



THE SPIGOT

from the NORTH DAKOTA RURAL WATER SYSTEMS ASSOCIATION

Small System Risk and Resilience Assessment

In October 2018, America's Water Infrastructure Act (AWIA) was signed into law. The section requires community (drinking) water systems serving more than 3,300 but less than 50,000 people to develop or update risk assessments and emergency response plans (ERPs). Contact Julie Hein with ND Rural Water for assistance in preparing these documents.

RISK AND RESILIENCE ASSESSMENT DEADLINES

- **March 31, 2020** for utilities serving $\geq 100,000$ people.
- **December 31, 2020** for utilities serving 50,000 to 99,999.
- **June 30, 2021** for utilities serving 3,301 to 49,999.

EMERGENCY RESPONSE PLAN DEADLINES

- **September 20, 2020** if serving $\geq 100,000$ people.
- **June 30, 2020** if serving 50,000 to 99,999 people.
- **December 30, 2021** if serving 3,301 to 49,999 people.

Oh, Well

By Julie Hein, NDRWSA Source Water Protection Specialist

Rivers, lakes, springs, or wells have been the life blood of all organisms. Human settlements originated around these structures. The earliest wells were hand dug and lined with stone, brick, wood, or concrete. The construction of water wells using drilling machines dates back to the early to mid-1800s. Around the turn of the century, it was common to see steel casing wells of 1.5" to 4" in diameter.

Some estimates show one to four abandoned wells for every five wells in service. These abandoned wells can be in urban and suburban settings, where municipal water has been brought into areas of high volumes of housing development that were once the home for on-site wells. Deserted farmsteads are also sites of abandoned wells.

An abandoned well is defined as a well that has been discontinued for more than five years and has been in such a state of disrepair that using it to obtain groundwater is impractical or a health hazard. Wells that are no longer being maintained represent a huge risk to the environment and human safety by providing a direct route for pollutants and toxins to reach the aquifer.

Water wells that are improperly abandoned are always a serious liability. Therefore, it is imperative to the safety and well-being of a community that special care is given to properly seal abandoned water wells. When ground water becomes contaminated, it is very difficult to clean up and it is a very expensive process. According to N.D. Century Code Article 33-18, "any abandoned water wells, including test wells, uncompleted wells, and completed wells shall be sealed by restoring, as far as possible, the controlling geological conditions which existed before the wells were drilled. Sealing of wells results in elimination of physical hazards; prevention of contamination of ground water; conserving yield and hydrostatic head of aquifers and prevention of intermingling of desirable and undesirable waters. Wherever feasible, the wells should be filled with concrete grout or other approved materials. At no time shall any sewage or other contaminated or toxic materials be discharged into an abandoned well."

For more information on sealing abandoned wells, please contact the North Dakota Rural Water Systems Association.



Image courtesy of DL Arneson.