

2021 CONSUMER
CONFIDENCE REPORT ON
WATER QUALITY FOR 2020

ANNUAL WATER QUALITY REPORT



Litchfield Park

Providing customers with safe, quality drinking water is a top priority for Liberty, and we are proud to present this Water Quality Report (Consumer Confidence Report) that shares detailed information regarding local water service and our compliance with state and federal quality standards during the 2020 calendar year.

Liberty makes significant improvements each year to ensure the water we deliver to customers meets all Safe Drinking Water Act standards established by the United States Environmental Protection Agency (USEPA) and Arizona Department of Environmental Quality (ADEQ). We invest responsibly in order to maintain the local water infrastructure, because strong infrastructure is a key factor in delivering quality water. Additionally, we have a top-notch water quality program that ensures the water delivered to your home or business is thoroughly tested by independent laboratories and the data is provided to the state to verify compliance with all applicable SDWA and ADEQ water regulations.

We know our customers rely on us to make sure the water at their tap is safe to drink, and we take that responsibility seriously. Our employees live in the local community and take great pride in providing quality water and reliable service to you and your neighbors.

If you have any questions about the information within this report, please don't hesitate to contact us anytime at 844-367-2030. We encourage you to visit our website at www.LibertyUtilities.com and follow us on Facebook @LibertyUtilAZ or Twitter @LibertyUtil_AZ to stay up-to-date and receive tips about water conservation and more.

On behalf of the entire Liberty family, thank you for being a valued customer and neighbor. We are proud to be your water provider.

Sincerely,

Matthew Garlick
President, Liberty-Arizona

This report contains important information about your drinking water. Please contact Liberty at (800) 727-5987 for assistance in Spanish.

Este informe contiene información muy importante sobre su agua para beber. Favor comunicarse con Liberty al (800) 727-5987 para asistirlo en Español.



Where Does My Water Come From?

Liberty Utilities (Litchfield Park Water & Sewer) Corp. drinking water comes from the Western Valley Salt River Aquifer. An aquifer is a layer of permeable rock, sand, and gravel that stores the water supplying wells and springs. This particular aquifer is divided into three distinct units: the upper, middle, and lower alluvial units. Liberty Utilities draws the majority of its water from the middle and lower alluvial units located approximately 200 to 600 feet below the surface. From the three well fields, water is pumped either directly into the distribution system or into several multi-million gallon reservoirs. Before entering our system, this high-quality groundwater may undergo arsenic removal treatment then a small amount of chlorine is added in order to minimize the possibility of bacterial contamination. In 2020, Liberty delivered over 4.1 billion gallons of water to our customers.

Source Water Assessment

In 2003, the ADEQ completed a source water assessment for 12 of the groundwater wells used by Liberty Utilities (Litchfield Park Water & Sewer) Corp. 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, wastewater 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 all of the 12 groundwater wells, indicating 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. Residents can help protect sources by taking household chemicals to hazardous chemical collection days, practicing good septic maintenance and limiting pesticide and fertilizer use. The complete Source Water Assessment is available for review at ADEQ, 1110 W. Washington St., Phoenix, AZ 85007, or you may request an electronic copy from ADEQ by email: recordscenter@azdeq.gov. For more information visit the ADEQ website at: <http://azdeq.gov/node/735>.

Important Health Information

While your drinking water meets the United States Environmental Protection Agency's (EPA) standard for arsenic, it does contain low levels of arsenic. The EPA 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 are 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.

Important Health Information (cont.)

Lead, in drinking water, is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. We are responsible for providing high-quality drinking water, but we 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. 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.

In May 2016, the EPA issued a new Health Advisory, lowering the levels of PFOA and PFOS from 400 parts per trillion for PFOA and 200 parts per trillion for PFOS to 70 parts per trillion for PFOA and PFOS combined. In response to the EPA's new Health Advisory, Liberty Utilities has implemented additional treatment on its wells to reduce PFOA/PFOS levels below the new advisory limit. If you would like more information regarding PFOA/PFOS, their health effects, the basis for the EPA's actions, or to see the EPA's health advisory, please visit their website at: <https://www.epa.gov/ground-water-and-drinkingwater/drinking-water-health-advisories-pfoa-and-pfos>.

