# ANNUAL WATER OUALITY EVALUATED STATES ANNUAL STATES ANNUAL

WATER TESTING PERFORMED IN 2015



Presented By Town of Queen Creek

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: AZ0407033

# Meeting the Challenge

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2015. Most notably, last year marked the 41st anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

Please take a few minutes to look at the information provided; we believe you'll find many reasons to feel good about the quality of your water and to use it with confidence.

The Water Division ended the year with over 23,000 active connections, reflecting the high occupancy rate, new commercial growth, and continued steady new single-family home construction within the service area. By the end of 2016, the Water Division will be servicing approximately 24,500 active connections, with an estimated service population of more than 70,000.

The Water Division continues to focus on system maintenance in the form of water storage tank maintenance and painting to preserve both water quality and infrastructure lifespan. More than two miles of new water mainlines have been installed, allowing the Town to move water through the system more efficiently. We continue to aggressively pursue our meter testing and replacement program, which helps the Water Division ensure that water meters measure accurately minimizing water loss.

The construction of a new potable water well, and the rehabilitation and conversion of three agriculture wells to potable wells was initiated in 2015 with expected completions in 2016 to provide additional water production to serve the fast-paced growth within the community.

A Water Master Plan was completed that details current and future needs for the water system based on growth projections that will provide direction for future projects to continue to maintain the highest levels of service to the communities we serve.

An agreement with Roosevelt Water Conservation District was finalized that will allow the Town to exchange reclaimed water for long-term water storage credits that builds diversity into the Water Division portfolio and will provide additional resources into the future.

Our GIS and technology staff continue to evaluate and develop methods to improve efficiencies through technology to allow staffing to access information remotely, enabling faster response to work order completion or emergency mitigation. Improvements are also continually evaluated and improved upon to allow customers more access to billing and scheduling for potable water information, as well as developing a soon to be released irrigation scheduling system through online access.

All of this is in an effort to meet our Mission Statement of providing our citizens and community with the highest quality service and water in the most economical, safe, reliable, and timely manner.

For more information about this report, to ask questions relating to your drinking water, or to provide feedback about the information in this report, please contact the Water Division at (480) 358-3450 or Greg Homol, Water Division Operator of Record, with the Town of Queen Creek Utility Services Department at (480) 358-3459. After all, well-informed customers are our best allies.

# Important Health Information

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.



# Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for 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 or at www.epa.gov/lead.

# Where Our Water Comes From

The Town of Queen Creek Water Division's primary source of water is ground water. In 2015, the Water Division finished the year with 15 active source wells, with each being associated with an Entry Point to the Distribution System (EPDS). The following wells were associated with Public Water System AZ0407033: Well #1, Terra Ranch (EPDS #001), is located on Chandler Heights Road east of Hawes Road; Well #2, Villages (EPDS #005), is located on Rittenhouse Road at the Signal Butte Road alignment; Well #3, Schnepf (EPDS #004), is located on Combs Road east of Meridian Road; Well #4, Circle G (EPDS #001), is located on Hawes Road north of Chandler Heights Road; Well #5, Victoria (EPDS #007), is located on Ocotillo Road west of Ellsworth Road; Well #6, Barnes Elementary (EPDS #010), is located on Queen Creek Road west of Crismon Road; Well #7, Ocotillo Heights (EPDS #005), is located on Signal Butte Road south of Ocotillo Road; Well #8, Cortina (EPDS #099), is located on the northwest corner of Sossaman and Ryan roads; and Well #9, Hastings (EPDS #012), is located on Cloud Road at the Crismon Road alignment. Well #10, QCR Well 1 (EPDS #101), is located approximately 1/4 mile north of Ocotillo Road on Schnepf Road; Well #11, QCR Well 4 (EPDS #101), is located approximately 1/2 mile north of Ocotillo Road on Schnepf Road; Well #12, Castlegate (EPDS #102), is located south of Ocotillo Road on Scott Drive; Well #13, Pecan Creek North, is currently inactive (EPDS #103) and is located along Kenworthy Road and Chandler Heights Road; Well #14, Pecan Creek South (EPDS #104), is located along Kenworthy Road and East Shari Street; Well #15, Shea (EPDS #105), is located on Kenworthy Road just north of Hash Knife Draw; Well #16, Gantzel, is currently inactive (EPDS #106) and located approximately 1/2 mile south of Combs Road on Gantzel Road; and Well #17, Ironwood Crossing/ Barnes (EPDS #107), is located north of Ocotillo Road and west of Ironwood Road. These wells are drilled in excess of 900 feet deep. The water table in the Queen Creek area ranges from a depth of approximately 232 feet below the surface down to approximately 2,000 feet. The Water Division is presently pumping water from 500 to 640 feet.

