

July 18, 16

2015 Consumer Confidence Report

Water System Name: HAVASU WATER COMPANY Report Date: June 26, 2016

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2014.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source: Surface water

Name & location of source: Lake Havasu

Drinking Water Source Assessment Information: A brief summary is at the end of this report

Time and place of regularly scheduled board meetings for public participation: Time and place on notification.

For more information contact: Teddye Goodgame Phone: (760)858-4619

TERMS USED IN THIS REPORT:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

pCi/L: picocuries per liter (a measure of radiation)

PARTS PER MILLION

3 drops in 42 gallons ~ 1 second in 12 days

1 penny in \$10,000 ~ 1 inch in 16 miles

PARTS PER BILLION

1 drop in 14,000 gallons ~ 1 second in 32 years

1 penny in \$10 million ~ 1 inch in 16,000 miles

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 include:

- *Microbial contaminants*, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides* that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants* that can be naturally-occurring or be the result of oil and gas production and mining activities.

Tables 1, 2, 3, 4, and 5 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA <u>TREATED WATER</u>						
Microbiological Contaminants (to be completed only if there was a detection of bacteria)	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria	
Total Coliform Bacteria <u>None</u>	(In a mo.) <u>0</u>	<u>0</u>	More than 1 sample in a month with a detection	0	Naturally present in the environment	
Fecal Coliform or <i>E. coli</i> <u>None</u>	(In the year) <u>0</u>	<u>0</u>	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste	

TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER <u>TREATED WATER</u>						
Lead and Copper (to be completed only if there was a detection of lead or copper in the last sample set)	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb) 9/19/2014	5	ND	None	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 9/19/2014	5	0.04	None	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS <u>RAW WATER</u>						
Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	3/06/2015	95	--	none	none	Salt present in the water and is generally naturally occurring.
Hardness (ppm)	3/06/2015	290	--	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring.

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD RAW WATER

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
ARSENIC ppb	3/06/2015	2.2		10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
FLUORIDE ppm	3/06/2015	0.33		2.0	1.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
BARIUM ppm	3/06/2015	0.13		1.0	2.0	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD RAW WATER

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
CHLORIDE ppm	3/06/2015	92		500		Runoff/leaching from natural deposits; seawater influence.
SULFATE ppm	3/06/2015	250		500		Runoff/leaching from natural deposits; industrial wastes.
TOTAL DISSOLVED SOLIDS (TDS) ppm	3/06/2015	640		1000		Runoff/leaching from natural deposits.
ALUMINUM (AL)	3/06/2015	63		200		Erosion of natural deposits; residual from some surface water treatment processes

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS – RAW WATER

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Notification Level	Health Effects Language
BORON ppm	3/06/2015	0.18	1.0	Babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

*Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

DISINFECTANT & DISINFECTION BYPRODUCTS 2015

Chemical or Constituent (and reporting units)	Sample Date	Running annual average	Range of Detections	MCL [MRDL]	PHG (MCLG)	Violation Yes or No	Typical Source of Contaminant
Chlorine ppm	Monthly by SBC Lab	1.0	0.2– 1.3	MRDL 4.0	MRDLG 4.0	NO	Drinking water disinfectant added for treatment.
*TTHMs ppb Site 1 Site 2	Once every quarter	83.0 80.0	32.0–170.0 29.0– 142.0	80.0 80.0	N/A	YES	By-product of drinking water chlorination.
HAA5 ppb Site 1 Site 2	Once every quarter	33.0 34.0	12.0–70.0 13.0– 71.0	60.0 60.0	N/A	NO	By product of drinking water disinfection.

More on TTHM at end of report

For Systems Providing Surface Water as a Source Of Drinking Water:

TABLE 7 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
<i>Treatment Technique</i> ^(a) (Type of approved filtration technology used)	DIRECT FILTRATION
Turbidity Performance Standards ^(b) (that must be met through the water treatment process)	<u>Turbidity of the filtered water must:</u> 1 – Be less than or equal to 0.2 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU for more than eight consecutive hours. 3 – Not exceed 5.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.187
Number of violations of any surface water treatment requirements	0

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

* Any violation of a TT is marked with an asterisk. Additional information regarding the violation is provided earlier in this report.

