

Abandoned Water Wells – A Threat to Drinking Water Supplies

This is the fourth in a series of articles on the Source Water Protection Program being implemented by the City of Rosenberg.

Have you ever dropped stones into the casing of an old well and listened to the sound it makes? Maybe you have leaned over the opening to hear the echo of your own voice bounce back from the mysterious darkness below? These are just two examples of the phenomena that arouse a child's curiosity and make abandoned wells as intriguing and as dangerous as a discarded icebox with the door still attached.

It's only natural for a person to assume no one would ever fall into this deserted well, as the odds are high against this happening. But it can and has happened numerous times in Texas. Abandoned wells are also a direct conduit to our ground water – a threat to our drinking water.

A large number of rural residents, in addition to the City of Rosenberg, depend upon ground water as a source of drinking water.

“A functioning water well serves as a channel for bringing ground water to the surface. An abandoned well, likewise, serves as a funnel for carrying contaminants from the surface to the ground water below. Each year many wells are abandoned without being properly plugged when they are replaced with new wells or when homes are connected to community water systems,” said John Maresh with the City of Rosenberg.

An abandoned well's potential for adversely affecting drinking water quality will depend on its original use, the local geology, land use, and the type of well construction. An improperly sealed well is often simply covered by a board or a sheet of metal in an unsuccessful attempt to ensure that the well does not become a hazard.

Ground water normally moves very slowly, from a few feet to tens of feet per year, and is filtered in the process. But an abandoned well will circumvent the natural filtration process, and can transfer large amounts of contaminants directly into the aquifer.

Abandoned wells are found everywhere – on farms, industrial sites, and even in urban areas. Properly plugging the well restores the ground water protection originally provided by soil and rock that were present before the well was drilled. Properly plugging the well also eliminates the possibility of injury, death, or property damage due to falls or sudden collapse of an old well.

Although plugging an abandoned well takes time and money, these wells are a threat that can no longer be ignored. Texas law requires that abandoned wells be plugged within 90 days.

It's not easy to convince everyone to plug or cap their abandoned wells. Proper well plugging takes time and money. The exact costs vary with well depth, diameter, and the geology of the area.

But spending the money to plug an abandoned well may prevent contamination of *your* drinking water. And it might prevent a serious accident involving *your* family or friends. Various state agencies have sought funding for a number of years in an effort to help relieve the burden of cost to the landowner. However, there is currently no funding available.

If someone is reported to the state agency regarding having an abandoned well, the state will issue a letter stating that the well must be properly plugged. However, this letter may not be issued if the abandoned well is *properly* capped off. The approximate cost of capping a well is \$100.00 or less.

For wells that are flush with the ground or concrete slab, take a smaller piece of pipe that will fit inside the casing, weld a cap over the smaller pipe placing it down inside the well casing leaving enough room to get a good solid weld around the smaller pipe and the top of the well casing. If the casing is above the ground, then place a cap over and weld solid.

State law requires that well covers be capable of supporting a minimum of 400 pounds and constructed in such a way that they cannot be easily removed by hand.

To report an abandoned well or obtain information on plugging abandoned wells, contact the Texas Department of Licensing and Regulation's Water Well Drillers and Pump Installers Program at 800-803-9202 or at abandoned.well@license.state.tx.us.