2016 ANNUAL WATER QUALITY REPORT PRESENTED BY: LIBERTY UTILITIES

For more information about this report, drinking water or our programs, please call Liberty Utilities, at 1-844-367-2029.

Este informe contiene información muy importante sobre su agua potable. Por favor lea este informe o comuniquese con alguien que pueda traducer la informacion.

Liberty Utilities Works Hard to Provide Quality Water to You!

Once again we are proud to present our annual water quality report. This edition covers all testing completed from January through December 2016. We are pleased to tell you that our drinking water meets or exceeds all state and federal drinking water standards. We are committed to delivering quality drinking water. We remain vigilant in promoting water conservation and community education while continuing to serve the needs of all of our customers.

Introduction to Liberty Utilities... At Your Service

Liberty Utilities' philosophy places our customers at the center of everything we do. This approach shapes our organization and how we do business. With our local approach to management, service and support, Liberty Utilities takes pride in delivering efficient, dependable services to meet the needs of our customers.

At Liberty Utilities, we work hard every day to be the best utility provider with a focus on *Safety, Security, Service, Sustainability and Stewardship.*

Liberty Utilities Involvement in our Communities

As a caring service provider, Liberty Utilities has committed to implementing outreach programs to build relationships with key stakeholders such as customers, regulators, local governments, landowners and contract counterparties.

We are part of the communities we serve and our focus is on being local and responsive by building relationships within the communities that we call home.

We regularly support our Military and Veterans, Kars for Kids, the Boys and Girls Club, United Way, American Cancer Society, West End Fair, Movies in the Park, and Adopt a Park as well as other local community events.

Have you heard of our programs?

Low Income Rate Program
Did you know that Liberty Utilities offers alternative residential water rates to low income families? You can receive 15% off of the regular price of your water or wastewater bill. For more information please contact our business office at 1-844-367-2029 or visit us online at www.libertyutilities.com.

Free Landscape Survey
High water usage? Call our office for a free landscape survey. Our staff will walk your landscaping with you to identify potential leaks and high water use vegetation.

* This is a free program. We do not go into homes or back yards.

E-Bill
View your bill online and stop the hassle of paper bills with E-Bill, our paperless billing program. Every month an email is sent to notify you when your bill is available for secure online viewing. E-Bill also allows you to view your account history and print your current and previous bills. Payments can be made each month as a one-time payment or you can set up worry free automatic payments with our SurePay program.

SurePay
SurePay is a worry-free way to pay your bill on time. Each month on the due date, the amount due will be transferred from your bank account to your Liberty Utilities account. Once set up, you will see that an Electronic Fund Transfer has been made, or "EFT" on you bank statement.

Conservation Counts!
Water is our most important resource. Without it we would not be here. That is why it is so important that we think about how we use water and use it wisely. Here are some great ways to get started.

- Find and fix all leaks promptly. Visit our office for a free booklet about leaks.
- Check hoses, connectors and spigots regularly and replace when necessary.
- When replacing old appliances, look for the WaterSense and Energy Star labels.
- Reuse clean household water by watering potted plants with it.
- Take shorter showers, keep it to 5 minutes or less
- Turn off the faucet when brushing your teeth or shaving.

Where Does My Water Come From

Liberty Utilities (Bella Vista Water) Corp. is made up of two different systems; Bella Vista City and Bella Vista South. The City System serves a population of approximately 20,045 and obtains water from eighteen wells. The South System serves a population of approximately 2,138 and obtains water from thirteen wells. All wells pump water from a deep aquifer known as the Sierra Vista Sub-Basin of the Upper San Pedro Basin. Our wells pump water from depths of 100 to 1000 feet below the earth's surface. We add a small amount of chlorine to well sites to protect the integrity of the water quality throughout the water system piping. This is an effective way of eliminating bacterial contamination that could occur. Drinking water contains many naturally occurring minerals, and may also contain human caused contaminates. This is why the water is tested on a regular basis.

Water Source Assessment

In 2004, ADEQ completed a source water assessment for 28 of the 31 ground water wells currently being used by Bella Vista City and Bella Vista South. The Assessment reviewed the adjacent land uses that may pose a potential risk to the sources. These risks include, but are not limited to, gas stations, landfills, dry cleaners, agriculture fields, waste water treatment plants, and mining activities. Once adjacent land uses were identified, they were ranked as to their potential to affect the water source. The result of the assessment was low risk for 21 of the ground water wells and high risk for 7 of the ground water wells. Low risk indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection. 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. Residents can help protect sources by taking household chemicals to hazardous chemical collection days, practicing good septic maintenance and limiting pesticide & fertilizer use.

Important Health Information

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

Nitrates 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 for advice from your health care provider.

