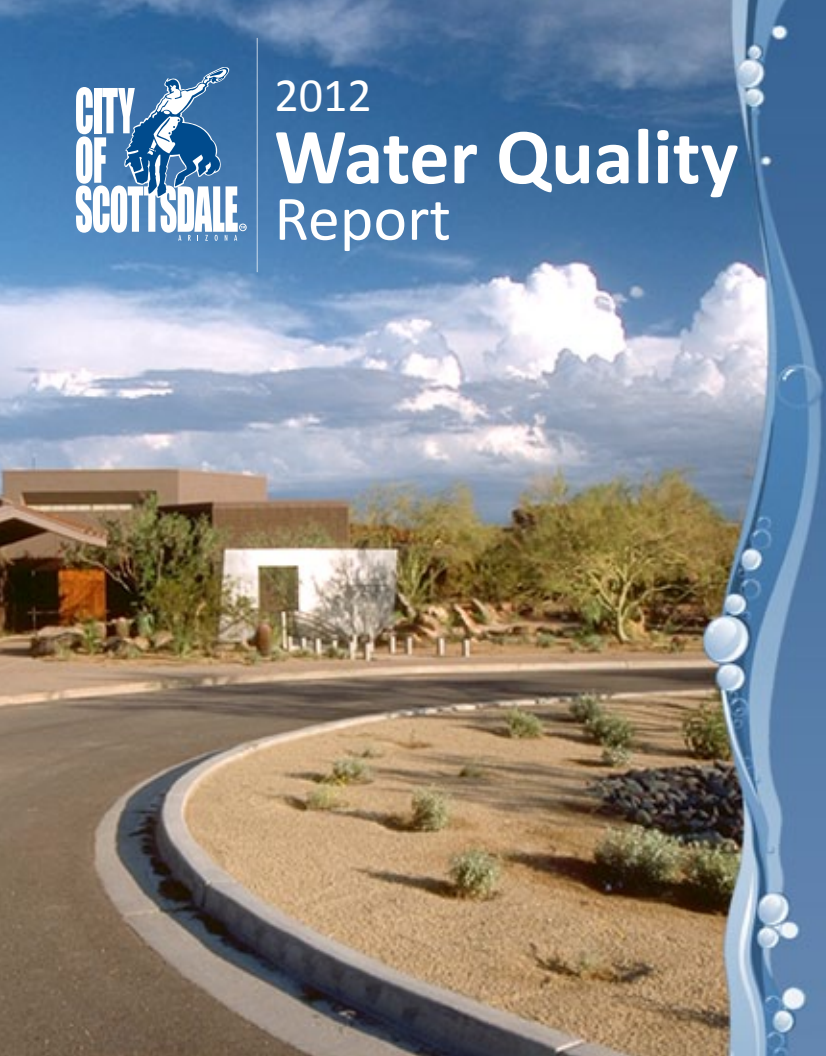


2012 Water Quality Report

Scottsdale's Water Resources staff is dedicated to providing you with safe, reliable drinking water each and every day of the year, whenever you need it. Our goal is to supply you the best quality drinking water possible with great service at an affordable price.

This commitment is summarized in this annual report about our drinking water. The 2012 Water Quality Report is sent to each customer to provide important information about your drinking water. The valuable information in this report includes where your water comes from, our water treatment processes, the many results of continuous testing and how we stack up to the federal standards. We also include information on our water reclamation activities and water conservation tips.

We work closely with the U.S. Environmental Protection Agency (EPA), the Arizona Department of Environmental Quality (ADEQ) and Maricopa County Environmental Services to ensure we are meeting or surpassing all drinking water standards and assuring you receive safe, quality and reliable drinking water 24 hours a day.

Once again, in 2011 our test results showed that we are meeting or surpassing all federal and state drinking water standards. I hope you take the time to review this report to learn how much work and dedication goes into your drinking water each and every day.

