

# World-Wide, Chlorine Makes Water Safe

Water 101 *continued from front*

Tucson Water adds a liquid form of chlorine to its water at well sites, reservoirs, and booster stations throughout our water system. We then rigorously test the chlorine's effectiveness by measuring the average chlorine level and sampling for evidence of coliform bacteria at 250+ sites in the distribution system. Tucson Water reports chlorine and coliform levels to the Arizona Department of Environmental Quality, to you in this newsletter each month, and on our website.

Chlorine is so critical to national water safety and quality that the United States Environmental Protection Agency (EPA) sets the standards for its use. Tucson Water has been using chlorine in our water since the 1970's – protecting customers from water borne disease and keeping our drinking water safe and sparkling.

## More Chlorine Q & A

### ***Chlorine in our water protects us from which illnesses and bacteria?***

Chlorine kills bacteria and viruses such as E. coli and Salmonella that can cause digestive and intestinal problems. Chlorine is our first level of defense against any accidental or intentional intrusion into our water system.

### ***Is swimming pool chlorine different from our drinking water chlorine?***

Yes. A solid form of chlorine – cake or granules – is typically used in swimming pools. A liquid form of chlorine is used in drinking water since it dissolves well with more controllable levels, without fast corrosion of equipment and pipes.

# Your Water Connection

NEWS & TIPS FOR TUCSON WATER CUSTOMERS

## Water 101

# World-Wide, Chlorine Makes Water Safe

Safe drinking water delivered to our homes is something we all take for granted. But water free of potentially harmful microorganisms is available only because of treatment systems, careful testing and monitoring and the use of one very special additive.

We can drink tap water with confidence thanks to chlorine - the most widely used drinking water disinfectant in North America. Just a small amount of chlorine in water kills coliform bacteria, viruses, and other microorganisms that can carry disease.

Water 101 *continued on back*

## Chlorine Q & A

### ***Is the chlorine level in our water safe for kids and pets?***

Yes. Tucson Water works to maintain a chlorine level between 0.8 to 1.0 parts per million throughout our distribution system. Tucson Water conducts routine sampling and continuous online monitoring of chlorine levels and adheres to the EPA's national standards for chlorine levels in drinking water.

### ***My tap water smells and tastes like chlorine. How can I make it go away?***

Some customers are more sensitive to chlorine than others. You can get rid of the chlorine taste and odor by placing an open container of tap water into your refrigerator. In a few hours, the chlorine level will naturally disappear.

Have a question for Water 101 or a suggestion for a topic? Call us at 791-4331 or e-mail to [TW\\_Web1@ci.tucson.az.us](mailto:TW_Web1@ci.tucson.az.us)

## Conservation Corner

Incentives for participating businesses under discussion

# Business Advisory Group Assists with Commercial Conservation Program

About 43 percent of our total water usage occurs at industrial, commercial, and multi-family facilities. So, imagine the savings in money and water if each Tucson-area business participated in their own customized water conservation program.

Recently, 26 representatives from Tucson's business and commercial sectors began meeting with Tucson Water as an Advisory Group to develop a new business water conservation program. The Advisory Group will:

- Identify current best practices in water usage within specific industries such as lodging, landscaping, multi-housing, restaurants, golf courses, homebuilding, and education.
- Define goals for the program.
- Outline program education and certification elements.

- Create self-audit forms for each business category.
- Determine how to adjust the program based on drought restrictions.
- Recommend incentives for participating businesses including rebates, recognition awards, and signage.

Many business and commercial customers have already realized that retrofitting existing facilities and launching internal water efficiency programs offer both short and long-term cost savings and other benefits.

