



# RECLAIMED WATER

Winter 2008

## Discharges Must Be Reported

The Arizona Department of Environmental Quality (ADEQ) Rules prohibit the discharge of reclaimed water from the site where it is used (Arizona Administrative Code Title 18, Chapter 9, Article 6, R18-9-704). Discharges are defined as reclaimed water or reclaimed water mixed with stormwater that runs off the site where it is applied. If reclaimed water leaves your site for any reason, including a broken irrigation pipe or malfunctioning of the irrigation system, you must report this runoff to Tucson Water within 24 hours.



### *Reporting can be done one of two ways:*

- 1) Go to [http://www.tucsonaz.gov/water/report\\_recl.htm](http://www.tucsonaz.gov/water/report_recl.htm) and complete the on-line reporting form or
- 2) call the Tucson Water Backflow Prevention/Reclaimed Water Section at 791-2650.



### **Reminder**

To remind you of the ways that discharges can be reported, place this magnet on your refrigerator or in another convenient location. Failure to report discharges could result in the termination of your reclaimed water service.

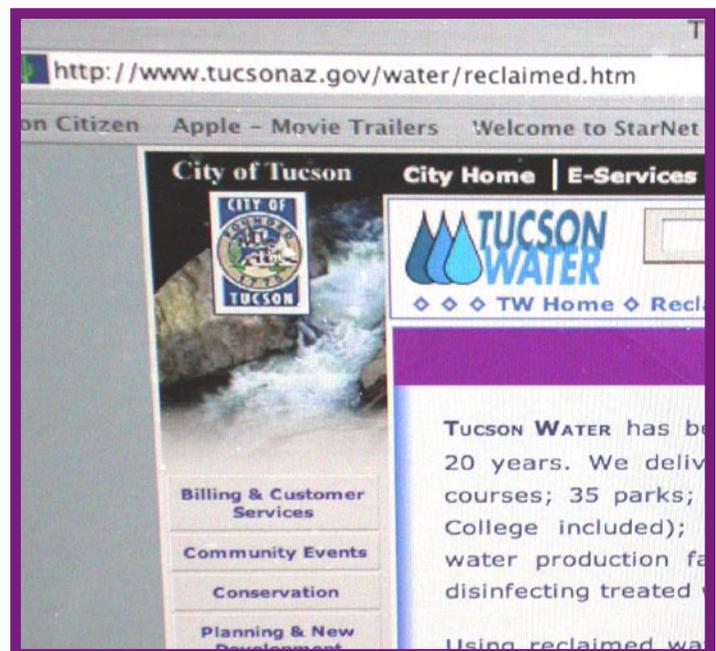
## Your Reclaimed Water/Backflow Prevention Inspector



## Reclaimed Water Online

The Tucson Water website now has more information about reclaimed water. The following list includes just some of the information you can find on the website:

- A list of who uses reclaimed water
- Reclaimed water quality information
- The Reclaimed Water Song written by fifth graders at Manzo Elementary School
- Downloadable application forms
- Phone numbers to call for more information



## A Reclaimed Water New Year's Resolution

Are you looking for a New Year's resolution that's easy to keep and worthwhile too? Why not resolve to do an annual inspection of your reclaimed water system? An annual inspection of your reclaimed water system will ensure that you are in compliance with the Arizona Department of Environmental Quality (ADEQ) Reuse rules and that you are using reclaimed water safely. If you have questions, call the inspector for your area (see map on page 2).