SUMMARY OF DRINKING WATER SOURCE ASSESSMENT

A source water assessment was conducted for Lake Havasu - Raw of the Havasu Water Company in May 2002 and revised in June 2015 is summarized in the table below.

Most Vulnerable Activities (PCA)	Chemicals Detected	Most Vulnerable Activities (PCA)	Chemicals Detected
Airports - Maintenance/fueling	None	Mining operations - Active	None
Automobile - Gas stations	None	Mining operations - Historic	None
Historic gas station	None	Septic systems - high density	None
Historic waste dumps/landfills	None	Underground storage tanks - Confirmed leaking tanks	None
Landfills/dumps	None	Wastewater treatment plants and disposal facilities	None

A copy of the complete assessment may be viewed at the Havasu Water Company office or at the CDPH San Bernardino District Office, 464 West 4th Street, Suite 437, San Bernardino, CA 92401.

You may request a summary of the assessment be sent to you by contacting the CDPH District Engineer at (909) 383-4328.

TTHM VIOTATION (TRIHALOMETHANES)



Our water system violated a drinking water standard. Although this was not an emergency, as our customers, you have a right to know what you should do, what happened, and what we are doing to correct this situation.

The TTHMs have not been over the MCL (maximum contaminate level) since 2009, so the violation was lifted in 2011. In the third quarter of 2015 they were over the MCL. TTHMs are calculated on a running annual average. Even though the test results have been below the MCL since the third quarter in 2015, the running annual average was still over the MCL until the second quarter in 2016.

WHAT ARE THEY?

TTHMs are a byproduct of organics combined with chlorine. The longer the two are together in the water, the more TTHMs are formed.

WHY DO WE HAVE THEM?

Good question. There maybe more than one reason they returned. But most of the reasons come from water sitting in the 105,000 gallon tank and in the distribution mains too long. There are 207 active meters at this time. But only about 53 of these are full time residence.

WHAT IS BEING DONE?

After the first violation HWC changed from pre-chlorination to pre and post- chlorination. This puts less chlorine in front of the filters to combine with the organics. We started monthly hydrant purging and backwashing the filters more often. The TTHMs dropped below the MCL.

Because of the drought HWC was ordered to cut water use by 25%. Water companies that don't cut back are heavily fined. Notices were sent out. That didn't help. Hydrant flushing and backwashing were cut back some. Summers are when the most organics are present.

Hydrant flushing and backwashing have been increased. The media in the filters has been replaced with new media.

There are different ways to help prevent TTHMs on more permanent bases. Mostly they are expensive. HWC is working on finding one that will work for us and be affordable as possible.

For more information please contact Teddye Goodgame at 760-858-4619 or write to:
P.O. Box 1690, Havasu Lake, CA 92363



A filtered water effluent turn-out valve is part of the filtration system. Turbidimeters monitor the filter system effluent water. Results of monitoring will govern the polymer feed system and filter effluent turn-out valve. Should total system effluent water quality exceed a turbidity set point, all filter effluent water will be diverted to waste until water quality warrants the treated water to go into the 105,000 gallon storage tank. Booster pumps and a hydropneumatic tank supply the distribution system with the treated water.

The Clinical Laboratory of San Bernardino tests the water quality monthly. They also test the raw water to determine if there should be a change in the treatment process.

Havasu Water Company does a free chlorine residual test twice a day at the treatment plant effluent. Free chlorine residual tests are also made at a point in the distribution system furthest from the plant. Free chlorine residual means there still is "Available Chlorine Residual" in the water to kill or inactivate the microorganisms that may become present in the water. It has not combined with other compounds.



