

Spring and Your Septic System



Signs of spring thaw.

Photo source www.lakewinnipesaukee.com

Welcomed signs of spring are all around us—birds are singing, snow banks are shrinking, and ‘ice-out’ guessing contests have sprung up across the state. Another sure sign for many of us that spring has arrived is the ‘bald-spot’ in the snow cover has appeared in our yard—right over where the septic tank is located.

Spring brings many welcomed events, including rain. Unfortunately, the rain does not always arrive according to the idyllic “April showers bring May flowers” saying. Sometimes, spring rainstorms bring way too much water way too fast—more than the still partially-frozen ground can absorb and the swollen streams and rivers can safely carry away. Combined with runoff water from melting snow, severe flooding may occur. While flooding can wash out roads and bridges and cause severe property damage, it can also cause major headaches for people living in homes with household wastewater treatment systems.

If your house is located in a low-lying area or near the shoreline of a lake or the bank of a river and it has a septic system, taking a few minutes to read this article might save you some headaches this spring.

How septic systems work

A traditional household septic system has two main parts—a septic tank and a drainage field (commonly referred to as a ‘leach field’). A septic tank holds approximately two days’ worth of household wastewater and it traps solids. A leach field receives the partially-treated septic tank effluent and discharges it below the surface of the ground into the soil where it is further broken-down and treated by natural processes.

Proper and efficient leach field performance relies on the soil's ability to treat and disperse wastewater. Under 'normal' conditions, the soil is relatively dry and contains oxygen, allowing it to effectively treat wastewater by removing disease-causing bacteria other contaminants. Throughout the winter, the normal use of water in a house keeps the soil around the septic tank and leach field from freezing and allows the system to function properly.

When the area above or surrounding the leach field becomes waterlogged with snowmelt, rain, and/or floodwater, the soil becomes waterlogged and oxygen is not available to breakdown the waste. This causes the septic system to malfunction. As a result, contaminants and pathogens can pollute the groundwater and nearby lakes and rivers. In addition, the septic tank fills up with water, which can cause the wastewater to back up into the house—this is the effect that can cause serious headaches for homeowners and their families.

Before the flood

A well-maintained septic system is typically able to withstand excess water from snowmelt, heavy rains, and floods, so it is best to keep the system pumped and in good working order at all times. The New Hampshire Department of Environmental Services recommends the following operation and maintenance activities:

- Know the location of your septic tank and leaching area. *(Remember, the tank area is often the first place where snow melts in the spring. If you don't know where your leach field is, a professional can help you find it.)*
- Inspect the tank yearly and have the tank pumped as needed and at least every three years.
- Do not flush bulky items such as throwaway diapers or sanitary pads into the system.
- Do not flush toxic materials such as paint thinner, pesticides, or chlorine into the system as they may kill the bacteria in the tank. These bacteria are essential to a properly operating septic system.
- Repair leaking fixtures promptly.
- Be conservative with household water use and use water-reducing fixtures wherever possible.
- Keep deep-rooted trees and shrubs from growing on the leaching area.
- Keep heavy vehicles from driving or parking on the leaching area.

If you know a big rainstorm is coming and your property has experienced flooding issues in the past, you may want to take the following precautions:

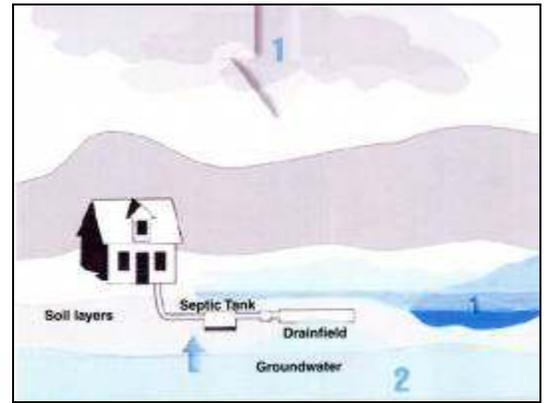
- Seal all possible points of excess flow to the system, including the septic tank manhole and inspection ports.
- Turn off the pump at the circuit box before the area floods. If you have a pump in the lift station of a mound system, turn off the electricity. (Don't forget to turn the pump back on again before you use the system.)
- Waterproof all electrical connections to avoid electrical shock or damage to wiring, pumps, and the electrical system.

During the storm

If your property is likely to flood, you and your family should try to use as little water as possible—avoid all non-essential uses. If the leach field becomes covered with water, don't use the system and avoid contact with any standing water.

After the storm

If the leach field and/or tank area are covered with water, do not have the septic tank pumped—this could cause the tank to float out of the ground which could cause major damage to the drainage pipes connected to it. Avoid using the system and allow time for the floodwaters to recede.



Septic system flooding may occur from any of these sources: 1. Excessive precipitation; 2. Rising local streams, waterways and groundwater.

(Photo source:

www.nesc.wvu.edu/pdf/WW/publications/pline/PL_SU06.pdf.)



Spring flooding.

Once the floodwaters recede, minimize water use until you know that the system is working properly. Ways to reduce water use include:

- Re-routing basement sump pump water away from the septic system.
- Refraining from using the dishwasher or garbage disposal.
- Reducing the number and duration of baths and showers.
- Doing laundry at a laundromat.

After a flood event, it is also recommended that you have your well water tested, and disinfected, if necessary, before using it for drinking water purposes.

What to do you if you suspect a problem

If you suspect that your tank or leach field have been damaged, have your system professionally inspected and serviced.

Signs of septic system damage include:

- Drains in the house flowing slowly.
- Toilets draining slowly or sounding strange when flushed.
- Water backing up into floor drains in the basement.

For more information

To learn more about septic systems, visit the New Hampshire Department of Environmental Services' website at des.nh.gov/organization/divisions/water/ssb/index.htm.