**To learn more about the commercial water conservation program, call (520) 791-4331 or e-mail Commercial Program Coordinator Ilene Grossman at [Ilene.Grossman@tucsonaz.gov](mailto:Ilene.Grossman@tucsonaz.gov). Advisory Group meetings are open to the public and take place once a month.**

## Working Together with Commercial Water Users

The Business Incentive Program Advisory Group includes representatives from a broad range of Tucson Water's industrial, commercial and institutional customers including:

- Arizona Builders' Alliance
- Arizona Golf Association
- Arizona Landscape Contractors Association
- Arizona Multi-Housing Association
- Arizona Small Business Association
- Auto Dealers
- Building Owners and Managers Association
- Car Washes
- City of Tucson and Pima County
- Downtown Tucson Partnership
- International Facility Manager's Association
- Landscape & Irrigation Companies
- Metropolitan Pima Alliance
- Southern Arizona Lodging and Resort Association
- Southern Arizona Restaurant Association
- Tucson Metropolitan Chamber of Commerce
- Tucson Regional Economic Opportunities
- TUSD & all school districts in the service area
- University of Arizona and Pima Community College



# On the Water Front

Tucson residents are proven leaders in conserving water – among the best in the nation.

Between 2002 and 2006, the average customer's household water usage dropped from 9,300 gallons to 8,300 gallons a month. During the past several years, Tucson Water has been working on strategies to extend this record of success to our commercial customers. While a number of programs to help businesses save water have been in place for years, we've begun to intensify this effort.

Last year, Tucson Water convened a Community Conservation Task Force to investigate and recommend new water saving assistance and rebate programs, plus ordinances to require certain standards of water use. Now we're working with a Business Incentives Program Advisory Group to develop ways to make conservation more appealing and accessible to our commercial customers. How best to give recognition to businesses that make a commitment to using water wisely is one aspect of the group's discussions.

A commitment to water conservation by a business could mean scheduling a water audit, making minor retrofits or operational improvements to facilities for long-term water savings or even doing something as simple as adding faucet aerators in bathrooms.

For example, adding aerators to faucets in a typical Tucson hotel could save as much as 300,000 gallons of water a year.

It could mean attending free educational symposiums such as our Smartscape program – a training program for landscape professionals that teaches low water use and low water waste irrigation and landscaping techniques.

Getting commercial customers more involved in water conservation, combined with residential conservation and the renewable water resources being developed by Tucson Water, will help our region become sustainable and drought-resistant.

We believe grassroots action and involvement are keys to successful water conservation in the business sector. Education and enforcement programs are in place and incentives and assistance programs are in development. When we use water more efficiently at home and at work, we all win - and so does our environment.

Dave Modeer  
Director, Tucson Water

## Clearwater Quality Report

Most recent water quality data (Sept. 6-Oct. 7, 2007)

61	Sodium (mg/L) (Sept. 6)
358.9	Mineral (mg/L) (Sept. 6 – Oct. 7 avg.)
182	Hardness (mg/L) (Sept. 6)
8.02	pH (S.U.) (Sept. 6 – Oct. 7 average)
Neg	Coliform Bacteria (Sept. 6)
1.07	Chlorine level (mg/L) (Sept. 6 – Oct. 7 avg.)
88.2	Temp (deg F) (Sept. 6 – Oct. 7 avg.)

Visit the Tucson Water Web site at [www.tucsonaz.gov/water](http://www.tucsonaz.gov/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.