Marshall Brown
Water Resources Executive Director

A Message from the EPA

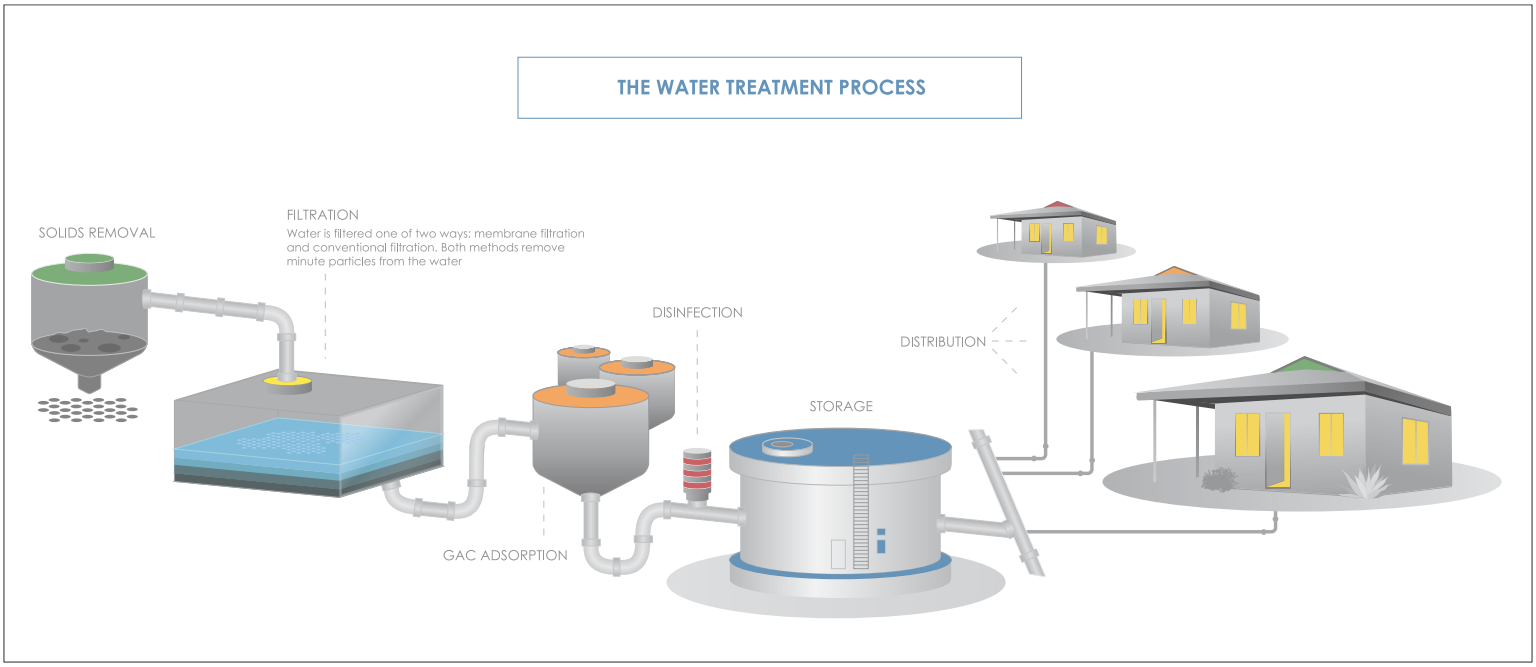
To ensure the water from your tap is safe to drink, the EPA issues regulations limiting the amount of certain impurities allowed in drinking water and the water treatment process. You can expect all drinking water, including bottled water (which is regulated by the Food and Drug Administration,) to contain at least small amounts of some contaminants. It's important to know that the presence (or detection) of impurities does not necessarily indicate a health risk.

