



Tempe

2022

Consumer Confidence and Water Quality Report



This report is also available at tempe.gov/ccr

2022 Consumer Confidence and Water Quality Report

Each year, Tempe produces a Consumer Confidence and Water Quality Report, sharing important information about the quality of potable (drinking) water provided by the City of Tempe. This report contains information on Tempe's water sources and results from required water quality tests compared to the standards set by the United States Environmental Protection Agency (EPA) under the Safe Drinking Water Act (SDWA).

This report provides an opportunity to share Tempe Water Utilities' efforts to provide reliable, high-quality water, wastewater and stormwater services for the community, which support Tempe's public health, quality of life and economic vitality. Tempe provides these essential services through investing in a diverse portfolio of water supplies, empowering water conservation and ensuring the financial health of the utility.

Tempe water professionals manage and operate numerous complex infrastructure systems and perform rigorous testing to

ensure that water is safe and that the environment is protected from pollution. In 2022, Tempe provided 15 billion gallons of potable water to Tempe and Guadalupe customers, averaging about 43.5 million gallons per day. Tempe's chemists and specialists perform thousands of tests and monitoring beyond those required by federal SDWA standards to ensure Tempe's potable water is safe and meets regulatory standards.

Those responsible for providing water to others, such as tenants, residents, patients, students or employees, may post this report in a visible location or provide it to them through direct hand delivery, mail or email.

El informe contiene información importante sobre la calidad del agua en su comunidad. Tradúzcalo o hable con alguien que lo entienda bien. Pongase en contacto con el Departamento de Comunicaciones de la Ciudad de Tempe al 480-350-4311.

Water Sources



Control center operators monitor Tempe's water treatment and distribution systems to ensure sufficient production and efficient delivery of high-quality drinking water.

Tempe's water supply comes from several sources. Those sources, which include rivers, lakes and groundwater, and the canal systems that deliver surface water sources to Tempe can be found on pages 6 and 7.

Salt River Project (SRP) – Surface water is collected from the Salt and Verde River watersheds, stored in six SRP reservoirs and diverted into SRP canals at Granite Reef Dam in Mesa. The quantity of water provided by SRP to its service area within Tempe varies from year to year, as SRP provides only the amount of water needed to meet the demands. In 2022, SRP supplied 12.6 billion gallons of water to Tempe to meet potable demands, an average of 35 million gallons per day. This represents about 81% of water used in Tempe and Guadalupe.

Groundwater – In 2022, Tempe used 10 groundwater wells to supplement surface water supplies. Tempe withdrew about 1.5 billion gallons of water from wells, for an average of four million gallons per day. This source provided 10% of water used in the Tempe Water Service Area in 2022.

Central Arizona Project (CAP) – Colorado River water is delivered to Tempe through the CAP canal system. In 2022, Tempe used 1.3 billion gallons of Colorado River water delivered by CAP, an average of three million gallons per day. This source provided 9% of the water used in the Tempe Water Service Area in 2022.

Surface Water Treatment Process



Plant operators oversee the surface water treatment process to ensure the potable water is safe and available for the community's immediate needs.

Surface water received from SRP and CAP must be treated to produce potable water that meets SDWA standards. In 2022, Tempe's potable supply delivered by these sources was processed and delivered through two surface water treatment plants: Johnny G. Martinez Water Treatment Plant and South Tempe Water Treatment Plant. Both plants have the capacity to produce 50 million gallons of potable water per day. The plants are operated 24 hours a day by an operations team of mechanics, electricians, instrument technicians and treatment operators. These professionals ensure all potable water meets SDWA standards through treatment processes (see Figure 1) of chemical coagulation, mechanical flocculation, sedimentation, filtration and ultraviolet and sodium hypochlorite disinfection. Treated water is stored securely in reservoirs and remote storage tanks, ensuring that drinking water is available when needed.



Figure 1: The surface water treatment process involves removing solids, disinfecting and purifying water that enters the plants from wells and canals. Visit tempe.gov/operations to explore the process.

Water, wastewater, stormwater, flood irrigation infrastructure

The operations and maintenance of the water distribution, wastewater collection, stormwater and flood irrigation infrastructure is performed by highly-skilled Tempe employees, who ensure the safe and reliable transportation and delivery of these waters while protecting the safety of customers, residents and employees, 24 hours a day, 365 days a year.

