



What's in your water?

pH levels and temperature information for each of Tucson Water's Water Quality Zones are published each month in *Your Water Connection*, the newsletter included in Tucson Water customers' water bills. You can also find up-to-date information on pH and temperature on Tucson Water's web site at www.cityof-tucson.org/water.

To stay up-to-date on water quality issues and to learn more about your water, subscribe to the *EMPACT – Water Info Now* Newsletter. It's free! Get on the mailing list by calling 791-5080, Ext. 1372 or email Dan.Quintanar@tucsonaz.gov.

pH and Temperature



What is a primary drinking water standard?

A primary drinking water standard is the maximum level of a chemical or microbe legally allowed to be present in your drinking water. As part of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (USEPA) sets primary standards for approximately 90 contaminants in drinking water. For each of these, USEPA sets a legal limit called a maximum contaminant level (MCL) for drinking water. Tucson Water must, by law, provide drinking water that meets the primary standards and is safe to drink.

What is a secondary drinking water standard?

Secondary standards relate to the taste, odor, or appearance of drinking water. USEPA sets non-enforceable guidelines that address aesthetic characteristics and cosmetic effects. Public water utilities and states are not legally required to meet these secondary standards, but Tucson Water works to comply with them.

For more information about water standards visit the EPA website at <http://www.epa.gov> or Tucson Water's website at <http://www.cityoftucson.org/water>.

One milligram per liter is the same as one part per million. To give you an idea of how small an amount this is, it's the same as 1 teaspoon in 1,320 gallons.

One microgram per liter is the same as one part per billion, and is the equivalent of one teaspoon in 1.3 million gallons.

pH

The pH of your water is not something you normally think about except for certain instances like taking care of your pool, spa or fish. But you will notice pH without thinking about it when you taste lemon juice or vinegar (which are sour and considered acidic), or bicarbonate of soda or milk of magnesia (which are chalky and considered basic).

In general, water with a pH less than 7 is considered acidic and with a pH greater than 7 is considered basic. The pH of water measures the water's balance of acids and bases, is affected by temperature and carbon dioxide gas and is measured in Standard Units (S.U.). Water with less than 6.5 could be acidic, soft, and corrosive. A pH greater than 8.5 could indicate that the water is hard.

In general the pH of groundwater varies between 6.0 to 8.5 S.U. The pH of Tucson's water supply is slightly basic, with an average range between 7.5 and 8.2 S.U. The USEPA secondary standard for pH is set between 6.5 to 8.5 S.U.

pH of Common Liquids

Vinegar	3.0	Milk	6.3 – 6.6
Wine	2.8 -3.8	Seawater	8.3
Beer	4 - 5	Ammonia	11

Temperature

Temperature

The temperature of drinking water delivered by Tucson Water can vary depending on the time of year and the location where the temperature measurement is taken. Tucson's water supply comes from almost 200 different wells and the Clearwater Renewable Resource Facility in Avra Valley. Multiple locations and sources is the primary reason for the difference in temperature measurements. The depth of the water below the ground's surface and the geology of the area surrounding the well affect the temperature of our water.

The temperature of the water can also change as it flows through our water system and is affected by outside temperatures. Water in your plumbing can be heated by high outside temperatures during Tucson's hot summers. This can vary depending on where your pipes are located.

Water temperature can affect the taste of your drinking water. Storing tap water in a clean container at room temperature or in the refrigerator will give it a more refreshing taste.

**What essential product that you rely on every day is tested for purity an average of every 60 seconds, 24 hours a day?
Your drinking water!**