Some people may be more sensitive to contaminates in drinking water than the general public. Immuno-compromised persons such as those undergoing chemotherapy, those who have undergone organ transplants, people with immune system disorders such as HIV/AIDS and others, some elderly, and infants may be at greater risk for infection. These people should ask their health care provider about drinking water. The U.S. EPA CDC (Center for Disease Control and Prevention) guidelines on the appropriate steps to reduce the risk of infection by Cryptosporidium, Giardia and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

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 do not necessarily indicate that the water poses a health risk. For more information contact the Environmental Protection Agency (EPA) Safe Drinking Water Hotline at (800) 426-4791 or visit their website at www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-hotline. For information of bottled water visit the U.S. Food and Drug Administration's website at www.fda.gov.

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 bacteria and viruses. These may come from septic systems, sewage treatment plants, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or the result of urban storm water runoff, industrial or domestic wastewater discharge, mining, farming, or oil and gas production;

Pesticides and Herbicides, which can originate from agriculture, urban storm water runoff, and residential uses;

Organic Chemical Contaminants, both synthetic and volatile organic chemicals are by-products of industrial processes and petroleum production. They may also come from gas stations, urban storm water runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or the result of industrial activity such as gas and oil production and mining.

Lead and Drinking Water

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 used in plumbing components. 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/safewater/lead.

TESTING RESULTS

During the year, Liberty Utilities (Bella Vista Water) Corp., takes weekly, monthly and quarterly water samples in order to determine the presence of any radioactive, biological, inorganic, synthetic organic or volatile contaminants. All of the substances listed here tested under the Maximum Contaminant Level (MCL). Liberty Utilities believes it is important you know what was detected and how much of the substance was present. The state allows the monitoring of certain substances less than once a year because the concentrations of these substances do not change frequently.

The listed results cover sampling from January 1st to December 31st, 2016 or is from the most recent sampling done in accordance with state regulations. All water provided by our utility must meet the water quality standards established by the EPA.

Bella Vista South System (PWS# 04-02007)

INORGANIC CHEMICALS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Violation	Date Sampled	Typical Sources
Arsenic	10 ppb	0 ppb	<1 - 1.8 ppb	No	2016	Erosion of natural deposits, runoff from orchards and glass and electronic production waste.
Barium	2 ppm	2 ppm	0.039 - 0.21 ppm	No	2016	Erosion of natural deposits, discharge from metal refineries and drilling wastes
Fluoride	4 ppm	4 ppm	0.08 - 0.35 ppm	No	2016	Erosion of natural deposit discharge from metal refineries-discharge from mines
Nitrate	10 ppm	10 ppm	0.23 - 2.0 ppm	No	2016	Erosion of natural deposits, runoff from fertilizer use, leaching from septic tanks, sewage

COPPER AND LEAD–Tested at customer's taps every 3 years.

Contaminant	EPA's Action Level (AL)	Ideal Goal (EPA's MCLG)	Lowest and Highest results found	90% of all samples	Samples Exceeding the AL	Violation	Date Sampled	Typical Sources
Lead	90% of homes less than 15 ppb*	0 ppb	ND–7.1 ppb	1.8 ppb	0	No	2015	Corrosion of household plumbing systems: erosion of natural deposits
Copper	90% of homes less than 1.3 ppm*	1.3 ppm	0.0054–0.26 ppm	0.20 ppm	0	No	2015	Corrosion of household plumbing systems: erosion of natural deposits

RADIOACTIVE CONTAMINANTS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Violation	Date Sampled	Typical Sources
Gross Alpha	15 pCi/L	0 pCi/L	2.9+/-0.4 – 14.0+/-0.8 pCi/L	No	2016	Erosion from natural deposits
Combined Radium	5 pCi/L	0 pCi/L	<0.4 – 0.5+/-0.4 pCi/L	No	2016	Erosion from natural deposits

DISINFECTANTS AND DISINFECTION BYPRODUCTS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Test Results	Annual Average	Violation	Date Sampled	Typical Sources
5 Haloacetic Acids(HAA5s)	60 ppb	0 ppb	<2.0 ppb	<2.0 ppb	No	2016	Byproduct of drinking water chlorination
Total Trihalomethanes (TTHM)	80 ppb	0 ppb	47 ppb	47 ppb	No	2016	Byproduct of drinking water chlorination

VOLATILE ORGANIC CONTAMINANTS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Violation	Date Sampled	Typical Sources
Total Xylenes	10 ppm	10 ppm	<0.0005 - 0.011 ppm	No	2015	Discharge from petroleum or chemical factories
Ethylbenzene	700 ppb	700 ppb	<0.5 - 0.69 ppb	No	2015	Discharge from Petroleum refineries

