



WATER QUALITY & YOUR HEALTH

Brandon Macomber, Environmental Health Services Supervisor
November 18, 2025

Why does water quality matter?

Contaminants in drinking water can make you sick

- 1) Bacteria – some cause GI illness, possibly severe
- 2) Nitrate – Blue baby syndrome, birth defects, thyroid disease, kidney cancer
- 3) Arsenic – kidney cancer and others, effects on the nervous and circulatory systems.

Testing

Private well testing varies depending on the contaminant

- 1) Bacteria – test annually, result is either present or absent
- 2) Nitrate – test annually, 10 mg/L is too high, expect < 2 mg/L
- 3) Arsenic – test every 5 years, 10 ug/L is too high, expect < 1 ug/L

Testing

Options for testing

- 1) WI State Lab of Hygiene- limited fee exempt
(www.slh.wisc.edu/environmental/water/)
- 2) Private labs
(dnr.wisconsin.gov/topic/LabCert/PrivateWellTesting)

Treatment

Depends on the problem you have




Disinfection is the primary solution for Coliform

- Correct problems with the well or system first
- Shocking your well is the most common treatment
- More is not better
- Consider hiring a professional

Treatment

Filtration - Other contaminants

 This table lists the devices certified to remove the contaminants commonly found in Wisconsin private wells.

	 Carbon filtration	 Reverse osmosis	 Water softener
Arsenic		✓	
Atrazine	✓		
Copper		✓	
Fluoride		✓	
Lead	✓	✓	
Manganese			✓
Nitrate		✓	
Per- and polyfluoroalkyl substances (PFAS)	✓	✓	
Trichloroethylene (TCE)	✓		
To reduce levels, look for products with:	NSF/ANSI 53 certification	NSF/ANSI 58 certification	NSF/ANSI 44 certification

Filtration can be targeted to save you money.

- Point of Use (POU)
 - Under sink system
 - Refrigerator
 - Nitrate
- Point of Entry (POE)
 - Filter all water entering the house
 - Arsenic

Replacement

Most expensive up front, no guarantee to get good quality water.

- 1) Good option if you have an old or shallow well
- 2) Need enough space to meet set back requirements
- 3) Long term solution if you have access to clean water

Alternate source of water

Most expensive long term

- 1) Look for NSF or ANSI label on bottled water
- 2) May be necessary short term



Brandon Macomber

Environmental Health Services Supervisor

bmacomber@publichealthmdc.com

Phone: (608) 219-7639