



Lower Yakima Valley Nitrate Health Assessment

What We Did

The Washington State Department of Health (DOH) completed an assessment of nitrate contamination in groundwater in the Lower Yakima Valley. The purpose was to look at the possible health impacts of current and potential future exposures to nitrate because the groundwater in the area is the source of drinking water for the nearby community.

What We Found

From the health assessment of the Lower Yakima Valley, we reached important conclusions about drinking water systems, including public water systems and private wells:

- Infants and pregnant people who consume water from private wells in Yakima and Benton counties may be at risk for adverse health effects.
- Adults who are not pregnant who consume water from private wells in Yakima and Benton counties are not at risk for adverse health effects.
- People who consume water from the public water systems in Yakima and Benton counties are not at risk for adverse health effects.

Read our assessment, *Evaluation of Risk from Exposure to Nitrate Contamination in the Groundwater of the Lower Yakima Valley*, at <https://doh.wa.gov/sites/default/files/2023-06/334-506.pdf>.

What Residents Should Do

- We recommend private well users test their wells for nitrate every year. If nitrate test results are 5 mg/L or higher, resample in six months.
- We recommend users get wells tested for nitrate more frequently than once a year if well construction and maintenance standards (such as a compromised casing or seal) that are outlined in [WAC 173-160](#) are not met.
- Do not boil water if it contains elevated nitrate. Boiling water will increase the nitrate concentration in water.
- Infants and pregnant people should not use water containing nitrate concentrations above the Maximum Contaminant Level (MCL) of 10 mg/L for drinking or food preparation (e.g., cooking, produce washing).
- People with reduced gastric acidity should not use water containing nitrate concentrations above the MCL of 10 mg/L for drinking or food preparation (e.g., cooking, produce washing).
- People with the genetic conditions reduced NADH diaphorase, cytochrome b5 reductase, pyruvate kinase, RBC methemoglobin reductase, and/or glucose-6-phosphate dehydrogenase should not use water with nitrate concentrations above 10 mg/L for drinking or food preparation (such as cooking, produce washing).

What Nitrate is and Where it Comes From

Nitrate is a naturally occurring form of nitrogen. It is present in manure, compost, and commercial fertilizers. Excess nitrate not absorbed by plant roots may migrate via runoff or through the soil and contaminate the groundwater. Other potential sources of nitrate contamination in groundwater are irrigated crop fields, leaky lagoons, septic system drain fields, atmospheric deposition, natural soil organic matter, and application of commercial fertilizers to residential lawns.

Learn more about nitrate at <https://doh.wa.gov/community-and-environment/drinking-water/contaminants/nitrate>.

For more information call the Office of Environmental Public Health Sciences at 360-236-3385.

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