Presented By

City of Buckeye

BUCKEYE, AZ

ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2016

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

PWS ID#: 0407089

We've Come a Long Way

Once again we are proud to present our annual water quality report covering the period between January 1 and December 31, 2016. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at any hour—to deliver the highest quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

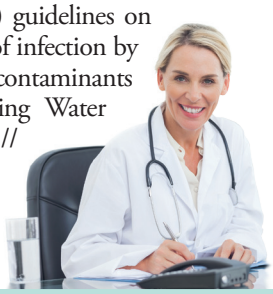
For more information about this report, or for any questions relating to your drinking water, please contact Water Resources at (623) 349-6121 during the normal business hours of 7:00 to 6:00 p.m., Monday through Thursday.

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.

While your drinking water meets U.S. EPA's standard for arsenic, it does contain low levels of arsenic. U.S. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. U.S. 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.

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 at http://water.epa.gov/drink/hotline.



Community Participation

You are invited to participate in our public forums related to your drinking water. The City of Buckeye council meets two times per month on the first and third Tuesdays, beginning at 6:00 p.m. at City Hall, 530 E. Monroe Ave., Buckeye, AZ 85326. For more information on the exact meeting days, please see our website at http://www.buckeyeaz.gov/events/ or call the City Clerk's Office at (623) 349-6000.

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 storm-water 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 storm-water 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 storm-water 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 (www.fda.gov/ForConsumers/ConsumerUpdates/ucm203620.htm).

Source Water Assessment

The Source Water Assessment Program (SWAP) is part of a nationwide effort initiated in 1996 by amendments to the Safe Drinking Water Act (SDWA). The intent of the program is to complete an evaluation of all sources of water (wells, surface water intakes and springs) that provide drinking water to public water systems in Arizona. This evaluation determines the degree to which the source of water is protected. Arizona's SWAP was approved by the U.S. EPA in November 1999. The goal of the SWAP is to promote community awareness and to facilitate and encourage source water protection at the community level. These sources are currently protected by well contraction and system operations and management.

SWAP provides detailed information on public water system drinking water sources by evaluating the hydrogeologic setting in which the source is located and any adjacent land uses that are in a specified proximity of the drinking water source. Once this information is gathered, it is evaluated to determine the extent to which the drinking water sources are protected from future natural or man-made contamination. Water sources are then categorized as either "high risk" or "low risk." A designation of high risk indicates there are additional source water protection measures that can be implemented at the local level. A low risk designation indicates that most source water protection measures are either already implemented, and/or the hydrogeologic setting is such that it is protective of the source water.

All public water systems are required to comply with the federal and state laws for monitoring and reporting to ensure the water they serve to the public meets national drinking water standards. Regardless of the risk rating, the Arizona Department of Environmental Quality (ADEQ) encourages local communities to actively engage in source water protection activities. If you have any questions regarding the Source Water Assessments, please contact ADEQ at (602) 771-4644, at ADEQ's Source Water Assessment and Protection Unit website at www.azdeq.gov/environ/water/dw/swap/html, or the EPA's website at www.epa.gov.

For water systems Tartesso 0407526 and Festival Ranch 0407765:
Based on the information currently available on the hydrogeologic settings and the adjacent land uses that are in the specified proximity of the drinking water source(s) of the public water system, ADEQ has not performed a Source Water Assessment for water systems Tartesso 0407526 and Festival Ranch 0407765. Once an assessment is completed by ADEQ, we will include a summary of the report in our Water Quality Report.

For water system Town of Buckeye 0407089: SWA conducted in November 2002
Based on the information currently available on the hydrogeologic settings and the adjacent land uses that are in the specified proximity of the drinking water source(s) of the public water system, ADEQ has given a high risk designation for the degree to which this public water system drinking water source(s) are protected. A designation of high risk indicates there may be additional source water protection measures which can be implemented on the local level. This does not imply that the source water is contaminated nor does it mean that contamination is imminent. Rather, it simply states that land use activities or hydrogeologic conditions exist that make the source water susceptible to possible future contamination.

For water system Sundance/Sunora 0407154: SWA conducted in May 2003
Based on the information currently available on the hydrogeologic settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of the public water system, the department has given a low risk designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water drinking water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection.

For water system Valencia 0407078: SWA conducted in 2003
The assessment reviewed the hydrogeologic conditions and adjacent land uses that may pose a potential risk to the water sources. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agriculture, wastewater treatment plants, and mining activities. Once ADEQ identified the adjacent land uses, they were ranked as to their potential to affect the water sources. The results of the assessment were that the wells had a high risk of contamination due to adjacent land use. This does not imply that the source water is contaminated nor does it mean that contamination is imminent. Rather, it simply means that land use activities or hydrogeologic conditions exist that make the source water susceptible to possible contamination.

