

WATER QUALITY REPORT
2007
WASHOE VALLEY

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Constituent	Units	MCL	MCLG	Lightning W Well #1	Lightning W Well #2	Old Washoe Estates Well #1 (Back-up)	Old Washoe Estates Well #3	Sunrise Estates Well #1	Sunrise Estates Well #2 (Back-up)	Sunrise Estates Well #3 (Back-up)
Primary Standards										
Arsenic	µg/L	10	0	N.D.	N.D.	5	3	N.D.	14	N.D.
Asbestos	mfl	7	7				Not Detected In Distribution System			
Barium	mg/L	2	2	0.10	0.008	0.15	0.03	0.07	0.06	0.03
Chromium	µg/L	100	100	N.D.	N.D.	N.D.	N.D.	N.D.	8	5
Fluoride	mg/L	4	4	N.D.	N.D.	1.6	0.3	0.3	0.3	N.D.
Nickel	µg/L	100	100	N.D.	N.D.	N.D.	N.D.	7	N.D.	N.D.
Nitrate (as N)	mg/L	10	10	0.3	<0.05	<0.05	0.54	1.2	2.2	6.2
Nitrite (as N)	mg/L	1	1	<0.05	<0.05	<0.05	N.D.	N.D.	N.D.	N.D.
Total N (Nitrate + Nitrite)	mg/L	10	10	<0.35	<0.1	<0.1	0.54	1.2	2.2	0.23
Selenium	µg/L	50	50	N.D.	N.D.	N.D.	N.D.	2	1	N.D.
Haloacetic Acids	µg/L	60	0	N.D.						
Total Trihalomethanes	µg/L	80	0	N.D. - 2.8						
Secondary Standards										
Chloride	mg/L	400	250	7.6	72	48	2	3.5	4.8	8.9
Color	CU	15	15	N.D.	N.D.	10	N.D.	N.D.	N.D.	N.D.
Copper	mg/L	1	1	0.001	0.007	N.D.	0.001	0.011	0.012	N.D.
Fluoride	mg/L	2	2	N.D.	N.D.	1.6	0.3	0.3	0.3	N.D.
Iron	mg/L	0.6	0.3	N.D.	N.D.	3.1	N.D.	0.3	0.1	0.3
Magnesium	mg/L	150	125	7.4	5.8	12	11	13	9.6	7.3
Manganese	mg/L	0.1	0.05	N.D.	0.001	0.28	N.D.	N.D.	N.D.	0.013
pH		6.5 to 8.5	6.5 to 8.5	8.1	8.2	7.8	7.7	7.6	7.5	7.9
Sulfate	mg/L	500	250	2.1	N.D.	3.5	3	19	7	3.5
Zinc	mg/L	5	5	N.D.	0.03	0.012	0.013	0.01	0.03	0.15
Total Dissolved Solids	mg/L	1000	500	142	130	300	174	249	241	290
Additional Constituents										
Carbon disulfide	mg/L	No MCL		-	-	0.01	N.D.	-	N.D.	N.D.
Calcium	mg/L	No MCL		18	21	30	19	27	25	16
Hardness	mg/L	No MCL		76	64	124	93	121	102	70
Potassium	mg/L	No MCL		3	5.0	5	3	5.7	6	4
Silica	mg/L	No MCL		53	31	58	69	62	63	52
Sodium	mg/L	No MCL		12	12	63	22	19	19	7
Radiochemistry										
Gross Alpha	pCi/L	15	0	7	N.D.	N.D.	3	N.D.	4	N.D.
Gross Beta	pCi/L	50	0	1	7	7	10	9	10	6
Uranium	µg/L	30	0	16	N.D.	-	4	5	6	1
Radium 226 + Radium 228	pCi/L	5	0	1	1	-	-	-	-	-
Radon	pCi/L	No MCL		2300	725	820	590	510	1500	2200
Leachable Lead and Copper										
		Action Level			90th Percentile Concentrations					
Lead	µg/L	15		4.5		4		1		
Copper	mg/L	1.3*		1.78		0.27		0.67		

The following constituents were sampled in 2006 and not detected at any wells listed above: antimony, beryllium, cadmium, foaming agents (MBAS), mercury, nickel and thallium.

* The 90th Percentile Action Level for copper has been exceeded in the Lightning W Water System. The copper exceedance is described in the Copper Section of the report.

Sunrise Estates

Sunrise Estates
Well #3
(Back-Up)

Sunrise Estates
Well #2
(Back-Up)

Sunrise Estates
Well #1

Old Washoe
Well #1
(Back-Up)

Old Washoe
Well #3

Old Washoe



Washoe
Lake

Lightning W

Lightning W
Well #2

Lightning W
Well #1



FRANKTOWN RD

SR 429

S US 395

US 395

EASTLAKE BLVD

WHY WE TEST THE WATER

The Washoe County Department of Water Resources (DWR) is known as “the water place” because it is a leader in providing integrated water resources. These services are critical to the region’s quality of life. They include utility services (water, sewer, and reclaimed water) and water resource planning services (flood management, remediation of contaminated groundwater and development of water resource plans).