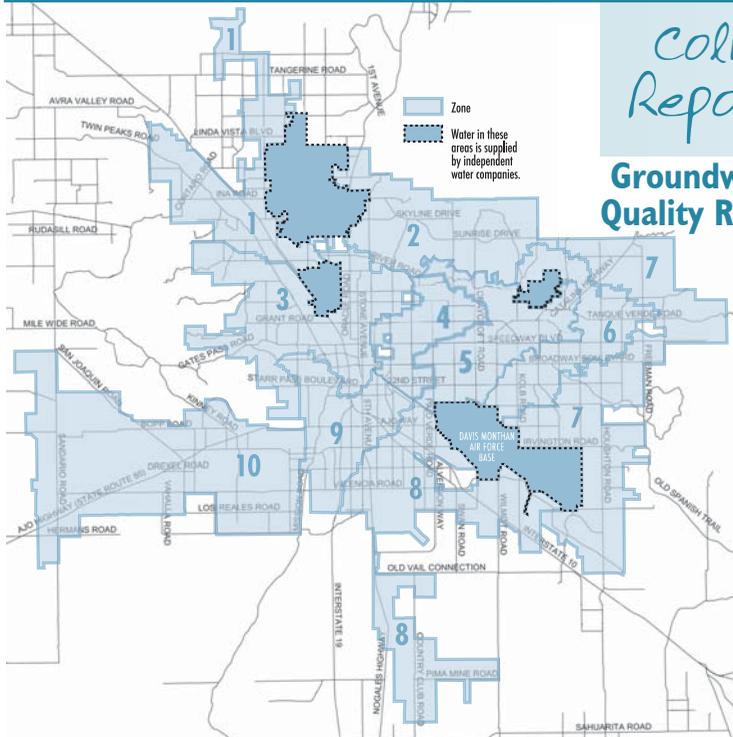
City of Tucson TTY number: 791-2639

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



# Groundwater Quality Report - September 2007

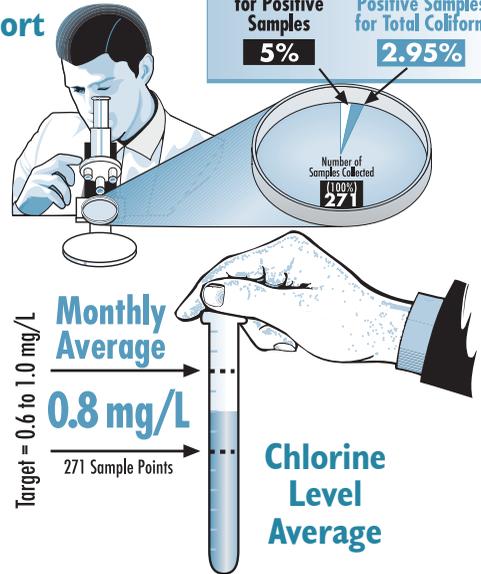
Water Quality Zone		1	2	3	4	5	6	7	8	9	10	System Wide
Sodium (mg/L)* 86 SAMPLING POINTS	Average	59	58	58	53	46	49	41	44	55	50	51
	Range	48-86	55-62	38-63	35-61	28-58	40-59	29-57	39-46	42-61	40-61	28-86
Mineral Content (mg/l)* 247 SAMPLING POINTS	Average	421	411	392	364	345	354	281	400	332	277	358
	Range	308-540	403-419	184-440	196-419	166-418	244-412	179-404	383-445	209-434	209-417	166-540
Hardness (mg/L)** 86 SAMPLING POINTS	Average	142	181	178	157	154	166	144	214	146	126	164
	Range	111-205	162-190	125-205	98-180	66-193	108-205	105-206	196-260	79-183	71-184	66-260
pH (S.U.) 247 SAMPLING POINTS	Average	7.7	7.9	7.9	7.9	7.8	7.7	7.7	7.6	7.9	7.9	7.8
	Range	7.3-7.9	7.8-8.0	7.7-8.1	7.7-8.0	7.5-8.0	6.9-8.0	7.1-8.0	7.5-7.7	7.6-8.1	7.7-8.0	6.9-8.1
Temperature (deg F) 247 SAMPLING POINTS	Average	85	88	87	88	87	85	86	86	88	88	87
	Range	75-88	86-92	80-93	85-92	83-91	74-92	83-91	81-95	82-92	87-91	74-95



## Coliform Bacteria Testing Report - September 2007

### Groundwater Quality Report

EPA Standard for Positive Samples: **5%**  
 Number of Positive Samples for Total Coliform: **2.95%**



\* mg/L means milligrams per liter; 1 mg/L = 1 teaspoon in 1,302 gallons

\*\* 17.1 milligrams per liter (mg/L) = 1 grain per gallon; Therefore, the system-wide hardness average as reported for September 2007: 164 mg/L divided by 17.1 = 9.59 grains per gallon.

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.tucsonaz.gov/water](http://www.tucsonaz.gov/water).