PRIMARY STANDARDS: MANDATORY HEALTH-RELATED STANDARDS

CONTAMINANT (units)	MCLG	MCL	GROUND WATER		UGUM WATER		FENA WATER		
			Range	RV	Range	RV	Range	RV	
Regulated VOCs									
Tetrachloroethylene (PCE) (ppb)	0	5	0 - 0.56	0.56	nd	nd	nd	nd	Leaching from PVC pipes, discharge from dry cleaners
Trichloroethylene (TCE) (ppb)	0	5	0 - 0.72	0.72	nd	nd	nd	nd	Discharge from metal degreasing sites
Regulated SOCs									
Chlordane (ppb)	0	2	0.05 - 0.45	0.45	nd	nd	nd - 0.5	0.5	Banned termiticide residue
Regulated IOCs									
Arsenic (ppb)1	0	10	nd - 1.1	1.1	nd - 2.2	2.2	nd	nd	Erosion of natural deposits
Barium (ppb)1	2000	2000	nd - 6.8	6.8	nd - 5.4	5.4	nd - 2.4	2.4	Erosion of natural deposits
Chromium (ppb)1	100	100	nd - 12.0	12	nd	nd	nd - 2.0	2.0	Erosion of natural deposits
Fluoride (ppm)1	4	4	nd - 0.2	0.02	0.06	0.06	nd - 2.3	2.30	Water additive; naturally occuring
Nitrate-N (ppm)	10	10	<0.2 - 5.0	5.00	<0.2	<0.2	0.23 - 2.1	2.1	Runoff from fertilizer use; leaching from sewage
Radionuclides[1]									
Radium 226 (pCi/l)	0	5	<1 - 2.2	2.2	<1.00	<1.00	<1 - 1.4	1.4	Erosion of natural deposits
Radium 228 (pCi/l)	0	5	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	Erosion of natural deposits
Gross Alpha Activity (pCi/l)	0	15	<3 - 9.03	9.03	<3.00	<3.00	<3 - 6.0	6.0	Erosion of natural deposits
Gross Beta Activity (pCi/l)	0	50*	<3 - 7.3	7.30	<3.00	<3.00	<3 - 5.6	5.6	Decay of natural and man-made deposits

* The MCL for beta particles is 4 mrem/year. However, EPA considers 50 pCi/l to be the level of concern for beta particles.

LEAD AND COPPER RULE

CONTAMINANT (units)	MCLG	MCL	NORTHERN		CENTRAL		WESTERN		Major Sources of Contaminant
			90th Percentile Level	Samples above AL	90th Percentile Level	Samples above AL	90th Percentile Level	Samples above AL	
Copper (ppb)[2]	1300	AL=1300	180	0	205	0	103.5	0	Corrosion of household plumbing;
Lead (ppb)2	0	AL=15	5.7	1 of 100	2.85	0	1.7	0	erosion of natural deposits

MICROBIAL CONTAMINANTS[2]

CONTAMINANT (units)	MCLG	MCL	NORTHERN		CENTRAL		WESTERN		Major Sources of Contaminant
			90th Percentile Level	Samples above AL	90th Percentile Level	Samples above AL	90th Percentile Level	Samples above AL	
Total Coliform (TC	0	5 %	No	1.1%	No	2.0%	No	0.0%	Naturally present in environment
Fecal coliform (FC) or E. coli	0	See Note 1	No	0	No	0	No	0	Human and animal fecal waste

Note 1: MCL = a routine sample and a repeat sample are TC positive, and one is also FC or E. coli positive

DISINFECTION BYPRODUCTS AND DISINFECTION RESIDUALS[2]

CONTAMINANT (units)	MCLG	MCL	NORTHERN		CENTRAL		WESTERN		Major Sources of Contaminant
			Violation	RV	Violation	RV	Violation	RV	
HAA5 (Five Haloacetic Acids) (ppb)2	n/a	60	No	16	No	38.8	No	32.8	By-product of drinking water chlorination
Total Trihalomethanes (ppb)[2]	n/a	80	No	19.5	Yes	90.5	No	53.8	By-product of drinking water chlorination
	MRDLG	MRDL							
Chlorine (ppm)[2]	4	4	1.1 - 1.3	1.2	1.0 - 1.2	1.1	0.7 - 1.4	1.0	Water additive to control microbes

