



UP THE CREEK

December 1, 2012

True or False?

A baker's dozen on water quality and other things - circle T or F, then check the answers below, or vice versa.

1. A water softener is a beneficial addition to your home. T F
2. Soft water is easier on pipes and fixtures than hard water. T F
3. The greatest health risk in a public water supply is chemical contamination. T F
4. Ultraviolet light is a safe and effective disinfectant for drinking water. T F
5. Our distribution pipeline system is clean and free from outside contamination. T F
6. Ozone is a safe and effective disinfectant for drinking water. T F
7. Chlorine is very difficult to remove from water, once added. T F
8. Bad taste and odor can be removed by home filtration. T F
9. Giardia and Cryptosporidium are invasive organisms from Mexico/Russia, wherever. T F
10. Systems supplied by well water need not chlorinate; the water is naturally safe. T F
11. Our obsession with clean water diminishes our natural immunity. T F
12. Like some public entities, USCDWUA is broke and runs big deficits every year. T F
13. It is safe to ignore the "Call of the Annual Meeting" and stay home. T F

Answers:

1. FALSE. Our water is already plenty soft. The total hardness numbers are 40-60 milligrams per liter, or about three grains per gallon. Don't waste your money on additional softening.
2. FALSE. Soft water is more corrosive than hard water. Hard water causes scaling, which is often mistaken for corrosion. But very soft water will dissolve and eat holes in metal pipe and fixtures. Water is the universal solvent. Hardness (dissolved minerals) makes it a little less aggressive toward plumbing. Too hard is also bad, of course. But we are closer to being too soft.
3. FALSE. Living pathogens (germs) cause the vast majority of illness from drinking water.
4. TRUE. UV is used in water and wastewater disinfection. But it only works once, at the treatment plant. It is still legally required to add a chemical disinfectant, such as chlorine, which will persist throughout the distribution system.
5. FALSE. We only wish it were true. Pipeline breaks, corrosion, and illegal cross-connections are potential sources of contamination in all distribution systems, including ours.
6. TRUE. However, ozone is expensive to generate, and, like UV, leaves no residual disinfectant to combat potential contamination downstream. And like chlorine, it creates undesirable byproducts in the water.
7. FALSE. Some of us dislike or react to chlorine, and want it gone. All that is needed is an activated charcoal filter. Don't fall for "reverse osmosis" or other expensive solutions. Do follow the manufacturers recommendations for changing the cartridge – you don't want a germ farm.
8. TRUE, if the cause is algae, as happened this fall. Again, use activated charcoal.
9. FALSE. These creatures have been here all along. They are intestinal parasites, living in the gut of a variety of mammals, even those who walk upright and wear clothes. They should not worry you, because our membrane filters remove them.
10. Good question. It should be true, but in recent history the cities of Walkerton, Ontario and Alamosa, Colorado experienced waterborne disease outbreaks that sickened many and killed others. Both were served by well water which was not chlorinated, but now is.
11. TRUE. But it's like our everyday concern with hygiene. We rid ourselves of fleas and other vermin because few people want to risk acquiring "natural immunity" to bubonic plague.
12. FALSE. We have remained solvent by making use of two little-known accounting tricks: (1) adopt a balanced budget; (2) follow it. You can help perpetuate this radical mode of operation by participating in your Annual Meeting December 11.
13. TRUE, we can vote to raise the water rates arbitrarily without your input. But you might have something to say to the contrary. So, attendance is advised.