ADDITIONAL INFORMATION

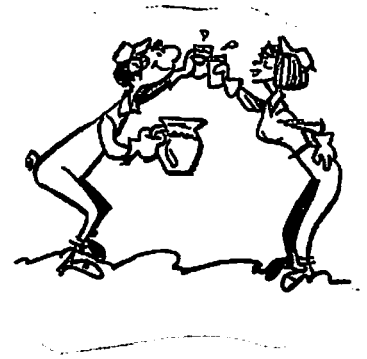
Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Sepia's Safe Drinking Water Hotline (1-800-426-4791).

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 from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline. (1-800-426-4791)

Lead-Specific Language for Community Water Systems: 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 and components associated with service lines and home plumbing. Havasu Water Company is 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 <http://www.epa.gov/safewater/lead>.

Havasu Water Company

Annual Drinking Water Quality Report For 2015



This annual Consumer Confidence Report provides a summary of last year's water quality and has been prepared to inform the customers of Havasu Water Company about their drinking water.

In order to ensure that tap water is safe to drink, the US-EPA and the state Department of Public Health prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

Where the water comes from:

Havasu Water Company uses surface water from Havasu Lake on the Colorado River. Because of the subsurface hydrology of the Colorado River, wells located within the flood plain of the Colorado River are considered to be replaced by water from the Colorado River. Nevada, Arizona and California depend on the Colorado River for source water.

The water for Havasu Water Company is drawn from a depth where algal growths are not prevalent. A large lake or reservoir also dilutes any contamination that may have been discharged into it.

How your water is being treated:

The water is pumped to the treatment plant where the water is processed through a series of five pressure filter tanks. The filter tanks are manufactured by the EPD (Environmental Products Division). The media in these tanks is garnet. HWC uses an EPD two stage filter system. The water runs through the system in series. The first stage (3 tanks) is a roughing filter and the second stage (2 tanks) being a polishing stage. These five filters are kept clean by backwashing with treated water.

Chlorine and a coagulant are added to the raw water in front of the 1st stage filters. The coagulant is also added in front of the 2nd stage filters. The coagulant causes very fine particles to clump together into larger particles. This makes it easier to separate the solids from the water at filtration. HWC pre-chlorinates. This means the chlorine goes into the water before the five filters instead of after the filters. Pre-chlorination is routinely practiced to assist coagulation, keep the vessels sanitary, for disinfection and to prevent clams from entering into the filters.

Over →

ATTACHMENT 7

Consumer Confidence Report Certification Form

(to be submitted with a copy of the CCR)

(to certify electronic delivery of the CCR, use the certification form on the State Board's website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/CCR.shtml)

Water System Name: Havasu Water Company

Water System Number: 3610017

The water system named above hereby certifies that its Consumer Confidence Report was distributed on 6/29/2016 (date) to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the State Water Resources Control Board, Division of Drinking Water.

Certified by: Name: Teddye L. Goodgame
Signature: Teddye L. Goodgame
Title: Office Mgr.
Phone Number: (760) 858-4619 Date: 6/29/2016

To summarize report delivery used and good-faith efforts taken, please complete the below by checking all items that apply and fill-in where appropriate:

- CCR was distributed by mail or other direct delivery methods. Specify other direct delivery methods used: _____
- "Good faith" efforts were used to reach non-bill paying consumers. Those efforts included the following methods:
- Posting the CCR on the Internet at www. _____
 - Mailing the CCR to postal patrons within the service area (attach zip codes used) 92363
 - Advertising the availability of the CCR in news media (attach copy of press release)
 - Publication of the CCR in a local newspaper of general circulation (attach a copy of the published notice, including name of newspaper and date published)
 - Posted the CCR in public places (attach a list of locations) Post Office
 - Delivery of multiple copies of CCR to single-billed addresses serving several persons, such as apartments, businesses, and schools
 - Delivery to community organizations (attach a list of organizations)
 - Other (attach a list of other methods used)
- For systems serving at least 100,000 persons: Posted CCR on a publicly-accessible internet site at the following address: www. _____
- For privately-owned utilities: Delivered the CCR to the California Public Utilities Commission

This form is provided as a convenience and may be used to meet the certification requirement of section 64483(c), California Code of Regulations.