Pennsylvania Department of Health

Well Water in Action

Putting Environmental Health Data into Action: Well Water

About 25% of Pennsylvania (PA) residents rely on private well water.[1] Notably, well owners are responsible for water quality testing to ensure the safety of their water. Contaminants that may pollute well water include disease-causing bacteria (e.g., E. coli and Giardia duodenalis), naturally-occurring elements (e.g., arsenic, iron), and industrial and/or agricultural substances (e.g., nitrates, per- and polyfluoroalkyl substances, volatile organic compounds). The actions below aim to reduce exposure to common water contaminants. Click on the links to learn more about well water actions.

Individual Actions: Learn, Act, and Protect Yourself and Your Family

- ☐ Learn about common water contaminants and how they can affect your health from the Centers for Disease Control and Prevention and U.S. Environmental Protection Agency
- ☐ Test your well water if you recently bought a home with a well and at least once every year thereafter for total coliform bacteria, E. coli bacteria, nitrates, total dissolved solids, and pH
- ☐ If your well has a standard well cap, it is recommended to replace it with a sanitary well cap, which includes an airtight rubber gasket seal to prevent insects, small mammals, and surface water from entering the well
- ☐ Consult our guide to interpreting water test results to understand aesthetic changes to water (such as changes in smell, color, or taste) as well as when the water is no longer safe to drink
- ☐ If your water quality is poor or unsafe, consult a well treatment specialist to identify and install the most appropriate water treatment system
- ☐ Enroll in the free 10-week Private Well Class to learn more about protecting your water supply
- ☐ Subscribe to the Well Owner Insights Newsletter and consider becoming a Master Well Owner

Community Actions: Support Your Social Networks

- ☐ Encourage your neighbors to test their well water regularly and to only use safe water for drinking, cooking, and preparing infant formula
- ☐ Encourage local governments to message about private wells during extreme weather events, like floods that can contaminate well water or power outages that prohibit pump operation
- ☐ Keep abreast of local land uses and industrial incidents, as pollutants that can enter wells are often linked to mining, agriculture, or industry
- ☐ Promote Penn State Extension workshops and webinars in your local area

Structural Actions: Advocate for Organizational and Policy Changes

- ☐ Support local efforts to establish construction and/or siting standards for private water wells at the municipal level
- ☐ Advocate for PA to pass laws and/or strengthen regulations concerning private wells, including water quality and well drilling, construction, and siting standards

Contact the Division of Environmental Health Epidemiology at dehe@pa.gov for more information.

[1] Private Water Systems FAQs | Penn State Extension

Date updated: February 2026