For water system Bulfer 04070114: SWA conducted in 2002
The assessment reviewed the hydrogeologic conditions and adjacent land uses that may pose a potential risk to the water sources. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agriculture, wastewater treatment plants, and mining activities. The results of the assessment were that the well had a low risk of contamination due to adjacent land use.

For water system Sonoran Ridge 0407732: SWA conducted in 2002
The assessment reviewed the hydrogeologic conditions and adjacent land uses that may pose a potential risk to the water sources. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agriculture, wastewater treatment plants, and mining activities. Once ADEQ identified the adjacent land uses, they were ranked as to their potential to affect the water sources. The results of the assessment were that the well had a low risk of contamination due to adjacent land use.

For water system Sun Valley 0407195: SWA conducted in 2002
The assessment reviewed the hydrogeologic conditions and adjacent land uses that may pose a potential risk to the water sources. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agriculture, wastewater treatment plants, and mining activities. Once ADEQ identified the adjacent land uses, they were ranked as to their potential to affect the water sources. The results of the assessment were that the well had a low risk of contamination due to adjacent land use.

For water system Sweetwater II 0407129: SWA conducted in 2002
The assessment reviewed the hydrogeologic conditions and adjacent land uses that may pose a potential risk to the water sources. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agriculture, wastewater treatment plants, and mining activities. Once ADEQ identified the adjacent land uses, they were ranked as to their potential to affect the water sources. The results of the assessment were that the well had a low risk of contamination due to adjacent land use. The water is protected by well construction and system operations and management. Residents can help protect the water by taking hazardous household chemicals to hazardous material collection days and limiting pesticide and fertilizer use.

Where Does My Water Come From?

Our water source is supplied by ground water pumped from the West Salt River Valley and Hassayampa Sub-Basins. This water is treated, disinfected, and stored in reservoirs in various locations and elevations within the City of Buckeye's nine service areas. Production facilities within these service areas operate 24 hours a day, 7 days a week. The Water Production Division continually monitors the treatment process, making any necessary adjustments for the changing water supply. The treated water then leaves the storage reservoirs and is distributed to the City's many customers through its extensive distribution systems within those areas. The Environmental Compliance Division performs over 1,000 tests per year in order to monitor the quality of the water that is sent to the customers within the City's service areas. Through this continuous process, the goal of the Water Resources Department is to deliver drinking water that is safe and in full regulatory compliance.

Sweetwater II PWS #AZ0407129 water is produced from wells located within the City of Goodyear's service area. The water is distributed through an interconnection between the two systems.

In early 2007, an interconnection with the City of Goodyear and the Sweetwater II system was established to create a consecutive system. This interconnect was installed to allow greater reliability in capacity and to provide a source of water for blending for nitrate. This interconnect ensures the customers of Sweetwater II are delivered drinking water to levels below the maximum contaminant level (MCL) for nitrate.

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 http://goo.gl/QMoIXT.

What is "Hard" Water?

Hard water is probably the most common water problem found in the home. According to the Water Quality Association of the United States, hard water contains dissolved harness minerals above 1 gpg (grains per gallon). Hardness in drinking water is caused by two nontoxic chemicals (called minerals), calcium, and magnesium, that are dissolved in a water supply. If calcium and/or magnesium is present in your water in substantial amounts, the water is said to be hard, making a lather or suds for washing difficult to do. Water containing little calcium or magnesium is called soft water. Parts per million (ppm) or grains per gallon (gpg) are both units of measure used to describe the dissolved minerals contained in water.

The most common mechanical way to soften water is through the use of an ion exchange water softener. This device uses an ion exchange process to replace hardness minerals in the water with some other substance. The majority of water softening equipment used the exchange of hardness minerals for sodium.

Public water supplies in the City of Buckeye are all from underground sources and all pass through sand, gravel, and naturally occurring evaporated salt deposits that are typical in the arid environment of Arizona and help contribute in making the water in this area hard and salty in taste.

