



Water  
Quality  
Report

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2010





*Scottsdale is committed to providing you with safe, reliable and quality drinking water each and every day. Part of this commitment is to prepare and distribute an annual report about the quality of our drinking water. Our 2010 Water Quality Report provides important information about our drinking water including where our water supply comes from, our water treatment processes, results of the continual testing on our water and how these results compare with federal water quality standards. There also is valuable information on our water reclamation activities and water conservation.*

### **Did you know?**

- In 2009, the City of Scottsdale delivered over 25 billion gallons of water to our customers.
- Scottsdale owns and maintains approximately 2,000 miles of water lines throughout the city. That's enough to go from Scottsdale to Flagstaff and back more than six times!
- Scottsdale has over 87,000 water service connections to homes and businesses.

Our team of professionals is dedicated to providing the highest quality water and best possible service to you. Scottsdale tests for over 100 different substances mandated by the Environmental Protection Agency (EPA) to ensure your drinking water is safe. The Safe Drinking Water Act of 1974 contains federal regulations that safeguard our nation's tap water. Scottsdale works closely with the EPA, the Arizona Department of Environmental Quality (ADEQ), and the Maricopa County Environmental Services Department to maintain compliance with all drinking water standards to assure a reliable water supply. Test results show that in 2009 Scottsdale's drinking water met or surpassed all federal and state drinking water standards.

### **A Message from the EPA about Drinking Water**

To ensure your tap water is safe to drink, the EPA issues regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for substances in commercial bottled water.

Sources of drinking water include rivers, lakes, reservoirs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive materials, and can pick up substances resulting from the presence of animals or from human activity.

You can expect drinking water, including bottled water, to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Possible contaminants that may be present in source water include:

- Microbial contaminants including viruses, bacteria or parasites (such as Cryptosporidium or Giardia), which may come from sewage treatment plants, septic systems, agricultural or livestock operations and wildlife.
- 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.

- 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.

### **Attention Immuno-Compromised Citizens**

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

# City of Scottsdale Water Supply and Treatment

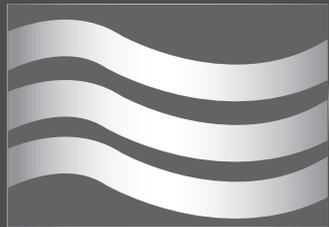
Our water supply comes from both surface water and groundwater sources. Throughout the year it's possible you may receive water from any one of multiple sources, or a combination of water sources. Consumer demand for water, weather and time of year are all factors that determine where your drinking water comes from.

The city'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. Scottsdale also receives surface water from Salt River Project (SRP), which comes from the Verde and Salt rivers. Water is transported by SRP to the Chaparral Water Treatment Plant.

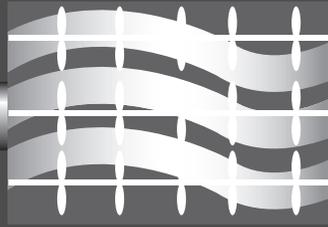
Besides these two sources, your drinking water also comes from aquifers stored deep below ground. The water is pumped from the ground through one of the city's 23 active wells and then disinfected prior to entering the drinking water distribution system. The water from these wells may receive other forms of treatment prior to disinfection and distribution to our customers.

As part of Scottsdale's contingency plan, the city can purchase small quantities of water from the city of Phoenix for service to the southern portion of the city. In 2009, Scottsdale purchased approximately 8 million gallons of water from Phoenix. Water quality information for City of Phoenix water supply can be found by visiting [www.phoenix.gov/water](http://www.phoenix.gov/water).

## Central Arizona Project (CAP) Water Treatment Plant

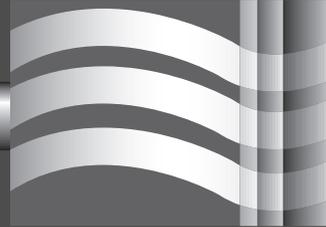


**CAP CANAL**



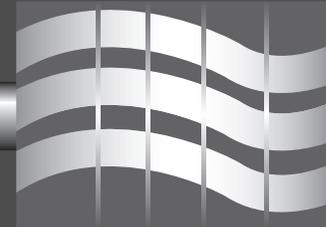
**COAGULATION & FLOCCULATION**

Coagulation & Flocculation — Large mixers called flocculators and "alum" are used to draw small particles together to form larger, heavier particles.