Attention Immuno-Compromised Citizens

If you are a person with a compromised immune system (i.e. undergoing chemotherapy, have had an organ transplant or if you have HIV/AIDS or other immune system disorders, etc.) you may be particularly at risk from infections and more vulnerable to contaminants in drinking water. Some elderly and infants may also have increased risk. You are encouraged to seek advice about drinking water from your health care provider. More information including ways to lessen the risk of infection and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Scottsdale's drinking water sources include rivers, lakes, reservoirs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring materials and can pick up substances from human or animal activity. Possible contaminants may include:

- Microbial contaminants including viruses, bacteria and parasites, which may come from sewage treatment plants, septic systems, agricultural or livestock operations and wildlife.
- Inorganic contaminants such as minerals, salts and metals, which can be naturally occurring or result from urban storm water 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, storm water runoff and residential uses.
- Organic chemical contaminants including synthetic and volatile organic compounds, which are by-products of industrial processes and petroleum production, and also can come from gas stations, urban storm water runoff and septic systems.
- Radiochemical contaminants, which occur naturally or result from oil and gas production and mining activities.



Scottsdale's Water Supply

Our water supply comes from both surface water and groundwater sources. Depending on the time of year, the weather and customer demand, it's possible you may receive water from a single source of water or a combination of water sources.

Scottsdale's main surface water supply is from the Colorado River. This water is transported through the Central Arizona Project (CAP) canal to the Scottsdale CAP Water Treatment Plant (WTP). We also receive surface water from Salt River Project (SRP) which comes from the Verde and Salt rivers. Water is transported by SRP to the Chaparral WTP.

Besides these two main surface water sources, your drinking water may also come from aquifers deep below ground. The water is pumped from the ground through one of the city's 24 active wells and then disinfected prior to entering the drinking water distribution system. The water from these wells may receive other forms of treatment prior to disinfection and distribution to you. Scottsdale also uses underground aquifers to store surface water, so some groundwater was actually surface water at one time.

As part of Scottsdale's water contingency plan, we can purchase small quantities of water from the city of Phoenix for service in the southern portion of the city. In 2011, Scottsdale purchased approximately 12 million gallons of water from Phoenix. Water quality information for City of Phoenix can be found by visiting phoenix.gov/waterservices.

Central Groundwater Treatment Facility (CGTF)

In addition to the CAP and Chaparral surface water treatment plants, Scottsdale operates the Central Groundwater Treatment Facility (CGTF) to treat groundwater that comes from the North Indian Bend Wash (NIBW), an EPA designated superfund site. The CGTF facility located at Pima and Thomas roads was built by private companies that were deemed potentially responsible for contaminating the groundwater with Trichloroethylene (TCE). The private companies are responsible for the cost of operating and maintaining the facility. The groundwater is treated to levels better than federal and state drinking water standards, with regulatory oversight by EPA, ADEQ and Maricopa County. Water treated at the CGTF site makes up only a portion of Scottsdale's groundwater supply.

For more information on the NIBW Superfund site, please call EPA's message line (800-231-3075). For more information on the NIBW Central Groundwater Treatment Facility, please visit our water quality website at scottsdaleaz.gov/water/superfund or contact the City of Scottsdale at (480) 312-8732.

How does the NIBW Central Groundwater Treatment Facility work?

- Water is pumped from the wells and passed through one of three treatment columns.
- The columns "strip" the water of contaminants by mixing the water with air. As the water and air mix, the contaminants transfer into the air.
- The air used during this treatment process is passed through activated carbon filters to remove the TCE before being released.
- "Stripped" water is then disinfected with chlorine in a water storage reservoir and distributed to customers. The water in the reservoir is combined with other treated water source(s) to meet customer demand.

Scottsdale's CAP Water Treatment Plant

2011 Results - Treated Source Water

Substance	Unit	MCL	MCLG	Lowest Amount Detected	Highest Amount Detected	Average	Likely Source in Drinking Water
Arsenic	ppb	10	0	1.2	7.4	5.8	Leaching of natural deposits
Barium	ppb	2,000	2,000	8.7	128	61.4	Leaching of natural deposits
Chromium	ppb	100	100	ND	37.9	6.3	Leaching of natural deposits
Fluoride	ppm	4	4	0.20	1.0	0.38	Leaching of natural deposits
Nitrate	ppm	10	10	ND	6.4	5.5	Leaching of natural deposits and septic systems; Runoff from fertilizer use
Nickel	ppb	N/A	N/A	ND	2.8	1.2	Leaching of natural deposits
Selenium	ppb	50	50	ND	1.9	1.1	Leaching of natural deposits; Discharge from petroleum refineries and mining
Xylenes	ppb	10,000	10,000	ND	0.80	ND	Discharge from chemical and petroleum factories
Diquat	ppb	20	20	ND	0.80	ND	Runoff from herbicide use
Alpha Emitters	pCi/L	15	0	1.7	9.6	3.9	Leaching of natural deposits
Uranium	ppb	30	0	ND	6.2	2.5	Leaching of natural deposits
Total Organic Carbon	ppm	TT	N/A	1.5	2.1	1.9	Naturally present in the environment

