

2001 was a memorable year in Tucson's water history. Customers saw changes in the ways we produce water, use water, deliver water, and report on the quality of our water.

Most important, for the first time in a decade and only the second time in all its years of existence, Tucson began reducing the amount of water it pumps from the ground.

CLEAR WATER 2001

May

A New Water Resource for Tucson

In early May, Tucson Water began operating the Clearwater Renewable Resource Facility in Avra Valley. The facility delivers about 18 million gallons of water a day to Tucson Water customers, allowing us to shut down a number of groundwater wells in central Tucson. The water, a blend of recharged Colorado River water and groundwater, is a renewable resource. The water table it is pumped from is constantly replenished by the recharge of Colorado River water, unlike the water in the ground under Tucson, where the water table has been dropping steadily for years.

On the Water Front

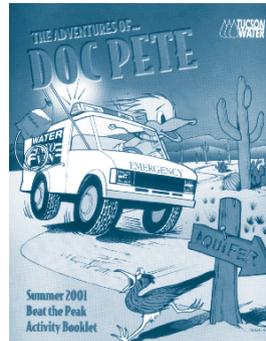
June

More Information on Your Water Quality

What's in your water? The U.S. Environmental Protection Agency's EMPACT grant allowed Tucson Water to team up with a number of local partners, including the U. of A. and the Pima County Health Department, to expand our water quality reporting program (see the *Water Quality Update* article in this newsletter) and provide you with detailed information on a regular basis.

Summer

You Met the Wise Water Use Challenge



Our customers' commitment to wise water use through the long, hot summer, coupled with the new water from Clearwater, made it possible for us to keep those central city wells shut down even during the months of highest water demand.

Congratulations on Beating the Peak for another summer. Our water table has already begun to recover from 40 years of overpumping (see *Saving the Water Table* article in this newsletter).

September

More Treated Wastewater Flows

This fall Tucson Water added a number of new customers for our reclaimed water. A number of schools began using this highly treated wastewater for irrigation and we made

Visit the Tucson Water Web Site at <http://www.ci.tucson.az.us/water/>

The *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: 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.

progress on converting Tucson Electric Power's cooling towers to reclaimed water. Every gallon of reclaimed water used saves a gallon of precious drinking water. During 2001, Tucson Water delivered about 3.2 billion gallons of reclaimed water.

December Better Maintaining Your Water System

We began the final year of the five-year-long project of refurbishing our city's old cast iron water mains. This unique program relined 45 miles of the old, worn out mains,

making them like new for a fraction of the cost of replacing them. The winter

months also saw the beginning of our second year of our preventive "Maintaining the Mains" program, flushing water at high speed through our pipes to keep them clean, maintain pressure, and reduce the possibility of main breaks.

This coming year will be another important one for you and Tucson Water as we work to expand the Clearwater Facility, build new water mains and reservoirs, and further expand the reclaimed water system. We'll also be introducing new ideas about customer service, working to improve the quality of service we provide to you.

Thank you for your support and continued confidence in all of us here at Tucson Water. We will continue to work hard to keep that trust and to make sure we all have enough quality water for our families. We wish you a wonderful and happy holiday season.



David V. Modeer
Director, Tucson Water

Your Water Connection

News & Tips for Tucson Water Customers

A First in 10 Years

Tucson's Water Table Rising

**For the first time in a decade,
Tucson's water table is rising.**

Tucson Water hydrologists report they have seen a slight rise in some portions of the water table since groundwater pumping under the city was reduced early last summer. In May of 2001, Tucson Water shut down 26 wells in the central city when the Clearwater Renewable Resource Facility began operation in Avra Valley, west of Tucson. Clearwater delivers about 18 million gallons of water each day to the community, allowing the wells to be turned off.

(Continued on Inside)

December 2001

<http://www.ci.tucson.az.us/water/>

Tucson's Water Table Rising

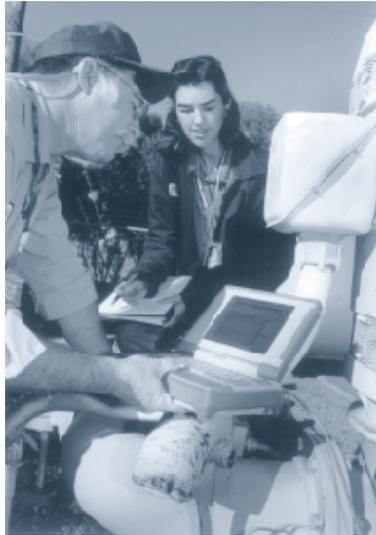
(Continued from Front)

"Wise use of water by Tucson Water customers during the hot months of summer made it possible to leave the wells off," said Chief Hydrologist Ralph Marra.

The water coming from Clearwater is a blend of groundwater and recharged Colorado River water, created naturally underground. The water resource is "renewable", since it is created using Colorado River water which comes to Tucson through the Central Arizona Project canal. Tucson Water has plans to expand the Clearwater Facility, increasing the amount of blended water available to customers and making it possible for more groundwater wells to be "retired".

"This doesn't mean our water issues are over," Marra pointed out. "The improvement we've seen in the water table under central Tucson is very small and may be related to shutting down the wells rather than more water recharging below the city. It will take years before we see permanent increases. But the main point is that the water table, which had dropped as much as 200 feet in these areas, is beginning to make a comeback. Wise water use will remain important far into the future," he added.

