

Septic Systems and Flooding

Tom Scherer, Agricultural Engineer

Flooding can cause problems at homes with individual septic systems. If drains in the house run slowly or are backing up, pumping the septic tank will provide at best three or four days of reprieve and the problem will return. Pumping the tank is a dangerous and potentially costly mistake because it can cause considerable damage to the system.

An individual home septic system has two main components:

- a septic tank which holds about three to four days of normal water use from the house and traps solid waste.
- a drainfield which infiltrates the waste water into the ground.

If your drainfield area is flooded or very saturated you might notice some problems:

- drains in the house will run slow
- toilets drain slowly or sound strange when flushed
- water may back up into floor drains in the basement

When these problems occur, generally the septic tank is blamed. In reality, these problems are usually caused by the flooded or saturated drainfield. Often the water can't flow out of the septic tank to the drainfield because of the flooded or saturated conditions, so the water backs up into the septic tank, which fills up, causing the water to back up into the house and ultimately into the floor drains.

Under flooded or saturated drainfield conditions, do NOT have the septic tank pumped!

At best, pumping the tank is only a temporary solution. Under worst conditions, pumping it out could cause the tank to try to float out of the ground and damage the inlet and outlet pipes.

The best solution is to plug all drains in the basement and drastically reduce water use in the house. Some suggested ways:

First make sure there are no leaking fixtures in the house. Check faucets, shower heads, toilets, sinks and any other water-using devices for leaks and repair them as soon as possible. Even a drop of water every 15 seconds can add up to a lot of additional water in the septic system.

- Don't put water from a basement sump pump into the septic system.
- Don't let water from roof gutters or the sump pump discharge into the drainfield area.
- Reduce the number of times you flush the toilet. A good rule might be one flush per person per day.
- Reduce the number of showers or baths. A good rule might be one bath or shower every other day per person.

- Don't use the dishwasher or garbage disposal.
- Don't do laundry, or take it to a Laundromat, if possible.

Common sense is the key to reducing water use in the house. Remember, the drainfield was designed to infiltrate the amount of water normally discharged from the house. When additional water from rain, snow or flooding is added to the drainfield, its ability to handle household water becomes seriously limited.



County Commissions, North Dakota State University and U.S. Department of Agriculture cooperating. North Dakota State University does not discriminate on the basis of race, color, national origin, religion, sex, disability, age, Vietnam Era Veterans status, sexual orientation, marital status, or public assistance status. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701) 231-7708. This publication will be made available in alternative formats for people with disabilities upon request, 701 231-7881