UNREGULATED CONTAMINANTS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Violation	Date Sampled	Typical Sources
Sodium	NA ppm	NA ppm	10 - 28 ppm	No	2016	Erosion from natural deposits, leaching

Microbiological							
Contaminant	**Highest Level Allowed (EPA's MCL)**	**Ideal Goal (EPA's MCLG)**	**Number of Samples Present**	**Absent (A) Present (P)**	**Violation**	**Date Sampled**	**Typical Sources**
Total Coliform Bacteria	*	0	0	A	No	Monthly in 2016	Naturally present in the environment
Fecal Coliform & E.Coli	**	0	0	A	No	Monthly in 2016	Human and animal fecal waste

* Presence of coliform bacteria in less than 5% of samples or for systems that collect <40 samples per month: no more than 1 positive.

**If routine sample and repeat sample are total coliform positive and one is also fecal coliform or E.Coli positive.

Testing of Unregulated Contaminants

Our utility is committed to protecting public health and meets or surpasses all state and federal health standards for tap water. To help advance the science of drinking water, we have been collecting data for the EPA since the Unregulated Contaminant Monitoring Rule was enacted. Collecting information about the occurrence of these compounds in water supplies is the first step in the EPA's efforts to determine whether they should be regulated.

City System (PWS# 04-02010)

INORGANIC CHEMICALS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Violation	Date Sampled	Typical Sources
Arsenic	10 ppb	0 ppb	<0.5–0.94 ppb	No	2014	Erosion of natural deposits, runoff from orchards and glass and electronic production waste.
Barium	2 ppm	2 ppm	0.066–0.39 ppm	No	2014	Erosion of natural deposits, discharge from metal refineries and drilling wastes
Nitrate	10 ppm	10 ppm	<0.5–3.5 ppm	No	2016	Erosion of natural deposits, runoff from fertilizer use, leaching from septic tanks, sewage

COPPER AND LEAD–Tested at customer's taps every 3 years.

Contaminant	EPA's Action Level (AL)	Ideal Goal (EPA's MCLG)	Lowest and Highest results found	90% of all samples	Samples Exceeding the AL	Violation	Date Sampled	Typical Sources
Lead	90% of homes less than 15 ppb*	0 ppb	ND–4.5 ppb	1.8 ppb	0	No	2014	Corrosion of household plumbing systems: erosion of natural deposits
Copper	90% of homes less than 1.3 ppm*	1.3 ppm	0.0025–0.23 ppm	0.12 ppm	0	No	2014	Corrosion of household plumbing systems: erosion of natural deposits

RADIOACTIVE CONTAMINANTS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Violation	Date Sampled	Typical Sources
Gross Alpha	15 pCi/L	0 pCi/L	2.3+/-0.4 – 3.0+/-0.4 pCi/L	No	2016	Erosion from natural deposits
Combined Uranium	30 ug/L	0 ug/L	1.1+/-0.5 – 3.1+/-0.7 ug/L	No	2016	Erosion from natural deposits
Combined Radium	5 pCi/L	0 pCi/L	<0.4 – 0.5+/-0.4 pCi/L	No	2016	Erosion from natural deposits

DISINFECTANTS AND DISINFECTION BYPRODUCTS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Annual Average	Violation	Date Sampled	Typical Sources
5 Haloacetic Acids(HAA5s)	60 ppb	0 ppb	<2.0–<2.0 ppb	<2.0 ppb	No	2016	Byproduct of drinking water chlorination
Total Trihalomethanes (TTHM)	80 ppb	0 ppb	<0.50–<0.50 ppb	<0.50 ppb	No	2016	Byproduct of drinking water chlorination

Microbiological

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Number of Samples Present	Absent (A) Present (P)	Violation	Date Sampled	Typical Sources
Total Coliform Bacteria	*	0	1	A	No	Monthly in 2016	Naturally present in the environment
Fecal Coliform & E.Coli	**	0	0	A	No	Monthly in 2016	Human and animal fecal waste

* Presence of coliform bacteria in less than 5% of samples or for systems that collect <40 samples per month: no more than 1positive.

