March 2011

Your Water CONNECTION

Xeriscape CONTEST

for Homeowners & Professionals

Entries accepted through April 4, 2011

Searching for water smart landscapes that use native and drought tolerant plants, attract wildlife, irrigate with rainwater or gray water, and promote efficient irrigation practices.

Click on **www.desertmuseum.org/xeriscape** or call (520) 883-3010 for rules, award information and nomination forms.

Upon Request

In recognition of the unusually cold weather on February 3-4, 2011, Tucson Water will, upon request, generally adjust our customers' water bills to reflect last year's consumption for the same billing cycle. To obtain an adjustment, please call (520) 791-3242.

For more information, materials in accessible formats, foreign language interpreters, and/or materials in a language other than English, please contact Tucson Water at (520) 791-4331 or (520) 791-2639 for TDD.

TUCSON WATER

Tucson Water engineers, scientists, hydrologists and planners are collaborating with local and national organizations on issues concerning water quality, security, sustainability, and re-use.

For example, we are partnering with the National Science Foundation's Water & Environmental Technology Center at The University of Arizona in a demonstration project to study the latest technology to detect against water contamination that is intentional or accidental. Organizations such as the Water Research Foundation, the WateReuse Foundation, United States Environmental Protection Agency (USEPA), UA Water Sustainability Program, State of Arizona's Technology and Research Initiative Fund (TRIF) and the Arizona Water and Pollution Control Association provide Tucson Water with grant funding, plus access to research and consultation with other water professionals in government, public health, the private sector and academia.

University of Arizona researcher Oluyomi Marriet Ajibode collects reclaimed water storage tank samples.

With the science behind water delivery and treatment constantly evolving, Tucson Water is committed to pursuing partnerships that will ensure a bright water future for our community.

— Andy Quigley, Interim Director, Tucson Water

YOUR UTILITIES

PIMA COUNTY

RWRD Earns Awards for Outstanding Performance

The Clean Water Act (CWA), passed in 1972, regulates wastewater treatment facilities that discharge effluent (treated wastewater) into rivers and other bodies of water.

Following the passage of the CWA, the National Association of Clean Water Agencies (NACWA) was established. NACWA is a nationally-recognized leader in environmental policy, water quality, and ecosystem protection issues.

To comply with Clean Water Act requirements, Pima County Regional Wastewater Reclamation Department (PCRWRD) must meet standards mandated by the Arizona Department of Environmental Quality (ADEQ). Facilities that do not discharge into surface waters must meet different but similar standards. These facilities typically use evaporation or groundwater recharge to dispose of effluent, and are not eligible for NACWA awards.

To demonstrate its compliance with CWA surface water discharge requirements, RWRD conducts more than 3,000 tests each calendar year at those facilities that must meet the surface water discharge standards. NACWA grants awards to treatment facilities that have been exceptionally successful in meeting those standards.

NACWA Silver Awards recognize wastewater facilities with no more than five permit exceedances per calendar year. Being a recipient of a Silver Award is likened to taking a 3,000-question test and missing only one to five questions. Gold Awards are granted to wastewater treatment facilities that have had zero "wrong answers" on the 3000-question test. Finally, Platinum awards are granted to facilities that have had five consecutive years of earning Gold Awards.

In the 2009 calendar year, one PCRWRD facility achieved a Silver Award; three facilities achieved Gold Awards; and two facilities achieved Platinum Awards.

These awards could not have been earned if it were not for the hard work and dedication of PCRWRD's staff.

CITY OF TUCSON

Safe Disposal of Used Sharps

Millions of people in the U.S. use 'sharps' – needles, syringes, and lancets – at home to care for their health. Because used sharps may hold blood infected with contagious diseases that could potentially infect someone who accidentally gets cut, proper storage and disposal of sharps is important for public safety and health.

