

General Information Relating to Drinking Water Contaminants and Health Risks

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, 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Lead "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. The PTA Water System 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 at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>."
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for

contaminants in bottled water, which must provide the same protection for public health.

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Important Information Regarding Drinking Water Contaminants and Immuno-Compromised Persons
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. EPA/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 (800-426-4791).

Additional information

For additional information concerning this report contact: Mr. Eric Okazaki, Operations Manager
Pural Water Specialty Co, Inc.
1955 Vineyard St.
Wailuku, Maui, HI 96793
Telephone: (808) 242-7299

Opportunities for Public/Consumer Participation

We welcome your input and participation in the decision-making process that affects the quality of the drinking water supplied to you by the Pohakuloa Military Training Area Water System. Should you desire to provide input or have pertinent comments regarding our system, please contact Mr. Eric Okazaki.

Pohaku Training Area Water System Annual Report for Calendar Year 2011

Introduction

This report is being made available to you pursuant to the requirements of the 1996 Amendments to the Federal Safe Drinking Water Act, which requires this water system provide information to its consumers related to personal health-based decisions regarding their drinking water consumption. The Pohaku Military Training Area's Water System services all of the Pohakuloa Military Training Area. This water system did not have any violations of State or Federal safe drinking water regulations in 2011.

Definitions of Terms Used in This Report

Maximum Contaminant Level Goal or MCLG: 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.

Maximum Contaminant Level or MCL: 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.

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

Maximum Residual Disinfection level Goal or MRDLG: the level of drinking water disinfection below, which there is no expected risk to health.

MRDLG's=do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfection Level or 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.

Water Source Information

In 2011, the Pohakuloa Military Training Area's Water System was supplied by hauled water from the County of Hawaii Department of Water Supply water system #130. The County's water supply is primarily from the Waikoloa and Kahakohau Streams (which are surface water sources). The collected water is treated at the Waimea water treatment plant. The Parker ranch well is utilized to supplement the water for South Kohala, when needed. A copy of the County of Hawaii's South Kohala Water System Annual Water Quality report is attached. The results of the 2011 testing of your water were all within the limits prescribed by EPA and the State. The State of Hawaii, SDWB has completed the Source Water Assessment report in 2004 and is available at the Department of Public Works office at the DPW headquarters. Contact Mr. Karl Santa of the U.S. Army DPW for information at 808-656-3296.

Contaminants Detected in the Supplied Water

This system is classified as a continuous water system in that it receives its supply water from another source. The table below lists only those drinking water contaminants that were detected in the supply water. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in the table are from testing done January 1-December 31, 2011. The State allows us to monitor for some contaminants less than once per year because the concentration of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Table of EPA Regulated Contaminants Detected in the County Water System

MCL=Maximum Contaminant Level
MCLG=Maximum Contaminant Level Goal
AL=Action Level
MRLD=Maximum residual disinfection leveles.
MRLDG=Maximum residual disinfection levels goal.

mrem/year=millirems per year (a measure of radiation absorbed by the body)
pCi/l=picocuries per liter (a measure of radioactivity)

ppm=parts per million, or milligrams per liter (mg/l)
ppb=parts per billion, or micrograms per liter (µg/l)

Regulated Contaminant	Unit	MCL	MCLG	Highest Detected Contaminant Level	Range of Detected Contaminant Levels	Likely Source(s) of Contamination	Remarks
Chlorine	ppm	4.0	4.0	1.2	0.1 -1.2	Added to water during the disinfection process.	2011 Test Results
Total Trihalomethanes (TTHM)	µg/l	80	NA	6.7	N/A	By-product of drinking water disinfection	2011 Test Results
Haloacetic Acids (HAA)	µg/l	60	NA	2.4	N/A	By-product of drinking water disinfection	2011 Test Results
Lead	µg/l	15	15	<5	N/A	Corrosion of plumbing systems.	90 th percentile value means that 90% of all samples results were less than the reported value of <5 µg/l. 2011 test results
Copper	ppm	1.3	1.3	0.16 ppm	N/A	Corrosion of plumbing systems.	90 th percentile value means that 90% of all samples results were less than the reported value of 0.10 mg/l. 2011 test results

Sources of 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.

Contaminants that may be present in source water 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which 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, which are byproducts 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 oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Source Water Assessment Program

In 2004, the preliminary source water assessment report was released. The purpose of the source water assessment report is to enable the public and decision-makers to make well-founded decisions for the protection and preservation of our drinking water. The source water assessment report identifies the potential contaminating activities for each source of water.

In the report, South Kohala Water System sources are potentially vulnerable to contaminants associated with the following activities: feral animals, grazing, cultivated agriculture, and cesspools. Atrazine has been detected in this system which is attributed to runoff from herbicide used on row crops. Carbon tetrachloride, which is attributed to discharge from chemical plants and other industrial activities has also been detected in this system. For more information, please contact Kawika Uehara, P.E., at 961-8670.

Is my water safe?

Yes it is. Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and State drinking water health standards. The Department of Water Supply vigilantly safeguards its water supplies and once again we are proud to report that your system has complied with all drinking water standards.

Why are there contaminants in my drinking 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 Environmental Protection Agency's Safe Drinking Water Hotline 1-(800) 426-4791. If you have any questions regarding this Water Quality Report, please call Kawika Uehara, P.E., at 961-8670.

Do I need to take special precautions?

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. EPA/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 at 1-(800) 426-4791.

How can I get involved?

The Water Board meets the fourth Tuesday of every month. Call for the time and location of the meeting.

