

## Water 101

# Who Decides How “Safe” Our Water Is?

*Continued from Front*

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 USEPA sets primary standards for approximately 90 contaminants. For each of these, the USEPA sets a legal limit called a maximum contaminant level (MCL). The drinking water delivered by Tucson Water must, by law, meet these primary standards.

**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.

## Meeting the Standards

Tucson Water’s water quality division makes sure the water we deliver meets these standards. Water quality professionals take water samples at more than 400 locations throughout the water distribution system. The samples are analyzed at our state-certified laboratory and detailed reports are sent to ADEQ. We also report the results for a number of standards to you each month in this newsletter and on our website.

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

Have a question for *Water 101* or a suggestion for a topic? Call us at 791-4331 or email to

[TW\\_Web1@ci.tucson.az.us](mailto:TW_Web1@ci.tucson.az.us).



## Water 101

# Who Decides How “Safe” Our Water Is? USEPA’s Primary and Secondary Water Quality Standards

This month, *Water 101* continues an on-going series about aspects of water quality and how they affect customers’ daily lives. This month we’ll talk about the standards for water quality that are set and enforced by the United States Environmental Protection Agency.

When you read Tucson Water’s reports on the water quality in your neighborhood, you’ll see there are ‘standards’ that we measure our test results against. These standards are established by the U.S. Environmental Protection Agency (USEPA) and are enforced by the Arizona Department of Environmental Quality (ADEQ). Tucson Water, and all other water utilities in the state, regularly report test results to ADEQ. The EPA sets both primary and secondary water quality standards.

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December 2003 <http://www.cityoftucson.org/water/>

## Conservation Corner – Save Water/\$ave Dollars

# Water Conservation Tips

Tucsonans are great water conservationists, and over the years, using water wisely has become something that most of us do at least part of the time. It's important, however, that some areas of water conservation be addressed with formal City ordinances. Over the past few decades, the Tucson Mayor and Council have enacted several ordinances that help ensure water is used wisely to prepare for a water emergency. Here's a quick look at these.

### Water Waste and Tampering

Established in 1984, this ordinance makes it illegal to allow water to escape from private property onto other public or private property. It also makes it against the law to tamper with or bypass water meters. Warnings and potential fines can result from violating any of the provisions of this ordinance. So change that watering pattern today. You'll save water, have healthier landscaping, and probably reduce your monthly water bill. If you need assistance or advice with changing your watering schedule, call Tucson Water's Zanjeros, the water conservation professionals, at 791-3242.

### Plumbing Codes

All new residential and commercial construction must be constructed using water-efficient fixtures to comply with this joint City of Tucson and Pima County ordinance. Low-flow fixtures and ultra-low-flush toilets are required as are recycling features for cooling

systems, fountains, and ornamental waterfalls. This ordinance has helped save millions of gallons of drinking water since it was approved in 1989.

### Xeriscape Landscaping

Approved in 1991, this ordinance requires low water use landscaping for all new multi-family, commercial and industrial developments and that landscape designs follow the principals of xeriscaping - maximizing the use of rainwater.

### Emergency Water Conservation

This ordinance gives Tucson's Mayor and Council the authority to regulate certain uses of water during emergency conditions, making sure the community has adequate water supplies for life safety and fire protection. Since it was enacted in 1995, we've never had to put this ordinance into action, but it's available in case long-term severe drought conditions or damage to our water system ever creates a water supply crisis.

### Our "Water Cops"

Tucson Water employs several staff members who serve as "water cops" looking for and responding to reports of water waste around the community. The "water cops" can issue warnings or cite offenders and issue fines up to \$1,000.

They also provide information about how to correct water waste problems.

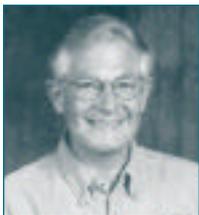
Visit the Tucson Water Web Site at <http://www.cityoftucson.org/water>

Your Water Connection is produced by Tucson Water. To receive a copy, or to receive this information in Spanish, call 791-4331 or mail your request to: Tucson Water, Customer Information, P.O. Box 27210, Tucson, AZ 85726-7210.

