

MechSE WELLness

W02 Water Contaminants

Intent: Provide access to drinking water that complies with health-based limits on contaminants.

Rivers, lakes, aquifers and other sources of drinking water can accumulate contaminants over time from industry, agriculture, and natural geologic conditions. Pesticides and herbicides used in agriculture enter the water supply through rain runoff and have been detected in 30-70% of all groundwater. Many contaminants also come from water distribution systems (older pipes) and reactions of water disinfection chemicals with other organic material in the piping. Exposure to these can result in cancer, kidney damage, and central nervous system birth defects. Lead is also known to impair neurodevelopment in children and contribute to increased systolic pressure in adults.

Impact: Identifying and controlling contaminants in drinking water can reduce exposure (via ingestion) to harmful substances and prevent disease.

What are the requirements to earn this credit?

1. Water delivered to LUMEB for human consumption meets...
 - a. dissolved metal thresholds for lead, arsenic, antimony, mercury, nickel, copper, cadmium, and chromium.
 - b. organic pollutant thresholds for styrene, benzene, ethylbenzene, vinyl chloride, toluene, xylenes, and tetrachloroethylene.
 - c. disinfectant byproducts thresholds for total trihalomethanes and total haloacetic acids.
 - d. Herbicide and pesticide thresholds for atrazine, simazine, and 2,4-dichlorophenoxyacetic acid.
 - e. Fertilizer thresholds for nitrate.
 - f. Public water additive thresholds for fluoride, total chlorine, and chloramine.
2. Monitor water quality at least once per year via report provided by local municipal (American Water) and submit report annually to WELL Online.

How is MechSE accomplishing these requirements?

Our Director of Facilities & Operations annually receives and reviews two water quality reports, one from American Water and another from campus Facilities & Services. Champaign-Urbana enjoys very high quality water that meets the requirements above. Our source of water is the local Mahomet Aquifer. This aquifer, ranging from 50 to 200 feet thick, supplies over 100,000,000 gallons of water per day to 15 counties, including Champaign County.



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