

LegisBrief

A QUICK LOOK INTO IMPORTANT ISSUES OF THE DAY

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Regulating Private Water Wells

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Almost 42 million people rely on unregulated drinking water in the U.S., primarily from private wells. In certain states, such as Alaska, Maine, New Hampshire and North Carolina, over 30% of residents are served by an unregulated water system. In California, Michigan, New York, North Carolina, Pennsylvania and Texas, over 2 million residents in each state use unregulated water daily.

Unregulated water systems—defined as having less than 15 service connections or serving less than 25 people—are not subject to the federal Safe Drinking Water Act (SDWA), which governs most the nation's water supply. The owners of these unregulated wells are responsible for ensuring that their well water is safe for drinking.

Because water-borne illnesses stemming from private wells affect the people who use them, some states are stepping up efforts to regulate these wells. Several states have modified their laws to cover private water wells, the small systems that have less than 15 connections, serve less than 25 people or are in use less than 60 days a year.

Private water wells can become contaminated through naturally occurring chemicals and minerals (like arsenic and radon), human activities (pesticide and chemical use, animal feeding operations), malfunctioning wastewater treatment systems (such as sewer overflows and on-site

septic system issues), and other sources.

Over 7% of water-borne disease outbreaks nationally are associated with private unregulated wells. A study in North Carolina found that between 2007 and 2013, 99% of emergency department visits for acute gastrointestinal illness caused by contaminated drinking water were associated with private wells. Another study of nearly 4,000 private wells in rural Wisconsin found that 47% exceeded at least one health-based water quality standard.

Around 23% of private wells contain contaminants exceeding Environmental Protection Agency (EPA) drinking water standards. Most of these contaminants came from natural sources, such as radon and arsenic, but nitrates from fertilizers and septic systems were found in a quarter of all wells in agricultural areas.

Cost can be another barrier to keeping well water safe. Testing for volatile organic compounds, pesticides, metals, nitrate, bacteria and radioactive contaminants can exceed \$500.

State Action

A state's definition of a regulated well must be at least as stringent as the SDWA's. But they can be more stringent, and many are.

Washington state has the most stringent standards, requiring wells that serve three or more connections to follow water quality and operation

Did You Know?

- Private well owners use, on average, 81 gallons daily. Nevadans use the most—189 gallons daily, while Wisconsin well owners use the least—48 gallons.
- Total waterrelated illnesses, including Giardia, cryptosporidiosis and Legionnaires' disease, result in an estimated 40,000 hospitalizations each year and cost \$970 million annually.
- Arsenic contamination, which is associated with heart disease and several types of cancer, contributes to approximately 1,000 deaths and \$9.7 billion in economic consequences annually.



requirements. Wells must be tested for bacteria annually.

New York requires wells serving five or more people to be tested for contaminants.

California enacted AB 508, which expands the definition of "domestic water well." It is defined as a groundwater well used to supply water for the domestic needs of an individual residence or a water system that is not a public system and has no more than four service connections.

In Delaware, around 182,000 people rely on private well water. The legislature introduced HB 210 to establish a two-year residential drinking water purification system pilot program. The grant program will be administered by the Department of Health and Social Services and funded by the state's Drinking Water State Revolving Fund.

Florida regulates wells that serve multiple rental units or commercial property, under either the state's Limited Use Public Water System rule or the Florida Safe Drinking Water Act. The state's landlord/tenant law places responsibility on landlords to maintain plumbing in good working condition. Some Florida counties require testing of new wells and repairs.

Iowa adopted an innovative program in the mid-1980s. Studies in Iowa showed that 8% of private wells had arsenic above EPA standards. Instead of requiring well owners to conduct the tests, the state imposed a fee on pesticide sales to provide counties funding to test and rehabilitate private water wells.

In Indiana, private wells serve 2.2 million people, and 125,000 are known to have exceeded at least one of EPA's water quality standards. Since the state does not require private wells to be tested, the state Department of Health initiated a program to offer testing for bacteria, lead, copper, fluoride and arsenic in private water supplies.

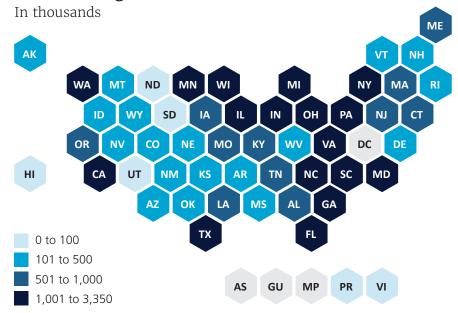
New Jersey's Private Well Testing Act requires sellers or buyers of a property with wells to test untreated water for a variety of quality indicators and to review the results prior to closing. The law also requires landlords to test well water once every five years and provide a copy of the results to each tenant.

North Carolina requires counties to have programs for permitting, inspecting and testing private wells. Wells must be tested for bacterial and chemical contaminants within 30 days of completion, with samples sent to the local health department or laboratory staff.

Federal Action

The EPA does not regulate private drinking water wells with less than 15 connections, but does

Number of Wells Not Governed by the Safe Drinking Water Act



Source: United States Geological Survey, 2010

provide information for homeowners in the care and maintenance of private wells to protect their health.

The Centers for Disease Control and Prevention's (CDC) Safe Water for Community Health (Safe WATCH) helps state health departments reduce harmful exposures from wells and other private drinking water systems. This program encourages health departments to strengthen and improve their efforts by identifying and improving gaps in their current programs. Additional information about well maintenance and water testing is available at Healthy Water's Well Testing webpage.

The CDC recommends that owners check their well every spring to make sure there are no mechanical problems and test once a year for total coliform bacteria, nitrates, total dissolved solids and pH levels. Well owners should call their local public health offices for guidance on well testing recommendations.

Beyond that, owners should test their wells:

- When there are known problems with well water in the area.
- If problems, such as flooding, land disturbances or waste disposal sites occur or are located near the well.
- After replacing or repairing any part of the well system.
- If the water quality (i.e., taste, color or odor) of the well has changed.

Additional Resources

- <u>CDC Safe Water</u> <u>Program</u>
- <u>EPA Private Drinking</u> <u>Water Program</u>

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