Once treated, drinking water leaves the plant and enters a water distribution system of underground pipes. Utility services technicians maintain 860 miles of water pipes, which extend throughout Tempe and Guadalupe to deliver water to customers. Technicians also maintain more than 44,000 water meters, 9,400 fire hydrants and 28,800 water valves that ensure the safe and reliable delivery of potable water. In 2022, Tempe provided 15 billion gallons of potable water to Tempe and Guadalupe customers, averaging about 43.5 million gallons per day.

After use, Tempe collects and conveys wastewater away from the public to protect public health. Utility services technicians maintain 500 miles of wastewater pipes, 10,700 manholes and 36,200 service connections, ensuring that wastewater is safely transported to a wastewater treatment plant to be treated and recycled. Currently, all of Tempe's wastewater is treated at the 91st Avenue Wastewater Treatment Plant in Phoenix, co-owned by the City of Tempe and several other local municipalities. Wastewater treated at 91st Avenue is reused for energy generation, irrigation of non-food crops and regeneration of riparian habitats. Tempe is planning for the Kyrene Water Reclamation Facility to come back into service in 2025. Wastewater entering the Facility will be treated and locally used in energy generation, groundwater storage and landscape irrigation.

Tempe's utility services technicians also maintain the stormwater conveyance system that prevents streets and properties from flooding during storms. The system consists of 200 miles of stormwater mains, 3,600 catch basins and 1,700 stormwater manholes. Tempe maintains a staff of professional irrigators who provide urban irrigation services (flood irrigation) to some SRP lands within the Tempe Water Service Area. This workgroup coordinates the delivery of SRP irrigation water to 17 city parks and about 850 residential customers by maintaining 40 miles of irrigation mains and operating more than 1,000 irrigation valves.



Water quality specialists collect samples for testing from Tempe's water distribution system, ensuring that the drinking water produced at the water treatment plant maintains its high quality all the way to the tap.



Utility services technicians perform maintenance on the wastewater collection system, preventing sewer stoppages that can pose a risk to health and the environment.



Utility services technicians ensure valves work properly, allowing water to be delivered 24 hours a day and limiting outages to customers during emergencies.

Protection of water quality, the environment

Tempe Water Utilities staff protects water quality and the environment through management of programs required under the SDWA, Clean Water Act, Clean Air Act and many other federal, state and local environmental laws and regulations. Environmental Services staff, including water quality specialists, environmental quality specialists and environmental compliance inspectors work to protect public health and the environment by utilizing their knowledge of regulatory requirements and partnering with business and industrial customers.

This group manages:

- A state-certified water quality laboratory,
- Programs to manage regulatory compliance,
- Inspections,
- Backflow prevention,
- Water, wastewater, stormwater sampling and
- Water quality planning initiatives.

Compliance, process control testing

Water quality specialists, plant operators and others collect samples from the water treatment plants, groundwater wells, water distribution system, water storage tanks, wastewater and stormwater pipes located throughout Tempe and Guadalupe. These samples are sent to Tempe chemists for analyses, complying with federal, state and local regulations and ensuring effective treatment.

Tempe's chemists conduct thousands of tests in the laboratory or in the field each year, ensuring water is safe when it leaves the water treatment plant or groundwater well. Chemists and

specialists also perform tests and monitoring beyond those required by federal SDWA standards, ensuring Tempe's potable water is safe beyond regulatory standards.

Tempe's water utilities process coordinator routinely monitors water quality and treatment at the water treatment plants and throughout the water distribution system. Regular process control sampling, jar testing and analyses allow the continued optimization of the water treatment process. These efforts ensure potable water complies with federal and state drinking water standards.



Chemists work in Tempe's full-service laboratory, performing numerous inorganic, organic and microbiological tests daily. In addition to ensuring water quality, their work can be used to analyze trends and make projections and recommendations.

Water resources, conservation

The Water Resources section efficiently manages Tempe's water supplies and effectively plans for the community's future water needs. The water resources manager administers Tempe's water rights and contracts and handles water accounting and assured water supply planning. In 2022, as a response to the on-going drought on the Colorado River, Tempe implemented Stage 0 - Watch of its Drought Preparedness Plan. To learn more, visit tempe.gov/water.