The DWR is committed to be the leader in the provision of integrated water resource services to our community. Our mission is to provide quality product and service to our community through teamwork, accountability and professionalism.

Regular testing of the water resources is one way we fulfill that mission. This report summarizes water quality data for the period January 1, 2006 to December 31, 2006.

HOW TO READ THE WATER QUALITY CHART

The far left column, titled Constituents, lists the naturally occurring and man-made inorganic contaminants that are monitored by DWR, according to U.S. Environmental Protection Agency (EPA) standards. The Primary Standards are monitored to ensure the water is safe to drink, and the Secondary Standards are monitored to ensure the water is aesthetically pleasing.

The third column, titled Maximum Contaminant Level (MCL), is the highest level of a contaminant allowed in drinking water defined by the EPA. The fourth column, titled Maximum Contaminant Level Goal (MCLG), is the level of a contaminant in the drinking water in which there is no known or expected risk to health defined by the EPA.

The remaining columns show what contaminant level, if any, was contained in the water sources. In most cases, the water served to customers is a blend of the sources listed. The map shows the sources that supply water to the system.

THINGS TO KNOW ABOUT YOUR WATER

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA’s Safe Drinking Water Hotline (800-426-4791).

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 and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, may come from a variety of sources such as storm water run-off, agriculture, and residential users.

Radioactive contaminants, which can be naturally occurring or the result of mining activity.

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulation which limits the amount of certain contaminants in water provided by public water systems. We treat our water according to EPA’s regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 can be particularly at risk for infections. These people should seek advice about drinking water from a health care provider. EPA/Center for Disease Control guidelines on the appropriate means to lessen the risk of infection by Cryptosporidium are available from the Environmental Protection Agency’s Safe Drinking Water Hotline (800-426-4791).

SOURCE WATER ASSESSMENT

The Safe Drinking Water Act (SDWA) requires states to develop a Source Water Assessment (SWA) for each public water supply that treats and distributes raw source water in order to identify potential contamination sources. DWR has completed an assessment of our source water. For results of the source water assessment, please contact DWR at 775-954-4730.

WATER TREATMENT

To ensure the water quality meets the EPA uranium standard, a uranium removal system has been installed at Lightning W Well #2. Treated Lightning W water currently meets EPA standards for uranium. For more information regarding Lightning W uranium treatment, contact DWR.

GROSS BETA

Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increased risk of cancer.

URANIUM

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

LEAD AND COPPER

DWR has completed monitoring in compliance with the Lead and Copper Rule (LC Rule). According to the LC Rule, the 90th percentile lead and copper concentrations are not to exceed Action Levels of 15 µg/L for lead and 1.3 mg/L for copper. Please refer to the table for the most recent lead and copper results. If you would like more information regarding the LC Rule or would like to participate in future sampling please contact our office, (775) 954-4600.

The Lightning W Water System exceeded the Action Level for copper during the sampling done in 2006. 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 may experience gastrointestinal distress. Some people who drink water containing copper in excess of the Action Level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

DWR has increased lead and copper sampling to 6-month intervals in 2007 and will take corrective actions deemed necessary to control the corrosion of copper in the water system should the increased copper levels continue.

UNREGULATED CONTAMINANTS

Old Washoe Water System has been monitoring for unregulated contaminants (UCs) as part of a study to help the EPA determine the occurrence in drinking water of UCs and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) have been established for UCs. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

DEFINITIONS

In this report you may find terms or abbreviations that may not be familiar. To help you better understand these terms we have provided the following definitions:

Action Level	the concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.
Color Units (CU)	is the standard unit of measure for water color.
Maximum Contaminant Level (MCL)	is the highest level of a contaminant allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG)	is the level of a contaminant in drinking water in which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Micrograms per liter (µg/L)	one microgram per liter corresponds to one penny in \$10,000,000 (same as parts per billion or ppb).
Milligrams per liter (mg/L)	one milligram per liter corresponds to one penny in \$10,000 (same as parts per million or ppm).
Million fibers per liter (mfl)	one million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
Millirems per Year (mrem/yr)	measure of radiation absorbed by the body.
Non-Detects (N.D.)	laboratory analysis indicates that the constituent is not present.
Parts per Million (ppm)	or milligrams per liter (mg/l)
Parts per Billion (ppb)	or micrograms per liter (µg/l)
pH	is a measure of acidity. A pH value of less than 7 is acidic, values greater than 7 are alkaline.
Picocuries per liter (pCi/L)	is a measure of water radioactivity.

The symbol "<" means less than.

The symbol "-" means no samples were taken in 2006.

CONTACT INFORMATION

If you have any questions regarding water quality or the material in this report, please contact the Washoe County Department of Water Resources at:

4930 Energy Way · Reno, NV 89502 · (775) 954-4600

www.washoecounty.us/water