



UP THE CREEK
October 1, 2012

Safe, but Unpalatable

At the time this is written, September 24, our office is doing little else besides answer phone calls from concerned members, all following a similar format, "What has happened to our water? It smells and tastes horrible!" And, since the office faucet from which we drink is connected to the USCDWUA system, we can't help but agree. This current episode of taste and odor is unlike anything we have experienced since the Great Stink of '88, which some of you may remember. That's the year, according to legend, that even dogs turned from their water dishes in disgust.

Fortunately, USCDWUA was somewhat shielded from blame in that instance. We were still customers of the Town of Cedaredge, and could therefore simply shrug and suggest a call to Town Hall. Now, the finger must be pointed directly us, and this newsletter is our honest attempt, feeble though it may be, to explain.

If you have driven over Grand Mesa recently, you may have noticed that many of the lakes are shrunken puddles, and what little water remains often has a startling blue-green color. Both the color and the scarcity of water can be blamed on the drought. The need for irrigation, municipal, and domestic water has consumed nearly all storage capacity. And the summer of endless sunny days has encouraged the extravagant growth of algae in what pools remain. While algae is common and to be expected, it has repeatedly bloomed* this summer, with a ruinous effect on water quality. As the lakes are drawn lower and lower, the algae content becomes more concentrated, until the normally clear and sparkling Surface Creek water resembles runny olive drab paint.

The membrane filters in our water treatment plant remove algae cells. But in doing so, they rapidly become clogged, forcing more frequent and time-consuming cleanings. While the algae cells themselves are removed, some of their byproducts are not. When algae cells are ruptured, two obnoxious chemicals can be released, known as geosmin and MIB (methyl-iso-borneol). They cause an unpleasant musty, earthy taste and odor in the water. The human nose is remarkably sensitive to these compounds, being able to detect concentrations as low as ten parts per trillion. Taste is largely influenced by odor, so what smells musty also tastes musty.

It is not surprising that, despite our assurances, people suspect that water having an unpleasant taste and smell is unsafe. It is a natural and wise defense mechanism given to us at birth. However, we persist in advising you that our water is safe to use, internally or externally.

You may be able to drive out some of the volatile odor molecules by boiling. However, it sometimes seems that heating actually intensifies the smell, as happens in water heaters. You often smell it in your bath or shower first. A small cartridge-type charcoal filter attached to your kitchen faucet will remove the majority of objectionable taste and odor, including chlorine.

We fervently hope that by the time you read this, the water quality will have improved. Even more so, we hope that this is the last episode for this summer. Rain, cloudy skies, and colder temperatures will certainly help. A return to a normal winter snowpack and a non-drought summer next year will help. In fact, if those two things don't happen, our worries about next year's water supply will be centered on quantity more than quality. When we have no water, we will have no concerns about its taste and odor.

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*An algae 'bloom' does not involve flowers, but refers to a sudden massive increase in the number of cells, turning the water opaque.