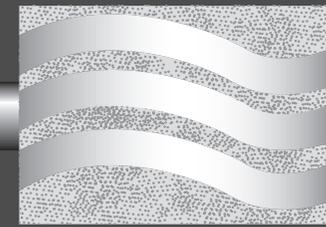
**SEDIMENTATION**

The water is moved to rectangular basins where large particles settle to the bottom and are then removed.



**FILTRATION**

The remaining very small particles are removed through a filtering process.



**GRANULAR ACTIVATED CARBON**

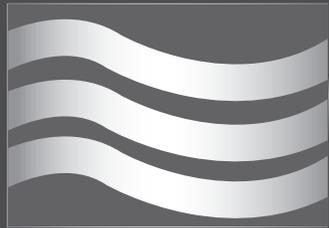
GAC is a black, sand-like material that adsorbs natural organic matter contained in the water. As water passes through the GAC vessels, organic matter is removed, decreasing taste and odors in the water.



**DISINFECTION/STORAGE**

Water is disinfected with chlorine in a water storage reservoir and then distributed to customers. A chlorine residual is required by regulation to ensure adequate removal of harmful microbes.

## Chaparral Water Treatment Plant (CWTP)

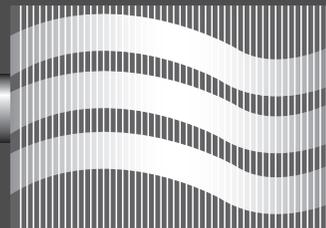


**SRP CANAL**



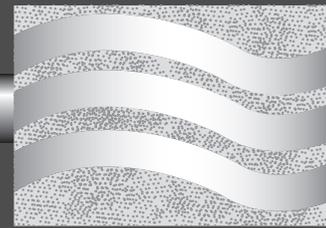
**PRETREATMENT**

A chemical called ferric sulfate is added to the water to remove naturally-occurring arsenic.



**MEMBRANE FILTRATION**

This system uses submerged hollow fibers containing tiny pores. Water molecules are able to pass through the pores while larger molecules cannot. Using low pressure, the water passes through the pores and contaminants are filtered out. The filtered water is then pumped on for further treatment.



**GRANULAR ACTIVATED CARBON**

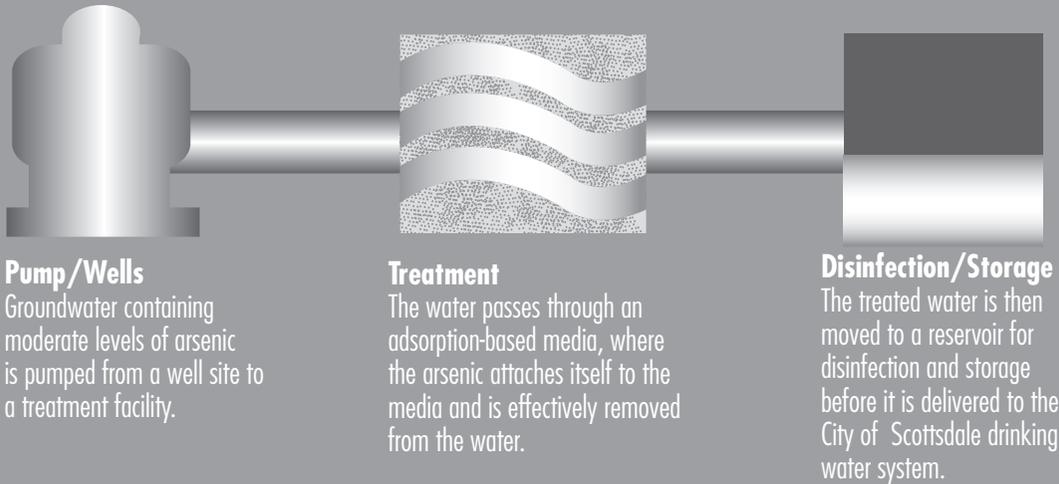
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## Arsenic Treatment Facility

