

Re-using household water can be tricky, illegal  
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Special to the Sentinel

In 2002, Colorado had its worst drought on record. Cities and towns throughout the state, including some on the Western Slope, faced severe water shortages. The following years had little precipitation to restore reservoir water levels, and “gray water” (laundry, shower and bathroom sink wastewater) was highlighted by some as an untapped source for temporary household water shortages.

There are a number of issues that need to be understood before you rely on gray water as a water-conservation tool. Firstly, Colorado has strict water rights laws that prohibit multiple uses of water. For example, a farmer can only use his water rights to irrigate once - meaning that after a share of water is diverted from the river and directed onto a field it is either lost through evaporation, consumed by the plant or returned to the river through a waste ditch or by percolating through the ground.

The last of these, return flows, is the critical pathway. Other water-rights holders depend on these return flows to fulfill their water rights and shares which they own. In the household, these return flows are what we flush and rinse away, which eventually pass through the water-treatment plant and return to the Colorado River. Most interpretations of single use for the household stick literally to that definition; even if waste streams stay within the house, they cannot legally be re-used.

Gray water is very much a gray area when it comes to defining its health risks. While places like Australia and Arizona encourage gray water use, the Colorado state health department is wary of the myriad of potential contaminants known as pathogens that can infect grey water and cause human health problems. These include salmonella, Legionnaire’s disease and hepatitis.

Experts have conducted many studies on gray water, but the most significant finding is that gray water is highly variable in its level of pathogen contamination. When you think about the variety of households that live on a single block in the Grand Junction area this is easy to understand. A laundry load full of work shirts is going to produce a distinctly different waste stream than one full of dirty diapers.

With plenty of reasons to support both sides, it’s easy to understand why gray water has its advocates and opponents. The only certainty is that another drought will come and when it does, the topic of gray water will resurface.

*We live in a semiarid climate where droughts will always be a part of our environment. Water for our future means conserving now. The Drought Response Information Project (DRIP) is a collaboration between the valley’s domestic water utilities and CSU Cooperative Extension to provide information and educate the public about drought and the importance of water conservation.*