Hardness levels for your water system(s) are:

SUBSTANCE (UNIT OF MEASURE)	CITY OF BUCKEYE	SUNDANCE/ SUNORA	TARTESSO	FESTIVAL RANCH	HOPEVILLE	VALENCIA	BULFER – PRIMROSE	SONORAN RIDGE	SUN VALLEY	SWEETWATER II
Hardness (ppm/gpg)	168/9.8	70.3/4.1	66.2/3.9	110/6.4	NA	389/22.7	467/27.3	95/5.6	48/2.8	391/22.9
Iron (ppm/gpg)	<0.200	<0.200	<0.200	<0.200	NA	0.218	<0.200	<0.200	<0.200	<0.200
Manganese (ppm/gpg)	<0.00200	<0.00200	<0.00200	<0.00200	NA	0.00594	<0.00200	<0.00200	<0.00200	<0.00200

Hardness Guide

Soft water: less than 1 gpg

Slightly hard water: 1 to 3.5 gpg

Moderately hard water: 3.5 to 7 gpg

Hard water: 7 to 10.5 gpg

Very hard water: 10.5 and higher gpg

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.

Unregulated Contaminant Monitoring

We 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. Contact us for more information on this program.

About Our Violations

Violation Type: Ground Water Rule - Missed monitoring

Explanation: During the last quarter of 2015 we did not complete source water monitoring for Nitrate.

Date and Length of Violation: 4th Quarter sample 2015

Steps Taken to Correct Violation: Upon notification from Arizona Department of Environmental Quality (ADEQ) we immediately reviewed the Ground Water Rule to insure that this type of incident does not occur in the future. The Ground Water rule requires that samples be taken at the entry point to the distribution system (EPDS), this did not happen within the required time-frame.

Health Effects: Methemoglobinemia (blue baby syndrome)/diuresis.

Violation Type:

PUBLIC NOTICE

PWS #07-078 Sundance Sunora MCL Violations

August of 2016

During the month of August, 2016, we took 20 routine samples to test for the presence of coliform bacteria. One (1) of these routine samples showed the presence of total coliform bacteria. Since the standard is that no more than one sample result per month may be positive for the presence of total coliforms, three (3) resamples were taken as required by the rule, all returned negative for coliform.

Several factors outside of the water sample itself could affect the results. If it is a windy day contaminates in the air can get into the sample. Plant foliage in close proximity to the water tap can also create issues. Rainy days are avoided when taking samples to prevent contamination from getting into the sample.

With the possibility of sampler or handling procedural errors we have reviewed our Standard Operating Procedures and our confident that this will not be an issue going forward.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

PUBLIC NOTICE

PWS #07-078 Festival Ranch MCL Violations

September of 2016

During the month of September, 2016, we took eight (8) routine samples to test for the presence of coliform bacteria. Three (3) of these routine samples showed the presence of total coliform bacteria. Since the standard is that no more than one sample result per month may be positive for the presence of total coliforms, nine (9) resamples were taken as required by the rule, all nine returned negative for coliform. This also required that an assessment be made of the water system to determine if there were any sanitary defects within the system. No deficiencies were found.

PUBLIC NOTICE

PWS #07-078 Sweet Water II MCL Violations

December of 2016

During the month of December, 2016, we took one (1) routine samples to test for the presence of coliform bacteria. One (1) of these routine samples showed the presence of total coliform bacteria. Since the standard is that no more than one sample result per month may be positive for the presence of total coliforms, three (3) resamples were taken as required by the rule, all three returned negative for coliform.

Several factors outside of the water sample itself could affect the results. If it is a windy day contaminates in the air can get into the sample. Plant foliage in close proximity to the water tap can also create issues. Rainy days are avoided when taking samples to prevent contamination from getting into the sample.

With the possibility of sampler or handling procedural errors we have reviewed our Standard Operating Procedures and our confident that this will not be an issue going forward.

Colifrms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring 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.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the month of September at Festival Ranch, three of eight Total Coliform samples were positive, triggering a Level 1 Assessment of the water and distribution systems. This assessment was completed and found no issues with the wells, treatment facility, or distribution system. Resampling was completed in accordance with the Revised Total Coliform Rule (RTCR), all resamples were negative for Total Coliform. In addition, we were not required to take any corrective actions.

