

Uranium Questions posed by attendees of Uranium Workshop hosted by Thriving Earth Exchange (TEX) and the Town of Glastonbury on January 12, 2022
[Click here to view the Powerpoint presentation and additional resources.](#)

Q. “Glastonbury has many agricultural land uses. Did your study look at correlations of impacts from nitrates in groundwater to elevated levels of uranium?”

No, but water can move fast from the surface through fractures, and fractured rock aquifers are more susceptible to inputs from surface land use activities, such as nitrate. More recent studies have also linked uranium to nitrate in groundwater, either through nitrate reduction coupled with uranium oxidation, or through enhanced weathering related to nitrification. In areas with geogenic groundwater contamination (i.e. contamination coming from aquifer rocks), it can be difficult to predict which wells will be affected, because individual wells are connected to their own specific network of fractures.

Q. “What are the order of magnitude ranges for water treatment options? For instance, is upkeep for a Reverse Osmosis (RO) system on the \$100 – \$1,000 scale? Is anion exchange on the \$1,000 to \$10,000 scale to install?”

Since water treatment is specific to the well water it treats, it is important to have your water tested, and then discuss treatment options and related costs directly with a water treatment expert.

Q. “Do existing radon mitigation systems also remove uranium from water?”

Your radon mitigation system is designed to remove radon. If you need to have uranium removed, please consult your water treatment specialist to determine the required type of treatment.

Q. “It seems that Reverse Osmosis (RO) treatment is the most cost effective option, and that long term costs appear cheaper than ion exchange with brine and waste disposal costs. Bringing in public water will cost homeowners more than either option. You implied that showering is a potential health risk, however we understand that dermal exposure is not a risk.”

Private well water treatment is an option that exists for homeowners for many known water contaminants, including uranium. While some levels of uranium in well water are easily treated, some homes have very high levels of uranium that can challenge a water treatment system. Some homeowners prefer to have the assuredness of consistent quantity of water and the regular water quality testing that come with public water.

The Connecticut Department of Public Health has set a secondary standard of 900 ug/l for which you should evaluate options for a safe water supply to your home. Visit their website for more details at https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/environmental_health/private_wells/2018-Downloads/050818-uranium_in_well_water_September_2016.pdf

Q. “How does Glastonbury compare to other towns in Connecticut or New England? Is this a newly found issue?”

The U.S. Geological Survey (USGS) has conducted studies of groundwater in Connecticut and other states in New England. Several studies can be found in the References Sited in a report produced in cooperation with the CT Department of Public Health at <https://pubs.usgs.gov/of/2017/1046/ofr20171046.pdf>