Substance	Unit	MCL	TT Requirement	Highest Measurement	Treatment Technique Comparison	Likely Source in Drinking Water
Turbidity	NTU	1	95% less than 0.3 NTU	0.11	100 % less than 0.3 NTU	Soil Runoff

2011 Results - Distribution System

Substance	Unit	MCL	MCLG	Lowest Amount Detected	Highest Amount Detected	Average	Likely Source in Drinking Water
Total Coliform	%	5 (monthly)	0	0	0	0	Naturally present in the environment
Chlorine	ppm	4 (MRDL)	4 (MRDLG)	0.2	1.8	0.83	Water additive used to control microbial growth
Total Trihalomethanes (TTHMs) [1]	ppb	80	N/A	11	97	54	Byproduct of drinking water disinfection
Haloacetic Acids (HAAs) [1]	ppb	60	N/A	ND	34	17.5	Byproduct of drinking water disinfection

Substance	Unit	AL	MCLG	90th Percentile Value	# Homes Greater than AL	2011 Levels in Treated Water	Likely Source in Drinking Water
Lead [2]	ppb	15	0	2.0	1 out of 50	ND - 2.1	Corrosion of household plumbing
Copper [2]	ppb	1300	N/A	313	0 out of 50	ND - 13.3	Corrosion of household plumbing

2010 Results for Unregulated Contaminant Monitoring Rule (UCMR2)

Substance	Unit	MCL	MCLG	Lowest Amount Detected	Highest Amount Detected	Average	Likely Source in Drinking Water
N-Nitroso-dimethylamine (NDMA)	ppb	N/A	N/A	ND	0.0042	ND	Byproduct of drinking water disinfection

1: Compliance is based on a system wide average, not the highest detected amount.
2: Lead and Copper Rule Standard: 90% of homes tested must have lead and copper levels below the alert level (AL).

2011 Results

Scottsdale is required to test for an assortment of contaminants at various locations throughout the city. Testing is done at ten entry points to the distribution system (EPDS) that represent the treated source water. We also perform tests throughout the distribution system at 150 different locations to ensure the water entering your home or business remains safe and reliable.

We test for over 100 substances but only the substances detected in the water during testing are listed in this report. The results of the testing are from samples collected between Jan. 1 and Dec. 31, 2011 unless otherwise noted.

A few substances are discussed in detail below. If you would like more information about other substances or a complete list of all testing, please contact us at 480-312-8732. You can also find detailed information on the EPA's website – water.epa.gov/drink/contaminants/index.cfm#List.

Arsenic is a naturally occurring mineral commonly found in water due to leaching from rocks and soil. The maximum contaminant level (MCL) for arsenic allowed in drinking water is 10 ppb (parts per billion), based on a running annual average.

IMPORTANT DEFINITIONS AND ABBREVIATIONS

Contaminant – Any physical, chemical, biological or radiological substance or matter in the water.

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 allowed by the EPA in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant (chlorine) allowed in drinking water. There is convincing scientific evidence that the addition of a disinfectant is required for the control of microbial contaminants.

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

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

Action Level (AL) – The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water provider must follow.

Part per million (ppm) / Part per billion (ppb) – Equivalent to mg/L and ug/L respectively, describe the levels of detected substances. One ppm is approximately equal to one drop of food coloring in 13 gallons of water. One ppb is approximately equal to one drop of water in a small backyard swimming pool (13,000 gallons).