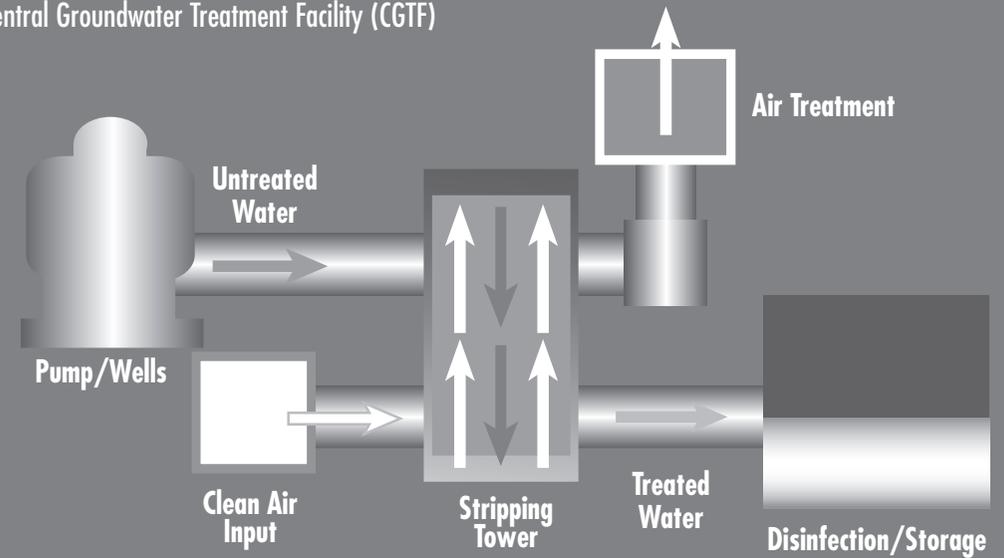


## Removing Arsenic from Groundwater

Groundwater in Scottsdale and throughout Arizona contains varying levels of naturally-occurring arsenic. Arsenic levels in these water sources must be reduced to acceptable levels before being served to customers. City of Scottsdale operates three facilities that remove arsenic from groundwater. Of the twenty three active wells operated by Scottsdale, 17 have elevated arsenic levels.



## Central Groundwater Treatment Facility (CGTF)



## Central Groundwater Treatment Facility (CGTF)

Some of Scottsdale's groundwater supply also comes from the North Indian Bend Wash (NIBW) an EPA designated superfund site. The Central Groundwater Treatment Facility (CGTF), see graphic above, treats water pumped from four groundwater wells that contain trichloroethylene (TCE), which is an industrial chemical. The CGTF facility located at Pima and Thomas roads was built by private companies that were deemed potentially responsible for contaminating the groundwater with 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.

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 Web site at [www.scottsdaleaz.gov/water/superfund](http://www.scottsdaleaz.gov/water/superfund) or contact the City of Scottsdale at (480) 312-8732.

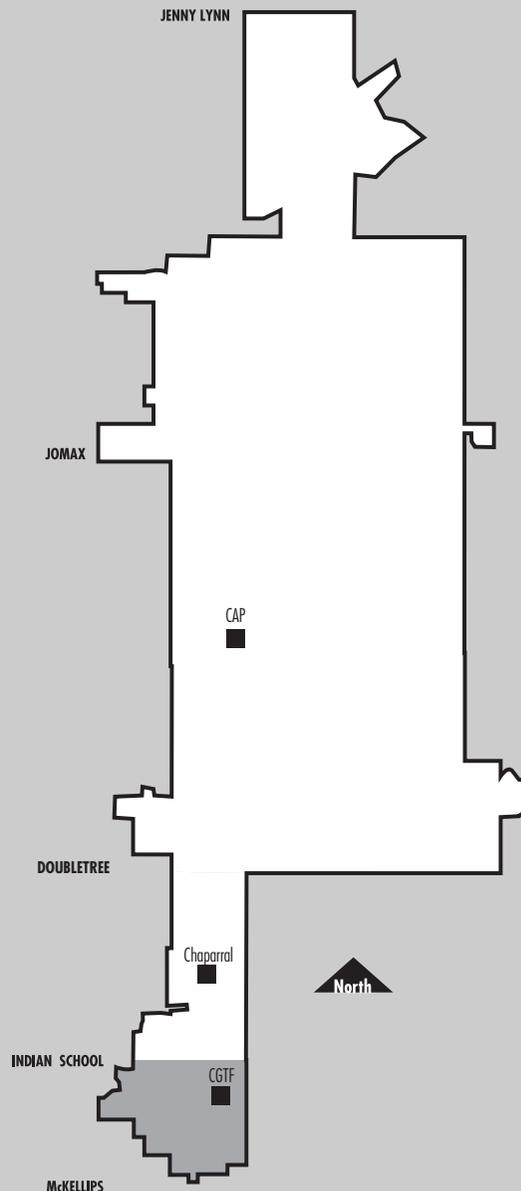
## How does the NIBW Central Groundwater Treatment Facility work?