Some people may be more sensitive to contaminants 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 a greater risk for infection. These people should ask their health care provider about drinking water. The U.S. EPA Center for Disease Control and Prevention (CDC) 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, ADEQ 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. For more information contact the EPA Safe Drinking Water Hotline at (800)426-4791 or visit their website at <https://www.epa.gov/dwstandardsregulations/2018-drinking-water-standards-and-advisory-tables>. For information on bottled water visit the U.S. Food and Drug Administration's website at www.fda.gov.

Substances That Could Be In Water (cont.)

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.

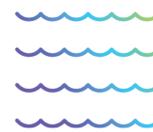
Testing Results

During the year, Liberty Utilities (Litchfield Park Water & Sewer) Corp., takes weekly, monthly, and quarterly water samples in order to determine the presence of any radioactive, biological, inorganic, synthetic organic or volatile organic 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.

LEAD AND COPPER—Tested at customer’s taps; typically every 3 years. Testing year - 2020

Contaminant	EPA’s Action Level (AL)	Ideal Goal (EPA’s MCLG)	Lowest to Highest results found	90th Percentile	Samples Exceeding AL	Violation	Typical Sources
Copper (ppm)	90% of homes tested less than 1.3 ppm	1.3	0.1 - 1.3	0.22	0	No	Corrosion of household plumbing systems, erosion of natural deposits
Lead (ppb)	90% of homes tested less than 15 ppb	0	ND - 26	ND	2	No	Corrosion of household plumbing systems, erosion of natural deposits

Meets/
Exceeds
Regulations



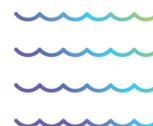
METALS AND INORGANIC COMPOUNDS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Highest Detected Result	Year Tested	Violation	Typical Sources
Arsenic (ppb)	10	0	3.6 – 8.8	8	2020	No	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production waste.
Barium (ppm)	2	2	ND - 0.11	ND	2019	No	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
Chromium, Total (ppb)	100	100	ND - 10	10	2019	No	Discharge from steel and pulp mills, erosion of natural deposits
Selenium (ppb)	50	50	ND - 3	3	2019	No	Discharge from petroleum and metal refineries, erosion of natural deposits, discharge from mines,
Nitrate (ppm)	10	10	3 - 8	8	2020	No	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.
Fluoride (ppm)	4.0	4.0	0.4 - 1.3	1.3	2019	No	Water additive which promotes strong teeth, erosion of natural deposits, discharge from fertilizer and aluminum factories.

RADIOACTIVE CONTAMINANTS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Highest Detected Result	Year Tested	Violation	Typical Sources
Gross Alpha (pCi/L)	15	0	ND - 4	4	2019	No	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation

**Meets/
Exceeds
Regulations**



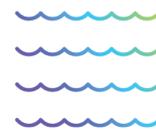
DISINFECTANTS AND DISINFECTION BYPRODUCTS—Tested in 2020

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Highest Locational Ann. Avg.	Violation	Typical Sources
Chlorine (ppm)	4	4	1 — 1	1	No	Water additive used to control microbes
Haloacetic Acids(HAA5s) (ppb)	60	NA	ND — 4.1	4	No	Byproduct of drinking water disinfection
Total Trihalo-methanes (TTHM) (ppb)	80	NA	12.2 - 24.4	18	No	Byproduct of drinking water disinfection

MICROBIOLOGICAL—Tested in 2020

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Highest Month %	Present or Absent	Violation	Typical Sources
Total Coliform (Present)	TT	NA	0 - 0	0	Absent	No	Naturally present in the environment
E. coli (Present)	*	0	0	0	Absent	No	Human and animal fecal waste

**Meets/
Exceeds
Regulations**



2020 CONSUMER CONFIDENCE REPORT

LIST OF NON-DETECT CONSTITUENTS

The following is a list of constituents that were tested in 2019 and were found by the certified lab to be at levels that were below the detection limit {aka, non-detectible}.

