

Maintaining Septic Systems

A guide to improving water quality in Redford



Why be concerned?

Septic systems are wastewater treatment systems designed to collect untreated household wastes from residences where sanitary sewer systems are not available. They are typically designed to be effective over a 20-year period if properly maintained.

Poorly maintained and failing septic systems can cause serious problems. Sewage from overloaded systems can pond on the ground near the drainfield or back up into buildings. Poorly treated septic liquids can contaminate ditches, creeks and shallow drinking water supplies. Animals and people may become ill from contact with these polluted waters.

In addition to public health concerns, it is costly to repair or replace a failing system.

How a septic system works

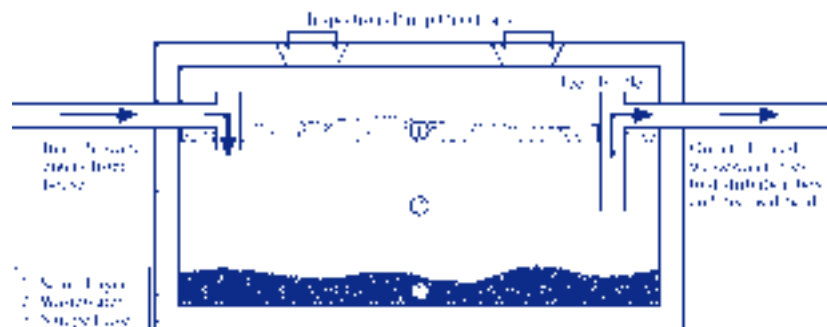
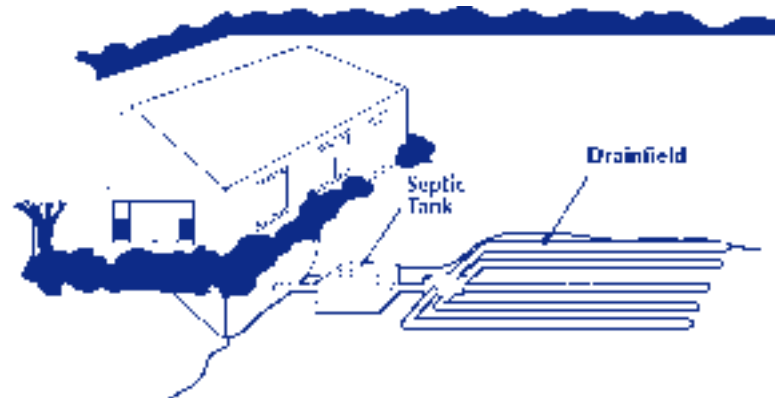
A septic system consists of a septic tank and a drainfield. Wastewater flows from the house to the septic tank where natural bacteria begin to break down the solid materials into three layers. Lighter wastes such as oil and grease rise to the top and form a scum layer. Heavier solids settle to the bottom and form a sludge layer. Between them is a center liquid layer of wastewater. The sludge residue in the tank builds up and must be removed to prevent it from entering the drainfield and clogging the system.

The center layer flows slowly from the tank into the drainfield. The drainfield is made up of perforated pipes that equally distribute the wastewater across the gravel-filled drainfield. The liquid then soaks into the soil, which acts as the final filter for treatment of wastewater received from the septic tank or from the house.

Septic system dos and don'ts

Do

- Learn the location of your septic tank and drainfield. Keep a sketch of it with your maintenance record for service visits. Obtain a copy of your septic permit from the Health Department, if possible.
- Connect laundry and kitchen water to the septic tank.
- Divert other sources of water, like roof drains, house footing drains and sump pumps, to lawn areas away from the septic system. Excessive water keeps the soil in the drainfield saturated and prevents adequate treatment of the wastewater.
- Have your septic tank pumped out by a licensed operator every two to three years.
- Have the operator make sure there is a tee or baffle on the outlet of the septic tank. The baffle stops the scum from floating into the drainfield.
- Check with the Health Department if you are having problems. They can assist with operation, maintenance and design questions.
- Take leftover hazardous household chemicals to your approved hazardous waste collection center for disposal.
- Use bleach disinfectants and toilet bowl cleaners sparingly and in accordance with product labels. Preferably use alternative cleaning products.



Sources and Funding

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- Cut the grass over the disposal field. Grass cut around two to three inches increases plant activity called evapotranspiration. This process removes nutrients from the disposal field through the root system and increases evaporation.

Limit water entering your tank:

- Use water-saving faucets, showers and toilets.
- Minimize the amount of water used for bathing and dishwashing.
- Drain appliances one at a time.
- Spread clothes-washing over the entire week and avoid half-loads.
- Check toilets for leaks at least once a year by putting a few drops of food coloring into the toilet tank. If colored water appears in the toilet bowl, you have a leaking toilet.
- Prevent roof, foundation, driveway, basement and water softener discharge from entering the tank or disposal field area.

Don't

- Don't go down into a septic tank. Toxic gases produced by the natural treatment processes can kill humans in minutes. Extreme care should be taken when inspecting a septic tank, even when just looking in the lid opening.
- Don't allow heavy vehicles to drive over, or park on top of, the septic system.
- Don't plant trees or shrubs on, or directly adjacent to, the septic tank or drainfield. Plant roots could damage the system.
- Don't cover the drainfield with a hard surface such as concrete, asphalt, above-ground pools or decks. This area should be covered by grass only.
- Don't repair your septic system without checking with the Health Department to see if you need a permit.
- Don't use a kitchen garbage disposal unit. Heavy use adds large quantities of solids and shortens the life span of the septic system.

- Don't use commercial septic tank additives. These products do not help, but rather harm your system in the long run.
- Don't use your toilet or sink as a trash can. Pouring harsh chemicals and cleansers down the drain can contaminate the groundwater and kill the beneficial bacteria that treat your wastewater.

Do not flush or wash down the drain:

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| coffee grinds | dental floss |
| meat fat | kitty litter |
| grease or oil | paper towels |
| cigarette butts | disposable diapers |
| personal hygiene items | |

The same goes for hazardous chemicals, such as:

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| paints | varnishes |
| paint thinners | pesticides |
| oils | gasoline |
| photographic solutions | household cleaning products |

These items can overtax or destroy the biological digestion taking place within your system. In addition, hazardous chemicals can contaminate your groundwater.

What to do if your system is failing

Signs that your system is failing:

- Sewage backup in drains or toilets
- Slow flushing toilets, sinks or drains
- Visible liquid on the surface of the ground near the septic system. It may or may not have an odor associated with it.
- Lush, green grass over the drainfield, even during dry weather. Often, this indicates that an excessive amount of liquid from the system is moving up through the soil, instead of downward, as it should.
- Build-up of aquatic weeds or algae in lakes or ponds adjacent to your home. This may indicate that nutrient-rich septic system waste is leaching into the surface water.
- Unpleasant odors around your house
- Gurgling sounds in the sinks and drains

If your system exhibits one or more of the failure indicators, contact your county health official for assistance in assessing the situation. Sometimes the system can be repaired without complete replacement. Sewage contains harmful bacteria so keep pets and children away from the system. Limit water use until repairs can be made. If a new system or repairs are needed, a permit is often required from your local Health Department.

Getting Help