

Private Wells and Septic Systems

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Wet Conditions May Pose Problems for Private Wells and Septic Systems

By Ed Specht, Stephenson County Health Department

Flooding and saturated soils may pose problems for area residents especially if their wells and septic systems are dated.

Updated drilled wells consist of generally a drill-hole with steel or PVC pipe (casing) placed inside. The casing extends into the well for a portion of its depth. The drill-hole diameter, for the length of the casing, is drilled approximately four inches wider (generally ten inches). The space between the casing and the outside hole is sealed with approved materials (grout). The casing extends above the surface at least eight inches and the top is protected using an approved cap. A conduit houses the electric wire for submersible pump placed down the well. The conduit extends from below the surface to the cap. The conduit fits tightly into the cap and the cap is installed tightly to the casing top. The purpose of the casing, grout, conduit and cap are to protect your water supply from potentially contaminated shallower groundwater, surface water, insects and rodents.

With older wells, many have minimal casing and often used poorer quality casing materials such as rolled and riveted tin. In some cases the wells casing is extremely rusted and perforated. The materials used for grout consisted of cuttings from the drilling operation. Because commercial pit-less adapters were not available, well casings were often terminated inside of pits to prevent freezing. Often the pits are not water-tight and water seeps into the pit. With water standing around the casing, this potentially contaminated water can run down and/or around the casing. The best remedy is to extend the casing, install a pit-less adapter and collapse the pit. This must be done by a licensed well driller. If a well is not in a pit, property owners need to assure the surface around the well is graded to assure water runs away from the well.

If you suspect your water supply quality has been compromised, do not drink the water without treatment. Bring your drinking water to a rolling boil for one minute.

If homeowners have a private well they likely have a private sewer system. During saturated soil periods, sewer systems may fail. Waste water cannot percolate down through the soil and it surfaces carrying fecal coliform and potentially other harmful substances. Once on the surface it can be carried by running water and other activities and ultimately impact human and others health. Again older systems may be more prone to problems as they were not subject to updated requirements and inspection. However every private sewer system especially a seepage field has a functioning lifetime.

To reduce problems or concerns, there are several things a homeowner can do: reduce the amount of waste water by limiting washing operations; temporarily shut off the water softener if the discharge goes to the seepage field; divert surface water from the roof and yard and sump away from the seepage field; pump the septic tank; install a new system.

The Stephenson County Health Department has: water well test kits and shipping service, water quality information, water well disinfection information, information regarding property owner's private well and septic system and attaining new and replacement wells and private sewer systems. Please contact us at (815)599-0344 or visit us at our two facilities at 295 W. Lamm Rd. or 10 W. Linden St. Freeport IL, from 8:30 AM to Noon and 1:00 PM to 4:30 PM., Monday thru Friday.

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