



Liberty Utilities®

Annual Water Quality Report

Presented by: Liberty Utilities (Southern Sunrise) Corp.

PWS ID#: 04-02011 Cochise/Horseshoe System

PWS ID#: 04-02023 Miracle Valley Water System

Water testing performed in 2014

Maintaining Our High Water Standards

We are once again proud to present our annual water quality report and pleased to report that our community's drinking water continues to meet quality standards!

You may wonder, if we are meeting standards, why we are sending this report. We do so to comply with the United States Environmental Protection Agency (EPA) and the Arizona Department of Environmental Quality (ADEQ). It also allows us to communicate with you about water quality and analytical data as well as introduce you to beneficial programs that will help to maintain and improve service we provide you.

The listed results cover sampling from January 1st to December 31st, 2014. You may notice that not all contaminants from 2014 are listed or that others that were not there in 2013 are now listed. This is because some contaminants are not required to be tested annually. All water provided by our utility must meet the water quality standards established by the EPA.

Where Does My Water Come From

Liberty Utilities (Southern Sunrise Water) Corp. is made up of two different systems; the Cochise/ Horseshoe System and Miracle Valley Water System. The Cochise/Horseshoe System serves a population of approximately 1,950 and obtains water from four wells, while the Miracle Valley Water System serves a population of approximately 840 and obtains water from two wells.

All of these 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 600 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. Drinking water contains many naturally occurring minerals, and may also contain human caused contaminants. This is why the water is tested on a regular basis.

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 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 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/safewater/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.

Questions? For more information about this report, or any questions about drinking water, please call Liberty Utilities, at (520) 458-5470.

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

Testing Results



During the past year, Liberty Utilities (Southern Sunrise Water) Corp., has taken 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 are 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.

Table 1— Cochise/Horseshoe System (PWS# 04-02011)

INORGANIC CHEMICALS						
Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Test Results	Violation	Date Sampled	Typical Sources
Barium	2 ppm	2 ppm	0.032 — 0.038 ppm	No	2013	Erosion of natural deposits, discharge from metal refineries and drilling wastes
Fluoride	4 ppm	4 ppm	0.18 — 0.18 ppm	No	2013	Erosion of natural deposit discharge from metal refineries; discharge from mines
Nitrate	10 ppm	10 ppm	0.88 — 1.4 ppm	No	2014	Erosion of natural deposits, runoff from fertilizer use-leaching from septic tanks, sewage

COPPER AND LEAD—Tested at customer's taps every 3 years. Testing date 2013.

Contaminant	EPA's Action Level (AL)	Ideal Goal (EPA's MCLG)	Lowest to Highest results found	90% of all samples	Samples Exceeding AL	Violation	Typical Sources
Lead	90% of homes less than 0.015 ppm*	0.015 ppm	ND — 0.0023 ppm	0.002 ppm	0	No	Corrosion of household plumbing systems; erosion of natural deposits
Copper	90% of homes less than 1.3 ppm*	1.3 ppm	0.0084 — 0.085 ppm	0.08 ppm	0	No	Corrosion of household plumbing systems; erosion of natural deposits

RADIOACTIVE CONTAMINANTS

Contaminant	Highest Level Allowed	Ideal Goal (EPA's)	Range of Test Results	Violation	Date Sampled	Typical Sources
Gross Alpha	15 pCi/L	0 pCi/L	4.1+/-0.9 — 5.7+/-1.1 pCi/L	No	2010	Erosion from natural deposits

UNREGULATED CONTAMINANTS

Contaminant	Highest Level Allowed	Ideal Goal (EPA's)	Range of Test Results	Violation	Date Sampled	Typical Sources
Sodium	NA ppm	NA ppm	9.4 — 38 ppm	No	2013	Erosion from natural deposits, leaching

MICROBIOLOGICAL—Samples tested twice a month in 2014.