Picocuries per liter (pCi/L) – A measure of the radioactivity of a substance.

Non-Detectable (ND) – The substance was analyzed but not detected.

Not Applicable (NA) – A regulatory limit does not exist.

While your drinking water meets or surpasses EPA's standard for arsenic, it does contain low levels of arsenic. EPA is continually researching the health effects of low levels of arsenic, which has been known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. In 2011, the highest level of arsenic measured in Scottsdale's drinking water was 7.4 ppb, which is more than 25% below the MCL set by the EPA.

Nitrate is an inorganic substance that is monitored due to run off from fertilizer use. Nitrate in drinking water at levels greater than 10 ppm (parts per million) is considered a health risk for infants younger than six months of age. (Nitrate levels above 10 ppm in drinking water can cause blue baby syndrome.) Nitrate levels in surface water supplies may rise quickly for short periods of time due to rainfall or agricultural activity. If you are caring for an infant you should seek advice from your health care provider. In 2011, the highest nitrate level detected in Scottsdale's drinking water was 6.4 ppm, which is 36% below the MCL set by the EPA.

Turbidity is a measure of clarity in the water and is reported as Nephelometric Turbidity Units (NTU). Turbidity is caused by a variety of substances including sand, dirt and algae. Water is measured for turbidity to determine the effectiveness of the water treatment process. Scottsdale measures turbidity continuously at its surface water treatment plants.

Microbiological Testing is performed monthly at over 150 sites within the distribution system for Total Coliform and E.Coli bacteria in order to verify the integrity of the distribution system as well as our water sources.

Chlorine is used as a disinfectant to ensure the treated water remains safe at all times. We continually monitor Chlorine levels throughout the system to ensure that safe and adequate levels are maintained at all times. Scottsdale's goal is to have a chlorine residual between 0.5 and 1.2 parts per million (ppm) in our drinking water system.

Byproducts of using chlorine as a disinfectant are Trihalomethanes and Haloacetic Acids. These are formed as a result of a chemical reaction between chlorine and naturally occurring organic matter in the water. To minimize the formation of these disinfection byproducts (DBPs), granular activated carbon (GAC) is used during the water treatment process to reduce levels of organic matter and subsequently reduce DBP levels. Some individuals who drink water containing excess amounts of DBPs over many years may experience problems with their liver, kidneys or central nervous systems and increase their risk of cancer.

Lead and copper are typically found in drinking water because of materials and components found in service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Scottsdale is committed to providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at epa.gov/safewater/lead.

The 2011 lead and copper levels reported in the table on page 4 are from water faucets inside 50 Scottsdale homes that were built before the lead ban. Results from one home exceeded the 15 ppb action level for lead. The homeowner was contacted by city staff to discuss how to minimize lead exposure from drinking water.

Additional Information

The following substances are not regulated by the EPA but may be of special interested to water customers.

Cryptosporidium is a pathogen found in surface water throughout the United States and can be spread through other methods besides drinking water. Ingestion may cause a gastrointestinal illness. Scottsdale conducts voluntary monitoring periodically in our source water. In 2011 the highest level detected in our untreated source water was 1 oocyst in a 10 liter sample of water. This organism is removed during treatment through the use of multi-media filtration.

Perchlorate is used as a component of rocket fuel munitions and in the fireworks industry. The EPA does not currently require monitoring of perchlorate in drinking water, but has set an interim health advisory level of 15 ppb. Arizona's guidance level is 14 ppb. Scottsdale has elected to monitor our CAP water for perchlorate. In 2011, the highest level of perchlorate detected in Scottsdale source water was 1.6 ppb.

