

Regulation of Private Residential Wells

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Issue

Who is responsible for maintaining private residential wells in Connecticut? Does state law require private residential wells to be tested for contaminants and, if so, does such testing include sodium chloride? Is such testing required 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.

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 the Department of Public Health's (DPH) website. But failure to provide the notification does not invalidate the property's sale ([CGS § 19a-37\(d\)](#)).

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. Additionally, the state's Uniform Property Condition Disclosure Act requires sellers to provide prospective buyers with a [Residential Property Condition Disclosure Report](#) that describes the property's condition. Among other things, the report requires sellers to disclose whether an existing well has been tested and if

so, to provide a copy of the test results ([CGS § 20-327b](#)). By law, any environmental lab that tests the water quality of a private residential well in connection with a home's sale must report the results to DPH and the local health department within 30 days after completing the test ([CGS § 19a-37](#) and [Conn. Agencies Regs., § 19-13-B101](#)).

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 federal Environmental Protection Agency's (EPA) maximum contaminant levels for public system drinking water. According to the department, there are no enforceable federal or state standards for the level of sodium in drinking water. However, DPH has set a standard of 100 milligrams per liter (mg/L) for sodium and 250 mg/L for chloride.

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](#)(g) & (j)). 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.

DPH notes that there are no enforceable federal or state standards for the level of sodium in drinking water. However, the department has set a standard of 100 mg/L for sodium and 250 mg/L for chloride. According to DPH, these levels are intended to (1) mitigate health concerns with

sodium and high blood pressure and (2) keep drinking water from tasting salty and having a corrosive effect on plumbing.

Table 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. Table 2 lists DPH’s current action levels for various well water contaminants.

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

<i>Type of Test</i>	<i>Frequency</i>	<i>Reason</i>
Basic Indicators (Potability)	Annually and after repair or replacement of the well, pump, or water pipes	Provides a general indication of water quality and may indicate whether additional tests are needed Required for all new wells
Lead	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	Lead can leach from your home’s plumbing (pipes, faucet, valves, etc.) Corrosive water leaches more lead Young children are more susceptible to harmful effects from lead exposure
Arsenic, Uranium, Radon	At least once Ideally, repeat the test every five years	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)	At least once, but more often if a problem is suspected or identified	Gasoline, oil, solvents or industrial chemicals spilled or leaked on the ground could get into your well water
Fluoride	Every five years when a child under 12 lives in the home	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 2019

Table 2: DPH-Recommended Water Tests for Private Residential Wells

<i>Contaminant</i>	<i>Action Level (parts per billion per liter of water (ug/L))</i>
Arsenic	10
Barium	2,000
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	0.05
Isopropanol	2,300
Lead	15
Manganese	300
Mercury	2
Methoxychlor	40
Methyl t-butyl ether	70
Nitrate Nitrogen	10,000
Nitrite Nitrogen	1,000
Perfluorinated alkyl substances	0.07
Polychlorinated biphenyls	0.2
Selenium	50
Silvex	50
Tertiary-butyl alcohol (total oxygenates)	100
Tetrachloroethylene	5
Toluene	150
Total Petroleum Hydrocarbon	250
1,1,1-trichloroethane	200
Trichloroethylene	1
1,2,3-trichloropropane	0.05
Vinyl chloride	0.5

Source: DPH Publication No. 41: *Action Level List for Private Wells*, March 2019

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