- Water is pumped from the wells through three treatment columns.
- The treatment facility uses a process that "strips" 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 granular activated carbon filters to remove the TCE before the air is released into the surrounding area.
- The treated water is then moved to a reservoir for disinfection before it is delivered to the city of Scottsdale drinking water system. The water in the reservoir is combined with other treated water source(s) to meet customer demand.



## Water Service Areas

Scottsdale's water service area is approximately 185 square miles with three major water production facilities (see map). Each of these facilities produce water on a year-round basis and make up about 87% of the water supply. The southern-most portion of Scottsdale (highlighted in gray) receives water that is a blend of groundwater (from the Central Groundwater Treatment Facility-CGTF) and a surface water supply (the Chaparral WTP or the CAP WTP). The remainder of the city receives predominantly treated surface water from the Chaparral WTP or CAP WTP. In the warmer months, Scottsdale also uses various other groundwater sources to supplement the surface water supplies to meet consumer demand.



## 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 addition of a disinfectant is required for 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)

These units describe the levels of detected substances. One part per million equals 1 drop of food coloring in thirteen gallons of water. One part per billion equals 1 drop of food coloring in a small backyard swimming pool (13,000 gallons).

### Picocuries per liter (pCi/L)

A measure of the radioactivity of a substance.

### Health Based Guidance Level (HBGL)

Developed by Arizona Department of Health Services (ADHS). They represent levels that are unlikely to result in adverse health effects with long-term exposure to humans.

### Non-Detectable (ND)

The substance was analyzed but not detected.

### Not Applicable (NA)

A regulatory limit does not exist.

## 2009 Detected Results

Drinking water regulations require testing to be performed at various locations depending on the contaminants. Water testing is performed at entry points to the distribution system (referred to as EPDS) to represent treated source water. Scottsdale has 10 EPDS locations. Testing is also performed within the distribution system to ensure water remains safe during travel to your home or business. Scottsdale has over 150 dedicated sampling stations throughout its distribution system where testing is performed.

The results of Scottsdale's water quality analyses are presented in the following pages. Unless otherwise noted, these results are for samples collected between January 1 and December 31, 2009. Scottsdale water is tested for over 100 substances, however, only substances that are detected in the water during testing are listed in this report. Arsenic and nitrate are discussed in detail below, but if you would like information about other substances or a complete list of substances tested please contact a city staff member at (480) 312-8732. Valuable information about drinking water contaminants is also contained on the EPA's website at [www.epa.gov/OGWDW/contaminants/index.html](http://www.epa.gov/OGWDW/contaminants/index.html).

## Public Notification

The City of Scottsdale is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. Specifically, arsenic levels must be monitored at our arsenic treatment facilities at least once per quarter to ensure they are operating properly and producing water with less than 10 ppb of arsenic (the MCL set by EPA). During the 1st and 4th quarters of 2009 one of our arsenic treatment facilities was not in use and therefore monitoring was not performed. Because water was not being produced from this facility or the

associated groundwater wells during these periods there was no impact to the drinking water system or your health. Testing conducted during operation of this facility indicated arsenic levels below the MCL of 10 ppb.

## Arsenic

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

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. In 2009, the highest level of arsenic measured in Scottsdale's drinking water was 7.4 parts per billion (ppb), which is below the MCL.

## Nitrate

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 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 2009, the highest nitrate level detected in Scottsdale's drinking water was 5.9 ppm, which is below the MCL set by the EPA.

## 2009 RESULTS - Measured at the Entry Point to the Distribution System

SUBSTANCE	UNIT	MCL	MCLG	LOWEST AMOUNT DETECTED	HIGHEST AMOUNT DETECTED	AVERAGE	LIKELY SOURCE IN DRINKING WATER
Arsenic	ppb	10	0	ND	7.4	4.1	Leaching of natural deposits
Barium	ppb	2,000	2,000	ND	153	60.1	Leaching of natural deposits
Chromium	ppb	100	100	ND	27	5	Leaching of natural deposits
Fluoride	ppm	4	4	ND	1.1	0.36	Leaching of natural deposits
Nitrate	ppm	10	10	ND	5.9	1.7	Runoff from fertilizer use, leaching from septic tanks, and natural deposits
Ethylbenzene	ppb	700	700	ND	1.31	ND	Discharge from petroleum factories
Xylenes	ppb	10,000	10,000	ND	6.15	ND	Discharge from chemical and petroleum factories
Gross Alpha (Alpha Emitters) <sup>a</sup>	pCi/L	15	0	2.0	8.9	8.9	Leaching of natural deposits
Radium 226 <sup>a</sup>	pCi/L	5	0	ND	0.9	0.9	Leaching of natural deposits
Uranium <sup>a</sup>	ug/L	30	0	1.5	11.2	11.2	Leaching of natural deposits