TURBIDITY AS INDICATOR OF FILTRATION PERFORMANCE

CONTAMINANT (units)	MCLG	MCL	UGUM WATER		FENA WATER		Major Sources of Contaminant
			RV	Violation	RV	Violation	
Turbidity (ntu)	n/a	TT See Note 2	100.0%	No	100.0%	No	Soil runoff

Note 2: TT = 95 % of samples measured every 4 hours < 0.3 ntu

UNREGULATED CONTAMINANTS (MONITORING REQUIRED)**

CONTAMINANT (units)	MCLG	MCL	GROUND WATER		UGUM WATER		FENA WATER	
			Range	RV	Range	RV	Range	RV
Unregulated VOCs								
Bromodichloromethane (ppb)	ns	ns	nd - 8.2	8.2	nd - 12	12	0.8 - 12	12
Bromoform (ppb)	ns	ns	nd - 22	22	21 - 50	50	0.8 - 77	77
Chlorodibromomethane (ppb)	ns	ns	nd - 12	12.0	3.7 - 8.0	8	1.4 - 18	18
Chloroform (ppb)	ns	ns	nd - 5.6	5.6	17-Dec	17	1.0 - 31	31
Unregulated SOCs								
Dieldrin (ppb)	ns	ns	nd - 2.0	2	nd	nd	nd	nd
Unregulated IOCs								
Sulfate (ppm)1	ns	250	1.5 - 15	15	nd - 1.5	2	nd - 15	15

** Unregulated contaminant monitoring helps EPA to determine where certain contaminants occur and whether there is a need to regulate those contaminants.

UNREGULATED CONTAMINANTS (MONITORING REQUIRED)**

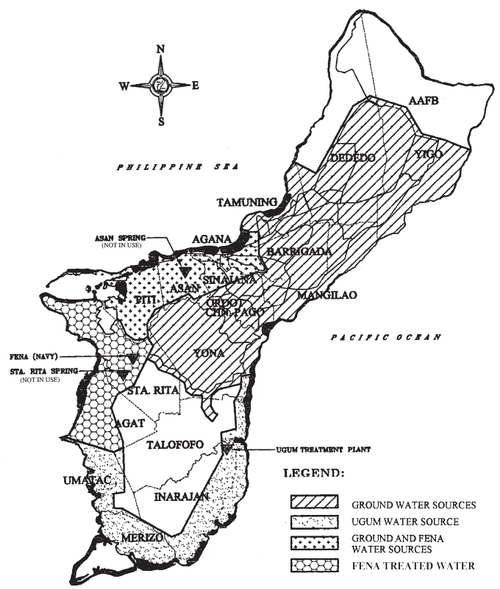
CONTAMINANT (units)	MCLG	MCL	GROUND WATER	UGUM WATER	FENA WATER
			Range	Range	Range
Chloride (ppm)	n/a	250	11 - 600	28 - 47	39 - 50
Conductivity (mmho/cm)	n/a	1600	74 - 2450	119 - 166	248 - 314
pH (units)	n/a	6.5 - 8.5	6.96 - 7.95	6.79 - 7.88	7.87 - 8.14

*** Secondary MCL monitoring helps GWA to determine areas in need of adjustment, additional maintenance or rehabilitation in order to provide a high quality water that appeals to the consumer.

ADDITIONAL CONSTITUENTS ANALYZED

CONTAMINANT (units)	MCLG	MCL	GROUND WATER	UGUM WATER	FENA WATER
			Range	Range	Range
Alkalinity as CaCO3 (ppm)	n/a	n/a	132 - 323	24 - 52	74 - 104
Sodium (ppm)	n/a	n/a	8.6 - 330	nd - 14	nd - 26
Hardness as CaCO3 (ppm)	n/a	n/a	144 - 556	54 - 116	90 - 138

GUAM WATERWORKS AUTHORITY
GOVERNMENT OF GUAM



ISLAND OF GUAM WATER DISTRIBUTION

About the Data:

1. Data presented in these tables list the results of tests done between Jan 1 – Dec 31, 2013. Tables list only the contaminants detected. Detection does not necessarily mean a violation or exceedence of an MCL or Treatment Technique. GWA monitors for some constituents less than once per year because they are not expected to vary significantly from year to year. Therefore, some of the water quality data reported, although representative , may be more than one year old. If you have questions about this water quality report, please contact Carmen M. Sian-Denton, GWA's Monitoring Laboratory Services Administrator at 632-9697 or 637-2895.