# Substances That Could Be in Water

To ensure that tap water is safe to drink, Arizona Department of Environmental Quality prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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

**Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

**Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

More information about contaminants in tap water and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791 or visit online at www.epa.gov/ safewater/hotline. Information on bottled water can be obtained from the U.S. Food and Drug Administration.

### Source Water Assessment

In 2002, the Arizona Department of Environmental Quality (ADEQ) completed a source water assessment for six of the groundwater wells used by the Queen Creek Water Company, now known as the Town of Queen Creek Water Division. The assessment reviewed adjacent land uses that could pose risks to water sources. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agricultural fields, wastewater treatment plants and mining activities. Once ADEQ identified the adjacent land uses, the source waters were ranked according to their potential to become contaminated. The result of the assessment for the six wells was low risk from adjacent land use and low risk to source water.

The Water Division plans to address protection of water sources by a wellhead protection program. Residents can help protect water sources by practicing regular septic system maintenance, taking hazardous household chemicals to hazardous-material collection sites, and limiting pesticide and fertilizer use.

The complete source water assessment is available for viewing, Monday through Friday, from 8 a.m. to 5 p.m. at the Arizona Department of Environmental Quality, 1110 W. Washington, Phoenix, AZ 85007. Electronic copies are also available by emailing dml@azdeq.gov. For more information, call Greg Homol, Water Division Operator of Record, at (480) 358-3459 or visit ADEQ's Source Water Assessment and Protection Unit Web site at www.azdeq.gov/environ/water/dw/swap.html.

# Failure in Flint

The national news coverage of water conditions in Flint, Michigan, has created a great deal of confusion and consternation over the past year. The water there has been described as being corrosive; images of corroded batteries and warning labels on bottles of acids come to mind. But is corrosive water bad?

Corrosive water can be defined as a condition of water quality that will dissolve metals (iron, lead, copper, etc.) from metallic plumbing at an excessive rate. There are a few contributing factors but, generally speaking, corrosive water has a pH of less than 7; the lower the pH, the more acidic, or corrosive, the water becomes. (By this definition, many natural waterways throughout the country can be described as corrosive.) While all plumbing will be somewhat affected over time by the water it carries, corrosive water will damage plumbing much more rapidly than water with low corrosivity.

By itself, corrosive water is not a health concern; your morning glass of orange juice is considerably more corrosive than the typical lake or river. What is of concern is that exposure in drinking water to elevated levels of the dissolved metals increases adverse health risks. And there lies the problem.

Public water systems are required to maintain their water at optimal conditions to prevent it from reaching corrosive levels. Rest assured that we routinely monitor our water to make sure that what happened in Flint never happens here. For more information on how corrosivity impacts water quality, download this informative pamphlet: http://goo.gl/KpTmXv.

## Water Conservation

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Check your landscape watering system regularly for leaks, missing emitters, and broken sprinkler heads.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Change your landscape watering controller according to the season.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.
- Visit QueenCreek.org/WaterSmart to find free workshops offered by the ToQC that may help you save water!

# **QUESTIONS?**

For more information about this report or to ask questions relating to your drinking water, please contact Greg Homol, Water Division Operator of Record, with the Town of Queen Creek Utility Services Department at (480) 358-3459.

# Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far, the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water plus the use of chlorine is probably the most significant public health advancement in human history.