Tempe's Water Conservation Program is more than a regulatory requirement. It illustrates Tempe's dedication to educating the community on the many ways residents and businesses can take proactive actions to ensure Tempe maintains sufficient water to meet its needs now and into the future. Since 2000, proactive water conservation efforts have resulted in a 17% decrease in the potable demands of the Tempe Water Service Area, while Tempe's population has increased by 21%.

Tempe's water conservation specialists provide tailored assistance and education to customers to help reduce water waste and increase water efficiency. Specialists also implement a variety of educational programs, promote financial incentives and encourage customers to monitor water usage on Tempe's WaterSmart Customer Portal. This free tool helps customers adopt customized, efficient water practices at their homes or in Tempe's businesses. These resources can be found on tempe.gov/conservation.

Water conservation specialists help ensure that Tempe has sufficient water supplies to meet customer's needs by providing water conservation education and technical assistance to customers.



Water conservation specialists ensure Tempe has sufficient water supplies to meet customer's needs.

Contaminants in drinking water

To ensure that potable water is safe to drink, the EPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water. Reasonably, drinking water, including bottled water, may be expected to contain low levels of some contaminants. The levels of contaminants in Tempe's potable water are determined largely by the source water, which can vary from year-to-year depending on watershed conditions, reservoir storage and the volume of groundwater pumped. The presence of contaminants does not indicate that water poses a health risk. Sources of raw water, for both tap and bottled, include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels, it can dissolve naturally occurring minerals and accumulate substances resulting from the presence of animals or human activity.

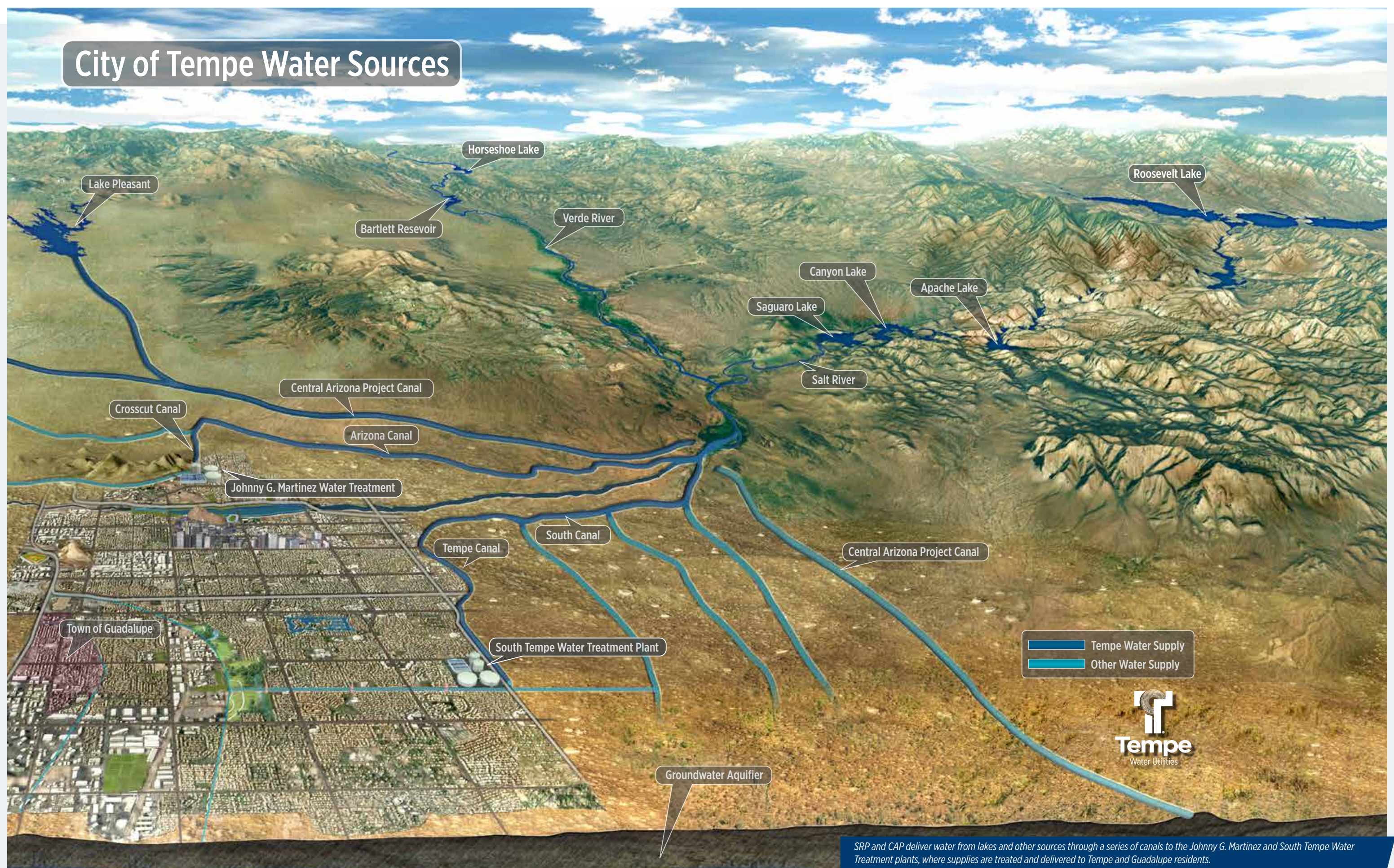
Contaminants that may be present in source water include:

- Microbial contaminants such as viruses and bacteria that may be from wastewater or septic systems, agricultural livestock operations or wildlife.

- Inorganic contaminants such as salts and metals that occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- Pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.
- Organic chemical contaminants including synthetic and volatile organics that are by-products of industrial processes and petroleum production from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants that can occur naturally or be the result of oil and gas production and mining activities.

Information about contaminants in tap water and potential health effects can be obtained by visiting the EPA website epa.gov/SafeWater. Information on bottled water can be obtained from the FDA by calling 888-INFO FDA (888-463-6332).

City of Tempe Water Sources



SRP and CAP deliver water from lakes and other sources through a series of canals to the Johnny G. Martinez and South Tempe Water Treatment plants, where supplies are treated and delivered to Tempe and Guadalupe residents.

Drinking water quality

Tables 1-4 (starting on page 9) contain regulated contaminants that were required to be monitored and were detected in Tempe's drinking water in 2022. For each contaminant detected, the tables provide the highest concentration or level allowed by regulation, the ideal goals for public health, the amount detected in Tempe's water and major sources of contamination. Certain contaminants require monitoring fewer than one time per year because concentrations of these contaminants are not expected to vary significantly from year to year. For contaminants that were not required to be tested in 2022, this report depicts results from the most recent required testing and the year the testing occurred.

Definitions and Acronyms

Action Level (AL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a public water system shall follow.

Health Advisory Level (HAL): The concentration of a chemical found in drinking water with no existing regulatory standard is a value that, based on the available data, virtually is certain not to cause adverse human health effects if consumed over a lifetime.

Maximum Contaminant Level Goal (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.

Maximum Contaminant Level (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 Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. Addition of a disinfectant is necessary to control microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Non-Detect (ND): Not detected in samples.

Not Applicable (N/A): Does not apply.



Chemists research regulations related to the Clean Water Act and SDWA that ensure drinking water is safe for consumption and discharged water is safe for the community.



Tempe conducted thousands of tests in 2022, making sure that Tempe's drinking water continues to comply with all SDWA Maximum Contaminant Levels.

Parts per million (ppm) or milligrams per liter (mg/L): Units used to measure the concentration of a constituent found in water. One ppm is approximately equal to one half gallon of water in an Olympic size swimming pool.

Parts per billion (ppb) or micrograms per liter (µg/L): Units used to measure the concentration of a constituent found in water. One ppb is one thousand times less than one ppm. One ppb is approximately equal to one drop of water in an Olympic size swimming pool.

Parts per trillion (ppt) or nanograms per liter (ng/L): Units used to measure the concentration of a constituent found in water. One ppt is equivalent to a single drop of water in 20 Olympic-sized swimming pools.

Picocuries per liter (pCi/L): A measure of radioactivity.

Running Annual Average (RAA): The average of analytical results for samples taken during the previous four calendar quarters.

Locational Running Annual Average (LRAA): RAA for a specified location.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Variations and Exemptions: State or EPA permission to not meet a MCL or a treatment technique under certain conditions.

