2021 CONSUMER CONFIDENCE REPORT ON WATER QUALITY FOR 2020

ANNUAL WATER QUALITY REPORT

Cordes Lakes

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 928-632-5445. We encourage you to visit our website at www.LibertyUtilities.com and follow us on Facebook @CordesLakesWater 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.

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2020 Annual Water Quality Report

Liberty Cordes Lakes Water Corp. drinking water comes from the 5 wells located in the Cordes Lakes Subdivision. Cordes Lakes welcomes The Hub Water System (PWS ID # AZ0413-342) which was purchased by The Cordes Lakes Water System (PWS ID # AZ0413-023) on April 30, 2020. The merger was approved by ADEQ and became officially part of the Cordes Lakes Water System on October 30, 2020. This report also includes water quality data for the Town of Prescott Valley for those periods during the year where water was purchased from that public water system.

Source Water Assessment

Source Water Assessments are on file with the Arizona Department of Environmental Quality (ADEQ) and are available for public review. Potential sources of contamination in the source water area come from agriculture runoff or flooding. The Source Water Assessment Report provides a screening-level evaluation of potential contamination that could occur. It does not mean that the contamination has or will occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help ensure that quality water is delivered to your homes. 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/environ/water/dw/swap.html.

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.

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.

Important Health Information (cont.)

Some people may be more sensitive to contaminants in drinking water than the general public. Immunocompromised 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.

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 (Cordes Lakes) 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 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.

INORGANIC CONTAMINANTS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Violation	Year Tested	Typical Sources
Arsenic (ppb)	10	0	1.3 - 2.4	No	2013/2019	Erosion of natural deposits, runoff from orchards and glass and electronic production waste
Barium (ppm)	2	2	0.05 - 0.11	No	2013/2019	Erosion of natural deposits, discharge from metal refineries and drilling wastes
Chromium, total (ppb)	100	100	1.0 - 1.3	No	2013/2019	Discharge from steel and pulp mills, erosion of natural deposits
Fluoride (ppm)	4	4	0.26 - 0.42	No	2013/2019	Water additive which promotes strong teeth, erosion of natural deposits, discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	0.79 - 2.7	No	2020	Erosion of natural deposits, runoff from fertilizer use, leaching from septic tanks, sewage
Sodium (ppm)	N/A	N/A	28 - 33	No	2018/2019	Erosion from natural deposits, leaching

RADIOACTIVE CONTAMINANTS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Violation	Year Tested	Typical Sources
Gross Alpha (pCi/L)	15	0	2.3 - 3.5	No	2016/2020	Erosion from natural deposits

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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	90th Percentile	# Samples Exceeding the AL	Violation	Year Tested	Typical Sources
Lead (ppb)	90% of homes less than 15 ppb	0	ND—5.3	ND	0	No	2019	Corrosion of household plumbing systems: erosion of natural deposits
Copper (ppm)	90% of homes less than 1.3 ppm	1.3	0.055—0.22	0.19	0	No	2019	Corrosion of household plumbing systems: erosion of natural deposits

DISINFECTANTS AND DISINFECTION BYPRODUCTS

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Test Results	Annual Average	Violation	Year Tested	Typical Sources
Chlorine (ppm) (MRDL)	4	4	1	1	No	2020	Water additive used to control microbes
Total Trihalomethanes (TTHM) (ppb)	80	0	8.4	8.4	No	2020	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
E.coli	*	0	0	A	No	Monthly in 2020	Human and animal fecal waste

* Routine and repeat samples are total coliform- positive and either is E. coli-positive or system fails to take repeat samples following E.coli positive routine sample or system fails to analyze total coliform -positive repeat sample for E.coli.

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Water Quality Data – Regulated Contaminants

Microbiological (RTCR)	TT Violation Y or N	Number of Positive Samples	Positive Sample(s) Month & Year	MCL	MCLG	Likely Source of Contamination
E. Coli	N	0	N/A	0	0	Human and animal fecal waste
Fecal Indicator (coliphage, enterococci and/or E. coli)	N	0	N/A	0	0	Human and animal fecal waste

Disinfectants	MCL Violation Y or N	Running Annual Average (RAA)	Range of All Samples (Low-High)	MRDL	MRDLG	Sample Month & Year	Likely Source of Contamination
Chlorine/Chloramine (ppm)	N	0.44	0.20 – 1.09	4	0	60 Samples	Water additive used to control microbes

Disinfection By-Products	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Total Trihalomethanes (TTHM) (ppb)	N	9.5	ND – 9.5	80	N/A	7/2020	Byproduct of drinking water disinfection

Radionuclides	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Alpha Emitters (pCi/L)	N	5.0	ND – 5.0	15	0	10/2020	Erosion of natural deposits

Inorganic Chemicals (IOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Arsenic[1] (ppb)	N	7.2	3.6 – 7.2	10	0	2/2020	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium (ppm)	N	0.079	0.036 – 0.079	2	2	2/2020	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	N	8.6	3 – 8.6	100	100	2/2020	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	N	0.32	0.24 – 0.32	4	4	2/2020	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate[2] (ppm)	N	2.1	ND – 2.1	10	10	2/2020	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	N	30	21 – 30	N/A	N/A	2/2020	Erosion of natural deposits

Volatile Organic Chemicals (VOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
1,2-Dichloropropane (ppb)	N	1.1	ND-1.1	5	0	02/2020	Discharge from industrial chemical factories
Xylenes (ppm)	N	0.54	ND-0.54	10	10	02/2020	Discharge from petroleum or chemical factories

The table above includes water quality data for the Town of Prescott Valley for those periods during the year where water was purchased from that public water system. To see the full Town of Prescott Valley CCR, please visit their website at:
https://www.pvaz.net/DocumentCenter/View/3302/Water-Quality-Report-PDF?bidId=

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Meets/ Exceeds Regulations

Terms to know

DEFINITIONS

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

ALG (Action Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk of health. ALGs allow for a margin of safety.

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.

Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

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.

MFL: Million fibers per liter (a measure of asbestos)

Mrem: Millirems per year (a measure of radiation absorbed by the body)

NA: Not applicable.

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

NTU: Nephelometric turbidity units (a measure of turbidity)

pCi/L (picocuries per liter): A measure of radioactivity parts water (or milligrams per liter).

ppm (parts per million): One part substance per million

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

ppq: Parts per quadrilliion, or picograms per liter (pg/L)

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.

Uregulated 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.

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