REGULATED SUBSTANCES

				City of Buckeye		Sundance/Sunora		Tartesso		Festival Ranch			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2015	15	0	NA	ND–2.0	NA	NA	3.7[1]	ND–3.7[1]	3.9[1]	NA	No	Erosion of natural deposits
Arsenic (ppb)	2014	10	0	4.6	NA	6.88[5]	ND–6.88[5]	6.9[5]	5.6–6.9[5]	8.3	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2014	2	2	0.24	NA	0.17	0.0244–0.17	0.08	NA	0.055	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2016	[4]	[4]	0.92	0.20–0.92	1.38	0.33–1.88	0.96	0.22–0.96	1.03	0.49–1.03	No	Water additive used to control microbes
Chromium (ppb)	2014	100	100	22	NA	27.5	22–27.5	11	NA	7.6	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Ethylbenzene (ppb)	2014	700	700	NA	NA	5.7	NA	NA	NA	NA	NA	No	Discharge from petroleum refineries
Fluoride (ppm)	2014	4	4	0.89	NA	1.61	1.33–1.61	3.09[5]	2.43–3.09[5]	2.6	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2016	60	NA	1.41	1.19–1.41	2.03	ND–2.03	3.14	NA	NA	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2016	10	10	8.2	6.3–8.2	2.92	1.52–2.92	1.4[2]	NA[2]	NA	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2014	50	50	11	NA	2.93	ND–2.93	NA	NA	NA	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [Total Trihalomethanes] (ppb)	2016	80	NA	10.1	4.92–10.1	18.5	1.06–18.5	17.1	NA	3.4	NA	No	By-product of drinking water disinfection
Total Coliform Bacteria (positive samples)	2016	TT	NA	NA	NA	1	NA	NA	NA	3	NA	Yes[8]	Naturally present in the environment
Trichloroethylene (ppb)	2016	5	0	NA	NA	NA	NA	NA	NA	NA	NA	No	Discharge from metal degreasing sites and other factories
Uranium (ppb)	2008	30	0	NA	NA	NA	NA	NA	NA	NA	NA	No	Erosion of natural deposits
Xylenes (ppm)	2014	10	10	NA	NA	2.85	ND–2.85	NA	NA	NA	NA	No	Discharge from petroleum factories;Discharge from chemical factories

REGULATED SUBSTANCES

				Hopeville		Valencia		Bulfer-Primrose		Sonoran Ridge			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2015	15	0	3.6[2]	NA[2]	6.7[3]	0.9–6.7[3]	3.8[3]	2.0–3.8[3]	2.0	0.8–2.0	No	Erosion of natural deposits
Arsenic (ppb)	2014	10	0	3.83	ND–3.83	9.8[5]	4.9–9.8[5]	5.0[6]	NA[6]	7.44[5]	5.46–7.44[5]	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2014	2	2	NA	NA	0.17[3]	0.15–0.17[3]	0.22[6]	NA[6]	0.1[6]	NA[6]	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2016	[4]	[4]	0.87	0.51–0.87	1.85	0.39–1.85	0.94	0.63–0.94	0.78	0.47–0.78	No	Water additive used to control microbes
Chromium (ppb)	2014	100	100	8.9[1]	ND–8.9[1]	16[7]	ND–16[7]	25[6]	NA[6]	1.6[6]	NA[6]	No	Discharge from steel and pulp mills; Erosion of natural deposits
Ethylbenzene (ppb)	2014	700	700	NA	NA	NA	NA	NA	NA	NA	NA	No	Discharge from petroleum refineries
Fluoride (ppm)	2014	4	4	0.52[1]	ND–0.52[1]	1.7[7]	1.3–1.7[7]	1.2	NA	NA	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2016	60	NA	NA	NA	10.7	2.06–10.7	3.3	NA	NA	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2016	10	10	5.91	4.03–5.91	8.4	6.4–8.4	6.7	NA	1.5	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2014	50	50	8.9[1]	NA[1]	5.9[7]	2.5–5.9[7]	NA	NA	NA	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [Total Trihalomethanes] (ppb)	2016	80	NA	NA	NA	63.7	7.12–63.7	19.9	NA	NA	NA	No	By-product of drinking water disinfection
Total Coliform Bacteria (positive samples)	2016	TT	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes[8]	Naturally present in the environment
Trichloroethylene (ppb)	2016	5	0	NA	NA	NA	NA	NA	NA	NA	NA	No	Discharge from metal degreasing sites and other factories
Uranium (ppb)	2008	30	0	NA	NA	2.2	0.9–2.2	NA	NA	NA	NA	No	Erosion of natural deposits
Xylenes (ppm)	2014	10	10	NA	NA	NA	NA	NA	NA	NA	NA	No	Discharge from petroleum factories;Discharge from chemical factories

REGULATED SUBSTANCES

				Sun Valley		Sweetwater II		City of Goodyear			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2015	15	0	NA	NA	3.5[4]	NA[4]	NA[5]	NA[5]	No	Erosion of natural deposits
Arsenic (ppb)	2014	10	0	7.7[6]	NA[6]	5.2[4]	NA[4]	7.6[5]	3.77–12[5]	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2014	2	2	0.13[6]	NA[6]	0.10[4]	NA[4]	0.078[5]	0.024–0.17[5]	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2016	[4]	[4]	0.93	0.52–0.93	0.64	0.20–0.64	0.46	0–1.00	No	Water additive used to control microbes
Chromium (ppb)	2014	100	100	5.6[6]	NA[6]	9.5[4]	NA[4]	11[5]	4.7–23[5]	No	Discharge from steel and pulp mills; Erosion of natural deposits

