

OurwaterQuality

Water Quality Report now available

Along with your most recent water bill, you will find enclosed the 2010 Water Quality Report published by the City of Santa Fe's Sangre de Cristo Water Division. This report, as well as the reports for the two previous years, are available on the division's website.

The U.S. Environmental Protection Agency (EPA) requires that all public water suppliers publish and distribute this report, also known as a Consumer Confidence Report (CCR), by July 1 of each year. The EPA developed the format so that consumers could make "practical, knowledgeable decisions about their health and the environment."

In 2010, the city supply consisted of three sources: the Santa Fe watershed (McClure Reservoir and Nichols Reservoir), the city well field (eight active wells) and the Buckman well field (13 active wells). Depending on where you live in Santa Fe, the time of year, and the amount of water in the reservoirs, your water may be a blend of water from these

three sources. (The Buckman Direct Diversion was not part of the city's water supply in 2010.)

The bulk of any CCR concerns the regulated water-quality categories: inorganic contaminants, radioactive contaminants, synthetic organic contaminants and disinfection/disinfection byproducts. For each constituent, the report also provides the EPA's maximum contamination level (MCL). The New Mexico Environment Department monitors water quality on behalf of the EPA.

Because the city uses surface water as a supply source, the report also includes information on turbidity (water clarity) and total organic carbon. The latter can react with disinfection byproducts and produce trihalomethanes, for which the EPA mandates regulatory action because of potential human health impacts.

Included are the maximum contamination level goals (MCLGs), which are the levels of constituents in

drinking water below which there is no known or expected risk to human health. But as a practical matter, because of the high cost of actually achieving the MCLGs through costly treatment techniques and procedures, such goals are often unobtainable. This is part of the explanation of why U.S. drinking water standards for contaminants known to be dangerous to human health are generally lower than those of other developed countries.

Also included in the report are Results of Voluntary Monitoring, which cover the nonenforceable secondary standards that serve as guidelines for monitoring drinking water quality. Santa Fe also includes hardness (from calcium and magnesium), which is not technically a secondary standard but is the cause of "lime scale." Consumers want to know the water hardness level. The results, provided in mg/L (milligrams per liter = parts per million) are easily converted to grains per gallon, the standard metric



STEPHEN WIMAN

for hardness, by dividing by 17.1. Silica is also of concern due to its severe staining potential, but is missing simply because it is an unregulated water constituent.

If you are on well water, the report is an excellent proxy for what you should know about your (unregulated) well water.

Stephen Wiman has a background in earth science (Ph.D. in geology) and is the owner of Good Water Company in Santa Fe. He may be reached at 505w-471-9036 and skwiman@goodwatercompany.com.

PermacultureinPractice

A sad song for New Orleans

Before the surgical strikes over Libya, before Bush's ill-advised conquest of Iraq, before the Afghanistan quagmire, we were at war in the Mississippi Delta. Today, the fight continues. While rural communities are sacrificed to prevent the inundation of New Orleans and Baton Rouge, the Army Corps of Engineers scrambles to fix a plethora of leaks along the levees. No one yet knows who will prevail. For now, it seems that people will beat back this spring's attacks, but nature is more patient and more determined than we. Like a pendulum, the main branch of any delta swings back and forth over geologic time. The question is when, not if, New Orleans will someday go the way of Atlantis.

The Biloxi, Chickasaw, and Mississippi Delta natives knew not to establish permanent residence. The first melee between the massive Mississippi and mere man dates back to the founding of Nouvelle Orleans on May 7, 1718. Months later, according to John McPhee in his

visionary essay *Atchafalaya*, the river quickly fought back with a major flood.

The first and sometimes most important step in a permacultural landscape design is site selection. If we make bad choices about where we live, it takes more to maintain our survival. If we properly choose the location for a city, a home, or a garden, the job of creating sustainability becomes easier — instantly.

Permaculturalists (and all with common sense) avoid building in floodplains and wildfire-prone sectors of land. We look for places with ample water, great soil, and plenty of sunlight. Protected from wind and far from any fault lines or toxic-waste sites, our greatest hope is to find an inexpensive parcel of land that's nestled in the south-facing, middle section of a slope. On this strip of land, often called the "thermal belt," temperatures tend to be more comfortable and far less prone to hitting record highs or lows.

Paradise. The Garden of Eden. Nirvana. Utopia. The perfect location for a sustainable city, home, or garden is not easy to find. Most of the time, we have to make do with what we have. But we should also recognize any losing battles that we are in with Mother Nature. The natives were right to maintain a certain restlessness along the banks of the Mississippi and its distributaries. They knew you can pass through and even live off of a big river delta, but you can't expect to inhabit any one mudflat forever.

It's with great uneasiness that I bring you this big news, but the most ethical thing for us to do would be to clean up and abandon New Orleans in the near future. The potential for catastrophic loss of life is real, and the probability of our long-term defense of the city is nonexistent.

Sometimes the most important resource that we gain from an event is knowledge, so don't worry. The likes



NATE DOWNEY

of me are nowhere near winning the argument. I must say though that I fear the horror of the event that will cause the pendulum to shift and thereby force the exodus to begin.

*Nate Downey is president of Santa Fe Permaculture (505-424-4444) and the author of the just-released book, *Harvest the Rain: How to Enrich Your Life by Seeing Every Storm as a Resource* (Sunstone Press).*