City of Tucson TTY number: 791-2639

Si usted desea este documento escrito en español, por favor, llame al 791-4331.





# On the Water Front



On July 30, a high-pressure gasoline pipeline operated by Kinder Morgan, Inc. ruptured in a neighborhood north of Grant Road just east of Silverbell Road. Gasoline from the rupture sprayed onto five unfinished new homes (since torn down for rebuilding), and flooded portions of some streets and the Silvercrock Wash.

In response, the Tucson Fire Department and other public safety agencies immediately conducted emergency clean-up efforts, containing and removing the gasoline from the streets and wash. Tucson Water took immediate steps to protect your drinking water system in the area. The drinking water system facilities (pipes, valves, meters, and hydrants) that were exposed to the gasoline have been replaced at Kinder Morgan's expense. Extensive testing of the drinking water system in the area and at-home faucets came back completely free from gasoline and clearly showed that none of the gasoline had entered our drinking water system.

It was later found that gasoline from the spill not only contaminated the soil in the immediate area, but also sank through the ground and reached the water table immediately below the spill site. Samples were taken from the drinking water well closest to the spill (about two miles away), and also at out-of-service wells in the vicinity of other sections of the gasoline pipeline. NO gasoline contamination was found.

Also, Tucson Water conducts routine testing at more than 250 distribution sampling sites in its drinking water system. The monitoring includes a test for organic carbon that would detect the presence of gasoline components. None have been found. This is further evidence that no contamination from the Kinder Morgan pipeline has entered the drinking water system. Tucson Water will continue monitoring wells near the pipeline on a weekly basis for gasoline products.

We want to keep you informed about the situation and provide you with up-to-date reports on the clean-up of the soil and groundwater in the area of the spill, as

well as Kinder Morgan's progress on replacing a 12-mile section of the gasoline pipeline in Tucson. To meet that goal, we are posting weekly updates on the Tucson Water web site ([www.cityoftucson.org/water](http://www.cityoftucson.org/water)). We've also delivered an informational bilingual newsletter to all the homes and businesses located within 1/2-mile of the gasoline pipeline. A copy of the newsletter is available on the web site. If you'd like a copy mailed to you, please call us at 791-4331.

Because our highest mission is to provide you with safe drinking water, we will always be alert to any situation that could impact the quality of the water we deliver. You can count on us to move quickly to ensure that our precious groundwater supplies are protected and your drinking water is always safe.

David V. Modeer  
Director, Tucson Water

## Clearwater Quality Report - November 2003

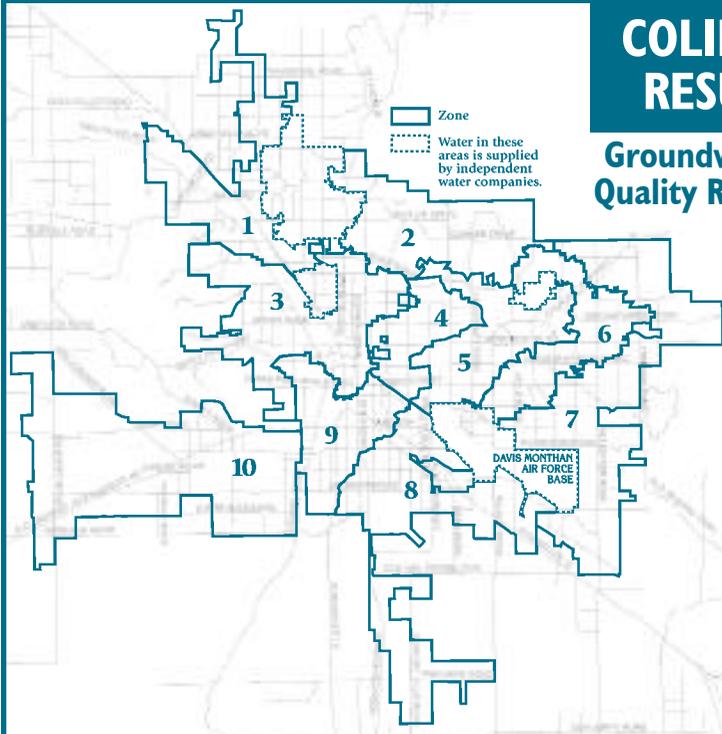
48*	Sodium (ppm)
289.4	Mineral Content (ppm)
107*	Hardness (ppm)
8.07	pH (units)
Neg*	Coliform Bacteria
0.73	Chlorine level average (ppm)
83.9	Temp (deg F)