Safe disposal of used sharps protects children, pets and sanitation workers who handle trash and recyclables. Here are Environmental Services' easy guidelines for the safe disposal of used sharps:

1. Put used sharps in a sharps-only container. You can buy containers at some local drugstores. If you do not have a sharps container, use a plastic bottle that cannot be broken or punctured, such as a bleach bottle or laundry detergent bottle. Close the screw-on cap tightly. Write, "CONTAINS SHARPS" on the bottle.
2. Put sharps into your container as soon as you use them. Keep the container closed and away from children and pets.
3. When the container is about 3/4's full, tightly secure the lid with tape and dispose of it in the trash – not in your Blue Barrel or with recyclables.

Remember:

- Don't flush used sharps down the toilet or drop them into a sewer drain.
- Don't clip, bend, or put the cap back on used sharps.
- Don't put loose used sharps in the trash or recycle bin.
- Don't put used sharps in soda cans, milk cartons, glass bottles, coffee cans, or containers that can be broken, punctured, or can leak.

Do your part to safely dispose of used sharps to protect our environment and others from potential illness and injury.

Your Utilities Services statement includes fees for your water, wastewater, and environmental services.

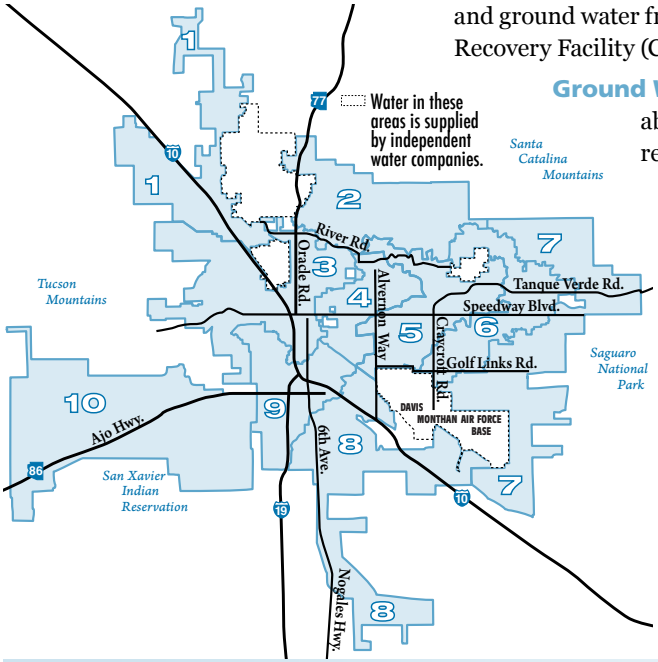
The Pima County Regional Wastewater Reclamation Department (PCRWRD) – For more information about the regional wastewater system, call (520) 740-6500 or visit pima.gov/wwm.

Environmental Services (ES) – Learn about how ES is protecting our ground water and the environment at tucsonaz.gov/esd and (520) 791-3171.

Water quality report

January 2011

More than 20,000 individual tests are performed annually, focusing on the water quality from two main sources: ground water and the blend of recharged Central Arizona Project (CAP) water and ground water from the Clearwater Recharge and Recovery Facility (CRRF).



Ground Water Source Report – Ground water comes from about 200 wells in the Tucson metropolitan area. This reporting area is divided into 10 zones:

elements tested

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

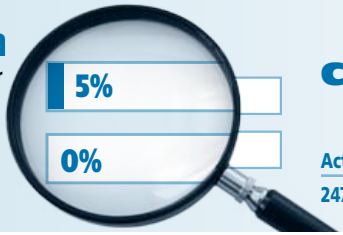
Zones	Sodium (mg/L*) 77 SP	Mineral Content (mg/L*) 247 SP	Hardness (mg/L*) 77 SP	pH Level (S.U.) 247 SP	Temperature (deg F) 247 SP
1	53	472	210	7.8	68
2	62	482	219	8.1	70
3	62	475	225	8.0	69
4	59	477	211	8.0	69
5	60	458	216	8.0	69
6	61	480	222	8.1	70
7	61	459	227	8.1	68
8	54	470	239	7.9	68
9	59	458	200	8.0	73
10	52	370	174	8.0	71
Avg	60	465	217	8.0	70