You Can Contact Us at the Following Numbers:

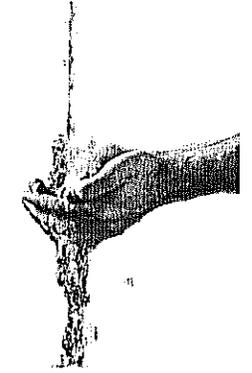
Administration/Finance/General.....	(808) 961-8050
Billing/Customer Service.....	(808) 961-8060
Engineering.....	(808) 961-8070
Emergencies & Field Operations.....	(808) 961-8790
Water Quality.....	(808) 961-8670

Department of Water Supply
345 Kekūanaʻoʻa Street, Suite #20
Hilo, Hawaiʻi 96720

PRSR STD
U.S. POSTAGE
PAID
PERMIT NO. 56
HILO, HI 96720



County of Hawai'i



Department of
Water Supply

... Water, Our Most Precious Resource...
The Department of Water Supply is an equal opportunity provider and employer.

South Kohala System Water Quality Data Tables

The table below lists the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Regulated Contaminants																
Contaminants (units)	MCL	MCLG	Waimea Treatment Plant			Waimea Treatment Plant/ Waimea Well			Waimea Treatment Plant/ Parker Ranch Well 1			Waimea Treatment Plant/ Waimea Well/Parker Ranch Well 1			Violation	Typical Source of Contaminant
			Level Found	Range of Detections	Sample Date	Level Found	Range of Detections	Sample Date	Level Found	Range of Detections	Sample Date	Level Found	Range of Detections	Sample Date		
Microbiological Contaminants																
Turbidity (NTU)	TT = maximum of 1 NTU TT = percentage of samples ≤ 0.3 NTU in at least 95% of measurements taken each month	0	0.20	n/a	2011	0.20	n/a	2011	0.25	n/a	2011	0.25	n/a	2011	No	Soil runoff.
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.																
Disinfection By-Products																
Halocetic acids (HAA5) (ppb)	60	n/a	7.8	ND - 13.9	2011	7.8	ND - 13.9	2011	7.8	ND - 13.9	2011	7.8	ND - 13.9	2011	No	Byproduct of drinking water disinfection.
Total Trihalomethanes (TTHMs) (ppb)	80	n/a	4.5	2.6 - 8.0	2011	4.5	2.6 - 8.0	2011	4.5	2.6 - 8.0	2011	4.5	2.6 - 8.0	2011	No	Byproduct of drinking water disinfection.
<small>Halocetic Acids or "HAA5" means the sum of the concentration of the haloacetic acids (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid). Total Trihalomethanes or "TTHM" means the sum of the concentration of the trihalomethane compounds (trichloromethane (chloroform), dibromochloromethane, bromodichloromethane, and tribromomethane (bromoform)).</small>																

Key definitions of terms used in this report

- MCL = 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.
- 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.
- AL = Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- TT = Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
- ppm = Parts per million. One ppm corresponds to a single penny in \$10,000 or about one minute in two years.
- ppb = Parts per billion. One ppb corresponds to a single penny in \$10,000,000 or about one minute in two thousand years.
- NTU = Nephelometric Turbidity Units: This is a measure of the suspended material in water.
- n/a = not applicable

Sodium (Not Regulated by State or Federal Government)																
Contaminants (units)	MCL	MCLG	Waimea Treatment Plant			Waimea Treatment Plant/ Waimea Well			Waimea Treatment Plant/ Parker Ranch Well 1			Waimea Treatment Plant/ Waimea Well/Parker Ranch Well 1			Violation	Typical Source of Contaminant
			Level Found	Range of Detections	Sample Date	Level Found	Range of Detections	Sample Date	Level Found	Range of Detections	Sample Date	Level Found	Range of Detections	Sample Date		
Inorganic Contaminants																
Sodium (ppm)	n/a	none	8.9	n/a	2011	8.9	n/a	2011	8.9	n/a	2011	8.9	n/a	2011	No	Erosion of natural deposits; additive used for corrosion control.

Lead and Copper Rule Compliance							
Contaminant (units)	AL	MCLG	South Kohala Water System			Violation	Typical Source of Contaminant
			Level Found	# of Sites > AL	Sample Date		
Copper (ppm)	1.3	1.3	0.12	0/44	2009	No	Corrosion of household plumbing systems; erosion of natural deposits.

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 and components associated with service lines and home plumbing and not usually from the source water. The Department of Water Supply 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 choose to have your water tested by contacting private laboratories that are certified by the State for doing drinking water analyses. Information on lead in drinking water, testing methods, and steps you can take to minimize

Sodium in drinking water

There is no State or Federal maximum contaminant level for sodium. Although required, monitoring for sodium is performed primarily to gather information for the consumers, the Safe Drinking Water Branch (SDWB), and the Department of Water Supply (DWS). The EPA Drinking Water Advisory recommends

that the sodium concentration in drinking water not exceed a range of 30 to 60 ppm because of the possible adverse effects on taste at higher concentrations. For persons on a sodium-restricted diet, sodium concentrations greater than 120 ppm could be problematic. If you are on a sodium-restricted diet, you should consult your physician about the level of sodium in the drinking water.

exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Where does my water come from?

The normal sources of water for South Kohala Water System are Waikoloa and Kohakohau Streams (which are surface water sources). The water is collected and stored in three (3) fifty million-gallon reservoirs. The water is then transmitted to Waimea Treatment Plant where it is processed. The Parker Ranch Well 1 and Waimea Well are utilized to supplement the water for South Kohala, when needed. The source(s) of supply may change depending on the supply and demand.