*a: Most recent testing performed in 2008*



### 2009 TURBIDITY - Measured at the Surface Water Treatment Plants

SUBSTANCE	TREATMENT TECHNIQUE REQUIREMENTS	MCLG	HIGHEST MEASUREMENT	TREATMENT TECHNIQUE COMPARISON	LIKELY SOURCE IN DRINKING WATER
Turbidity	No turbidity measurement can be above 1 NTU at any time, and at least 95% of turbidity measurements in any month must be less than or equal to 0.3 NTU.	NA	0.1 NTU	100% of monthly samples met treatment technique requirements	Soil runoff

### 2009 MICROBIAL MONITORING - Measured in the Distribution System

SUBSTANCE	MCL	MCLG	ENTIRE DISTRIBUTION SYSTEM	LIKELY SOURCE IN DRINKING WATER
Total Coliform	Presence in no more than 5% of monthly samples	0	The highest monthly percentage of samples in which Total Coliforms were detected is 0%. Of 154 samples collected every month throughout 2009, there were no Total Coliforms detected.	Naturally present in the environment

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.

Every month the City of Scottsdale tests 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.



### 2009 DISINFECTANT AND DISINFECTION BYPRODUCT MONITORING - Measured in the Distribution System

SUBSTANCE	UNITS	MCL <sup>a</sup>	MCLG	LOWEST LEVEL	HIGHEST LEVEL	ANNUAL RUNNING AVERAGE	MAJOR SOURCE IN DRINKING WATER
Chlorine	ppm	MRDL = 4	MRDLG = 4	0.16	1.9	0.95	Water additive used to control microbes
Total Organic Carbon <sup>b</sup>	ppm	TT	NA	0.8	2.2	1.8	Naturally present in the Environment
Total Trihalomethanes (TTHMs)	ppb	80	NA	4.8	122	55.9	Byproduct of drinking water disinfection
Haloacetic Acids (HAAs)	ppb	60	NA	ND	34.0	14.6	Byproduct of drinking water disinfection

*a: Compliance is based on a system wide annual running average and based on this average, the City was below the MCL.*

*b: TOC is measured in the treated surface water at the water treatment plant.*

Chlorine is used as a disinfectant to ensure the destruction of potentially harmful microbes and to control microbial activity within our distribution pipes. Chlorine levels are monitored at our water treatment plants and in the distribution system to ensure that safe and adequate levels are maintained. Scottsdale's goal is to have a chlorine residual between 0.8 parts per million (ppm) and 1.2 ppm in water distributed to customers. If chlorine levels are outside of the preferred range, necessary adjustments are made to return to the preferred range.

A byproduct of using chlorine as a disinfectant is the formation of Trihalomethanes and Haloacetic Acids. These are formed as a result of a chemical reaction between chlorine and

naturally occurring organic matter in the water. In order to minimize the formation of disinfection byproducts, levels of Total Organic Carbon (TOC) are reduced through the treatment process primarily through the use of granular activated carbon (GAC) adsorption. TOC levels are monitored before and after the water treatment process to ensure adequate removal of TOC. We also carefully control and monitor chlorine levels so that disinfection is effective, while minimizing the levels of disinfection byproducts. Some individuals who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

## Lead and Copper

Lead and copper are typically used for household plumbing fixtures and pipes. Lead and copper may leach from faucets or plumbing components into the drinking water when the water stands in pipes for several hours.

Leaching may also occur in copper pipes joined with lead-based solder. Because the water in your pipes can pick up these metals, the installation of lead containing solder, pipes and fittings was banned in 1986. The 2008 lead and copper levels reported below are from water faucets inside 50 Scottsdale homes that were built before the lead ban. Results from two homes exceeded the 15 ppb action level for lead. The homeowners were contacted by city staff to discuss how to minimize lead exposure from drinking water.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Typically, lead in drinking water is from materials and components associated with service lines and home plumbing. 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 <http://www.epa.gov/safewater/lead>.

## Water Hardness

As water makes its way to our treatment plants or through the aquifer, it will pick up naturally occurring minerals that make the water hard. There are varying levels of water hardness in Scottsdale and approximate hardness levels are shown in the table below.

