

## Private Wells Fact Sheet



### Overview

- Private wells are *not regulated* by the Safe Drinking Water Act- owners are solely responsible for monitoring and maintenance.
- Common contaminants include *heavy metals, agricultural runoff, PFAS, and microorganisms*, many of which are colorless, odorless, and tasteless.
- Well owners should *test their water at least once a year* and immediately after any changes, flooding, or nearby construction.
- Advocacy for *stronger PFAS regulations* and expanded well-testing programs can protect entire communities.

### Potential Contaminants

Unlike public water systems, private wells are **not routinely tested by government agencies**. Regular testing helps identify risks before they pose serious health consequences.

**Heavy metals**, (lead, arsenic, manganese, etc) may contaminate private wells through industrial pollution, mining, manufactures, waste disposal, and groundwater/surface water contamination. Arsenic and lead are *colorless, odorless, and tasteless* in water, meaning contamination may go unnoticed. Long-term exposure to heavy metals can increase the risk of cancer, cardiovascular disease, and cause damage to the brain nervous system.



**Agricultural runoff**, such as chemical fertilizers and animal manure, can introduce nitrate and nitrite into groundwater. High nitrate levels in drinking water can reduce blood's ability to carry oxygen and can cause serious illness, especially in infants.



**Per- and polyfluoroalkyl substances**, known as PFAS or “forever chemicals”, are synthetic chemicals that break down very slowly and are used in many consumer products. They accumulate in human tissue through exposure from water sources, contributing to toxic effects on humans.



**Microorganisms**, such as bacteria, viruses, and parasites, are found in animal waste and human sewage. Run-off and leakage from septic tanks can contaminate private wells by washing microorganisms into well water systems. These microorganisms can cause infections and gastrointestinal illnesses in people.



# Water Scarcity and Well Drying

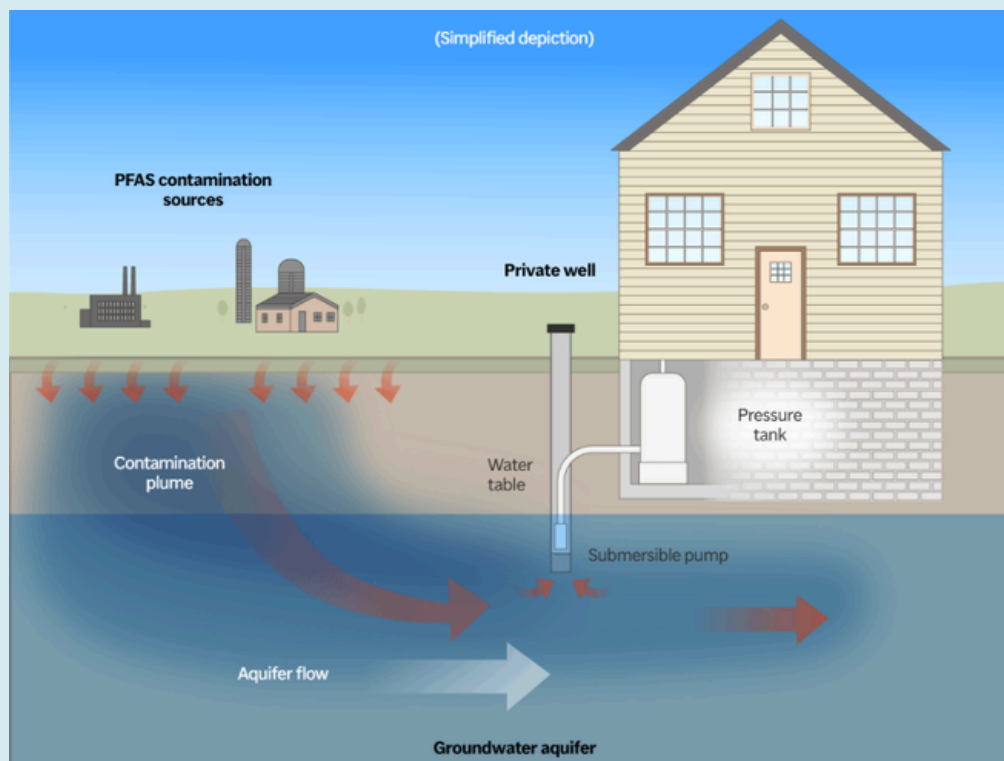
Private well owners are often the first to be affected by water scarcity and well drying. Agricultural and industrial water use can lower groundwater levels significantly.