#### How chlorination works:

- Potent Germicide Reduction in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.
- Taste and Odor Reduction of many disagreeable tastes and odors like foul-smelling algae secretions, sulfides, and odors from decaying vegetation.
- Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.
- Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.

# Тір Тор Тар

The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and a reduced flow of water. The solutions to these problems may be in your hands.

#### Kitchen Sink and Drain

Hand washing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed up water in which bacteria (i.e., pink and black colored slime growth) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly. Also, flush regularly with hot water.

#### Faucets, Screens, and Aerators

Chemicals and bacteria can splash and accumulate on the faucet screen and aerator, which are located on the tip of faucets, and can collect particles like sediment and minerals resulting in a decreased flow from the faucet. Clean and disinfect the aerators or screens on a regular basis.

Check with your plumber if you find particles in the faucet screen as they could be pieces of plastic from the hot water heater dip tube. Faucet gaskets can break down and cause black, oily slime. If you find this slime, replace the faucet gasket with a higher-quality product. White scaling or hard deposits on faucets and shower heads may be caused by hard water or water with high levels of calcium carbonate. Clean these fixtures with vinegar or use water softening to reduce the calcium carbonate levels for the hot water system.

#### Water Filtration/Treatment Devices

A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time so regular filter replacement is important. (Remember to replace your refrigerator filter!)

# What's Your Water Footprint?

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses over 180 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet; twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to www.goo.gl/QMoIXT.

# What's a Cross-connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A crossconnection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed all industrial, commercial, and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test each backflow preventer to make sure that it is providing maximum protection.

For more information on backflow prevention, call the Safe Drinking Water Hotline at (800) 426-4791.

# UCMR3 Sampling

e participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if EPA needs to introduce new regulatory standards to improve drinking water quality. Sample results for all UCMR3 events are included in the sample results tables found within this document. Contact us for more information on this program.



You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well

as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

#### **NEVER:**

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.



• Use the toilet as a waste basket.

#### **ALWAYS:**

- Collect fryer oil and grease and dispose of it at a proper fryer oil recycling site or facility such as the ones located at each of the Town of Queen Creek fire stations.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.

# Sampling Results

The Town of Queen Creek Water Division works to ensure water quality by performing numerous tests throughout the year. Chlorine is added to the water supply as a disinfectant. We test to make sure there are both an appropriate amount of chlorine for customers' taste and an adequate amount to remove bacteria that may enter the system.

During the past year, the Water Division has facilitated the taking of hundreds of water samples to determine the presence of microbiological contaminants in the system. Additionally, the Water Division continues to contract with the State of Arizona's Monitoring Assistance Program (MAP) to perform regular sampling and testing of all system wells for radioactive, inorganic, volatile organic, and synthetic organic contaminants. Efforts to sample and test our water has documented that the Town of Queen Creek water has met or exceeded all health standards. The table below shows only those contaminants that were detected in the water. Although all the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

The sample results provided are divided by what was previously the former boundaries for the Town of Queen Creek and H2O water systems, titled here as ToQC Zones and H2O Zone. Sample results previous to the integration of the two water systems into one system are represented within these data when more current 2015 data were not available due to sampling requirements.

Entry Points to the Distribution System (EPDS) are reflected through numbering the ToQC EPDS as a "0" then the former ToQC EPDS number(s), where the H2O EPDS are numbered beginning with a "1" followed by the former H2O EPDS number(s). EPDS designations can be found in the article "Where Our Water Comes From" in this printed document. ToQC EPDS sample results are contained within the column titled "ToQC Zones," and H2O EPDS sample results are contained within the column titled "H2O Zone."