BOUNDARY	HARDNESS (GRAINS PER GALLON)	HARDNESS (MG/L OR PPM)
South of Indian School Rd	19 - 20	325 - 350
Indian School Rd to Chaparral Rd	14-16	240 - 275
Chaparral Rd to McCormick Pkwy	12-13	200 - 225
North of McCormick Pkwy	15-17.5	250 - 300

### RESULTS OF LEAD AND COPPER MONITORING IN RESIDENTIAL HOUSEHOLDS

SUBSTANCE	UNITS	ACTION LEVEL (AL)	MCLG	AMOUNT DETECTED	LIKELY SOURCES IN DRINKING WATER
Lead <sup>a</sup>	ppb	90% of homes tested must have lead levels less than 15 ppb	0	90% of the homes tested had lead levels less than 1.9 ppb	Corrosion of household plumbing
Lead from City water sources	ppb	NA	NA	ND - 9.4	Erosion of natural deposits
Copper <sup>a</sup>	ppm	90% of homes tested must have copper levels less than 1.3 ppm	1.3	90% of the homes tested had copper levels less than 0.26 ppm	Corrosion of household plumbing
Copper from City water sources	ppm	NA	NA	ND - 0.109	Erosion of natural deposits

*a: Most recent testing performed in 2008*

Other Constituents, such as those in the table below, are not regulated but may be of special interest to water customers.

### 2009 SECONDARY INORGANICS - Measured at the Entry Point to the Distribution System

SUBSTANCE	UNIT	MCL	MCLG	LOWEST AMOUNT DETECTED	HIGHEST AMOUNT DETECTED
Alkalinity	ppm	NA	NA	114	220
Aluminum	ppm	NA	NA	ND	0.1
Calcium	ppm	NA	NA	18	100
Chloride	ppm	NA	NA	34	261
Iron	ppm	NA	NA	ND	0.891
Magnesium	ppm	NA	NA	13	51
Manganese	ppm	NA	NA	ND	0.041
pH	Std. Unit	NA	NA	7.3	8.4
Sodium	ppm	NA	NA	23	144
Sulfate	ppm	NA	NA	ND	255
Temperature	°C	NA	NA	15	36
	°F	NA	NA	59	97
Total Dissolved Solids	ppm	NA	NA	248	850
Zinc	ppm	NA	NA	ND	0.031

## Additional Water Quality Information

### *Cryptosporidium*

Cryptosporidium is a pathogen found in surface water throughout the United States. Ingestion of Cryptosporidium may cause a gastrointestinal illness, and it may be spread through means other than drinking water. From 2002 to 2006, Scottsdale conducted bimonthly compliance monitoring for Cryptosporidium in the city's two surface water sources. The data collected was submitted to regulatory agencies and it was determined that additional treatment for Cryptosporidium is not required at our water treatment plants. We periodically conduct voluntary monitoring for Cryptosporidium in our source water. In 2009 Cryptosporidium was not detected in our untreated source water.

### *Perchlorate*

Perchlorate is used as a component of rocket fuel munitions and in 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 source water for perchlorate. During our voluntary monitoring in 2009, the highest concentration of perchlorate detected was 2.1 ppb.

### *MTBE (methyl-t-butyl ether)*

MTBE is a member of a group of volatile organic chemicals commonly known as fuel oxygenates. MTBE is used in gasoline throughout the United States to reduce carbon monoxide and ozone levels caused by auto emissions. MTBE is highly soluble in water and is a concern for water utilities.

The EPA does not currently have a maximum contaminant level for MTBE or require MTBE monitoring in drinking water. However, EPA has recommended that MTBE concentration not exceed 20-40 ppb. Scottsdale began monitoring for MTBE in 2002, and to date there has been no detectable MTBE in drinking water served to Scottsdale customers.

### *Source Water Protection Program (SWAP)*

In 2004, the city of Scottsdale worked with ADEQ to review and finalize a source water assessment for the groundwater wells and surface water sources used by the city. The assessment reviewed the adjacent land uses that may pose a potential risk to our water sources. The risks identified include, but are not limited to, gas stations, landfills, dry cleaners, agriculture fields, and wastewater treatment plants. Once the adjacent land uses were identified, they were ranked by their potential to affect the water source.

The city's groundwater wells have low to medium risk, with the exception of the wells linked to the Central Groundwater Treatment Facility. Those wells were identified as having a high risk of contamination, but the water produced by the wells is treated to 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. The overall risk posed to surface waters is addressed by the EPA through its increased monitoring requirements for surface water sources.

