

Water Security

Private Wells and Public Water Systems

Security against the threat of bioterrorism has become a major issue in recent years. With water wells providing the daily water source for nearly 40 percent of the U.S. population, residential well owners need to know that the water they pump into their homes is safe.

What follows is information that should provide answers to questions regarding water security.

Should I be concerned about the threat of terrorism to my water supply?

Individual household water wells are not considered likely targets of acts of terrorism for several reasons.

The first is that groundwater is a poor target for terrorists because the ground protects it to some degree. Sometimes water from wells is hundreds of feet below the surface. Groundwater also generally moves slowly through the soil, which doubles as a filter, and can remove some biological and chemical agents.

Chemical agents considered a likely source for terrorists would not work well if dumped on the ground near a properly constructed and maintained well.

Finally, household wells are not considered major targets because affecting a limited number of people is not seen as an effective terrorist tactic.

How can I best protect my private water supply?

The number one thing to do is get your well tested regularly, no matter if there is a threat of terrorism.

Keep records to document your water quality over time. If you notice any change in taste, color, or odor, have your water tested as soon as possible.

Is there anything else I can do to safeguard my well system?

Know your water system. Inspect the wellhead for signs of damage or tampering. Periodically, check the well cap on top of the casing to ensure it is secure. Also be aware of the area around the well, and inspect it for changes. If you have concerns about the age or condition of your well, contact a qualified water well contractor.

Are there water treatment devices that can protect my water supply from terrorist threats?

NSF International, which develops standards, product testing procedures, and certification services for water treatment devices, has not yet tested any residential water treatment devices to determine effectiveness against the commonly named biological agents employed by terrorists—namely anthrax, cholera, plague, salmonella, or smallpox. For future developments, check with your local professional groundwater contractor.

What can I do if there is a terrorist act against an electrical provider?

The loss of electricity needed to operate the pump on your well is probably the greatest vulnerability of your well system. However, planning ahead can alleviate problems associated with a loss of power.

A water storage tank could be added to your well system. A typical 120-gallon tank—enough to maintain a family of four for one day—can easily be installed by a professional water well contractor.

Small portable gas or diesel-powered electricity generators are available that can operate the pump, or full-system generators that will run your well, refrigeration, heating, cooling, and other systems in your home can keep your well operating in an emergency.

Will boiling my water help in an emergency?

Boiling water is effective in removing certain contaminants, but is not the answer for everything. In fact, boiling water that contains lead and nitrate will increase their concentration and potential risk. It is best to check with a local health department to determine if boiling water is necessary.

Where can I get more information?

For more information on your private water well, contact your local contractor. Also, visit the website of the National Ground Water Association, www.ngwa.org, and its site just for well owners, www.wellowner.org.