Total Metals

Beryllium
Cadmium
Mercury
Nickel
Thallium

Inorganic Chemistry

Nitrite
Cyanide (total)
Asbestos

Synthetic Organic Compounds - EPA Method 504.1

Dibromochloropropane
Ethylene Dibromide

Synthetic Organic Compounds - EPA Method 505

Aroclor 1016	Aroclor 1248
Aroclor 1221	Aroclor 1254
Aroclor 1232	Aroclor 1260 Chlorodane Toxaphene

Synthetic Organic Compounds - EPA Method 515.3

2,4,5-TP (Silvex)
2,4-D
Dalapon
Dicamba
Dinoseb
Pentachlorophenol
Picloram

Synthetic Organic Compounds - EPA Method 525.2

Alachlor	Heptachlor
Aldrin	Heptachlor epoxide
Atrazine	Hexachlorobenzene
Benzo(a)pyrene	Hexachlorocyclopentadiene
Butachlor	Methoxychlor
Di(2-ethylhexyl)adipate	Metolachlor
Di(2-ethylhexyl)phthalate	Metribuzin
Dieldrin	Propachlor
Endrin	Simazine
gamma-BHC (Lindane)	

Synthetic Organic Compound - EPA-5 1613B-Tetras

Dioxin

Volatile Organic Compounds

1,1,1-Trichloroethane	1,2-Dichloroethane
1,1-Dichloroethane	1,2-Dichloropropane
1,1,2-Trichloroethane	1,4-Dichlorobenzene
1,2,4-Trichlorobenzene	Benzene
1,2-Dichlorobenzene	Carbon tetrachloride

Volatile Organic Compounds (cont.)

Chlorobenzene	Tetrachloroethene
cis-1,2-Dichloroethylene	Toluene
Dichloromethane	trans-1,2-Dichloroethene
Ethylbenzene	Trichloroethene
m,p-Xylene	Vinyl chloride
O-Xylene	Xylenes (total)
Styrene	

Semi-Volatile Organic Compounds

3-Hydroxycarbofuran
Aldicarb
Aldicarb sulfone
Aldicarb sulfoxide
Carbaryl
Carbofuran
Methomyl
Oxamyl

Herbicides (all are socs)

Diquat
Endothall
Glyphosate

Radioactive Contaminates

Uranium
Combined Radium

Microbiological

Total Coliform

Unregulated Contaminants

1-Butanol (mg/L)
2-Methoxyethanol (mg/L)
2-Propen-1-ol (mg/L)
alpha-Hexachlorocyclohexane (mg/L)
Chlorpyrifos (mg/L)
cis-Permethrin (mg/L)
Dimethipin (mg/L)
Ethoprop (m /L)
Oxyfluorfen (mg/L)
Permethrin, cis & trans (mg/L)
Profenofos (ms/L)
Tebuconazole (mg/L)
trans-Permethrin (mg/L)
Tribufos (mg/L)

Unregulated Contaminants - Samples Taken at 2 D/DPBRs Sampling Locations

Bromodichloroacetic acid (µg/L)
Monochloroacetic acid (µg/L)
Tribromoacetic acid (µg/L)

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 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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

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

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

ppt (parts per trillion): one part substance per trillion parts water (or nanograms per liter).

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

HEALTH EFFECTS OF LISTED REGULATED CONTAMINANTS

Alpha emitters (gross alpha): Certain minerals are radioactive and may emit a form 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 the MCL over many years may experience skin damage or circulatory system problems, 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 blood pressure.

Chlorine: Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort or anemia.

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.

E. coli: E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems.

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 delays in physical or mental development. Children could show slight deficits in attention 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.

Total Coliform Bacteria: 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 kidney problems or an increased risk of getting cancer.

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 the unregulated contaminants.



Meets/
Exceeds
Regulations

