

1999 Consumer Confidence Report



This brochure explains how drinking water provided by City of Tempe is of the highest quality. Included is a listing of results from water-quality tests as well as an explanation of where our water comes from and tips on how to interpret the data. This "Consumer Confidence Report" is required by law. We're proud to share our results with you. Please read them carefully.

El informe contiene informacion importante sobre la calidad del agua en su comunidad. Tradúzcalo o hable con alguien que lo entienda bien.

Overview

In 1999, your water department distributed 18.3 billion gallons of water to Tempe customers. In addition to testing we are required to perform, our water system voluntarily tests for hundreds of additional substances and microscopic organisms to make certain our water is safe and of high quality. If you are interested in a more detailed report, contact Sherman McCutcheon at 480-350-8330.

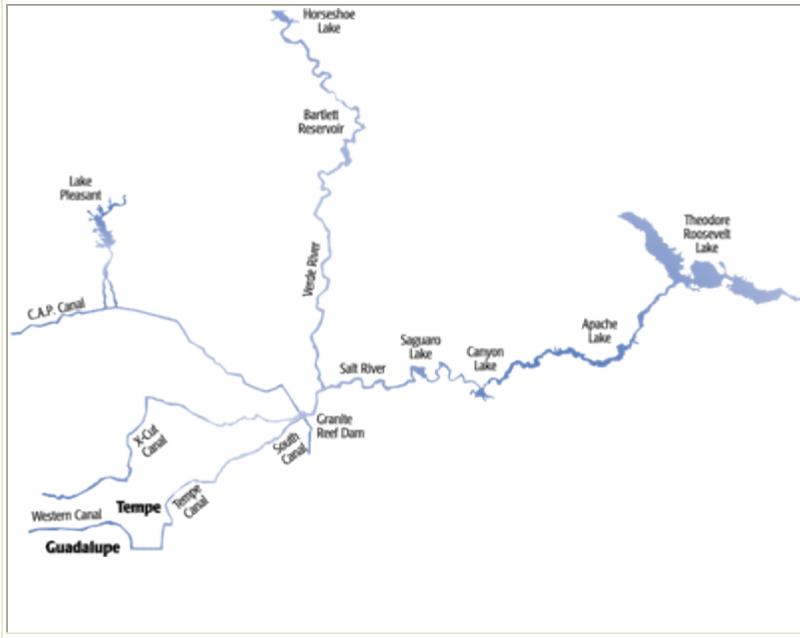
Water Source

The drinking water in Tempe is produced at two water treatment plants. The Johnny Martinez Treatment Plant is located at 255 E. Marigold Lane and the South Tempe Treatment Plant is located at 6600 S. Price Road. The City of Tempe has several sources of water available to it:

1. **Central Arizona Project water** -- Beginning its journey from Lake Havasu, CAP water travels to Lake Pleasant and on to Tucson. Tempe purchased 3,912 acre feet of CAP water in 1999. An additional 5,188 acre feet was used for the initial filling of Town Lake.

2. **Salt River Project water** -- This water is collected from the Salt and Verde River watersheds, and diverted into SRP canals at the Granite Reef Dam, in Mesa. Tempe's allotment of SRP water depends on the amount of water available in the system, and therefore varies from year to year. Tempe's water use for 1999 was 51,903 acre feet.

3. **Groundwater** -- Tempe has seven (7) groundwater wells that it will use as a back-up water supply in times of water shortages. The wells are tested quarterly to assure that the water meets safe drinking water standards, and the quarterly pumping also keeps the mechanical equipment in good working order. Tempe pumped 301 acre feet to the distribution system in 1999.



Learn more about the City of Tempe water system at www.tempe.gov/water.

Tempe Water Treatment Plants

Papago Park Plant is located on the X-Cut Canal.

South Plant is located near the end of the Tempe Canal.

