

Free Home Water Audit

Whether temps soar to 106° or plunge to 23°, being water efficient is important every day of the year. Tucson Water offers free expert advice to help you conserve water, stop leaks and reduce utility bills.

A water efficiency expert from the Tucson Water Zanjero Program will visit your home, review water-use habits, check water fixtures and irrigation systems, and install free faucet aerators and showerheads, if needed. Customers also receive a survey of their water use. You must be at home during the two-hour Zanjero visit.

For nearly 17 years, Zanjeros have helped Tucson Water customers use water more efficiently inside and outside the home. Schedule your free Zanjero visit today via email TW_Web1@tucsonaz.gov or phone (520) 791-3242.

3 Zanjero Tips

- 1 As temps change, be sure to adjust irrigation timing and frequency. Replace old lines. Use a soil probe to determine if it's time to water.



- 2 Check the evaporative cooler for mineral deposits and clean – especially bleeder lines. Use cooler run off to water landscape.
- 3 Toilets can be the biggest water waster in your home. Listen for running sounds. Replace the flap regularly.

Your Water CONNECTION

Turn on your tap and you get clean, safe water. We know that you trust Tucson Water to deliver high quality water day-in and day-out. To ensure your trust – and the highest standards of drinking water quality – Tucson Water technicians and scientists sample and analyze water from:

- 267 points in the distribution system, right before water gets to your home
- 181 entry points, before water goes into the distribution system
- 54 monitoring wells
- Construction sites with newly installed mains
- 221 production wells
- Select customer homes
- 98 monitoring wells around area landfills



Tucson Water's state-certified Water Quality Laboratory performs analyses on more than 8,000 water samples each year.

In this issue, you'll meet Water Quality Analyst Diane Frayer, one of 72 employees in the Water Quality and Operations Division of Tucson Water. They all share enthusiasm and drive around delivering clean, safe drinking water to our customers.

Alan Forrest
Director, Tucson Water



PIMA COUNTY

RWRD Pump Stations Move Sewage along Our Conveyance System

The Pima County Regional Wastewater Reclamation Department's (PCRWRD) conveyance system has more than 3,400 miles of public sanitary sewer pipes where wastewater flows by gravity. A system of this size requires pump stations when wastewater flows can no longer be conveyed by gravity. There are 24 active pump stations in Pima County's sewer service area.

Pump stations are used when underground pipes have been buried so far below the surface that it is no longer reasonable to continue installing sewer lines deeper underground. It is at these points in the conveyance system that pump stations are used.

These strategically-placed stations pump raw sewage from the underground gravity pipes into wet wells. When enough wastewater has flowed into the wet well, a pump lifts it upward via a pressurized pipe system or sewer force main. That sewage is conveyed to another gravity sewer line where it continues to flow to one of nine wastewater reclamation facilities.

RWRD's Conveyance Division employees maintain and repair the equipment housed at the various pump stations in our service area. Additionally, site instrumentation allows RWRD staff to monitor wastewater flows at each pump station. Unusually high or low flows may indicate problems at the pump station. Built-in alarm systems notify staff of potential problems 24 hours a day, 7 days a week. Staff responds to such alerts to ensure the pump stations are operating properly.

The use of pump stations throughout our sewer conveyance system is one of many ways RWRD manages the public sanitary sewer system in Pima County.

CITY OF TUCSON

Environmental Services

Improvements at the Tumamoc Landfill

Tumamoc Hill is a popular hiking spot in Tucson and is also adjacent to now-inactive Tumamoc Landfill, located at the southwest base of the hill on the north side of the intersection of Starr Pass and La Cholla Boulevards. The City of Tucson operated the Tumamoc Landfill from 1964 to 1966 for city wide, municipal waste disposal. In 2009, Pima County transferred ownership of the landfill to the City of Tucson.

The Tumamoc Landfill covers approximately 20 acres, with waste 35 feet deep. As part of the City's ongoing monitoring program there, Environmental Services (ES) has nine methane-monitoring wells and 14 groundwater-monitoring wells around the site.

Starting this month, ES will begin maintenance work on the landfill site to improve the soil landfill cap

and install storm water drainage controls. The project will include reshaping, sloping and compacting the landfill area. Two feet of soil will be brought onto the site and seeded with plants approved by the University of Arizona Desert Laboratory, located adjacent to the landfill. This new soil cap and its native vegetation will cover the waste, prevent infiltration and minimize methane production. The storm water controls will reduce the erosion of the landfill cap and prevent waste from being exposed and potentially moved off site. The project will help to protect our unique desert environment from negative impacts that could be caused by the landfill, preserving Tumamoc Hill for our community.



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/www.