2. Microbial, lead and copper, haloacetic acid (HAA5), and total trihalomethane (TTHM) samples were taken from the distribution system, not from source waters. Compliance with MCL for HAA5 and TTHM monitoring is based on ARA (annual running average) calculated quarterly. Compliance for chlorine is based on ARA calculated monthly (highest average).

Definitions & Abbreviations

MCLG: Maximum Contaminant Level Goal, or 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.

MCL: Maximum Contaminant Level, or the highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technique.

MRDL: Maximum Residual Disinfectant Level, or the level of a disinfectant that may not be exceeded at the consumer's tap without as unacceptable possibility of health effects.

MRDLG: Maximum Residual disinfectant Level Goal, or the maximum level of a disinfectant added to the water treatment at which no known or anticipated adverse health effect would occur. MRDLGs allow for a margin of safety.

AL: Action Level, or the concentration of a contaminant which, when exceeded triggers treatment or other requirements that a water system must follow. Copper AL = 1300 ppb; Lead AL = 15 ppb.

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

RV: Reporting Value, or that used for determining compliance with the MCL, and is the highest average value for any single source tested. For VOCs and SOCs, RV= the highest annual average. For IOCs and radionuclides, RV= the highest value detected. If the RV is below the MCL, the water is meeting the health and safety-based standards.

Range: range of values actually detected in samples from all the water tested

VOC: Volatile Organic Chemical

SOC: Synthetic Organic Chemical

IOC: Inorganic Chemical

ntu: nephelometric turbidity units

ppm: parts per million, or milligrams per liter

ppb: parts per billion, or micrograms per liter

ppt: parts per trillion, or nanograms per liter

pCi/l: picocuries per liter, a measure of radioactivity

mrem/yr: millirems per year, a measure of radioactivity

nd: not detectable at testing limits

n/a: not applicable

ns: no standard

2013 Water Quality Report

Dear Customer:

Since 1997 Guam Waterworks Authority has been providing an annual Water Quality Report to their customers. This year's report covers calendar year 2013 water quality testing.GWA uses state-of-the-art treatment techniques to remove contaminants from the water, and continuously monitors water quality throughout the system. Our primary commitment is, and always will be, to provide you with a safe and dependable water supply. Please read and share the report with other occupants of your residence.

GWA's drinking water sources contain low levels of a variety of chemicals. Some are of natural origin and some are man-made. Lots of chemicals occur naturally in water and some of these can be undesirable, if found in large quantities. Levels of these naturally occurring chemicals are normally so low that they pose no health problem. Fluoride is one of those naturally occurring chemicals, only found at really low levels, and poses no health problems. GWA does not add fluoride to our water systems, but the US Navy Water System (FENA) does.

It's not really the presence of a chemical that is important. What is important is how much of the chemical is present. For example, some of the heavy metals, such as lead, cadmium and mercury, occur naturally in water, but their presence is at such a low level that most of the time they are not a problem. Treatment becomes necessary when the amount of the contaminant approaches or exceeds the "Maximum Contaminant Level" (MCL). When this situation develops, GWA has opted to take the source out of service or install and operate treatment processes/ techniques to remove the contaminants.

Nature does an excellent job in providing us with abundant drinking water. However, nature needs our active participation in order to maintain its clarity and purity. Use water wisely. Dispose of wastes properly and support recycling. Protecting our water resources begins with protecting our environment.

What is the Source of Your Drinking Water?

The main source of Guam's drinking water is groundwater pumped from an underground aquifer, by over 121 wells, into the water distribution system. Surface sources used by GWA include an intake from the Ugum River plus water purchased from the US Navy Water System (FENA). Spring water from Santa Rita is used to supplement the water supply from FENA for the villages of Asan, Piti, Anigua, Agat, Santa Rita and some areas of Barrigada and Mongmong-Toto-Maite.

