

With the summer travel season upon us, now is a good time to reflect on the quality of our local water supply and that of the communities we may visit in our travels. Fortunately for us in the United States in general and the Charlottesville area in particular we have a very safe water supply with few contaminants that threaten the health of our citizens. Other communities around the world are not so fortunate. The World Health Organization and UNICEF estimate that lack of safe drinking water, sanitation facilities and basic health and hygiene education contribute to 6,000 deaths each day. Most deaths are children.

In the United States, citizens served by public water are provided with water quality reports each year. The United States Environmental Protection Agency (USEPA) requires that all public water suppliers in the United States regularly collect and test water to ensure its quality and report results directly to water consumers. Locally, those served by Albemarle County Service Authority or the City of Charlottesville Public Works Department have their water tested by the Rivanna Water and Sewer Authority (RWSA). Hundreds of hourly, daily and annual samples are collected and tested by RWSA. The results of those tests are compiled annually and presented to water customers each spring in May or June as part of a document referred to as the Consumer Confidence Report. Citizens who are not served by public water are responsible for testing their own wells to assess water quality. Information on testing well water can be obtained by contacting the local health department.

For Charlottesville area citizens receiving public water it is a relief to know that the quality of our drinking water meets or exceeds all regulatory requirements. This area has three water treatment plants in the urban area, and one each in Crozet and Scottsville that employ both chemical and physical treatment processes to ensure that contaminants that may make their way into our raw water supply do not make it to the treated drinking water. In addition to treating water to remove contaminants, fluoride is also added to encourage good dental health throughout our community.

As we are fortunate to have such safe drinking water, we frequently forget that the rest of the world is not so fortunate. The expression “don’t drink the water” is often used in jest when friends and family announce vacations to tropical locales, but truly, it is not bad advice for travel to just about anywhere you are not certain about the water treatment process.

Even hikers and backpackers who explore remote locations distant from any possibility of chemical contaminations need to be aware that streams may have other dangerous pollutants. Giardia and Cryptosporidium are both disease-causing organisms frequently found in remote water sources as a result of contamination from wildlife fecal matter. When present in high enough concentrations they can cause abdominal infections that are characterized by nausea and diarrhea. These contaminants are not visible to the naked eye, thus it should not be assumed that because the water looks and smells clean it is safe to drink. The good news is that any water that looks good enough to drink can be made microbiologically safe relatively simply. By boiling water for as few as one to three minutes, depending on altitude, most non-chemical impurities can be removed. While

disinfection tablets are available at drug and camping supply stores, it should be noted that they do not provide protection against giardia, cryptosporidium or parasitic worms.

When traveling to foreign countries other than Canada, Australia, New Zealand, Japan and most of Western Europe, it is important to remember that their water quality standards are much different than those in the United States. This means that organisms or contaminants, which would not normally be present in our drinking water may be present in theirs. In addition to drinking water, water used for teeth brushing, ice cubes, cleaning salads or cold food preparation could be contaminated and result in health problems if consumed. When traveling in countries where water quality is suspect, protect yourself by requesting carbonated, bottled water for all of your water needs, and avoid food products they may have been washed in contaminated water. Requesting carbonated water is important, as sometimes, bottled water is simply filled from local taps and may also include contaminated water.

Wherever your travels take you this summer, enjoy all the place has to offer, while remembering the locals may not be as blessed as you are with the quality of their water.