For more information about how our water table is beginning to recover, how the Clearwater Facility works, and how it will be expanded, call Tucson Water at 791-4331.



Tucson Water hydrologists Steve Lueck and Asia Philbin take readings on the water table level at an eastside Tucson groundwater well that was shut down in May 2001 when water from the Clearwater Facility began flowing.

Agreement Signed in November

Tucson and Oro Valley Working Together on Water Issues

A new water agreement with our neighboring Town of Oro Valley was recently approved by Tucson's Mayor and City Council.

The agreement resolves outstanding water issues between Tucson and Oro Valley. In addition, the plan transfers a portion of Tucson's annual allotment of Colorado River water to the Town and gives Oro Valley control of the wastewater derived by its water service.

Tucson Water will now also work with Oro Valley to deliver reclaimed water to customers in the area and to develop new drinking water supplies for the Town.

"This agreement meets the needs of our neighbors to the northwest and provides for the greater use of renewable water resources," said Tucson Mayor Bob Walkup. "It also ensures that the financial interests of Tucson Water rate-payers are protected."

Clearwater Quality Report - November 2001

46*	Sodium (ppm)
247	Mineral Content (ppm)
89*	Hardness (ppm)
8.15	pH (units)
Neg*	Coliform Bacteria
1.03	Chlorine level average (ppm)
90.8	Temp (deg F)

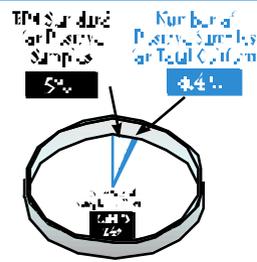
** Values for October*

GROUNDWATER QUALITY REPORT - September 2001

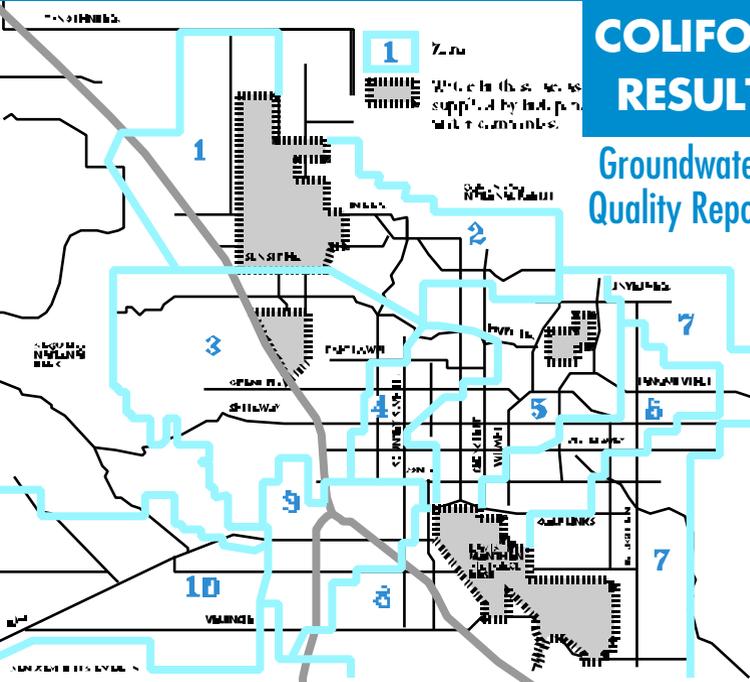
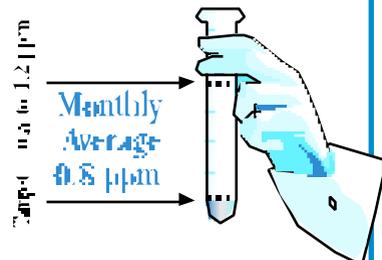
Water Quality Zone		1	2	3	4	5	6	7	8	9	10	System Wide
Sodium (ppm)	Average Range	44 35-53	45 44-46	55 34-91	41 26-54	41 32-44	36 26-44	29 25-35	41 38-44	45 39-56	42 41-42	42 25-91
Mineral Content (ppm)	Average Range	365 186-529	268 252-285	323 191-509	240 180-332	244 163-282	232 179-264	219 168-301	320 251-444	266 215-381	220 216-234	265 163-529
Hardness (ppm)	Average Range	129 64-193	107 101-114	137 92-220	102 87-133	106 96-125	101 79-128	108 95-120	167 75-248	104 76-197	120 76-248	113 64-248
pH (units)	Average Range	7.5 7.4-8.0	7.9 7.6-8.1	7.7 7.4-8.1	7.9 7.6-8.2	7.6 7.0-8.0	7.6 6.9-8.1	7.7 7.3-8.1	7.7 7.3-7.9	8.0 7.7-8.4	7.9 7.8-8.0	7.8 6.9-8.4
Temperature (deg F)	Average Range	85 80-90	88 86-91	87 78-94	88 81-93	86 75-97	86 74-93	86 83-92	89 81-96	90 84-97	91 84-95	88 74-97

COLIFORM BACTERIA TESTING RESULTS - September 2001

Groundwater Quality Report



Chlorine Level Average



“PPM” means one part per million & is about the same as one second of time in 11.6 days.

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.