

IMPORTANT DEFINITIONS FOR UNDERSTANDING THIS REPORT

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 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 USEPA.

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 or technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Residual Disinfectant Level (MRDL)

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.

Primary Drinking Water Standard (PDWS)

MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Regulatory Action Level

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Treatment Technique (TT)

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

WHAT DOES THIS TABLE MEAN?

Contaminants listed in the following tables were detected in 2013 drinking water samples. The tables contain the name of each substance, the highest level allowed by regulation (MCL), if applicable, the ideal goal for public health (PHG), if applicable, the amount detected, typical sources of the contamination, a key to the units of measurements, and notes to explain the findings. Contaminants below detection limits are not shown, in accord with CDPH guidance. The CDPH allows monitoring for some contaminants less than once per year because their concentrations don't change frequently or because the State has issued a monitoring waiver for certain contaminants that were absent in the water based on many years of monitoring.

CITY OF BRISBANE AND GVMID WATER QUALITY DATA FOR 2013⁽¹⁾

DETECTED CONTAMINANTS

TURBIDITY

Contaminant	Unit	MCL	PHG or (MCLG)	Range or Level Found	Average or (Max)	Typical Sources in Drinking Water
Unfiltered Hetch Hetchy Water	NTU	5	N/A	0.2 - 0.3 ⁽²⁾	(3.6) ⁽³⁾	Soil run-off
Filtered Water – from Sunol Valley WTP	NTU	1 ⁽⁴⁾	N/A		(0.98)	Soil run-off
min. 95% of samples ≤ 0.3 NTU ⁽⁴⁾	%	TT	N/A	99.9%	-	Soil run-off
Filtered Water – from Harry Tracy WTP	NTU	1 ⁽⁴⁾	N/A		(0.26)	Soil run-off
min. 95% of samples ≤ 0.3 NTU ⁽⁴⁾	%	TT	N/A	100%	-	Soil run-off

DISINFECTION BYPRODUCTS AND PRECURSORS (City of Brisbane and GVMID Distribution System)

Total Organic Carbon (TOC) ⁽⁶⁾	ppm	TT	N/A	1.0-3.4	2.2	Various natural and man-made sources
Total Trihalomethanes (City of Brisbane)	ppb	80	N/A	17.1 - 35.7	(35.6) ⁽⁵⁾	By-product of drinking water chlorination
Total Trihalomethanes (GVMID)	ppb	80	N/A	13.4 - 39.9	(40.5) ⁽⁵⁾	By-product of drinking water chlorination
Total Haloacetic Acids (City of Brisbane)	ppb	60	N/A	41.8 - 82.3	(63.0) ⁽⁵⁾	By-product of drinking water chlorination
Total Haloacetic Acids (GVMID)	ppb	60	N/A	37.4 - 82.3	(49.7) ⁽⁵⁾	By-product of drinking water chlorination

MICROBIOLOGICAL (City of Brisbane and GVMID Distribution System)

Total Coliform ⁽⁷⁾ highest % of positives detected in any one month	%	NoP ≤ 5	(0)	0	(0)	Naturally present in the environment
Giardia lamblia	cyst/L	TT	(0)	<0.01-0.04	<0.01	Naturally present in the environment

INORGANIC CHEMICALS

Fluoride (source water) ⁽⁸⁾	ppm	2.0	1.0	ND - 0.8	0.4 ⁽⁹⁾	Erosion of natural deposits
Chloramine (as total chlorine) (City of Brisbane)	ppm	MRDL=4	MRDLG=4	1.47 - 2.28	1.96 ⁽¹⁰⁾	Disinfectant added by SFPUC for treatment
Chloramine (as total chlorine) (GVMID)	ppm	MRDL=4	MRDLG=4	1.71 - 2.27	2.10 ⁽¹⁰⁾	Disinfectant added by SFPUC for treatment

RADIONUCLIDES

Radium - 226	pCi/L	N/A	0.05	ND - 1.2	<1	Erosion of natural deposits
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CONSTITUENTS WITH SECONDARY STANDARDS

Contaminant	Unit	SMCL	PHG	Range	Average	Typical Sources in Drinking Water
Aluminum ⁽¹¹⁾	ppb	200	600	ND - 52	ND	Erosion of natural deposits
Chloride	ppm	500	N/A	< 3 - 18	10.2	Runoff / leaching from natural deposits
Color	unit	15	N/A	<5 - 6	<5	Naturally-occurring organic materials
Specific Conductance	µS/cm	1600	N/A	29 - 258	169	Substances that form ions when in water
Sulfate	ppm	500	N/A	0.8 - 33	16.6	Runoff / leaching from natural deposits
Total Dissolved Solids	ppm	1000	N/A	<20 - 109	71	Runoff / leaching from natural deposits
Turbidity	NTU	5	N/A	0.01 - 0.3	0.1	Soil runoff