Substance	Unit	MCL	MCLG	Average Level	Range	Major Sources
Arsenic	ppb	50	None	3.6	ND - 5	Erosion of natural deposits; Runoff from orchards
Barium	ppm	2	2	0.07	ND - 0.1	Discharge of drilling wastes Discharge from metal refine Erosion of natural deposits
Cadmium	ppb	5		1.0	ND - 1.1	Corrosion of galvanized pip Erosion of natural deposits; Discharge from metal refine Runoff from waste batteries and paint
Chromium	ppm	100		6	ND - 6.9	Discharge from steel and pu Erosion of natural deposits
Fluoride	ppm	4	4	0.73	0.31 - 1.38	Erosion of natural deposits; additive which promotes str
Nitrate	ppm	10	10	1.5	ND - 4.8	Runoff from fertilizer use; L from septic tanks, sewage; natural deposits
Sodium	ppm	No MCLs		119	32 - 154	Erosion of natural deposits
Chloride	ppm	No MCLs		187	28-284	Erosion of natural deposits
Sulfate	ppm	No MCLs		114	76-157	Erosion of natural deposits
Mercury	ppb	2		0.16	ND - 0.2	Erosion of natural deposits; Runoff from croplands
Gross Alpha	pCi/L	15		3.9	ND - 4.8	Erosion of natural deposits;
Gross Beta	pCi/L	50#		7.9	ND - 14	Decay of natural and man-r deposits
Turbidity	NTU	TT = 0.5 TT = percentage of samples <0.5 NTU		0.09 100%**	0.02 - 0.29 100%	Soil runoff
Total Coliform	% of Samples	<5	0	0	0	Naturally present in the env
Total Haloacetic acids	ppb	60		22.3	13.7 - 35.7	By-product of drinking water chlorination.
Total Trihalomethanes	ppb	80		48.3	22 - 89.8	By-product of drinking water chlorination

Key To Table

MCL = Maximum Contaminant Level
 NTU = Nephelometric Turbidity Units
 TT = Treatment Technique
 AL = Action Level

MCLG = Maximum Contaminant Level Goal
 ppm = parts per million, or milligrams per liter (mg/l)
 ppb = parts per billion, or micrograms per liter (ug/l)
 #50 pCi/L is equivalent to 4 mrem/yr

* maximum monthly average
 ** Minimum monthly average

An Explanation of the Water-Quality Data Table

The following table shows the substances for which the Water Quality Laboratory tests. Every regulated substance that we detected in the water, even in the most minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Please note, the simple presence of a substance in drinking water does NOT necessarily indicate the drinking water poses a health risk. Certain quantities of some substances are essential to good health, but excessive quantities can be hazardous. Definitions of MCL and MCLG are important.

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Unregulated Contaminants

The City of Tempe has sampled our drinking water for the presence of the protozoan *Cryptosporidium*. Though rarely, *Cryptosporidium* has been identified in the source water we receive, it has never been detected in our finished water supply.

During testing in 1996, Radon was not detected in our drinking water. The U.S. Environmental Protection Agency (EPA) is preparing a regulation which will specify a Maximum Contaminant Level for radon. Radon is a radioactive gas that occurs naturally in ground water and is released from water into the air during household use.

Required Additional Health Information

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

(E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800-426-4791).

National Primary Drinking Water Regulation Compliance

As a result of administrative oversight our office failed to submit a report required under the National Primary Drinking Water Regulations. This violation had no impact on the quality of the water our customers received, and it posed no risk to public health. We have established a report tickler file to ensure that all reporting requirements are met in the future.

If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery.

This report was prepared using CCR builder and technical assistance provided by the American Water Works Association.

Consult our Web site at [www.tempe.gov/water] and, for further information, see U.S. Environmental Protection Agency (EPA) water information at www.epa.gov/safewater/. Water Quality Data for community water systems throughout the United States is available at www.waterdata.com.

For more information, call City of Tempe's Water Quality Laboratory at 480-350-8330