

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 at 1-(800) 426-4791. If you have any questions regarding this Water Quality Report, call Keith Okamoto, 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.

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 Keith Okamoto, P.E., at 961-8670.

How can I get more information?

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

You can find us on the web at www.hawaiiidws.org

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Department of
Water Supply

South Kohala System Water Quality Data

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	MCL	MCLG	Waimea Treatment Plant			Waimea Treatment Plant/ Parker Ranch Well 1			Violation	Typical Source of Contaminant
			Level Found	Range of Detections	Sample Date	Level Found	Range of Detections	Sample Date		
Microbiological Contaminants										
Turbidity (NTU)	TT = 1 NTU	0	0.32	n/a	2006	0.32	n/a	2006	No	Soil runoff.
	TT = percentage of samples ≤ 0.3 NTU in at least 95% of measurements taken each month		99.46%	n/a	2006	99.46%	n/a	2006	No	
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.										
Inorganic Contaminants										
Nitrate (ppm)	10	10	ND	n/a	2006	0.36	ND - 0.36	2006	No	Runoff from fertilizer use. Leaching from septic tanks. Erosion of natural deposits.
Disinfection By-Products										
Haloacetic acids (ppb)	60	n/a	8.88	6.3 - 12.5	2006	8.88	6.3 - 12.5	2006	No	Byproduct of drinking water disinfection.
Total Trihalomethanes (TTHMs) (ppb)	80	n/a	7.4	3.3 - 12.3	2006	7.4	3.3 - 12.3	2006	No	Byproduct of drinking water disinfection.
Haloacetic 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)].										

Sodium (Not Regulated by State or Federal Government)

Contaminants	MCL	MCLG	Waimea Treatment Plant			Waimea Treatment Plant/ Parker Ranch Well 1			Violation	Typical Source of Contaminant
			Level Found	Range of Detections	Sample Date	Level Found	Range of Detections	Sample Date		
Inorganic Contaminants										
Sodium (ppm)	n/a	none	9.3	n/a	2006	9.3	n/a	2006	No	Erosion of naturally occurring deposits; additive used for corrosion control.

Lead and Copper Rule Compliance

Contaminant	South Kohala Water System					Violation	Typical Source of Contaminant
	AL	MCLG	Level Found	# of Sites > AL	Sample Date		
Copper (ppm)	1.3	1.3	0.08	0/41	2006	No	Corrosion of household plumbing systems; erosion of natural deposits.

Treatment Technique Violation

The South Kohala Water System recently violated a drinking water standard. The Department of Water Supply (DWS) failed to meet the Surface Water Treatment Rule (SWTR) treatment technique requirements for the South Kohala Water System on October 15, 16, and 17, 2006. In order to ensure proper disinfection, water in the treatment plant must be in contact with chlorine for a minimum amount of time. On October 15, 16, and 17, 2006, this did not occur, due to the earthquake damage to the treatment plant and distribution system (from the earthquake which happened at that time). Although chlorine quickly kills most bacteria, it is less effective against organisms such as viruses and parasites. For this reason, water needs to mix with chlorine for a longer time period to kill such organisms. The amount of time necessary, or the "contact time", depends on the amount of disinfectant in the water and the

temperature of the water.

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

The magnitude 6.7 earthquake that hit the Big Island on October 15, 2006 caused loss of electricity, affecting pumping and the water treatment plant operation. The earthquake also caused many leaks and main breaks which affected water storage volumes, especially the 4-million-gallon storage reservoir at the South Kohala Water System's Waimea Treatment Plant. The reduced volume in the 4-million-gallon reservoir caused the reduced "contact time" for the chlorine.

By late evening on October 15, Waimea Treatment Plant was back in operation. By October 17, the leaks and main breaks were being brought under control. On October 18, 2006, all treatment parameters at the treatment plant were back to normal and met all requirements. We have continued to do so to date.

Key definitions of terms used in this report

- MCLG** = Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk for 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.
- ND** = Not Detected: If a contaminant is not measured at or above its minimum detection limit, it is reported as Not Detected - detection limits are available upon request.
- n/a** = not applicable

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, and the Department of Water Supply.

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.

Where does my water come from?

The 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 is utilized to supplement the water for South Kohala, when needed.

In previous years we have included a map of the distribution system. However, because we are taking measures to safeguard your water supply, we are not including the map in this year's water quality report. Thank you for your understanding.

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 chemical 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, 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.