LEAD AND COPPER⁽¹²⁾

Contaminant	Unit	AL	PHG	Range	90th Percentile	Typical Sources in Drinking Water
Copper (Brisbane) - August 2010	ppb	1300	300	0 - 18.8	4.47	Corrosion of household plumbing systems
Copper (GVMID) - August 2010	ppb	1300	300	2.7 - 7.2	7.22	Corrosion of household plumbing systems
Lead (Brisbane) - August 2010	ppb	15	2	0 - 2.5	0.33	Corrosion of household plumbing systems
Lead (GVMID) - August 2010	ppb	15	2	0 - 0.12	0.12	Corrosion of household plumbing systems

Key:

</=	= less than/less than or equal to	AL	= Action Level
ppb	= parts per billion	NL	= Notification Level
ppm	= parts per million	N/A	= Not Available
NTU	= Nephelometric Turbidity Unit	ORL	= Other Regulatory Level
µS/cm	= microSiemens/centimeter	Max	= Maximum
cyst/L	= # cysts/liter	Min	= Minimum
NoP	= # of Coliform-Positive Samples	ND	= Non-detect
pCi/L	= picocuries per liter		

OTHER WATER QUALITY PARAMETERS

Contaminant	Unit	ORL	Range	Average
Alkalinity (as CaCO ₃)	ppm	N/A	10 - 111	61.0
Bromide ⁽¹³⁾	ppb	N/A	<10 - 24	<10
Calcium (as Ca)	ppm	N/A	3 - 28	15.0
Chlorate ⁽¹⁴⁾	ppb	(800)NL	63 - 399	221.0
Hardness (as CaCO ₃)	ppm	N/A	8 - 114	62.0
Magnesium	ppm	N/A	0.2 - 10.8	6.1
pH	-	N/A	6.7 - 9.7	8.5
Silica	ppm	N/A	3.2 - 5.3	4.1
Sodium	ppm	N/A	3 - 20	13.5

NOTES:

- All results met State and Federal drinking water health standards excluding the 4th quarter Disinfection Byproducts MCL exceedance.
- Turbidity is measured every four hours. These are monthly average turbidity values.
- The highest turbidity of the unfiltered water in 2013 was 3.6 NTU.
- There is no turbidity MCL for filtered water. The limits are based on the TT requirements for filtered systems.
- This is the highest locational running annual average value.
- Total organic carbon is a precursor for disinfection byproduct formation. The TT requirement applies to the filtered water from the SVWTP only.
- In 2013, 0 out of 49 samples collected in the City of Brisbane and 0 out of 25 samples collected in GVMID were total coliform-positive.
- The SFPUC adds fluoride to an optimum level of 0.9ppm to help prevent dental caries in consumers. The CDPH specifies the fluoride levels in the treated water to be maintained within a range of 0.8 - 1.5 ppm. In 2013, the range and average of the fluoride levels were 0.7 ppm - 1.4 ppm and 0.0 ppm, respectively.
- The natural fluoride levels in the Hetch Hetchy was ND. Elevated fluoride levels in the SVWTP and HTWTP raw water are attributed to the transfer of fluoridated Hetch Hetchy water into the reservoirs.
- This is the highest quarterly running annual average value.
- Aluminum also has a primary MCL of 1000 ppb.
- The most recent Lead and Copper Rule monitoring was in 2013. Zero out of 15 customers in the City of Brisbane and GVMID were over the lead Action Level at the consumer taps in 2013. The City of Brisbane and GVMID are on a reduced frequency triennial monitoring program and samples will again be collected in 2016.
- Bromide was monitored at HTWTP treated water in 2013.
- The detected chlorate in treated water is a degradation byproduct of sodium hypochlorite used by the SFPUC for water disinfection.



FEDERALLY REQUIRED GENERAL INFORMATION ABOUT DRINKING WATER

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. 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. In order to ensure that tap water is safe to drink, the USEPA and the CDPH prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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 storm water 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 storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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.

More information about contaminants and potential health effects may be obtained by calling the USEPA Safe Drinking Water Hotline at (800)426-4791 or visiting www.epa.gov/safewater.

Special health needs

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as individuals 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 USEPA Safe Drinking Water Hotline (800) 426-4791.

Reducing Lead from Plumbing Fixtures

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Brisbane is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. 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.