The city continually protects our sources by carefully siting wells, monitoring water quality of all sources, providing security and continuing public education. Residents can help protect our ground water sources by practicing good septic system maintenance (if you use a septic tank), taking advantage of the city's household hazardous material collection days and limiting pesticide and fertilizer use.

The complete assessment is available to review at the ADEQ, 1110 W. Washington, Phoenix, Arizona 85007, between the hours of 8 a.m. and 5 p.m., or visit the ADEQ's Source Water Assessment and Protection Unit Web site at [www.azdeq.gov/environ/water/dw/swap.html](http://www.azdeq.gov/environ/water/dw/swap.html). This information is also available from the City of Scottsdale Water Resources Department at 480-312-8732.

## What's new in Water Resources

Currently, Scottsdale has enough water to supply our customer's needs now and in the future through proactive planning. We continue to promote voluntary water conservation efforts year round and we closely monitor the drought and our water supply to ensure we remain prepared. Scottsdale continually strives to improve the operations of our water and wastewater facilities to ensure safety and quality to you.

### *Water Reclamation*

In 2009, approximately 2.6 billion gallons of reclaimed wastewater was sent to 23 local golf courses and the Scottsdale Sports Complex for turf irrigation through the Reclaimed Water Distribution System (RWDS). In addition, nearly 2.1 billion gallons of reclaimed water were added to our underground storage aquifers.

Currently, expansion of the Advanced Water Treatment Plant is underway at the Water Campus as outlined in our Master Plan. This project will help ensure future sustainability by increasing our recharge capabilities and providing reclaimed water for golf course irrigation. Through a public-private partnership within the RWDS, golf courses, some of the costs of this project will be borne by the RWDS course to reduce salinity concerns in reclaimed water. The majority of the construction will be completed next fiscal year.

### *Reclaimed Water Sales Agreement*

A portion of Scottsdale's wastewater is sent to the 91st Avenue Wastewater Treatment Plant in Phoenix. This facility is owned and funded by a multi-city consortium called the Sub Regional Operating Group (SROG), of which Scottsdale is a member. SROG was recently successful in renegotiating the sales contract between itself and the Palo Verde Nuclear Generating Station (ANPP). The agreement sets the cost charged to ANPP for the sale of reclaimed water treated at the facility which helps to offset the costs paid by SROG cities for the operations of the plant. The agreement also ensures continuous operation of the Palo Verde Nuclear Generating Station and sustains our drinking water supply by providing a beneficial and balanced use of reclaimed water in place of drinking water sources.

### *Reduced Energy Costs*

By redirecting wastewater flows, Scottsdale was able to minimize pumping costs associated with the pumpback system without negatively affecting the volumes of wastewater being treated at 91st Avenue and the Water Campus.

A grant from the U.S. Department of Energy is being used to replace existing aeration blowers with more energy efficient turbo blowers at the Water Campus and Gainey Ranch Water Reclamation Facilities.



## Water Conservation



The Water Conservation Office has an extended menu of conservation outreach programs designed to help citizens save water. Water Conservation staff offer a lineup of excellent educational workshops, informative residential water audits, and a variety of rebate programs. Information on EPA's WaterSense program, the Scottsdale Xeriscape Garden at Chaparral Park, and water saving tips are also topics of interest that we can provide information on. To reach the Water Conservation Office, please visit our website at [www.scottsdaleaz.gov/water/conservation](http://www.scottsdaleaz.gov/water/conservation) or call (480) 312-5650.

### WORKSHOPS

The City sponsors low-water-use landscape workshops several times a year. The workshops cover topics such as landscape design, plant selection, planting techniques, landscape maintenance, and water efficient irrigation.

### RESIDENTIAL WATER AUDIT

The audit program offers a one-time free irrigation water audit to single-family residential homes. If you have questions such as "How much water does my yard need?" or "Does my irrigation system leak?" then an irrigation audit is for you.

### PUBLICATIONS

Water Conservation promotes and distributes brochures on low-water-use landscaping to Scottsdale's citizens. Popular brochures include Landscape Plants for the Arizona Desert - Guide to Growing More Than 200 Low-Water-Use Plants, Xeriscape Landscaping With Style in the Arizona Desert, and Landscape Watering by

the Numbers. These publications can be viewed online and/or you can request copies be mailed to your home.

### WATER – USE IT WISELY

Scottsdale is an active participant in the "Water - Use It Wisely" advertising campaign with other Valley cities. The campaign promotes easy things citizens can do to save water. For more information on Water – Use It Wisely, go to [www.wateruseitwisely.com/arizona](http://www.wateruseitwisely.com/arizona).