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	Sun Valley AMOUNT DETECTED	Sun Valley RANGE LOW-HIGH	Sweetwater II AMOUNT DETECTED	Sweetwater II RANGE LOW-HIGH	City of Goodyear AMOUNT DETECTED	City of Goodyear RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Ethylbenzene (ppb)	2014	700	700	NA	NA	NA	NA	NA	NA	No	Discharge from petroleum refineries
Fluoride (ppm)	2014	4	4	1.1[6]	NA[6]	0.42[4]	NA[4]	1.8[5]	0.21–1.8[5]	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2016	60	NA	NA	NA	4.14	NA	5.0	2.9–8.5	No	By-product of drinking water disinfection
Nitrate (ppm)	2016	10	10	1.7	NA	6.7[4]	NA[4]	9.1	2.9–9.1	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2014	50	50	NA	NA	NA	NA	NA	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [Total Trihalomethanes] (ppb)	2016	80	NA	NA	NA	37	NA	32.8	16–67	No	By-product of drinking water disinfection
Total Coliform Bacteria (positive samples)	2016	TT	NA	NA	NA	1	NA	NA	NA	Yes[8]	Naturally present in the environment
Trichloroethylene (ppb)	2016	5	0	NA	NA	NA	NA	1.2	1.1–1.2	No	Discharge from metal degreasing sites and other factories
Uranium (ppb)	2008	30	0	NA	NA	NA	NA	NA	NA	No	Erosion of natural deposits
Xylenes (ppm)	2014	10	10	NA	NA	NA	NA	NA	NA	No	Discharge from petroleum factories;Discharge from chemical factories

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	City of Buckeye AMOUNT DETECTED (90TH%TILE)	City of Buckeye SITES ABOVE AL/ TOTAL SITES	Sundance/Sunora AMOUNT DETECTED (90TH%TILE)	Sundance/Sunora SITES ABOVE AL/ TOTAL SITES	Tartesso AMOUNT DETECTED (90TH%TILE)	Tartesso SITES ABOVE AL/ TOTAL SITES	Festival Ranch AMOUNT DETECTED (90TH%TILE)	Festival Ranch SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2015	1.3	1.3	NA	0/20	0.0522[2]	0/20[2]	0.0675[2]	4/10[2]	0.181[2]	0/20[2]	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2015	15	0	1.68	0/20	ND[2]	0/20[2]	ND[2]	0/10[2]	2.11[2]	0/20[2]	No	Corrosion of household plumbing systems; Erosion of natural deposits

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	Hopeville AMOUNT DETECTED (90TH%TILE)	Hopeville SITES ABOVE AL/ TOTAL SITES	Valencia AMOUNT DETECTED (90TH%TILE)	Valencia SITES ABOVE AL/ TOTAL SITES	Bulfer-Primrose AMOUNT DETECTED (90TH%TILE)	Bulfer-Primrose SITES ABOVE AL/ TOTAL SITES	Sonoran Ridge AMOUNT DETECTED (90TH%TILE)	Sonoran Ridge SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2015	1.3	1.3	0.07	0/5	0.0542	0/20	0.0224[5]	0/5[5]	0.302[5]	0/5[5]	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2015	15	0	ND	0/5	1.1	0/20	ND[5]	0/5[5]	ND[5]	0/5[5]	No	Corrosion of household plumbing systems; Erosion of natural deposits

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

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	Sun Valley AMOUNT DETECTED (90TH%TILE)	Sun Valley SITES ABOVE AL/ TOTAL SITES	Sweetwater II AMOUNT DETECTED (90TH%TILE)	Sweetwater II SITES ABOVE AL/ TOTAL SITES	City of Goodyear AMOUNT DETECTED (90TH%TILE)	City of Goodyear SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2015	1.3	1.3	0.0422[5]	0/10[5]	0.4135[5]	0/5[5]	0.25[5]	NA[5]	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2015	15	0	ND[5]	0/10[5]	ND[5]	0/5[5]	1.7[5]	NA[5]	No	Corrosion of household plumbing systems; Erosion of natural deposits

[1] Sampled in 2011.
[2] Sampled in 2014.
[3] Sampled in 2012.
[4] Sampled in 2010.
[5] Sampled in 2016.
[6] Sampled in 2013.
[7] Sampled in 2015.
[8] This is a Festival Ranch violation only.

Definitions

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

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

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).

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