous homeowner.
- Look for a clean-out outside the house. They will usually be located within three feet of the house. Open it and see which direction the pipe runs. In soft ground, you may probe the soil with a metal rod.
- If the septic tank is shallow, the grass may look unhealthy or dead on top of it in the summer.
- Most septic tanks have a metal handle in the manhole cover. A metal detector may help locate the tank.

## SEPTIC TANK INSPECTION CHECKLIST

- Examine the tank for signs of sludge build-up and pump if needed.
- Inspect baffles and tees to see if they are in good repair. Repair or replace any broken components.
- Check inlet for water leaks flowing into the tank. Locate source of leak and repair.