



Requirements for Sealing Abandoned Private Wells or Keeping a Private Well after Connecting to Public Water or Drilling a New Well.

Frequently Asked Questions

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Introduction

Private water systems are regulated by local health districts and the Ohio Department of Health under Ohio Administrative Code (OAC) Chapter 3701-28 (Private Water System Rules). Public water systems are regulated by the Ohio EPA under OAC chapters 3745-81 (Primary Drinking Water Rules), and 3745-09 (well construction standards).

There are literally thousands of unused and abandoned water wells scattered throughout Ohio. Although most people have good intentions initially to maintain their old water well in good working condition many wells become forgotten and ultimately present health and safety issue as they become damaged or deteriorate. As these wells deteriorate they can provide a direct connection from the surface to the ground water and contribute to serious contamination of drinking water resources.

1. I currently have a water well and I want to connect to a **public water system. Do I have to seal or abandon my well?

Yes. *However, there are exceptions.* Ohio Administrative Code Rule 3701-28-17 requires that a residential well be sealed in accordance with the rules when the home connects to a public water supply system, **unless** the well owner demonstrates to the satisfaction of the local health district that the well will not cause or contribute to ground water contamination, present a safety hazard, or present a public health nuisance. Rules regarding the sealing of residential wells apply to all private water wells and rainwater cisterns regardless of the location in Ohio or the date of construction. The rules also state that that a well taken out of service must be maintained in compliance with OAC Chapter 3701-28. If you can not demonstrate that the well is in compliance then your well needs to be properly sealed.

2. What special requirements will I need to meet in order to keep my residential well to water my lawn or other use?

If there is a desire to keep your old well after connecting to public water you are required to obtain an alteration permit from the local health district to cover their administrative cost of verifying compliance with this rule, including verifying a physical disconnection and collecting a water sample.

You also need to demonstrate that the well is and will be maintained in compliance with the private water rules. Demonstration of compliance must include an ability to collect a water sample, the presence of an operational pumping system and one or more of the following:

- (a) A well log;
- (b) A borehole video camera survey;
- (c) A dye test, water sample; or
- (d) An assessment performed by a registered private water systems contractor or the local health department that the private well system meets the requirements of the private water systems rules. If you cannot demonstrate that the well meets the private water system rules and criteria then it must be sealed.

The health department permit does not cover the additional requirements that may be stipulated by the public water utility that you are connecting to.

If you don't plan to keep the well, then a sealing permit will be all that is required from the local health department.

3. Do I have to use registered, licensed, or specialized contractors to disconnect the private water system from the plumbing, upgrade my private water system, or seal my well?

Anyone who works on a private water system or seals a well must be registered as a private water system contractor with the Ohio Department of Health. The contractor who connects you to public water or who disconnects your private water system from the household plumbing is not required to be a registered private water system contractor if they do not do any additional work on the private water system. If the disconnected private water system is required to be sealed or upgraded, then the contractor who does the well sealing or well upgrades must be registered as a private water system contractor with the Ohio Department of Health.

Since local plumbing codes may vary, you should check with the local building or plumbing department or the plumbing department within the local health department for the local plumbing requirements.

4. If I connect a public water system and show my well is in compliance with the private water system rules do I need to do anything else?

Yes, in addition, you will be required to meet the backflow prevention requirements as specified by the public water utility. You may need to install and maintain a backflow prevention device called an RPZ device and have it tested annually by a licensed individual as long as you have the well. This is a requirement of the public utility and *not the local health district*. The public water supplier may also have additional requirements.

5. When do I need to seal/abandon the residential well on my property if I'm not connected to public water?

Ohio Administrative Code (OAC) Chapter 3701-28-17 states that all residential (*private water system) wells that are not in service shall either be sealed in accordance with the rules or maintained in strict compliance with all applicable requirements of the private water systems rules (OAC Chapter 3701-28). This means if you are no longer using the residential water well on your property, it must be sealed or maintained in compliance with current construction standards within 30 days. Wells must be properly sealed to prevent contamination of the ground water and prevent a physical hazard for animals and people.

6. I currently have a water well, and want to drill a new well. Do I still need to seal my old well if I want to keep it to water my lawn or for other uses?

Yes, OAC Rule 3701-28-17 requires that a residential (private water system) well be sealed in accordance with the rules when the home connects to a public water supply system, **unless** the well owner demonstrates to the satisfaction of the local health district that the well will not cause or contribute to ground water contamination, present a safety hazard, or present a public health nuisance. Rules regarding the sealing of residential wells apply to all private water systems regardless of the location in Ohio or the date of construction. The rules also state that that a well taken out of service must be maintained in compliance with OAC Chapter 3701-28.

OAC Rule 3701-28-17 requires a property owner that is no longer using their well for potable purposes to maintain and keep the well in compliance current standards established under OAC Code Chapter 3701-28. Well owners are responsible for keeping sources of contamination away from the well, ensuring that the well casing and well cap are in good condition, and conducting any service or maintenance as necessary.

7. Do I need a permit to seal/abandon my residential water well?

Yes, you will need to obtain a sealing or alteration permit from your local health district. The cost of the permit varies by jurisdiction. If you have already obtained an alteration permit in order to keep your water well, and it is determined to not be in compliance and needs sealed, you can seal it under the alteration permit already obtained.

8. What are the requirements for properly sealing/abandoning a residential well?

The person sealing the well must be a private water systems contractor registered with the Ohio Department of Health. OAC Section 3701-28-17 describes the procedures for sealing residential water wells. The actual method and materials used depends on the

diameter and depth of the well. In general, all materials such as the pump and drop pipe are removed from the well. The well casing may be removed, perforated, or left in place depending on its condition. The well is sealed using either a special clay called bentonite which may be placed into the well in a chipped form by dry pouring methods, or in a slurry form (mixed with water) and pumped under pressure into the well, or by pumping in neat cement. Casing at the surface is removed and the site is properly graded to ensure drainage. A well sealing report documenting the materials and methods used is filed with the local health district and the Ohio Department of Natural Resources, and the property owner is provided with a copy.