2011 Results - Treated Source Water

Substance	Unit	MCL	MCLG	Lowest Amount Detected	Highest Amount Detected
Alkalinity	ppm	NA	NA	118	244
Aluminum	ppm	NA	NA	ND	0.20
Calcium	ppm	NA	NA	34	106
Chloride	ppm	NA	NA	23	286
Iron	ppm	NA	NA	ND	0.84
Magnesium	ppm	NA	NA	13	62
Manganese	ppm	NA	NA	ND	0.12
pH	Std. Unit	NA	NA	6.8	8.3
Sodium	ppm	NA	NA	22	152
Sulfate	ppm	NA	NA	ND	227
Temperature	°C	NA	NA	14	31
	°F	NA	NA	57	88
Total Dissolved Solids	ppm	NA	NA	272	898
Zinc	ppm	NA	NA	ND	0.068

Water Hardness

As water makes its way to our treatment plants or through the aquifer, it picks up naturally occurring minerals that make the water "hard" and can also affect taste and other aesthetic characteristics. Scottsdale is committed to providing you with the cleanest and safest drinking water possible, at an affordable price. Scottsdale has considered implementing additional treatment processes to address hardness and/or taste, but concluded this additional treatment is not cost effective, especially considering outdoor usage. There are varying levels of water hardness throughout Scottsdale. Approximate hardness levels are shown in the table below.

Approximate Hardness Levels

Boundary	Hardness (Grains per Gallon)	Hardness (mg/L or ppm)
South of Indian School Road	20 - 22	340 - 380
Indian School Road to Chaparral Road	16 - 18	270 - 310
Chaparral Road to McCormick Pkwy	13 - 15	220 - 260
North of McCormick Pkwy	15 - 17.5	250 - 300

Source Water Assessment Program (SWAP)

In 2004, Scottsdale worked with the Arizona Department of Environmental Quality to finalize an assessment on the wells and surface water sources we use to provide you with drinking water. This assessment looked at potential risks to our water sources which include gas stations, landfills, dry cleaners, agricultural fields and wastewater treatment plants.

The assessment concluded that most of Scottsdale's groundwater wells have low to medium risk, with the exception of the wells linked to the Central Groundwater Treatment Facility. The water produced by these wells has a high risk of contamination, but is treated to meet or surpass drinking water standards and monitored closely by the city, ADEQ and the EPA.

All surface water sources are considered high risk due to their exposure to open air. These risks are addressed by the EPA through its increased monitoring requirements for surface water sources.

The complete assessment is available to review at azdeq.gov/environ/water/dw/swap.html or can be obtained by calling the City of Scottsdale Water Resources Department at 480-312-8732.

What's New?

In 2011, numerous efforts were completed to ensure our water supply meets your needs now and in the future. We continually strive to improve overall operations and ensure safety and quality to you and your family. Scottsdale has recently focused on security enhancements and operational efficiencies at all facilities and is the industry leader in the use of highly treated reclaimed water for golf course irrigation. Highlights from 2011 include:

Water Reclamation
Approximately 2.3 billion gallons of reclaimed water was sent to 24 local golf courses and the Scottsdale Sports Complex for turf irrigation through the Reclaimed Water Distribution System (RWDS). In addition, nearly 2.3 billion gallons of reclaimed water was added to our underground storage aquifers.

The Advanced Water Treatment Plant expansion was completed at the Water Campus, increasing our recharge capabilities and increasing reclaimed water availability for golf course irrigation, helping ensure future sustainability.

Water Treatment Plants
Improvements at the Chaparral Water Treatment Plant are in the process of being implemented including new technologies to meet additional EPA regulations for more stringent drinking water standards. These enhancements will allow the plant to continue producing high quality water while meeting the increasingly strict regulatory requirements.

Water and Sewer Cost of Service Analysis
To ensure that water and sewer rates recover all direct and indirect costs equitably from every customer, whether they are residential, multi-family or commercial, the City recently completed a cost of service analysis. While the analysis confirmed that existing revenues are currently sufficient to cover costs, and that overall rate increases are again not necessary (Scottsdale has not increased water or sewer rates since 2009), it was recommended that rate methodologies be updated (these methodologies have not been updated in over ten years). These updated methodologies, designed to more closely associate revenue collection with cost drivers and support water conservation goals, are planned to take effect July 1, 2012 pending final Council approval. Depending on how much water you use each month, you may see no change, an increase or a decrease in monthly charges.
You can learn more at scottsdaleaz.gov/water/rates.