2022 Regulated Detected Contaminants

Table 1

Constituent	Unit	MCL	MCLG	Range	Violation (Yes or No)	Major Sources
Arsenic	ppb	10	0	ND - 6	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production waste.
Barium	ppm	2	2	0.06 - 0.1	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chlorine	ppm	4.0 (MRDL)	4.0 (MRDLG)	0.08 - 1.4	No	Disinfectant added to control microbial contaminants.
Chromium (Total)	ppb	100	100	ND - 20	No	Erosion of natural deposits.
Fluoride	ppm	4.0	4.0	0.1 - 0.9	No	Erosion of natural deposits; water additive which promotes strong teeth.
Adjusted Gross Alpha	pCi/L	15	0	ND - 2.0	No	Erosion of natural deposits.
Nitrate	ppm	10	10	ND - 7	No	Runoff from fertilizer use.
Selenium	ppb	50	50	ND - 1	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Tetrachloroethylene	ppb	5	0	ND - 0.8	No	Discharge from factories and dry cleaners.
Trichloroethylene	ppb	5	0	ND - 0.7	No	Discharge from metal degreasing sites and other factories.
Total Coliform	percent	TT ¹	N/A	ND - 2.3	No	Naturally present in the environment.
Total Organic Carbon	ppm	TT	N/A	ND - 2.9	No	Naturally present in the environment.
Uranium (2021)	ppb	30	0	ND - 7	No	Erosion of natural deposits.

¹ Total Coliform detected in greater than 5% of the samples collected each month requires an assessment to investigate its source.

Arsenic - While Tempe's drinking water meets EPA's standard for arsenic, it contains low levels of this element. EPA's standard balances the current understanding of arsenic's possible health effects against the cost to remove arsenic from drinking water. The EPA continues to research the health effects of low levels of arsenic, which is a metal known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Nitrate - Nitrate in drinking water at levels higher than 10 ppm is a health risk for infants six months and younger. High nitrate levels in drinking water can cause cyanotic newborn or "blue baby" syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If caring for an infant, ask for advice from a healthcare provider.

Fluoride - In addition to compliance sampling, fluoride levels are monitored daily at both treatment plants and reported to the Arizona Department of Health Services, monthly, for oral health monitoring. The range reported is combined results from the daily treatment plant and system monitoring.

Table 2

Constituent	Unit	MCL	Highest Value	Lowest monthly % meeting limit	Violation (Yes or No)	Major Sources
Turbidity	NTU (Nephelometric Turbidity Unit)	TT = 1; and not less than 95% ≤ 0.3 NTU	0.1	100%	No	Soil runoff into canals.

Turbidity - Turbidity is a measure of the cloudiness of water. Turbidity is monitored because it is a good indicator of water quality. High turbidity can reduce the effectiveness of disinfectants.

Table 3

Constituent	Unit	MCL	Highest LRAA	Range (single sample)	Violation (Yes or No)	Major Sources
Total Trihalomethanes (TTHM)	ppb	LRAA of 80	57	3 - 80	No	By-products of drinking water chlorination.
Total Haloacetic Acids (HAA)	ppb	LRAA of 60	22	ND - 22	No	

THMs are the result of a reaction between the chlorine used for disinfecting tap water and natural organic matter in the water. At elevated levels, THMs have been associated with negative health effects such as cancer and adverse reproductive outcomes. HAAs are a type of chlorination disinfection by-product formed when the chlorine used to disinfect drinking water reacts with naturally occurring organic matter in water. Haloacetic acids are a relatively new disinfection by-product.

Table 4

Constituent	Unit	Action Level	90th Percentile Result	Number of results above action level	Violation (Yes or No)	Major Sources
Copper ²	ppm	1.3	0.20	0	No	Corrosion of household plumbing systems; erosion of natural deposits.
Lead ² (2021)	ppb	15	5	0	No	Corrosion of household plumbing systems; erosion of natural deposits.

²Fifty-one households were tested for lead and copper.

Lead - If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water primarily comes from materials and components associated with service lines and home plumbing. The City of Tempe is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components in homes. Customers share the responsibility for protecting themselves and their families from the lead in home plumbing. They can take responsibility by identifying and removing lead materials within home plumbing and taking steps to reduce risk. Customers concerned about lead in water and those who wish to have it tested may contact the City of Tempe for information on lead in drinking water, testing methods and steps to take to minimize exposure. Before drinking or cooking with tap water, concerned customers may flush pipes for several minutes by running the tap, taking a shower, doing laundry or a load of dishes. Customers may opt to install a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. Additional information is available at epa.gov/safewater/lead.