### WATERSENSE

WaterSense, a program sponsored by the US Environmental Protection Agency, helps consumers identify water efficient toilets, faucets, and more. A WaterSense labeled product not only uses less water but performs just as well as, if not better than, other products in its category. For more information visit [www.epa.gov/watersense](http://www.epa.gov/watersense) and look for the WaterSense label when buying new fixtures.

## Rebate Programs

City rebate programs encourage installation of water efficient plumbing fixtures and/or low-water-use landscapes. Currently the city offers several water conservation rebates. To qualify for a rebate, the applicant must receive water from the City's water system. Check the most current rebate application forms for procedures, limitations, and other requirements.

### TOILET AND SHOWERHEAD REBATES

Rebate incentives are offered for the installation of low-flow toilets and showerheads. Free aerators are also available to water customers. Look for EPA's WaterSense label on toilets and showerheads.

### HOT WATER RECIRCULATION SYSTEM REBATE

A hot water recirculation device moves hot water from the water heater quickly to eliminate the need to "let the water run" in order to get hot water from the tap. The program offers a rebate for installation of a hot water recirculator. A minimum plumbing permit from the City is required.

### TURF REMOVAL FOR RESIDENTIAL CUSTOMERS REBATE

Single family residential customers can receive a rebate for converting an existing high-water-use landscape to a low-water-use landscape. The rebate amount is up to \$1,500 and is calculated based upon the amount of turf removed.

## Design with Arizona in Mind

- Plant evergreen trees on the west and deciduous trees on the east side of the house to maximize shade and energy savings throughout the year.
- Choose native plants that provide food and shelter for wildlife.
- Locate plants where they have room to grow to mature height and width without pruning.
- Use mounds and depressions in the landscape to direct rain from the roof to root zones. Direct water at least 8 to 10 feet away from structures.

### TURF REMOVAL FOR COMMERCIAL & RESIDENTIAL COMMON AREAS REBATE

A rebate of up to \$3,000 is offered for the removal of turf and installation of city approved low-water-use landscaping. A plan must be approved by City of Scottsdale Planning and Development Services.

### LANDSCAPE IRRIGATION CONTROLLER REBATE

A rebate of up to \$250 is offered for the purchase of a new multi-programmable irrigation controller or a Smart irrigation controller.

## Scottsdale Xeriscape Garden at Chaparral Park

The Garden is located at 5401 N Hayden Road, on the southeast corner of Hayden Road and McDonald Drive. This five-acre garden is designed to demonstrate the beauty of low-water-use plants and water efficient landscaping principles. Attractions include four outdoor classrooms, 135 low-water-use plant species, and signage that addresses topics such as how the earth recycles water, rainwater harvesting, and plant care.

For more information about rebates, workshops, publications, and other City water conservation programs, visit our website at [www.scottsdaleaz.gov/water/conservation](http://www.scottsdaleaz.gov/water/conservation) or call 480-312-5650.



[www.tapintoquality.com](http://www.tapintoquality.com)  
[www.wateruseitwisely.com](http://www.wateruseitwisely.com)  
[www.epa.gov/watersense](http://www.epa.gov/watersense)  
[www.drinktap.org](http://www.drinktap.org)

## For More Information

**City of Scottsdale Water Quality Services**  
480-312-8732  
[www.scottsdaleaz.gov/water/quality](http://www.scottsdaleaz.gov/water/quality)

**City of Scottsdale Water Services and Conservation**  
(main breaks, etc.)  
480-312-5650

**United States Environmental Protection Agency's Safe Drinking Water Hotline**  
800-426-4791  
[www.epa.gov/safewater](http://www.epa.gov/safewater)

**Arizona Department of Environmental Quality**  
602-771-2300  
<http://www.azdeq.gov/environ/water/dw/index.html>

**Maricopa County Environmental Services Department**  
602-506-6666  
[www.maricopa.gov/EnvSvc/WaterWaste](http://www.maricopa.gov/EnvSvc/WaterWaste)

Water-related topics may be discussed at City Council meetings or other public forums and we welcome your attendance. Meeting notices are posted in the "Pride" utility bill insert and City Council agendas are posted on the city's Web site at

[http://www.scottsdaleaz.gov/council/meeting\\_index/City\\_Council\\_Agendas\\_and\\_Minutes.asp](http://www.scottsdaleaz.gov/council/meeting_index/City_Council_Agendas_and_Minutes.asp)

Este informe contiene información 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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