U.S. Environmental Protection Agency (USEPA) has primary standards for levels of coliform bacteria and the disinfectant chlorine for ground water sources:

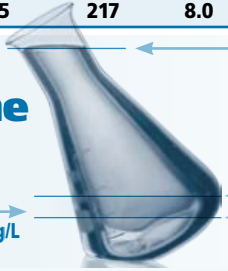
coliform

EPA standards for positive samples

Positive results 247 samples



chlorine



EPA Standard Max. 4.0 mg/L

Actual Average 247 samples 0.9 mg/L

Tucson Water target average 0.8 to 1.2 mg/L

Clearwater Report – More than 50% of our total water supply is a blend of recharged CAP water and native ground water from the CRRF. Using this recovered blended water means that we reduce ground water pumping:

Sodium	**64 mg/L**	**(Jan. 28, 2011)**
Mineral Content	**500.9 mg/L**	**(Jan. 10–Feb. 9, 2011 avg.)**
Hardness	**231 mg/L**	**(Jan. 28, 2011)**
pH	**7.88 S.U.**	**(Jan. 10–Feb. 9, 2011 avg.)**
Coliform Bacteria	**Negative**	**(Dec. 12, 2010)**
Chlorine Level	**0.91 mg/L**	**(Jan. 10–Feb. 9, 2011 avg.)**
Temperature	**71.3 F**	**(Jan. 10–Feb. 9, 2011 avg.)**

To obtain information about water quality go to **tucsonaz.gov/water** and click on the Water Quality Tab for maps, FAQs, definitions, reports, online monitoring station results, and more. Or call (520) 791-4331 to schedule speakers, ask for an Annual Water Quality Report, or request brochures on water quality.

Applying Research to Improve Water Quality

Learn more about Tucson Water's research work and you'll soon discover that the professionals in the Water Quality and Operations Division are involved. Linking science to tangible improvements in water quality and water system operations is the primary focus of the Division's 72 chemists, microbiologists, planners, water quality analysts, operational field personnel, system operators and customer care representatives.

Project Manager Dan Quintanar collecting samples in the field with help from Public Information Officer Fernando Molina.

According to Division Project Manager Dan Quintanar, a few of the utility's current projects related to reclaimed and drinking water systems include:

- modeling long range planning scenarios
- determining the impact of climate change on regional water resources
- helping to launch a new water system security program
- studying emerging contaminants and pharmaceuticals in the water
- integrating a new remote supervisory control and data acquisition (SCADA) system
- researching the most cost-efficient and effective advanced oxidation technologies to remove 1,4-Dioxane from water.

The Division also ensures that Tucson Water responds to the rapidly-changing regulatory environment and complies with all local, state and federal regulations.

Quintanar has worked for Tucson Water for 13 years, starting as a chemist in the Water Quality Laboratory. Today, 20 personnel work in the Laboratory and the field, collecting and analyzing more than 20,000 samples a year for Tucson Water's monitoring program and ongoing research projects.

Preparing to flush and scour the water system.

"Tucson Water's research translates directly to better day-to-day operations for both reclaimed and potable water systems and better water quality for our customers," said Quintanar, who holds a Bachelor's of Science in Microbiology from The University of Arizona.

Applying science to service recently helped Quintanar and a Division team to tackle an on-going intermittent sediment issue that impacted some 70 customers in a small, stand-alone water system on Tucson's east side. After extensive sampling, pipes were flushed and scoured for six hours to remove the sources of sediment. Follow up samples indicate high-quality water, with no sediment. Tucson Water will continue to collect samples and talk with customers in the area.

To find out more about the Water Quality and Operations Division, tour the Water Quality Laboratory, or to schedule a speaker, contact (520) 791-2544. To report a water quality concern, contact the customer concerns group at (520) 791-5945. More information is also available by going to the Tucson Water home page and clicking on the Water Quality tab.