**If routine sample and repeat sample are total coliform positive and one is also E.Coli positive.

UNREGULATED CONTAMINANTS

Contaminant	Minimum Reporting Level	Range of Test Results	Average of detected results	Violation	Date Sampled	Typical Sources
Sodium	NA	NA	23-38 ppm	No	2015	Erosion from natural deposits, leaching
Chromium	0.2 ug/L	0.2–1.5 ug/L	0.47 ug/L	No	2015	Naturally occurring element; used in making steel and other alloys
Strontium	0.3 ug/L	150–320 ug/L	217.25 ug/L	No	2015	Naturally occurring element; historically commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
Vanadium	0.2 ug/L	1.4–3.2 ug/L	2.18 ug/L	No	2015	Naturally occurring elemental metal; used as vanadium pentoxide which is a chemical intermediate and a catalyst
Chromium, Hexavalent	0.03 ug/L	0.23–0.71 ug/L	0.44 ug/L	No	2015	Naturally occurring element; used in making steel and other alloys; used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Chlorate	20 ug/L	20-220 ug/L	74.28 ug/L	No	2015	Agricultural defoliant or desiccant; disinfection byproduct; and used in production of chlorine dioxide
1,4-Dioxane	0.07 ug/L	0.08–0.21 ug/L	0.14 ug/L	No	2015	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos.
Chlorodifluoromethane	0.08 ug/L	0.36–0.53 ug/L	0.45 ug/L	No	2015	Chlorofluorocarbon; occurs as a gas, and used as a refrigerant, as a low-temperature solvent, and in fluorocarbon resins, especially tetrafluoroethylene polymers
1,1-Dichloroethane	0.03 ug/L	0.06–0.06 ug/L	0.06 ug/L	No	2015	Halogenated alkane; used as a solvent

Definitions

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

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 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)

Health effects of listed regulated contaminants

Alpha emitters (gross alpha): Certain minerals are radioactive and may emit forms of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Arsenic: Some people who drink water containing arsenic in excess of MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of cancer.

Barium: Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Chromium: People who use water containing total chromium in excess of the maximum contaminant level (MCL) over many years could experience allergic dermatitis.

Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Di(2-ethylhexyl) phthalate: Reproductive difficulties; liver problems; increased risk of cancer.

Fluoride: Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth and occurs only in developing teeth before they erupt from the gums.

Haloacetic Acids (HAA5): Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Lead: Infants and children who drink water containing lead in excess of the action level could experience delay in physical or mental development. Children could show slight deficits inattention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Nitrate: Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Radium: Radium in excess may increase the risk of cancer.

Selenium: Some people who drink water containing selenium in excess experience hair or fingernail loss, numbness in fingers or toes and other circulatory problems.

Sodium Hypochlorite (MRDL): Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

Total Coliform: Not a health threat in itself; it is used to indicate whether other potentially harmful bacteria may be present.

Total Trihalomethanes (TTHM): Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer.

Uranium: Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.

Unregulated Contaminants: Unregulated Contaminants are those for which EPA has not established drinking water standards. We monitor for these substances to assist the EPA in determining the occurrence of unregulated

Chlorate: Drinking water containing chlorate in excess over man years is associated with enlarged thyroid and mineralization.

Chromium-6: Drinking water containing chromium in excess over many years could experience allergic dermatitis.

Chromium (total): Drinking water containing chromium in excess over many years could experience allergic dermatitis.

Molybdenum: Drinking water containing molybdenum in excess over many years may experience increased uric acid levels.

Perfluoroheptanoic acid(PFHpA): Drinking water containing PFHpA in excess is associated with body weight reductions, and increased liver, kidney and brain weight relative to body weight.

Perfluorohexanesulfonic acid (PFHxS): Drinking water containing PFHxS in excess is associated with immune and lymphatic system, neurological, reproductive and developmental effects.

Perfluorooctanoic acid (PFOA): Drinking water containing PFOA in excess is associated with body weight reductions, and increased liver, kidney and brain weight relative to body weight.

Perfluorooctanesulfonic acid (PFOS): Drinking water containing PFOS in excess is associated with decreased body weights, lincreased liver weights, lowered total cholesterol, lowered triiodothyronine (T3)concentrations, an lowered estradiol levels.

Strontium: Drinking water containing strontium in excess over many years may develop rachitic bone (rickets).

Vanadium: Drinking water containing vanadium in excess over many years may be associated with altered kidney function indicated by increased blood urea and mild tissue changes.

1,2,3-Trichloropropane: Drinking water containing 1,2,3-trichloropropane in excess over many years has been associated with changes in blood chemistry and reduction in red blood cell mass in rates.

1,4-dioxane: Drinking water containing 1,4-dioxane in excess of 0.03 ppb per day over many years has been associated with liver and kidney toxicity. Drinking water in excess of 300 ppb is a EPA Class B2 probable human carcinogen.

Chlorodifluoromethane: Some people who drink water containing Chlorodifluoromethane in excess over many years could experience degenerative effects on the brain and coverings; changes in the blood cell count (unspecified); and nutritional and metabolic effects, such as weight loss or decreased weight gain.

1,1-dichloroethane: Some people who drink water containing 1,1-dichloroethane in excess over many years may increase chances of getting cancer.

Total Xylenes: Some people who drink water containing Xylenes in excess of the MCL over many years could experience damage to their nervous system.

Ethylbenzene: Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.

Liberty Utilities