

# Know Your Septic System — Components, Functions and Best Management Practices

## Household Plumbing

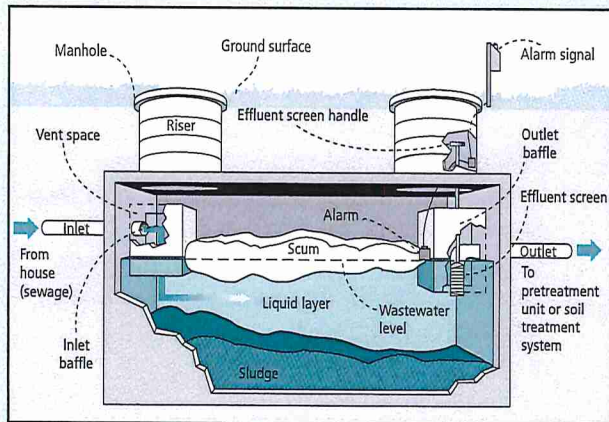
### Functions

- Transports used water to septic system.
- Delivers wastewater to septic tank and soil treatment area.

### Best Management Practices

- Control water use—repair leaks, use low-water-use appliances and fixtures.
- Don't overload the system—spread water usage throughout the day and week.
- Minimize use of harsh cleaners, bleach, antibacterial soaps and detergents.
- Do not dispose of paints, medications, or chemicals through your septic system.
- Keep grease, lint, food, feminine hygiene and plastic products out of your septic system.

Household wastewater contains bacteria, viruses, nutrients, solids, and cleaners that need to be treated by your onsite sewage treatment system!



## Septic Tank

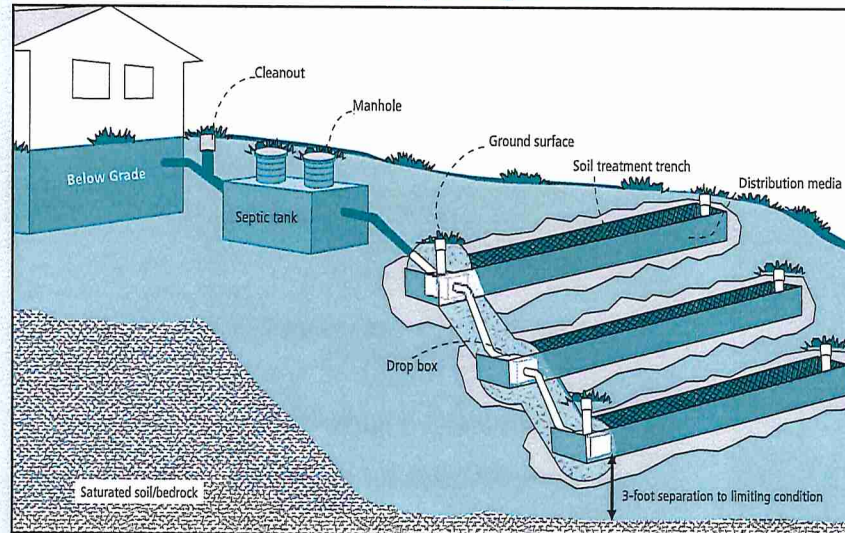
### Functions

- Separates solids from liquid.
- Allows friendly bacteria to decompose organic solids.
- Stores solids until removed by pumping.
- Delivers liquid to soil treatment area.