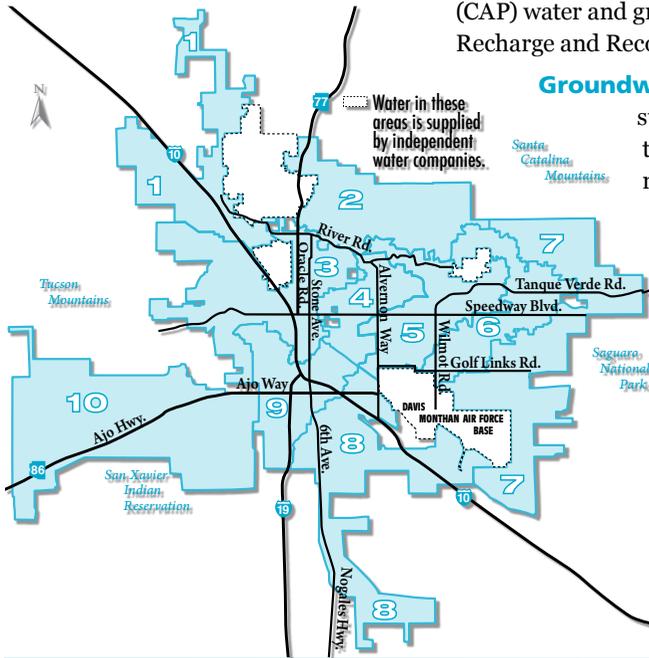
Environmental Services (ES) – Learn about how ES is protecting our groundwater and the environment at tucsonaz.gov/esd and (520) 791-3171.

Water quality report

April 2013



More than 20,000 individual water quality tests are performed annually on the drinking water derived from two sources: 1) groundwater and 2) the blend of recharged Central Arizona Project (CAP) water and groundwater from the Clearwater Recharge and Recovery Facility (CRRF).



Groundwater Source Report – Less than 5% of our total water supply comes from pumping native groundwater wells in the Tucson metropolitan area. These test results reflect the main distribution system, divided into 10 zones:

test results

*mg/L means milligrams per liter
1 mg/L = 1 teaspoon in 1,302 gallons
SP = Sample Points

Zones	Sodium (mg/L*) 77 SP	Mineral Content (mg/L*) 245 SP	Hardness (mg/L*) 77 SP	pH Level (S.U.) 246 SP	Temperature (deg°F) 246 SP
1	62	483	232	7.9	78
2	65	505	247	8.0	78
3	59	446	201	8.0	78
4	58	472	220	7.9	79
5	55	445	209	7.9	77
6	62	494	237	7.9	78
7	55	424	212	7.9	77
8	50	469	256	7.6	78
9	60	473	232	7.9	79
10	55	391	161	7.9	78
Avg	58	461	221	7.9	78

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

coliform

EPA standards for positive samples

Positive results
246 samples



chlorine

Actual Average
246 samples 0.9 mg/L

EPA Standard
Max. 4.0 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 groundwater from the CRRF. Using this recovered blended water means that we reduce groundwater pumping.

Sodium	66 mg/L	(April 26, 2013)
Mineral Content	502.4 mg/L	(April 22, 2013)
Hardness	241 mg/L	(March 20, 2013)
pH	7.94 S.U.	(April 22, 2013)
Coliform Bacteria	Negative	(April 26, 2013)
Chlorine Level	1.18 mg/L	(April 22, 2013)
Temperature	80.24 °F	(April 22, 2013)

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

Meet Diane Frayer, Water Quality Analyst

Sampling Maven: I'm part of a team that takes compliance samples every month at 267 points along the drinking water distribution system plus all of our potable wells and recharge facilities. We sample for bacteria, chemical contaminants, pH levels, temperature and more, to make sure that drinking water is safe and meets EPA and state regulations.



is certified by the state of Arizona, our sampling and testing must meet stringent regulations. I also receive and review samples that come into the Lab, which means also reviewing a sample's 'chain of custody'. The 'chain of custody' document describes sampling dates and times, and has signatures of those people involved with the sampling.

Many people don't know that Tucson Water has an in-house laboratory: I also work at the Water Quality Laboratory at the Hayden-Udall Water Treatment Plant. The lab analyzes more than 8000 water samples per year. The Water Quality Laboratory tests samples for Tucson Water and also for the Environmental Services Department's groundwater monitoring wells at landfills, among other projects.



Shades of Law & Order: Because the Water Quality Laboratory

Most often asked question from the public: "What are you testing for?" when I'm out in the field taking water quality samples.

How she got her start: I started as a volunteer at the Water Quality Laboratory in the early '90s while going to Pima Community College's environmental science technology program. (The program is no longer available.) Then a Tucson Water internship became available and I had a chance to assist the samplers and help in the field. In 2000, I became a fulltime employee. I am lab certified in specific analysis and hold certifications in water treatment, wastewater, and water distribution systems – all require ongoing training and renewals.

Her core values: The environment – and especially the safety of our drinking water – is important to me. Also, I enjoy being able to serve the public.



SCAN



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