

Water: Health Exposures of Concern

Water is inextricably linked to our health. It composes more than 50% of body weight, is the most essential nutrient, and we require an intake of more than 300 gallons per year to replenish and stay hydrated – especially in our dry climate. However, Colorado residents are often unaware of potential health risks associated with water contaminants. CSU Extension is an important resource for all aspects of water information but gaps exist in materials addressing drinking water safety and health exposures of concern related to water. Health concerns include pathogens, such as *Giardia* and *Cryptosporidium*, toxins produced from algal blooms, toxic metals, such as mercury and lead, and chemical contaminants, including per- and polyfluoroalkyl substances (PFAS). With the popularity of outdoor recreation and widespread drought conditions, there are additional challenges to water safety in Colorado. Outreach education is needed to inform Colorado residents and visitors about the importance of safe water and effective management of health risks associated with water containments.

Proposal: Research, compilation, and development of outreach materials addressing safe drinking water

Fitting within recommended public health protocols, field experience would be encouraged but all research was designed to be possible through virtual engagement if necessary. Under the guidance of the advisory team, the Extension summer intern would complete these goals:

- Research current state-wide water-related data; meet with water experts from CDPHE and CSU's Water Quality Lab; compile related drinking water recommendations from state and federal agencies; review literature pertaining to issues associated with Colorado waters
- Meet with Extension professionals representing all regions of Colorado to gather input and compile lists of local concerns
- Use gathered information to
 - develop materials related to water when hiking, camping, and fishing
 - revise and update CSU Extension drinking water fact sheet
 - create related social media posts for CSU Extension Facebook, Pinterest, and Instagram
 - design downloadable posters which will be posted on Extension websites
 - assist with development and delivery of a 1-hour webinar, *Be Water Wise*, offered to Extension in August 2021 which would be archived for sharing with incoming Extension personnel

Student benefits: opportunities to develop skills related to collecting and reviewing data pertaining to health impacts of water, prioritizing local concerns, engaging with Extension agents and campus/public health experts, developing outreach materials, and delivering information to Extension professionals.

Mentor/Advisory Team:

Howard Ramsdell, faculty member in the Department of Environmental and Radiological Health Sciences Toxicology Section, adjunct faculty in the Colorado School of Public Health, and instructor of GES 120 Water Sustainability in the Western U.S.

Dan Goldhamer, Assistant County Director and Horticulture Agent, Denver County

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