9. Can I properly seal the residential well on my property myself?

No, a property owner is not permitted to seal their own well *unless* a property owner becomes a registered private water system contractor in accordance with OAC 3701-28-18 (A)(2). The bonding requirements are waived for property owners who register and seal or alter a well on their own property. The rules and regulations governing well sealing (Ohio Administrative Code Chapter 3701-28) must be followed. After the well is sealed, the local health district will perform an inspection. Also, a well sealing report documenting the materials and procedures used must be filed with the local health district and the Ohio Department of Natural Resources, Division of Soil and Water Resources.

10. How much will properly sealing/abandoning my residential well cost?

Overall cost will vary. Specific well site conditions and well depth will determine the cost of sealing any well, but costs generally range from \$500 to \$1,500.

11. If I seal my residential well because it has deteriorated, and connect to a public water system, can I drill another new well at a later date?

Yes, a new residential well that meets current state standards can be drilled at a later date *unless there are local prohibitions*. In addition, you are required to meet the backflow prevention requirements listed below if you drill a well. You may need to maintain the RPZ (backflow prevention) device and have it tested annually by a licensed individual as long as you have the well. The public water supplier may have additional requirements.

12. What is a cross-connection?

Physical cross connection between public (Ohio EPA, OAC 3745-95) and private water systems (ODH and local health departments, OAC rule 3701-28-08) *are prohibited*. A cross connection is any physical connection between a possible source of

contamination and any drinking water system piping supplied by a public water system. When the well is no longer the primary source of water due the connection to a public water supply, the plumbing must be physically disconnected and demonstration of the backflow prevention requirements of rule 3745-95 of the Administrative Code is required.

13. What is backflow and how does it occur?

Backflow occurs when a cross-connection is created and a pressure reversal (either as backsiphonage or backpressure) occurs causing unregulated water to flow into the public water system. Backsiphonage occurs when there is a loss of pressure in the piping system and liquids are siphoned back into the drinking water system. Backpressure occurs when an opposing pressure is applied against the public water system's supply pressure and the higher pressure overcomes the public water system's pressure, causing the flow of unregulated water into the public water system.

14. What is an RPZ backflow prevention device?

An RPZ (reverse pressure zone) backflow prevention device consists of two spring-loaded check valves operating in series and a spring-loaded/diaphragm-activated differential pressure relief valve located in the zone between the check valves. Two closing shutoff valves and four test cocks complete the assembly.

These devices will indicate leakage through one or both check valves or the relief valve by the discharge of water from the relief valve. These devices prevent the flow from a possible source of contamination from entering into the drinking water system piping through a cross connection. Check with your water supplier as to which RPZ devices are acceptable. An acceptable RPZ device has been certified to one of the standards listed in Ohio Administrative Code (OAC) 3745-95-06.

15. How much does a RPZ backflow prevention device cost and what is involved with maintenance?

Cost can vary. The cost will be approximately \$500 and up. However, there are different manufacturers of RPZ assemblies, and they have different costs associated with purchase and installation.

In addition, Ohio Plumbing Code requires an expansion tank to be installed on the cold water supply line to the hot water heater. An RPZ assembly can not be installed in a pit, and requires an inspection and test of its effectiveness at an interval not to exceed 12 months. Inspection costs are paid by the homeowner. Inspection costs may start around \$100. Failure to comply with these requirements may result in the water supplier terminating your water service. The public water supplier may have additional requirements.

16. How do I find a list of registered private water systems contractors for my area that can seal my well?

A list of registered private water systems contractors by county can be obtained from your local health district or by contacting the Ohio Department of Health, Bureau of Environmental Health (614-466-1390), or by accessing the ODH Web site at <http://www.odh.ohio.gov/odhPrograms/eh/water/water1.aspx>.

17. Who can I contact for other questions?

Questions on residential (private) wells should be directed to your local health district <http://www.odh.ohio.gov/localHealthDistricts/lhddirectory.aspx> or the Ohio Department of Health, Residential Water and Sewage Program at (614) 466-1390 or BEH@odh.ohio.gov.

Questions regarding *public water systems*, backflow prevention and auxiliary well rules and requirements, should be directed to Ohio EPA, Division of Drinking and Ground Waters at (614) 644-2752
<http://www.epa.ohio.gov/Default.aspx?alias=www.epa.ohio.gov/ddagw>

Or the following Ohio EPA district offices:

Central District Office in Columbus, OH	(614) 728-3778
Southeast District Office in Logan, OH	(740) 385-8501
Southwest District Office in Dayton, OH	(937) 285-6357
Northeast District Office in Twinsburg, OH	(330) 963-1200
Northwest District Office in Toledo, OH	(419) 352-8461

Ohio EPA contact list by County <http://www.epa.ohio.gov/Default.aspx?tabid=108>

** Private water system means a water system that is not a public water system serving less than 25 people on a regular basis less than 60 days out of the year, or has less than 15 service connections. Private water systems include wells that serve single or multi-family homes, or small businesses and are regulated by the Ohio Department of Health through the local health departments.*

***Public water system means a system which provides water for human consumption through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Such term includes any collection, treatment, storage and distribution facilities under control of the operator of such system and used primarily in connection with such system. Public water systems are regulated by the Ohio Environmental Protection Agency and are required to meet the rules and regulations under Ohio Revised Code Chapter 6109.*