It has long been recognized that our water sources need protection, and GWA is determined to protect our very high quality water against contamination, not only from percolation and runoff of surface pollution, but also salt-water intrusion due to over-pumping of the aquifer. We are working with the Guam Environmental Protection Agency (GEPA) and the Water and Environmental Research Institute, University of Guam (WERI) to determine the vulnerability of our water sources to contamination. Copies of the Guam Water Data Management System reports are available at GEPA and at WERI and on their web sites.

Why are there Monitored Contaminants in the Water?

Drinking water, including bottled water, may reasonably be expected to contain at least trace amounts of some monitored compounds of natural origin. The presence of these components in drinking water does not necessarily indicate that the drinking water poses a health risk. More information about monitored compounds/contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791 or GEPA's Safe Drinking Water Program at (671) 300-4796/4782.

In compliance with the Guam Primary Safe Drinking Water Regulations (GPSDWR), our drinking water is monitored for all the regulated and unregulated contaminants as it leaves our potable water sources. The contaminants measured include:

- Microbial contaminants, such as viruses and bacteria, which may be native to the tropical soils, may come from sewage spills, septic systems, agricultural livestock operations or wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring, result from stormwater runoff, commercial wastewater discharges, or farming.
- Pesticide and herbicide contaminants, which may come from a variety of sources such as agriculture, urban stormwater runoff, and home uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of improper disposal of radioactive waste.

This report shows only the contaminants that have been detected. If you would like a complete listing of GWA test results, or if you have any questions regarding this report, please call Carmen Sian-Denton, at our Laboratory Services Division at (671)632-9697 or 637-2895 during normal business hours.

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 people, and infants can be particularly at risk from infections. These people should seek advice about drinking water, from their health care providers. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Is our Water System Meeting other Rules that Govern our Operations?

Disinfection By-Products Regulations: Where disinfection is used in the treatment of drinking water, disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBP's). EPA sets standards for controlling the levels of disinfectants and DBP's in drinking water including trihalomethanes (THM's) and haloacetic acids (HAA5's).

Monitoring of THM's and HAA5's still show a violation for THM's in the Central Distribution System (PWS ID GU0000003) which is served by water purchased from the Navy and supplemented by water from Santa Rita Springs. The Navy water system has made changes to their surface water treatment which will bring Central Distribution System into compliance with the regulation soon.

We are pleased to report that both the Northern and the Southern Distribution Systems are in compliance with the DBP regulations.

Do You Need to Take Special Precautions?

Some people who drink water containing THMs in excess of the MCL continuously over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. Some people who drink water containing HAA5's in excess of the MCL continuously over many years may have an increased risk of getting cancer. Additional information is also available by calling GEPA at (671) 300-4796/4782.

OTHER INFORMATION

Stipulated Order for Preliminary Relief and the 2011 Court Order

In December 2002, a civil suit was filed against GWA and the Government of Guam by the United States Department of Justice (DOJ) seeking to address Public Health compliance issues in GWA's wastewater and drinking water systems. In June 2003, Federal DOJ, USEPA, GWA and the Government of Guam negotiated the terms of the Stipulated Order for preliminary Relief; Civil Case No. 02-0035 (SO). With it GWA, under EPA oversight, undertook a broad initiative to restore its facilities and to provide safe, reliable service to the island while meeting all regulations. The compliance issues to be addressed under the SO included drinking water focused construction and rehabilitation projects, and training of GWA personnel. There were reporting requirements and notice provisions incorporated in the SO that were more stringent than normal regulatory reporting. A full scale Water Resources Master Plan was also produced.

USEPA has been satisfied with GWA's progress with the SO mandates.

On October 10, 2011, the SO was replaced by a District Court Order (CO) which recognizes GWA's progress in providing reliable and safe drinking water and which is focused more on environmental issues and the need to work through the projects identified in the Water Resources Master Plan. GWA is working closely with both USEPA and Guam EPA in order to achieve or exceed the goals of the CO.

A copy of the "Water Resources Master Plan" and the "Order for Preliminary Relief RE: Deadlines for Projects Under the Amended Stipulated Order, Civil Case No. 02-0035" are posted on the GWA web site at:<http://guamwaterworks.org/compliance-and-safety/>. If you need more information on the CO, please call Paul Kemp, GWA Assistant General Manager for Compliance and Safety at (671) 648-0206.

