

# Safe septic systems

**Mower County citizens care about water quality. Compliant septic systems help protect public health by keeping pollutants, pathogens and bacteria out of ground and surface water.**

Since 1969, Minnesota rules have aimed to protect ground water and surface water pollution caused by the inadequate treatment of sewage from malfunctioning septic systems, through the Subsurface Sewage Treatment Systems (SSTS) Program.

Water from our sinks and toilets contains bacteria, viruses, parasites and excess nutrients. A properly installed and maintained septic system removes all these, just like city wastewater treatment plant.

Non-compliant septic systems release untreated sewage into the environment, contaminating our drinking water, lakes and streams.

In Mower County, the Cedar River and other streams have stretches listed as "impaired" by the state for bacteria, partially due to failing septic systems. Almost everyone in Mower County gets drinking water from groundwater through a public or private well, which can become contaminated by non-compliant septic systems.

To protect public health and the environment, septic systems must be properly sited, designed, constructed, and maintained, so they can properly treat waste water.



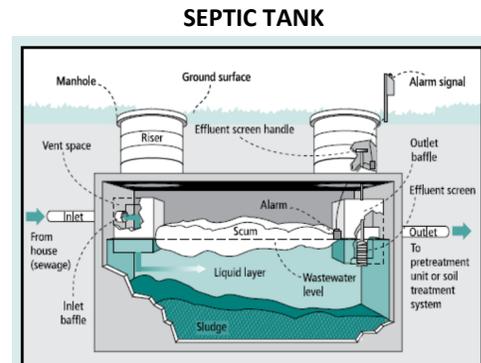
# SEPTIC TANKS AND DISTRIBUTION FIELDS

## SEPTIC TANKS (*primary treatment*)

Properties with septic tanks treat wastewater by:

- Separating solids from liquid.
- Allowing friendly bacteria to decompose organic solids.
- Storing solids until removed by pumping.
- Delivering liquid to soil treatment area.

Effluent is pumped from the tank to a drain field (either Trench or Mound). An alarm on the tank notifies the owner when the tank is at 70% capacity and needs attention.

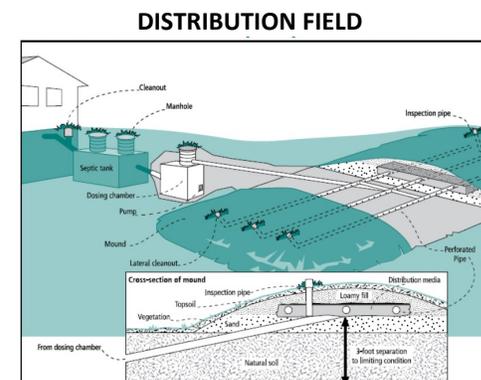


## DISTRIBUTION FIELD (*secondary treatment*)

In Mower County, many properties require a mound system for the distribution-field treatment because the ground surface is less than 3 feet from the seasonal water table.

They treat wastewater by:

- Reducing nitrogen content.
- Removing phosphorus.
- Recycling water and nutrients through evaporation, plant uptake and groundwater recharge.
- Removing bacteria, viruses and other disease-causing organisms.



## COMPLIANCE INSPECTIONS:

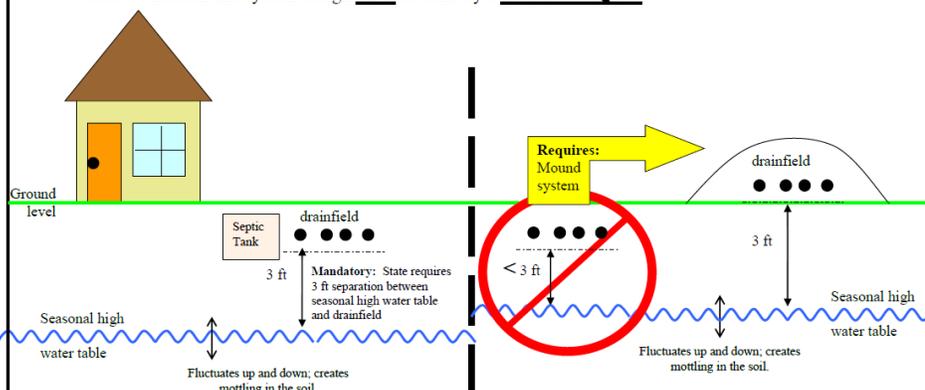
**To determine if your system is Compliant**; hire a licensed professional to perform an inspection. If your system is functioning properly to meet state treatment standards at the time of inspection, you will receive a Certificate of Compliance. Even compliant systems need periodic maintenance to function properly. Evaluate (pump) your septic system at least every three years and clean out tank sludge and scum when it accumulates as it will endanger the soil treatment system.

**If your system is Non-Compliant**, you will get a notice of non-compliance and legally be required to repair or replace failing components.

## Why do I need a mound system?

### Simplified explanation:

- The State requires a 3-foot separation between the seasonal high water table and the bottom of the drainfield.
- The seasonal high water table rises and falls (bounces) within the ground just like a river or stream.
- When the seasonal high water table rises, it leaves a mark in the soil to determine where it fluctuates to; this is the point to measure 3-feet from. There is evidence in the soil by what is called mottling.
- If you do not have 3-feet within the soil, the system must be raised above ground; thus requiring installation of a mound system.
- The soil will determine which type of system will be required for your parcel.
- Soils evaluation and system design **must** be done by a **licensed designer**.



## ONLINE SEPTIC RESOURCES

University of Minnesota's Onsite Sewage Treatment Program:  
<https://septic.umn.edu/>

MPCA Licensed Contractors:  
<https://webapp.pca.state.mn.us/ssts/business-search>

MN Pollution Control Agency's "Healthy Septic Systems":  
<https://www.pca.state.mn.us/living-green/healthy-septic-systems>

Mower Co: Environmental Services  
<https://www.co.mower.mn.us/202/Environmental-Services>