The state requires the Water Division to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES									
				ToQ	IC Zones	H2	O Zone	*For the H2O	Zone, data from AZ0411060 is included where applicable
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION TYPICAL SOURCE	
Alpha Emitters (pCi/L)	2013	15	0	4.8	0.5–4.8	$1.7^{1}$	$1.7 - 1.7^{1}$	No	Erosion of natural deposits
Arsenic (ppb)	2013	10	0	2.9	ND-4.3	2.2 <sup>2</sup>	1.9–2.7 <sup>2</sup>	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2013	2	2	0.0407	0.0058–0.067	0.028 <sup>2</sup>	0.018-0.041 <sup>2</sup>	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2015	[4]	[4]	0.90	0.50-1.33	0.94	0.54-1.50	No	Water additive used to control microbes
Chromium (ppb)	2013	100	100	3.1	2-4.1	2.3 <sup>2</sup>	$1.4 - 3.6^2$	No	Discharge from steel and pulp mills; Erosion of natural deposits
Combined Radium (pCi/L)	2013	5	0	0.3	ND-0.3	$0.9^{2}$	ND-0.9 <sup>2</sup>	No	Erosion of natural deposits
Fluoride (ppm)	2013	4	4	0.27	0.24–0.31	0.22 <sup>2</sup>	0.18-0.242	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2015	60	NA	0.938	ND-4.6	0.1	ND-1.1	No	By-product of drinking water disinfection
Nitrate (ppm)	2015	10	10	7.7	0.45–7.7	5.8	1.6–5.8	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2015	80	NA	4.95	ND-7.9	0.6	ND-3.7	No	By-product of drinking water disinfection

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

				ToQC Zo	nes	H2O Zo	ne	*For the H2O Zone, data from AZ0411060 is included where applicable	
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	1.3	0.17	0/33	0.13 <sup>2</sup>	0/30 <sup>2</sup>	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2013	15	0	1.4	0/33	1.42	0/30 <sup>2</sup>	No	Corrosion of household plumbing systems; Erosion of natural deposits

#### UNREGULATED AND OTHER SUBSTANCES

	ToQC	Zones	H20	) Zone	*For the H2O Zone, data from AZ0411060 is included where applicable	
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Bromodichloromethane</b> (ppb)	2015	NA	NA	0.59	0.59–0.59	By-product of drinking water disinfection
Bromoform (ppb)	2015	NA	NA	1.7	1.7–1.7	By-product of drinking water disinfection
Calcium (ppm)	2011	82	33–82	NA	NA	Runoff/ leaching of natural deposits
<b>Chlorodibromomethane</b> (ppb)	2015	NA	NA	1.2	1.2–1.2	By-product of drinking water disinfection
Magnesium (ppm)	2011	17	2.4–17	NA	NA	Runoff/leaching of natural deposits
Sodium (ppm)	2008- 2011	90	68–110	62 <sup>2</sup>	39–75 <sup>2</sup>	Naturally occurring

#### **UNREGULATED CONTAMINANT MONITORING RULE PART 3 (UCMR3)**

<sup>2</sup> Sampled in 2014.

	ToQC	Zones	H20	Zone	*For the H2O Zone, data from AZ0411060 is included where applicable	
SUBSTANCE YEAR (UNIT OF MEASURE) SAMPLED		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Chromium (ppb)	2013	2.2	2.1–6.3	2.7 <sup>3</sup>	1.5–3.9 <sup>3</sup>	Erosion of natural deposits; discharge from steel and pulp mills
Hexavalent Chromium [Dissolved] (ppb)	2013	2.5	2.3–6.8	2.8 <sup>3</sup>	1.4–4.2 <sup>3</sup>	Textile dyes, wood preservation, and anti-corrosion and conversion coating
<b>Molybdenum</b> (ppb)	2013	0.16	ND-1.3	0.38 <sup>3</sup>	ND-1.2 <sup>3</sup>	Naturally occurring
<b>Strontium</b> (ppb)	2013	820	230-1,100	682 <sup>3</sup>	400-870 <sup>3</sup>	Naturally occurring
Vanadium (ppb)	2013	10	7.6–17	9.6 <sup>3</sup>	7.9–11 <sup>3</sup>	Naturally occurring

<sup>1</sup>Sampled in 2015.

<sup>3</sup> Sampled in 2014-2015.

# **Definitions**

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

MCL (Maximum Contaminant Level): 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.

#### MCLG (Maximum Contaminant Level Goal):

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.

MRDL (Maximum Residual Disinfectant

Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

#### MRDLG (Maximum Residual Disinfectant

Level Goal): 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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).