

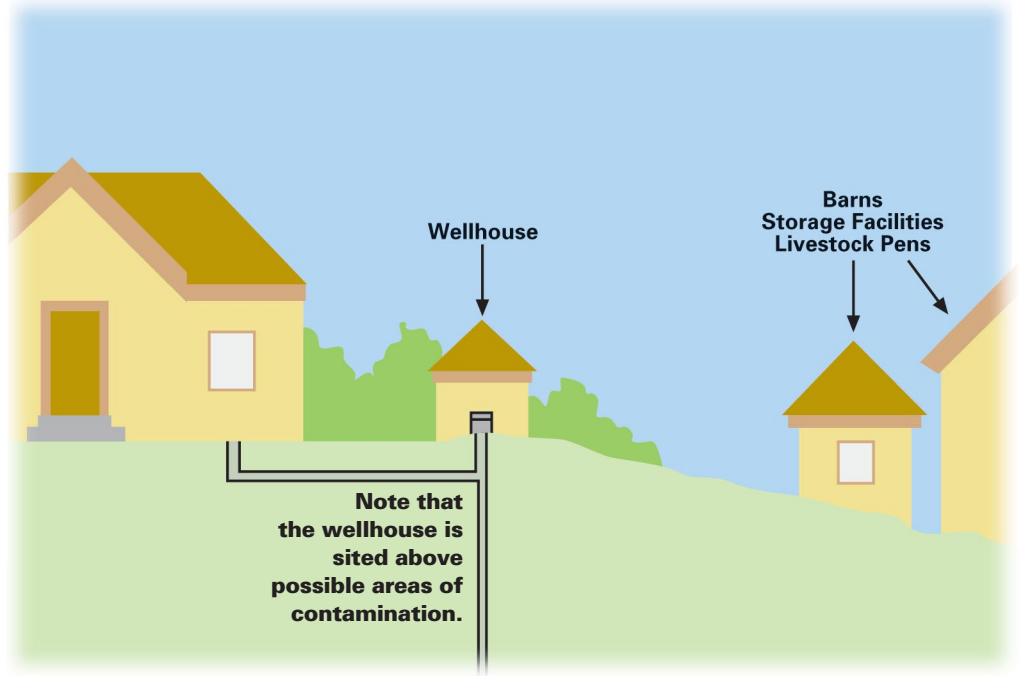


HOUSING & ENVIRONMENT

THE UNIVERSITY OF GEORGIA
COOPERATIVE EXTENSION SERVICE
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PROTECTING YOUR WELL AND WELLHEAD

If you are one of the many Americans who use groundwater, the proper protection of your well and wellhead is essential for the health of your family, yourself, and your neighbors. Groundwater is susceptible to contamination from a variety of sources, including septic tanks, pesticides, and household chemicals. As hundreds of wells often tap into the same aquifer (large underground water supply), it is essential to prevent contamination from reaching these vital underground resources. In addition, properly protecting your wellhead is often an easier and less expensive means of ensuring the safety of your water supply than is a water treatment system.



SIX PRINCIPLES OF WELLHEAD PROTECTION

The following principles were developed at the University of Georgia. Using these guidelines will help ensure the safety of your well water.

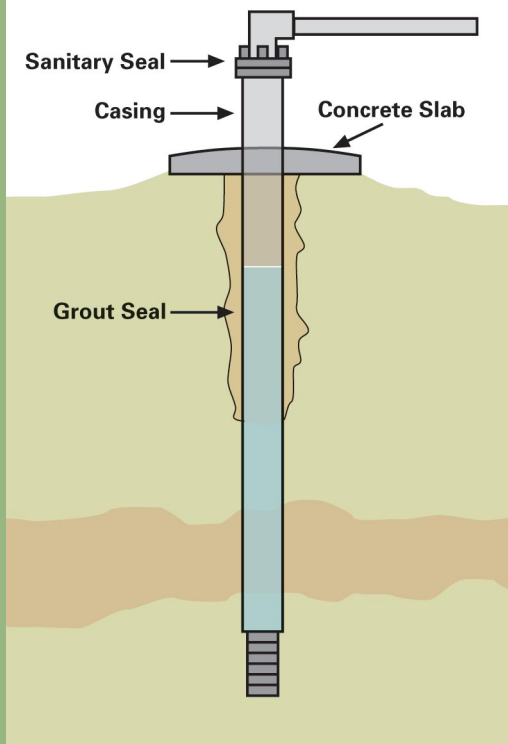
1. Proper Well Siting

Safety, rather than convenience or economy, should be the first priority when selecting a location for your well. Ideally, a well should sit high in the landscape so surface water drains away from it. The well should not sit in a flood-prone location. Also, be sure to site the well uphill from runoff that may include contamination such as pesticides.

2. Proper Well Construction

A properly constructed and sealed well greatly reduces the risk of contamination. Be sure to examine the following:

- The casing, a plastic or steel pipe that runs the depth of the well, should be sealed with a tight-fitting, vermin-proof well cap.
- The space between the casing and the sides of the hole should be sealed with grout to prevent pollutants from flowing down the well.
- The well casing should extend 1 to 2 feet above the surrounding land to prevent surface water from running down the casing.



Remember that a poorly constructed well provides direct access for contaminants on the surface to pollute your groundwater and make you sick!

3. Keep Contaminants Away From Your Well

To prevent contamination from accidental spills or seepage, possible sources of contamination should be kept away from the well. These include:

- Septic tanks and waste lagoons (cesspools)
- Dead animal burial pits
- Animal enclosures
- Pesticide, fertilizer, or petroleum storage facilities

Keep in mind the following tips:

NEVER store chemicals in your wellhouse.

NEVER dispose of household chemicals by flushing them down the toilet.

NEVER dispose of motor oil by dumping it on the ground. Call a local auto repair shop or service station for information on disposal.

4. Backflow Prevention

Backflow can occur in a variety of ways. If your well pump unexpectedly stops while a hose is submerged in chemicals, the backflow could vacuum those chemicals directly into your well. Lawn sprinklers in low areas can also funnel pollutants into your well.

To help prevent backflow:

- Never submerge a hose into any potential contaminating material.
- Install a simple atmospheric vacuum breaker on each outside faucet (these can be purchased at a nearby hardware or home supply store).
- Install a double check valve backflow preventer between a well and an irrigation system.

5. Sealing Abandoned Wells

Abandoned wells are common throughout rural areas. They present a variety of health hazards, including allowing a way for pollutants to access groundwater. Make sure that any abandoned wells on your property are filled, sealed, and plugged. Such precautions will insure against pollution and against the possibility of someone falling into the well. Abandoned wells should never be used for the disposal of garbage or other contaminants!

6. Testing Well Water

It is the responsibility of the user of the well to have their private water supply tested, particularly for bacteria and nitrates. Testing should be carried out routinely to ensure the safety of your well water. Also remember that testing should be done any time there is a change in the taste, clarity, or smell of your water. To have your water tested, contact either your county extension agent or a certified private laboratory.

The University of Georgia offers an opportunity for well owners to assess the risk associated with their wells through the **HOME*A*SYST / FARM*A*SYST** program. These self-assessments will allow you to determine the risks associated with your well. For more information, contact your county agent or visit www.fcs.uga.edu/housing. Click on water.

Sources:

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Gale A. Buchanan, Dean and Director