In 2021, the EPA revised the Lead and Copper Rule (LCRR) to protect public health and reduce exposure to lead and copper in drinking water. Tempe has been monitoring lead and copper in homes since 1992 and has been compliant with the regulations. The new LCRR goes into effect Oct. 16, 2024, and requires the utility to complete numerous actions such as the following.

- Identifying areas most affected through a service line inventory.
- Strengthening treatment requirements.
- Replacing lead service lines systematically, if found, and creating a plan for replacing galvanized service lines.

- Increasing sample reliability.
- Improving risk communication.
- Prioritizing protection of children in schools and childcare facilities.

In preparation for the LCRR, Tempe's environmental quality specialists are working with water quality experts and regulatory agencies in developing and implementing a compliance strategy that addresses the new requirements, which include identifying materials for more than 44,000 privately-owned service line pipes serving landscapes and residential, commercial and industrial buildings. Tempe is reaching out to all water utility customers for assistance with collecting data to help the city prioritize its response, including verification of exterior water service line materials. Customers may complete the five-minute survey online at tempe.gov/ServiceLine. The website also contains educational material on ways to minimize the potential for lead exposure.



Environmental quality specialists utilize extensive knowledge, research and collaboration to guide implementation of regulatory requirements, such as the Lead and Copper Rule, that protect public health or the environment.

People who are immunocompromised

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immunocompromised, such as individuals with cancer, undergoing chemotherapy, who have undergone organ transplants, with human immunodeficiency virus acquired immunodeficiency

syndrome or with other immune system disorders can be particularly at risk for infection. People in these categories or their caregivers should seek advice regarding drinking water from their healthcare providers.

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks; however, immunocompromised people, infants, small children and the elderly are at greater risk of developing life-threatening illness. Although filtration removes Cryptosporidium, the most used filtration methods cannot guarantee 100% removal. Monitoring indicates, although infrequent, these organisms are

present in Tempe's source water. Current test methods do not identify whether the organisms are dead or if they can cause disease. Based on source water monitoring for Cryptosporidium at Tempe's two water treatment plants between 2015 and 2017, Tempe is required to maintain ongoing documentation of effective disinfection practices. The EPA and Centers for Disease Control and Prevention's guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available through the EPA website epa.gov/SafeWater.

Per-and polyfluoroalkyl substances (PFAS)

PFAS are a category of manufactured chemicals used in a wide range of products that are not currently regulated by the EPA; however, the organization is examining these compounds for future regulation and has established health advisory levels (HAL) for four of these compounds to keep communities informed as they continue evaluations.

In anticipation of approaching regulations, Tempe has been monitoring drinking water sources proactively for these

compounds. Based on the HALs announced in June 2022, some results are higher than HALs for perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) at some monitoring points. Tempe's water supply is lower than the HALs for perfluorobutane sulfonic acid (PFBS) and hexafluoropropylene oxide (HFPO) dimer acid also called "GenX" chemicals. Table 5 summarizes a range of the levels detected in water sources that were available for use in 2022.

Table 5

Substance	Units	Average Value	Range of Values to Date
PFOS	ppt	7	ND - 36
PFOA	ppt	3	ND - 11
GenX	ppt	ND	ND

Tempe will continue monitoring water sources regularly, ensuring customers continue to receive drinking water that is compliant with applicable health and environmental regulations. Currently, Tempe is researching technologies that reduce PFAS and is working with local and state officials to develop long-term

solutions. For information on Tempe's water and PFAS, visit tempe.gov/PFAS. For information about PFAS and their health effects, review the EPA's health advisory at <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>.

Source Water Assessment summary

The Arizona Department of Environmental Quality (ADEQ) evaluates each water source used by public water systems in the state. These evaluations assess the hydrogeology of drinking water sources to determine the quality of groundwater being drawn into wells, the watersheds supplying surface water and the surveyed land being used for activities occurring near drinking water sources.

