



PRIVATE RESIDENTIAL WELLS

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ISSUE

Who is responsible for maintaining private residential wells in Connecticut? Do state laws establish minimum output levels and water quality requirements for private residential wells? Does the state require existing wells to be tested as a condition of selling a home?

SUMMARY

Local health districts and departments oversee private residential wells, and well owners are responsible for maintaining the well and testing the quality of their own drinking water. While the law requires public water supplies to be regularly tested for contaminants, private wells are not tested unless the (1) homeowner arranges for the test or (2) local health department or Department of Energy and Environmental Protection (DEEP) tests the well as part of an investigation.

We were unable to find any state laws or regulations requiring a minimum output level (e.g., a specified number of gallons per minute) for private residential wells. But there are standards for drinking water quality established by the Department of Public Health (DPH) and federal Environmental Protection Agency (EPA).

State regulation requires water quality tests for newly constructed wells, but neither state law nor regulation requires an existing well to be tested as a condition of selling a home ([Conn. Agencies Regs., § 19-13-B101](#)). Instead the law requires a homeowner to notify the purchaser that information about well testing is available on DPH's website. But failure to provide the notification does not invalidate the property's sale ([CGS § 19a-37](#)).

Although the law does not require existing wells to be tested as part of a home's sale, banks providing the mortgage for a home purchase typically require such testing. If the well is tested by the seller or purchaser within six months of the home's sale, the law requires the environmental lab that conducted the test to report the results to DPH and the local health department within 30 days after completing it ([CGS § 19a-37](#) and [Conn. Agencies Regs., § 19-13-B101](#)).



Additional information on private residential well requirements is available on the DPH's Private Well Program [website](#).

WATER QUALITY TESTING

State regulation requires water quality tests for newly constructed private residential wells, but neither state law nor regulation requires such testing after the wells are initially constructed (Conn. Agencies Regs., §§ [19-13-B101](#) and [19-13-B102](#)).

By law, a local or district health director may require an existing private residential well to be tested for arsenic, radium, uranium, radon, gross alpha emitters, pesticides, herbicides, or organic chemicals if he or she reasonably suspects the presence of these contaminants in the groundwater ([CGS § 19a-37](#)). Therefore, after the well is initially constructed, water quality testing occurs only when the (1) homeowner arranges for the test or (2) state tests the well as part of an investigation for suspected contamination.

DPH sets water quality standards for private wells, called "action levels," to protect well users from health risks. In most cases, these standards mirror the EPA's "maximum contaminant levels" for public system drinking water. According to DPH, a small number of contaminants have stricter action levels than federal standards because these standards are either (1) outdated or (2) based on detecting and removing the contaminant from a public water supply and not a private residential well.

Attachment 1 lists DPH guidelines for private well testing, including the (1) types of contaminants to test for, (2) testing frequency, and (3) rationale for the test. Attachment 2 lists DPH's current action levels for various well water contaminants.

Attachment 1: DPH-Recommended Water Tests for Private Residential Wells

Type of Test	Frequency	Reason
Basic Indicators (Potability)	<ul style="list-style-type: none"> Annually and after repair or replacement of the well, pump, or water pipes. If you have five years of normal test results, test once every five years 	<ul style="list-style-type: none"> Provides a general indication of water quality and may indicate whether additional tests are needed Required for all new wells
Lead	<ul style="list-style-type: none"> At least once Also test when planning a pregnancy or if you have a child under age six If your water is corrosive (i.e., a pH less than 6.0), test every three to five years 	<ul style="list-style-type: none"> Lead can leach from plumbing and may be in homes built before 1930 Lead-based solder may be in homes built before 1988 Brass is used in new plumbing and fixtures and contains small amounts of lead Corrosive water leaches more lead Young children are more susceptible to harmful effects from lead exposure
Arsenic, Uranium, Radon	<ul style="list-style-type: none"> At least once Ideally, repeat the test every five years 	<ul style="list-style-type: none"> Arsenic, uranium and radon are naturally occurring in some groundwater in CT Private wells with high levels have been found sporadically around CT Levels can fluctuate over time
Volatile Organic Compounds (VOCs)	<ul style="list-style-type: none"> At least once 	<ul style="list-style-type: none"> Gasoline, oil, solvents or industrial chemicals spilled or leaked on the ground could get into your well water
Fluoride	<ul style="list-style-type: none"> Every five years when a child under 12 lives in the home 	<ul style="list-style-type: none"> Fluoride can occur naturally in wells throughout CT A child's permanent teeth can become discolored from excess fluoride Too little fluoride can increase risk of tooth decay Your child's dentist will likely ask you about the fluoride level in your well water

Source: DPH Publication No. 24: *Private Well Testing*, May 2013

Attachment 2: DPH Action Levels for Private Residential Wells

Contaminant	Action Level (parts per billion per liter of water (ug/L))
Arsenic	10
Barium	2000
Benzene	1
Carbon tetrachloride	0.5
Chlordane	0.3
Chromium	15
1,4-dichlorobenzene	5
1,2-dichloroethane	0.5
Dichloromethane	5
2,4-dichlorophenoxyacetic acid	70
1,2-dichloropropane	1
1,1-dichloroethane	25
1,1-dichloroethylene	7
Dieldrin	0.03
1,4-dioxane	3
Endrin	2
Ethylene dibromide	0.052
Isopropanol	2300
Lead	15
Manganese	500
Mercury	2
Methoxychlor	40
Methyl t-butyl ether	70
Nitrate nitrogen	10,000
Nitrite nitrogen	1000
Polychlorinated biphenyls	0.2
Selenium	50
Silvex	50
Tertiary-butyl alcohol (total oxygenates)	100
Tetrachloroethylene	5
Toluene	150
Total petroleum hydrocarbon	2504
1,1,1-trichloroethane	200
Trichloroethylene	1
1,2,3-trichloropropane	0.05
Vinyl chloride	0.5

Source: DPH Publication: *Action Level List for Private Wells*, February 2013

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