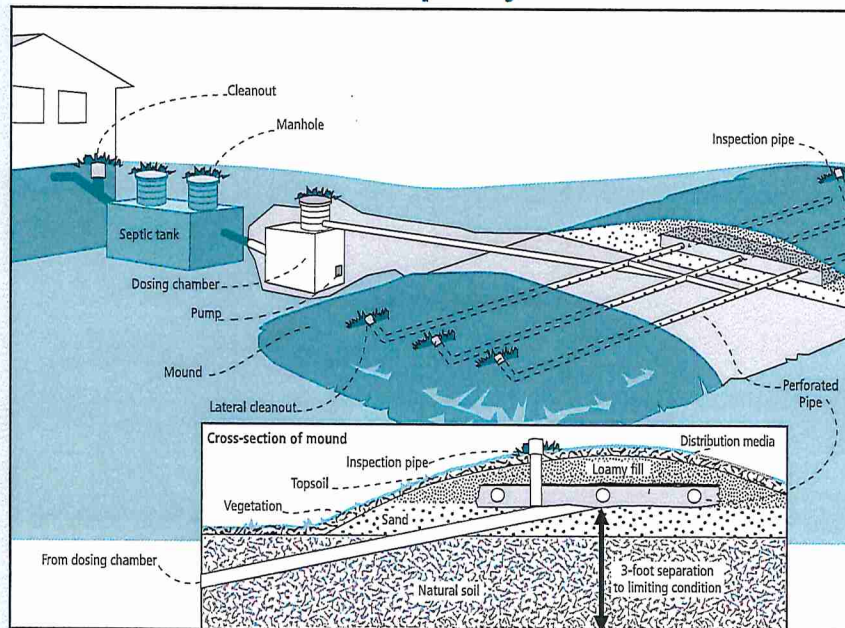
### Best Management Practices

- Never enter the septic tank.
- Pump/clean solids from tank's manhole (not inspection pipes) regularly.
- Have baffles inspected at time of cleaning.
- Install and insulate risers to manhole access.
- Identify whether your tank has an effluent screen, and service as necessary.
- Do not use septic tank additives or cleaners.

## Trench Septic System



## Mound Septic System



## Soil Treatment System

### Functions

- Removes bacteria, viruses, and other disease-causing organisms.
- Removes phosphorus.
- Reduces nitrogen content.
- Recycles water and nutrients through evaporation, plant uptake and groundwater recharge.

### Best Management Practices

- Maintain vegetative cover (turf grass, native grasses or flowers). Mow, but do not fertilize, water, or burn.
- Keep heavy vehicles off area (cars, tractors, snowmobiles, etc.).
- Do not plant trees, shrubs or deep rooted plants on or close to this area.
- Do not grow vegetables or situate play areas above soil treatment area.
- Help prevent system freezing:
  - Inspect for cracked or missing inspection pipe covers annually.
  - Place mulch, straw or other insulating cover above soil treatment area for winter.
  - Maintain normal daily water use over the course of the winter.
  - Consider insulating cold air access points.
  - If you are gone for extended periods, arrange for someone to use water in your home or have your tank pumped.

To order the Septic System Owner's Guide. Call (800) 322-8642 or email [septic@umn.edu](mailto:septic@umn.edu).

<http://septic.umn.edu>

## Improperly Treated Sewage Can Threaten Human Health and the Environment

When septic systems fail, human and environmental health may be compromised.

System failure may be identified by one or more of the following:

- ✓ Sewage backup into the house
- ✓ Sewage surfacing in the yard or a ditch
- ✓ Sewage odors indoors or outdoors
- ✓ High levels of nitrates or coliform bacteria in well water tests
- ✓ Sounding of system alarms
- ✓ Algae blooms and excessive plant growth in nearby ponds or lakes

System failure most commonly results from:

- ✓ Overuse of water in the home
- ✓ Lack of proper maintenance
- ✓ Improper system design or installation



Water Resources Center  
Onsite Sewage Treatment Program

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## Resources

Find more information at:  
<http://septic.umn.edu>

To order visit: <http://bookstores.umn.edu> - search for Septic System

Our website is full of free information about many of the hot topics around septic systems including-

- Preventing your septic system from freezing
- Landscaping your septic system
- Impact of chemical and cleaners on septic systems
- Seasonal care for septic systems
- Order issues with septic systems

If you are looking for information on a topic and cannot find it please send us an email at [septic@umn.edu](mailto:septic@umn.edu).

### City, Township or County Offices:

Counties-

[www.mncounties.org/About\\_Counties/county\\_websites.html](http://www.mncounties.org/About_Counties/county_websites.html)

Cities-

[www.lmnc.org/page/1/city-directory.jsp](http://www.lmnc.org/page/1/city-directory.jsp)

Townships-

[www.mntownships.org/](http://www.mntownships.org/) (under links)

### Regional or State Offices:

- Minnesota Pollution Control Agency, (800) 657-3864  
[www.pca.state.mn.us](http://www.pca.state.mn.us)
- Minnesota Department of Health, (888) 345-0823  
[www.health.state.mn.us](http://www.health.state.mn.us)

### Other Assistance:

- Contact a Licensed/Bonded septic system professional  
[www.pca.state.mn.us/ssts-licensing.html](http://www.pca.state.mn.us/ssts-licensing.html)

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## Taking Care of Your Septic System

### Management Basics

More than 30 percent of Minnesota's households use septic systems (onsite sewage treatment systems) to treat their wastewater.

Septic systems protect human health and the environment by safely recycling wastewater back into the environment.

While government regulation ensures proper design and installation of permitted septic systems, **you** are responsible for properly operating and maintaining your septic system to protect the public's health and the environment.