\* Values for October 2003

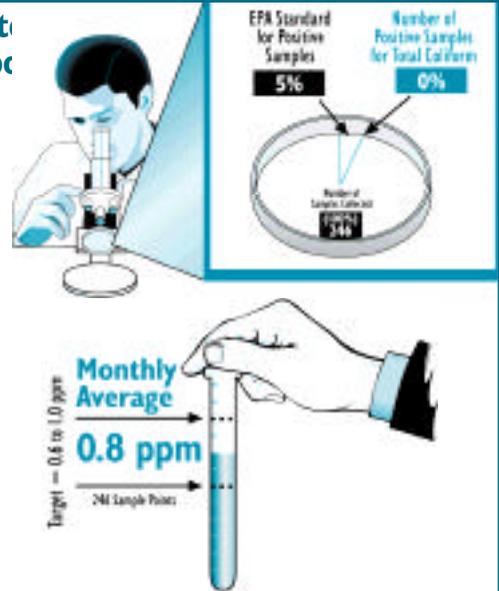
# GROUNDWATER QUALITY REPORT - September 2003

Water Quality Zone		1	2	3	4	5	6	7	8	9	10	System Wide
Sodium (ppm)	Average Range	49 42-56	45 42-47	46 26-80	40 31-48	40 32-46	41 36-45	34 27-43	43 39-47	46 41-51	42 41-42	42 26-80
Mineral Content (ppm)	Average Range	381 196-580	274 257-304	282 188-494	242 184-301	262 197-297	270 210-298	239 180-287	345 288-447	278 209-351	215 211-221	273 180-580
Hardness (ppm)	Average Range	150 82-186	111 105-119	117 68-202	100 83-111	116 100-138	114 80-134	113 94-125	185 152-274	129 77-184	78 77-79	122 68-274
pH (units)	Average Range	7.4 7.3-7.6	7.7 7.0-8.0	7.7 7.0-8.0	7.6 7.0-8.0	7.5 7.0-7.9	7.6 6.6-7.9	7.6 7.0-8.1	7.3 7.2-7.5	7.5 7.0-7.8	7.4 7.3-7.8	7.6 6.6-8.1
Temperature (deg F)	Average Range	85 80-89	88 83-90	87 78-93	88 82-91	86 77-92	86 76-92	87 79-93	87 81-94	88 82-95	89 87-91	87 76-95

## COLIFORM BACTERIA TESTING RESULTS - September 2003



Groundwater Quality Report



**“PPM” means one part per million;  
1 ppm = 1 teaspoon in 1,302 gallons**

To give you a more accurate measurement of the water quality in your neighborhood, the Tucson Water service area has been divided into 10 zones based on differences in water pressure and water quality. For a detailed description of the zone boundaries, call 791-4331.

With the exception of chlorine and coliform bacteria, none of the water quality parameters reported here have U.S. Environmental Protection Agency primary standards set for them. For more information about primary and secondary water quality standards, visit Tucson Water’s web site at [www.cityoftucson.org/water](http://www.cityoftucson.org/water).