Groundwater Sustainability
For the past few years the City has been working closely with multiple parties to optimize groundwater pumping associated with the USEPA Superfund site in south Scottsdale. As a result, it is anticipated that Motorola Solutions Inc. (MSI) will begin the construction of a new water treatment facility near McDonald Drive and Cattletrack Road later this year. Treated water from this plant is proposed to be transported to Scottsdale's water distribution system and mixed with water treated from the Chaparral WTP. Scottsdale is committed to minimizing the pumping of Superfund wells not critical to the cleanup of the groundwater. Completion of this facility will result in the preservation of approximately 3 million gallons of groundwater a day within the city.

Water Conservation

Conserving water in Scottsdale is a top priority in protecting our most valuable resource. Historically, Scottsdale's average residential water use is higher than most other cities in the valley. To help reduce our high water usage, our Water Conservation Office offers numerous programs designed to help you become more water efficient at your home or business. Remember, the less water you use, the more money you'll save now and in the future. Plus, you're helping us ensure a sustainable water supply. You can always find information on water conservation at scottsdaleaz.gov/water/conservation.
Some of our programs include:

Landscape Workshops
free low-water-use classes are offered twice a year on landscape design and maintenance, plant selection and water efficient irrigation.

Residential Water Audits
free, one-time outdoor irrigation audits are offered to single-family residential homes.

Rebates
several incentives encourage you to install water efficient plumbing fixtures and/or low-water-use landscaping. Certain limitations and qualifications apply.

Free Publications
a variety of low-water-use landscaping resources are available online. Copies can also be mailed by request.

Water – Use it Wisely
we're an active partner with other Valley cities in this awareness campaign that promotes easy things you can do to save water every day. Visit wateruseitwisely.com/arizona

WaterSense
this EPA-sponsored program helps you identify water efficient toilets, faucets and other plumbing fixtures that use less water but perform just as well, if not better than similar products. Visit epa.gov/watersense and look for the WaterSense label next time you shop for new fixtures.

Xeriscape Garden at Chaparral Park
One of Scottsdale's hidden treasures, the Xeriscape Garden is a place to enjoy the natural beauty of the desert and learn how to bring this splendor to your yard. Nestled on five and a half acres behind the dog park at Chaparral Park, Scottsdale's Xeriscape Garden has over 7,000 plants that exemplify the beauty of the desert while requiring very little water.

Design Landscapes with Arizona in Mind

When it's time to create a low-water-use, desert friendly landscape at your home, use these tips to save both water, energy and money.

- Use dirt mounds and/or depressions to direct rain water to your plants
- Choose native plants that require less water
- Plant evergreen trees on the west and trees that drop leaves on the east side of your house to maximize shade and energy savings
- Locate new plants where they have room to grow and mature without the need for constant pruning
- Consider not overseeding for a winter lawn and save a lot of money, time and effort

More Information on City of Scottsdale Water Resources Division

Water Quality
480-312-8732
scottsdaleaz.gov/water/quality

Water Conservation
480-312-5650

Customer Service
480-312-5650

Report a water main break
480-312-5650

Water-related topics may be discussed at City Council meetings or other public forums and we welcome your attendance. Meeting notices and City Council agendas are posted on the city's website at scottsdaleaz.gov/council/meeting_index/Agendas

U.S. EPA's Safe Drinking Water Hotline
800-426-4791, epa.gov/safewater

Arizona Department of Environmental Quality
602-771-2300, azdeq.gov/environ/water/dw/index.html

Maricopa County Environmental Services Department
602-506-6666, maricopa.gov/EnvSvc/WaterWaste

Tap into Quality
tapintoquality.com

Water Use It Wisely
wateruseitwisely.com/arizona

Only Tap Water Delivers
drinktap.org

Water Sense
epa.gov/watersense

Este informe contiene informacion muy importante sobre su agua potable. Si desea una copia de este informe en español o tiene alguna pregunta sobre el, por favor llame a (480) 312-8711.

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