ADEQ completed an assessment of the surface waters and groundwater wells for Tempe's public water system in 2004. Based on the information available on the hydrogeologic settings and the adjacent land uses in the specified proximity of the drinking water source(s), ADEQ has given a high-risk designation for the degree to which this public water system drinking water source(s) are protected. A designation of high risk indicates there

may be additional source water protection measures that can be implemented on the local level. This does not imply that the source water is contaminated, nor does it mean that contamination is imminent. Rather, it indicates that land use activities or hydrogeologic conditions exist that make the source water susceptible to possible contamination.

Tempe regularly conducts monitoring of all drinking water sources, ensuring nearby land use has not impacted water quality. The complete Source Water Assessment is available for review at ADEQ, 1110 W. Washington St., Phoenix, AZ 85007, or an electronic copy may be requested by phone: 602-771-4597. For information, visit the ADEQ website at azdeq.gov/SourceWaterProtection.

Tempe frequently receives questions about the hardness of water and the presence of radon.

Hardness – Hardness (Table 6) describes the amount of naturally occurring minerals calcium and magnesium, that are dissolved by source waters as they contact soil. “Hard” water often refers to drinking water that contains relatively more dissolved minerals than “soft” water. Hard water is common in most of the United States, especially in the Southwestern United States and Arizona.

Radon – Radon (Table 6) is a radioactive gas that occurs naturally in groundwater and is released from water into the air during household use. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a very small source. For information, call Arizona Radiation Regulatory Agency at 602-255-4845 or contact EPA's Radon Hotline 800-767-7236.

Table 6

Constituent	Units	Average Value	Range of Values
Hardness	ppm	146	130 - 480
Hardness	grains/gallon	8	8 - 28
Radon (2008 and 2011)	pCi/L	346	ND - 704

Capital Improvement Program (CIP)

Tempe Water Utilities' engineers and geographic information system coordinators plan and manage a comprehensive asset management program that includes assessment and improvements to all aspects of water, wastewater and stormwater utility operations. This program includes projects designed to ensure Tempe is providing high quality water to its customers and efficient wastewater collection and treatment at the lowest reasonable cost, while meeting all applicable federal, state and local rules, regulations and statutes. CIP planning for Fiscal Year 2023-2024 through Fiscal Year 2027-2026, for both water and wastewater, is nearly \$700 million throughout the five-year planning period.

Highlights of the water treatment and water distribution CIP include rehabilitation and improvements to the following major areas of Water Utilities operation.

- Water Treatment Plant asset maintenance and upgrades.
- Transmission and distribution system replacements and improvements.
- Water system pumping stations, reservoirs and tanks projects.
- Wells – asset maintenance and new production.
- Reactivation of Water Reclamation Facility and construction of associated recharge wells.

Protecting Tempe's waterways

Stormwater runoff does not go to a treatment plant before entering retention basins, washes, rivers or lakes. This runoff can collect dirt, litter, oil, grease, pet waste, chemicals and other pollutant as it flows over surfaces such as roads, parking lots, sidewalks, driveways or lawns. Customers can help reduce pollutants entering the stormwater system and protect waterways by following properly draining pools, picking up after pets, adopting a path or street and utilizing the Household Products Collection Center. Review stormwater tips at tempe.gov/StormwaterTips.



Environmental compliance inspectors collect samples from waterways, such as Tempe Town Lake and Kiwanis Lake, identifying pollutants that may negatively affect the environment.

