

Tina Kotek, Governor

Date April 30, 2025

TO: The Honorable Ben Bowman, Chair, House Committee on Rules

FROM: André Ourso, Administrator, Center for Health Protection

SUBJECT: Health Risks of Domestic Well Contaminants Addressed in HB 3525

Thank you for the opportunity to provide information about health risks posed by domestic well contaminants addressed in HB 3525A with the proposed -8A amendment. For the record, the Oregon Health Authority (OHA) takes no position on the bill.

As a reminder, OHA regulates public water systems in the state that are required to regularly test for and treat water to meet maximum contaminant levels, or “MCLs” established by the US Environmental Protection Agency. Private domestic wells are not regulated, and it is the responsibility of the well owner to test and treat their water as needed. Related to private domestic wells, OHA has a Domestic Well Safety Program whose statewide role is to provide outreach and education to residents who rely on a domestic well for drinking, cooking and other activities of daily living. In the domestic well context, the program is often contacted by environmental agencies or members of the public asking what domestic well water test results mean for human health. OHA’s public health toxicologists provide health risk information by comparing levels of contaminants against EPA MCLs and established guidance from the Centers for Disease Control.

While many domestic wells in Oregon provide clean water, some wells do become contaminated due to natural and un-natural causes. This contamination can increase risks of both short and long-term health effects. Children are more susceptible to high levels of contaminants in drinking water because they drink more water per body weight than adults and because they are going through important developmental stages, especially brain development. People who are pregnant or seeking to become pregnant are another group who may be

especially sensitive to exposure to contaminants at certain stages of fetal development.

HB 3525A and the proposed -8A amendment set landlord testing and laboratory reporting requirements for arsenic, *E. coli*, nitrate and lead. In general, for all contaminants we are concerned about long-term exposure at lower levels that can cause or contribute to cancer risk and chronic conditions. We are also concerned about short-term, high-level exposure to contaminants that can cause immediate health impacts. Short term is typically defined as a year or less, but for certain contaminants and groups of people, the period of concern can be as short as two weeks or less.

Below are the key aspects or risks of each of these four contaminants:

- Arsenic is naturally occurring in Oregon soils and is associated with chronic health conditions affecting many internal organs, the immune system and skin, as well as diabetes and several cancers. At high levels, even short-term exposures can cause stomach pain, nausea, vomiting and diarrhea.
- Testing for *E. coli* bacteria is important as an indicator of the integrity of a well; presence of these bacteria indicates that the integrity is compromised and repairs may be needed. Only some strains of *E. coli* are harmful to people, but if present, acute exposure can cause severe stomach cramps, diarrhea and in some cases kidney failure.
- Nitrate is naturally present in groundwater at low levels, but local and regional nitrate inputs from animal manure, human sewage waste and commercial fertilizers can contaminate groundwater that supplies domestic wells. At high levels, this poses a risk of great concern for formula-fed infants, while there is some evidence of links to reproductive, thyroid and cancer risks.
- Finally, whether a household is served by a domestic well or a public water system, lead in drinking water is typically a result of the metal leaching from household plumbing, and very rarely due to groundwater leaching naturally occurring lead. This contaminant is a powerful neurotoxin that is especially dangerous to children, potentially causing permanent brain and organ damage. Lead exposure also has numerous health effects in adults, increasing the risk of kidney problems, high blood pressure and cancer.

OHA has detailed fact sheets on these and other domestic well contaminants available on the [OHA Domestic Well Safety Program](https://healthoregon.org/wells) website that specify the specific levels of concern for long term and short term exposures for each contaminant (also reachable via <https://healthoregon.org/wells>). OHA is also happy to provide information upon request and answer any follow-up questions.