**Large water users, including mining operations and data centers, may place strain on groundwater access in regions they are present in. When wells run dry, homeowners may face significant costs to drill deeper wells or find alternative water sources.**

## Case Study: Stella, Wisconsin

In Stella, Wisconsin, residents discovered **extremely high levels of PFAS** in their private well water after testing was offered in their community. One homeowner's well contained PFAS at concentrations *thousands of times higher* than federal drinking water safety limits, yet the water looked and tasted normal. State officials linked the contamination to paper mill sludge spread on nearby farm fields as fertilizer, which *seeped into the groundwater supplying private wells*. Many families had unknowingly consumed contaminated water for years.

The following image depicts the **pollutant flow** from the PFAS source to private wells.



Source: AP Graphic by Peter Hamlin

As of the publication of this factsheet, residents of Stella are being supplied with bottled drinking water from the government and from the mill company, which is being sued by residents of Stella. While some residents were able to secure funding to dig deeper wells, funding doesn't cover all necessary costs, posing a barrier for families. Advocacy groups such as the Great Lakes PFAS Action Network (GLPAN) are working to increase awareness on PFAS, support impacted communities, and push for stronger protections for private well owners. Stella's experience as a community highlights the importance of routinely testing well water for contaminants.

## Actions Private Well Owners Can Take

Since there are some risks associated with owning a private well, it is important to stay vigilant and test water for contaminants and understand long-term water supply.



### Test well water regularly

Test at least once a year- with testing more often if vulnerable populations (children, pregnant people, elderly) use the well. Test immediately after flooding, nearby construction, or any changes to your water system, including changes in odor, taste, or color of water. To test well water, contact a state-certified laboratory or local health department.



### Treat contaminated water

If high concentrations of bacteria are found, add **disinfection** to the well. Other methods of treatment include **boiling and distillation**. Additionally, water treatment systems such as activated carbon filters and reverse osmosis can help remove contaminants, particularly PFAS. For further guidance, visit the CDC's webpage about home water treatment systems.



### Prevent well water pollution

**Protect** the well by *sloping* the area around the well to drain surface runoff, accurately *record* maintenance done to the well, and *avoid* using contaminants such as fertilizers and pesticides near your well. For more measures to take when preventing well water from becoming polluted, visit this EPA resource.



### Find local testing programs

Check with your local health department for free or reduced-cost testing. They may also offer well-testing programs and additional resources.

Resources like privatewellclass.org list funding opportunities, and the WellCare Hotline answers well-related questions.

## Advocacy & Actions to Take

- **Advocate** for stronger PFAS regulations. PFAS are a class of nearly 15,000 synthetic chemicals. Engage with state legislators and members of Congress to support stronger PFAS regulations, expand testing requirements, and dedicate funding to the removal of PFAS in drinking water, including for private homeowners. Find detailed information about PFAS regulation at the state level at www.saferstates.org/priorities/pfas/.
- **Pay attention** to plans for new development that may exacerbate water supply problems and voice your concerns to local planning decision-makers.
- **Support and expand well-testing programs.** Encourage local health departments to offer free or reduced cost well testing. Stay connected with local programs, such as the WellCare Hotline, which people can call with questions about wells or water testing. If your organization is interested in providing well-water testing, explore the Community Driven Well-Water Testing program as an example, which aims to expand well water testing in Oregon.
- **Explore funding options available.** Grants for non-profits and private well owners are available through privatewellclass.org. Advocate for the continuation of federal programs such as FEMA, and explore options currently available, such as Single Family Housing Repair Loans & Grants.



## Resources

- [Private Drinking Water Wells \(EPA\)](#)
- [Well Water Safety \(CDC\)](#)
- [PFAS Explained \(EPA\)](#)
- [Mining Water Use \(USGS\)](#)
- [Contact Information for Certification Programs and Certified Laboratories for Drinking Water \(EPA\)](#)
- [Reducing PFAS in Drinking Water with Treatment Technologies \(EPA\)](#)
- [Protect Your Home's Water \(EPA\)](#)
- [WellCare Hotline](#)
- [Emergency Response Resources to Drinking Water Quality Post-Flooding \(River Network\)](#)
- [Drinking Water Guide: A Resource for Advocates \(River Network\)](#)

