



UP THE CREEK

June 1, 2011

Lately a common complaint received here at the Up The Creek complaints department (which we recently expanded to accommodate the increased volume of calls) concerned the yella color of the tap water. “Yella,” we have learned, actually is a recognized artists color, made by blending gang green, yellow ogre, and a touch of burnt sinner. It is best appreciated against a white bathtub.

We hope that as you read this, the yella days are behind us. The usual duration is about a month. By “usual” we mean that such colorful episodes have happened before. Every spring, when the Grand Mesa snowpack first begins to melt, the meltwater seeps through a carpet of last autumn's aspen leaves absorbing their golden – albeit somewhat rotten – hue. Algae stirred up in the creek bed adds its own muckle-green to the mix. The result observed in the creek is a rich bronze tea color somewhere between Darjeeling and Earl Gray. Upon undergoing our treatment process it fades to yella.

In June, as the runoff gains greater force, the color of the creek is plain brown, as in mountain dirt. And that is the end of the aspen leaf tea. Dirt is a lot easier for our treatment plant to remove than dye. And it seems that when the dirt is removed it takes the dye with it, or perhaps the dye season is over anyway.

Although it may be cosmetically unpleasant, the lightly-tinted water is safe to use. We are all naturally conditioned to expect our drinking water to be crystal clear. It's hard to swallow (bad pun) a claim that yella water may be safe while perfectly clear water may contain dangerous organisms and toxins, but it's true. We can confidently assure you that our water, colorful though it may be, is nevertheless safe because we know that our filtration system is performing correctly, and that the water is adequately disinfected, and that a residual amount of disinfectant (chlorine) is maintained throughout the system. We know these things because we monitor and test.

For example, a recent interesting test was performed on our treatment plant. It is called MPA, for Microscopic Particle Analysis. The test is done this way: identical small cartridge filters supplied by the testing laboratory are connected to the raw water inlet and to the finished water outlet of the main filters at our treatment plant. Water is trickled simultaneously through these two filters at the rate of one gallon per minute for 24 hours. The filters are then shipped to the laboratory, where they are taken apart and their contents examined. The idea is to compare the number of particles trapped from the raw water against the number trapped from the finished water. Not every particle is counted, out of concern for the sanity of the analyst. The test specifically looks for particle types that are used as standard indicators of water filter performance. Included are algae, diatoms, rotifers, nematodes, and pollen.

In the raw water, the patient analyst counted one million particles of algae, ten million diatoms, two thousand each of rotifers and nematodes, and five thousand grains of pine pollen. In the finished water, there were zero algae, zero rotifers and zero nematodes. There were seven diatoms, and statistically speaking, one-tenth of a grain of pollen.

The date of the MPA test was April 25. If you were feeling a bit strange at that time, you might have ingested one of the seven diatoms that got through. Or a tenth of a grain of pine pollen. Say, isn't that stuff yella?