

NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD

DECOMMISSIONING ABANDONED WATER WELLS

(NO.)

CODE 997

(INTERIM)

Definition

The sealing and permanent closure of a water well no longer in use.

Purpose

This practice serves to:

\* Prevent entry of vermin, debris, or other foreign substances into the well or well bore hole;

\* Eliminate the physical hazard of an open hole to people, animals, and farm machinery;

\* Prevent entry of contaminated surface water into well and migration of contaminants into unsaturated (vadose) zone or saturated zone;

\* Prevent the commingling of chemically or physically different ground waters between separate water bearing zones.

Condition Where Practice Applies

This practice applies to any drilled, dug, driven, bored, or otherwise constructed water well determined to have no further beneficial use.

This practice does not apply to wells that were used for waste disposal, and for which evidence of contamination still exists.

Criteria

All planned work shall comply with General Manual Title 450-GM, Part 405, Subpart A, Compliance with Federal, State, and Local laws and regulations.

Notification of intent to decommission a well shall be submitted by the owner to the Pennsylvania Department of Environmental Resources in accordance with requirements of the Pennsylvania Water Well Drillers Act. Such notice shall be presented no less than 10 days prior to sealing. Supporting documentation may include, but should not be limited to: copy of well driller's log, details of abandonment procedures, and location map of well. This information is to be sent to PA Bureau of Topographic and Geologic Survey, Second Floor Evangelical Press Building, Third and Reily Streets, P.O. Box 8453, Harrisburg, PA 17105-8453, (717) 787-5828.

Considerations

This practice can be used in conjunction with the beneficial effects of existing or planned conservation management systems, pest and nutrient management systems and practices that control sheet, rill, and gully erosion.

If available, obtain the well construction record. This will help with selecting the appropriate sealing method. A well construction record may be available from: the well owner; the well driller who constructed the well; other well drillers familiar with well construction in the area; or PA Bureau of Topographic and Geologic Survey's Well Water Inventory System database for wells constructed after 1966.

A geologist can assist with gathering well construction information and selecting the appropriate sealing method.

Consider hiring a licensed water well drilling contractor to seal wells less than 18 inches in diameter or greater than 100-feet deep. Wells that exceed these dimensions may require pulling heavy pumps and plumbing from the well and pumping the sealing material by tremie method.

#### Plans and Specifications

The materials and procedure used for decommissioning abandoned water wells is outlined in the Construction Specification. These specifications and associated drawings should be used. Any significant variation in the well construction or aquifer conditions may require a separate specification and drawing.

#### Operation and Maintenance

Minimal operation and maintenance should be anticipated. The location of the sealed well should be determined and kept on file for future reference. An inspection should be made after several

months of completion to make sure the ground surface is still crowned and sloping away at the sealed well. Any cavitation around the well should be treated.

## DECOMMISSIONING ABANDONED WATER WELLS

## REFERENCES

1. Driscoll, F.G., 1987, Groundwater and Wells: Minnesota, Johnson Division, 1089 p.
2. Iowa Department of Natural Resources, 1988, Guidelines for Plugging Abandoned Water wells, Tech. Info. Ser. 15, 46 p.
3. Pennsylvania Department of Environmental Resources, Bureau of Topographic and Geologic Survey, 1993, Draft "Well Abandonment Section, Ground Water Quality Protection Strategy," 10 p.