Groundwater is a vast resource, so vast that it constitutes 95 percent of the world's available fresh water. Yet, it is out of sight and out of mind for most people. That can be a problem because if you own a well, you are your own water system manager.

In America, 46 percent of the population regularly depends upon groundwater for its drinking water supply. Groundwater also supplies 42.4 percent (58 billion gallons/day) of all water used for irrigation.

**Understanding Ground Water and Wells**

On the whole, groundwater is better protected from contamination than surface water. As water moves through the ground, much of the chemical or biological contamination is broken down or filtered out by the time it reaches the water-bearing geological formation called an aquifer. If necessary, treatment technologies are available to remove any unsafe substances that remain in well water and improve the water's quality. Regular water testing is the key to knowing whether your well water is safe.

Most well owners know little about the inner workings of their wells. When something goes wrong, they panic. If you suspect trouble, have a qualified water well system contractor inspect and service your well. A qualified contractor will have the expertise and equipment necessary to accurately diagnose and remedy problems.

It's good, however, to become an informed well owner. For instance, knowing that regular well maintenance check-ups and water testing are important is part of being a responsible well owner. (You can learn more about well ownership by going to National Ground Water Association’s Web site www.wellowner.org.)

**Protecting Ground Water**

For the most part, protecting groundwater means conserving it and keeping contamination away. In many parts of the country—not just arid or semi-arid places—the amount of water being withdrawn from aquifers is problematic. In some instances, water tables drop, which may require lowering the pump or drilling a deeper well. In other cases, heavy withdrawals from an aquifer may cause the levels of surface water bodies such as streams to lower, because they usually are connected to groundwater. Conserving water is always a good practice, no matter where you live.

Keeping contamination away from groundwater is not always in the well owner's control. Sometimes, contamination occurs naturally in the environment. Other times, it comes from a distance and contaminates the aquifer from which one draws water. Other times, rain runoff can wash fertilizer from farms or oil, fuel and road salt from roads into the ground, and eventually, into the groundwater. If such contamination cannot be cleaned up or prevented by the responsible party, treating your water may be the best option.

However, there are several things well owners can do on their property to help prevent contamination from entering the groundwater such as:

- Properly storing and disposing of household hazardous wastes
- Keeping animal waste away from the wellhead
- Making sure the well cap is secure and in good repair
- Sloping ground away from the wellhead to prevent the pooling of water around it

Many public water systems rely on groundwater, too, so please do your part to help.

**Cliff Treyens** is the director of public awareness with the National Ground Water Association. Learn more about the NGWA by visiting their Web site at www.ngwa.org.
For the last five years, we’ve printed a list of our products in On Tap. Like many other organizations, though, we’ve had to cut costs. So, we won’t be running the product list here anymore.

Rest assured we still have hundreds of free and low-cost products. You may peruse these items on our Web site at www.ndwc.wvu.edu.

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