FREQUENTLY ASKED QUESTIONS

Why does drinking water sometimes look milky or cloudy?

High pressure in the distribution line forces air into solution. Because this pressure is released at the tap, tiny air bubbles form, giving the water a cloudy or milky appearance. Allow the water to stand for a few minutes and the cloudiness will disappear as the air bubbles rise to the surface.

What's that white crust in my coffee pot?

Guam's drinking water is high in calcium and is considered hard water. The white crusty deposit in your coffee pot is nothing more than precipitated calcium carbonate. It may be a nuisance, but not a health problem. In fact, calcium is an essential mineral component of our daily diet.

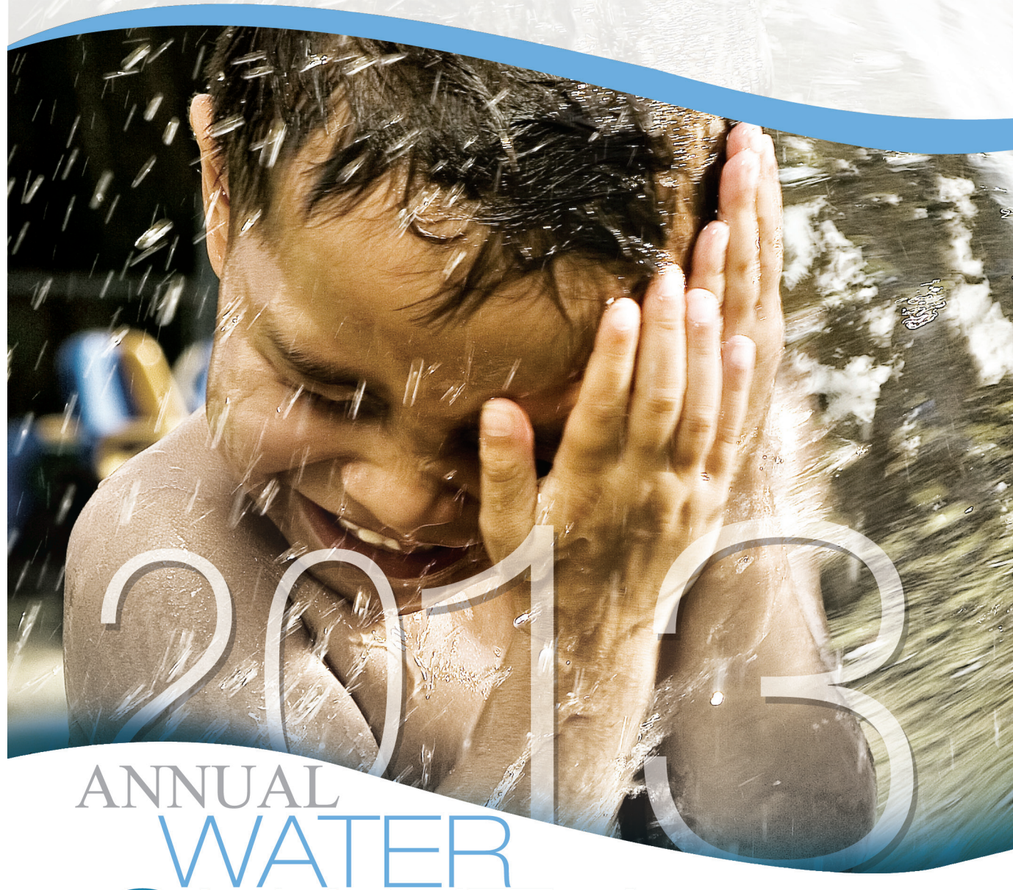
Is our drinking water high in Lead?

Lead levels in our source waters are generally well below the limit set by the Guam Primary Safe Drinking Water Regulations. Levels occasionally found at the tap and in drinking water fountains reflect the use of lead-contaminated plumbing materials (e.g., leaded solder for copper piping). Such materials should be removed or replaced.

GUAM WATERWORKS AUTHORITY

IS GUAM'S WATER SAFE TO DRINK?

HUNGGAN! YES GUAM'S WATER IS SAFE TO DRINK



2013 ANNUAL WATER QUALITY REPORT

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