Operating budget

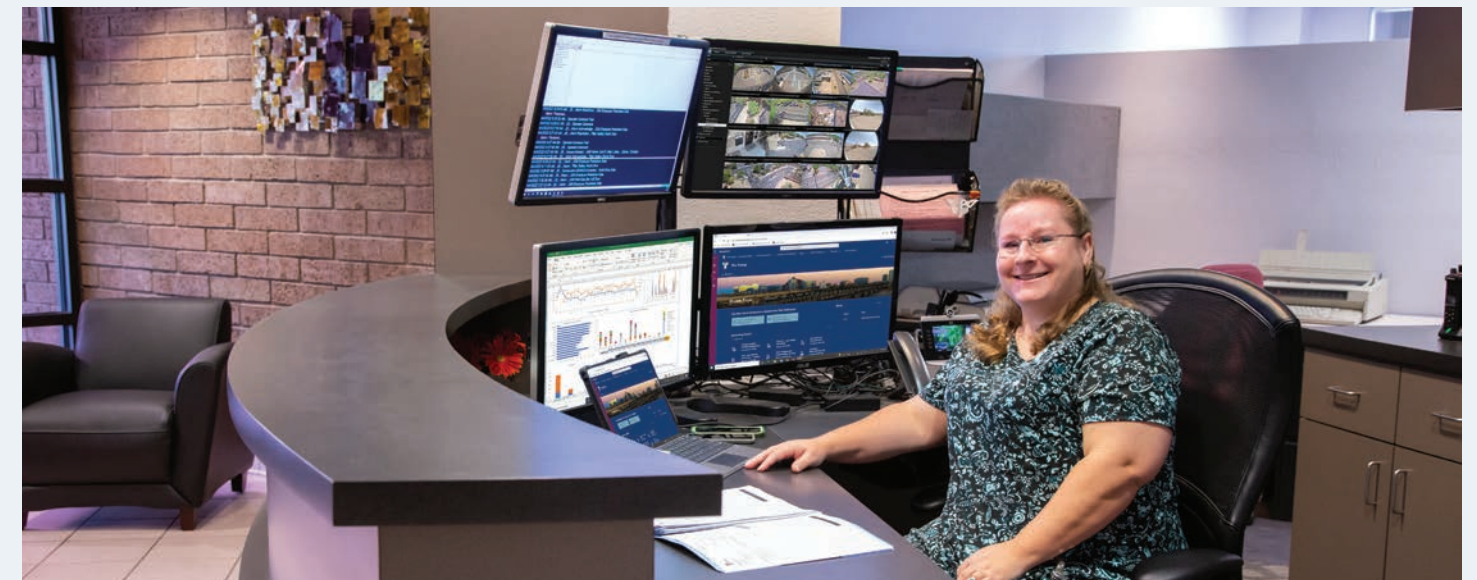
Every two years, Municipal Utilities conducts a Cost of Service study to help determine what, if any, adjustments are needed to recover the costs of water and wastewater services. Periodic review of cost-based rates, fees and charges is an important component of a well-managed and operated water utility. As utility

costs throughout the country continue to rise, staff is committed to managing costs and staying efficient, while upholding Tempe's commitment to a sustainable future. The Water Utilities Division Fiscal Year 2022-2023 Operating Budget is \$114,082,380.

Customer services

The Customer Services Section is responsible for water and wastewater billing and customer service operations. Tempe recently made significant investments in Advanced Metering Infrastructure for more than 43,000 water meters that provide hourly water consumption data and billable reads. Customers

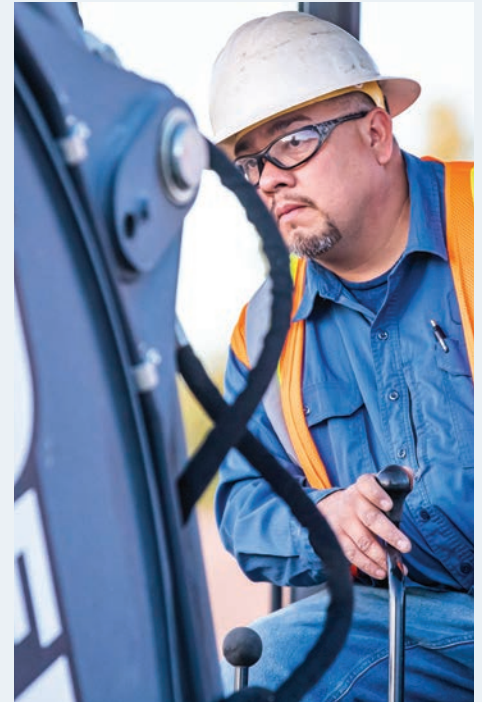
can access water usage data by visiting tempe.gov/WaterSmart. Tempe offers multiple ways to pay for the utility services, and information on payment options, rates and other utility billing-related questions can be found at tempe.gov/CustomerService.



Administrative assistants perform essential support duties that ensure Tempe's Water Utilities Division fulfills critical functions.



This report is also available at tempe.gov/ccr



Information

Call the City of Tempe at 480-350-4311 or visit tempe.gov/water.

Address the Tempe City Council during regularly scheduled Council meetings.
City Council meetings are usually held every other Thursday.

Meeting schedules and agendas may be found online at tempe.gov/clerk or by calling 480-350-4311.