

Treatment Devices for Private Well Contaminants



Using a certified treatment device is one way to reduce exposure to harmful substances that can be found in private well water.

While most private wells in Wisconsin provide safe drinking water, some may contain substances that can affect our health. Using a certified device is important because it means the device has met a set of voluntary manufacturing and performance standards.

In Wisconsin, the Department of Safety and Professional Services (DSPS) oversees the certification of water treatment devices. **DSPS and DHS recommend that you use a device that meets National Sanitation Foundation (NSF) standards** (accredited by the American National Standards Institute — ANSI) to reduce contaminant levels in your water. These standards are listed by treatment type and contaminant.



There are a few certified devices used routinely to remove the contaminants commonly found in private wells.

In **carbon filtration** devices, the contaminants are adsorbed (stuck) onto a carbon filter. How well the treatment works depends on the type of contaminant(s), the filter design, and the time the water touches the filter.



In **reverse osmosis** devices, water is forced through a membrane (very thin material) with holes large enough for water molecules to pass through but small enough that they block most contaminants.

In **water softening** devices, the contaminants are replaced with minerals. Note: softener salt can increase the sodium level in water which may cause health concerns for those on a low or no sodium diet.*



There are two main types of treatment systems depending on how much water you want to treat.

Point-of-use (POU) systems treat water at a single location. These devices are best when the water contains substances that pose a risk when it is used for drinking and preparing foods. They include carbon filters and reverse osmosis systems, carbon filters, and water softeners.




Point-of-entry (POE) systems treat all the water entering a house. These devices are best when the water contains substances that pose a risk when it is used for bathing, showering, and running the dishwasher and washing machine. They include carbon filters and water softeners.

★ = Additional information is available in the *Resource Guide*.





This table lists the devices certified to remove the substances that are commonly tested for in Wisconsin private wells.

	 Carbon filtration	 Reverse osmosis	 Water softener
Arsenic		✓	
Atrazine	✓		
Cadmium	✓	✓	
Chromium		✓	
Copper	✓	✓	
Fluoride		✓	
Lead	✓	✓	
Manganese			✓
Nitrate		✓	
Per- and polyfluoroalkyl substances (PFAS)*	✓	✓	
Volatile Organic Compounds (VOCs)	✓		
Zinc	✓		
To reduce levels, look for products with:	Zinc: NSF/ANSI 42 Others: NSF/ANSI 53 certification	NSF/ANSI 58 certification	NSF/ANSI 44 certification

You can use [NSF's online search tool](#) to find an appropriate certified treatment device.*

DSPS staff can assist with identifying an appropriate device if needed or help you find a device for a substance that is not listed in this table.*



All treatment devices require regular maintenance.

For devices that are connected to your home's plumbing, test the treated water after it is installed to make sure the device is working to remove the contaminants.

For all devices, follow the instructions for proper cleaning and maintenance – this may be replacing filters or membranes or adding softener salt. Devices that are not properly maintained lose their effectiveness over time and can even make water quality worse.

★ Resource Guide ★



Another option for addressing contaminants in private well water is drilling a new well. The Department of Natural Resources (DNR) provides grants to help address contamination in private wells. Learn about eligibility and covered expenses at dnr.wisconsin.gov/aid/WellCompensation.html.



You can learn more about the health effects of sodium at www.dhs.wisconsin.gov/chemical/sodium.htm.



To use NSF's online search tool to find an appropriate certified treatment device:

- Go to info.nsf.org/Certified/DWTU.
- Under *Product Standard*, select the certification type of interest.
- In the *Reduction Claim* list, check the box(es) for the contaminant(s) of concern.
- Click *Search*.
- The webpage will generate a list of certified devices.

Depending on the device, you may be able to purchase it at the store or you may have to work with a licensed plumber to have it installed.



You can use DSPS' online search tool to find a licensed plumber in your area.

- Go to licensesearch.wi.gov/.
- Click on the Trades Credential/License Advanced Search header.
- In the Credential/License Type box, select "Master Plumber."
- In the Credential/License Status box, select "Not Expired."
- Enter your zip code.
- Complete the reCAPCHA verification (if needed).
- Click Search.



We have more information on treatment devices for PFAS in our *Reducing PFAS in Your Drinking Water Guide* (P-03012).

Available at www.dhs.wisconsin.gov/library/collection/p-03012.



DSPS can assist in finding a certified treatment device or a licensed plumber. You can contact them at DSPSSBProductTech@wisconsin.gov or 608-266-2112.

You can find more information on private wells at www.dhs.wisconsin.gov/water/private.htm.

Questions? Concerns?

Contact us at
DHSEnvHealth@wi.gov
or 608-266-1120