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Levels Detected	Absent (A) Present (P)	Violation	Date Sampled	Typical Sources
Total Coliform Bacteria	0	*	ND — 0	A	No	2014	Naturally present in the environment
Fecal coliform & E. Coli	0	**	ND — 0	A	No	2014	Human and animal fecal waste

*Presence of coliform bacteria in 5% of monthly samples: 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.

The following miss monitoring was received by PWS# 04-02011 in calendar year 2014:

A missed monitoring for Total Coliform occurred in April. Replacement sample was taken in May with no detects.

Table 2 — Miracle Valley (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 ppm	0 ppm	0.0018 — 0.0018 ppm	No	2014	Erosion of natural deposits, runoff from orchards and glass and electronic production waste.
Barium	2 ppm	2 ppm	0.25 — 0.25 ppm	No	2014	Erosion of natural deposits, discharge from metal refineries and drilling wastes
Chromium	100 ppm	100 ppm	0.0018 — 0.0018 ppm	No	2013	Erosion of natural deposits, Discharge from steel and pulp mills
Fluoride	4 ppm	4 ppm	0.19 — 0.19 ppm	No	2013	Erosion of natural deposit discharge from metal refineries; discharge from mines
Nitrate	10 ppm	10 ppm	0.39 — 0.41 ppm	No	2014	Erosion of natural deposits, runoff from fertilizer use-leaching from septic tanks, sewage

COPPER AND LEAD

Contaminant	EPA's Action Level (AL)	Ideal Goal (EPA's MCLG)	Lowest to Highest results found	90% of all samples	Samples Exceeding AL	Violation	Date Sampled	Typical Sources
Lead	90% of homes less than 0.015 ppm	0.015 ppm	ND — 0.52 ppm	0.0016 ppm	0	No	2013	Corrosion of household plumbing systems: erosion of natural deposits
Copper	90% of homes less than 1.3 ppm	1.3 ppm	0.0057 — 0.24 ppm	0.1 ppm	0	No	2010	Corrosion of household plumbing systems: erosion of

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	3.6+/-0.9 — 3.6+/-0.9 pCi/L	No	2013	Erosion from natural deposits

DISINFECTANTS AND DISINFECTION BYPRODUCTS

Contaminant	Highest Level Allowed	Ideal Goal (EPA's)	Range of Test Results	Annual Average	Violation	Date Sampled	Typical Sources
Total Trihalomethanes (TTHM)	0.08 ppm	0 ppm	00024 — 0.0024 ppm	0.00053 ppm	No	2014	Byproduct of drinking water chlorination

UNREGULATED CONTAMINANTS

Contaminant	Highest Level Allowed	Ideal Goal (EPA's)	Range of Test Results	Violation	Date Sampled	Typical Sources
Sodium	NA ppm	NA ppm	23 — 23 ppm	No	2013	Erosion from natural deposits, leaching

MICROBIOLOGICAL—Samples tested twice a month in 2014.

Contaminant	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Range of Levels Detected	Absent (A) Present (P)	Violation	Date Sampled	Typical Sources
Total Coliform Bacteria	0	*	ND — 0	A	No	2014	Naturally present in the environment
Fecal coliform & E. Coli	0	**	ND — 0	A	No	2014	Human and animal fecal

*Presence of coliform bacteria in 5% of monthly samples: 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.

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.

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).

Health effects of listed 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.

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 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 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.

Unregulated Contaminants (Sodium): 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 contaminants in drinking water and whether future regulation is warranted.

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

Fecal Coliforms and E. Coli: Bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Disease-causing microbes (pathogens) in these wastes can cause diarrhea, cramps, nausea, headaches, or other symptoms. These pathogens may pose a special health risk for infants, young children, and people with severely compromised immune systems.

Have you heard of our programs?



⇒ **Low Income Rate Program** : 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 (520) 458-5470 or visit us online at www.libertyutilities.com.

⇒ **High School Scholarship Program:** Liberty Utilities is proud to help our public school graduating seniors with a \$500 scholarship to the university or trade school of their choice. To participate in this program, contact your school's guidance counselor.

⇒ **Free Landscape Audits:** Call our office for a free landscape audit. 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 clutter 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 your bank statement.