-  1. **Review the ADEQ Reuse Rules and Your Reclaimed Water User Agreement**  
As a reclaimed water customer, you are responsible for ensuring that your site is in compliance with the ADEQ Reuse rules. The rules are available online at [www.tucsonaz.gov/water/reclaimed.htm](http://www.tucsonaz.gov/water/reclaimed.htm).
-  2. **Check the Backflow Prevention Assembly** – All sites having reclaimed water service are required to have a backflow prevention assembly to protect the drinking water supply. You receive a letter annually advising you of the test requirements for this assembly; however it is a good idea to check it periodically to make sure that it is not leaking or otherwise damaged.
-  3. **Identify and Label Irrigation System** – Reclaimed water irrigation systems must be identified with purple pipe or pipe labeled as “reclaimed water” pipe. Control valves and valve boxes must also be identified. Repaint any faded reclaimed meter and control lids with purple paint. If you have added to or modified your irrigation system, check the rules for system identification at [www.tucsonaz.gov/water/reclaimed.htm](http://www.tucsonaz.gov/water/reclaimed.htm).
-  4. **Check Operation of Irrigation System** – Observe you irrigation system while it is running to ensure that there is no ponding, or over-spray onto other properties. Are there leaks in the irrigation system that should be repaired?
-  5. **Draw a Conceptual Plan of the Irrigation System**– Plans of your reclaimed water system must be kept on-site and available for inspection. If you don't have a plan of you irrigation system, draw your own (professional plans not required) or use the form at [www.tucsonaz.gov/water/reclaimed.htm](http://www.tucsonaz.gov/water/reclaimed.htm). Laminate the plan to minimize wear.
-  6. **Ask about Thermal Expansion Protection** – Ask a qualified plumber about thermal expansion due to the creation of a closed plumbing system when a backflow prevention assembly is installed on the potable water system.
-  7. **Check Signs** – Are all of you signs still in their proper place? Do any need to be replaced because of vandalism or wear? If you need new signs, call your inspector (see map on page 2).
-  8. **Report Reclaimed Water Discharges** – You must report when reclaimed water leaves your property (i.e. an irrigation line breaks). Did you have any discharges in the past year? Did you report them by using the form at [www.tucsonaz.gov/water/report\\_recl.htm](http://www.tucsonaz.gov/water/report_recl.htm)?

# Reclaimed Water Quality

The reclaimed water Tucson Water provides to our customers is classified by the Arizona Department of Environmental Quality (ADEQ) as Class A water. This is highly treated wastewater that is suitable for irrigation of food crops, turf, ornamental landscaping, and orchards and vineyards. It can also be used for dust suppression, livestock watering and cooling towers and toilet flushing in non-residential buildings.

Reclaimed water is not for drinking or bathing. If you come in contact with reclaimed water, wash with soap and water from a drinking water faucet. If you or your child have consumed some of this water, it is unlikely to cause ill effects. However, watch for signs of illness, most likely, but not limited to gastrointestinal upset, for ten days after the reclaimed water has been consumed. If an infant less than six months old has ingested reclaimed water, watch for blue baby syndrome - blue lips or under the fingernails - or trouble breathing.

If you or your child do get sick, be sure to tell your medical provider that reclaimed water was ingested. They will be able to determine if the illness is related to the water.

## Water Quality Abbreviations

CaCo3	calcium carbonate
cfu	colony forming units
mg/l	milligrams per liter
meq/l	milliequivalents/liter
µS/cm	microSeimens/centimeter
N	nitrogen
NTU	nephelometric turbidity units
P	phosporus
S.U.	standard unit

## Reclaim Water Quality 2007

<i>Parameter</i>	<i>Reclaimed Water<sup>1</sup></i>
------------------	------------------------------------

### INORGANIC CONSTITUENTS

Alkalinity (as CaCO <sub>3</sub> )	210 mg/l
Arsenic	0.006 mg/l
Boron	0.29 mg/l
Cadmium <sup>2</sup>	<.004 mg/l
Calcium	73.36 mg/l
Chloride	128 mg/l
Copper <sup>2</sup>	<0.02 mg/l
Hardness (as CaCO <sub>3</sub> )	237 mg/l
Magnesium	13 mg/l
Phosphate (as P)	2.22 mg/l
Sodium <sup>3</sup>	141 mg/l
Sulfate	132 mg/l

### NITROGEN FORMS

Ammonia Nitrogen <sup>3</sup>	10 mg/l
Nitrate (as N) <sup>3</sup>	5.0 mg/l
Nitrite (as N) <sup>3</sup>	0.77 mg/l
Organic Nitrogen (calc) <sup>3</sup>	0.95 mg/l
Total (calc)	16.77 mg/l

### REUSE PERMIT

Turbidity	2.72 NTU
Fecal Coliform <sup>2</sup>	<2 cfu
pH	7.39 S.U.

### OTHER

Total Dissolved Solids	658 mg/l
Electrical Conductivity	1146 µS/cm
Residual Sodium Carbonate	-0.55 meq/l
Sodium Adsorption Ratio (SAR)	3.97 meq/l

<sup>1</sup> Annual Average. Source: Tucson Water's Water Quality Laboratory

<sup>2</sup> Average is less than the detection limit

<sup>3</sup> 11 month average