

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, Pahala Water System sources are potentially vulnerable to contaminants associated with the following activities: diversified agriculture, recorded spills, cesspools, sugarcane, feral animals, and roads. Atrazine has been detected in this system which is attributed to runoff from herbicide used on row crops. 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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2004

Pahala Water System Annual Water Quality Report

County of Hawaii'i



Department of
Water Supply

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The Department of Water Supply is an equal opportunity provider and employer.

Pahala System Water Quality Data Table

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							
Alili Tunnel/Pahala Well							
Contaminants	MCL	MCLG	Level Found	Range of Detections	Sample Date	Violation	Typical Source of Contaminant
Microbiological Contaminants							
Turbidity (NTU)*	TT = 1 NTU	n/a	Highest monthly average = 0.12		2004	No	Soil runoff.
Inorganic Contaminants							
Nitrate (ppm)	10	10	0.53	ND - 0.53	2004	No	Runoff from fertilizer use; leaching from septic tanks, sewage. Erosion of natural deposits.
Organic Contaminants							
Atrazine (ppb)	3	3	0.16	ND - 0.16	2004	No	Runoff from herbicide used on row crops.
Disinfection By-Products							
Haloacetic acids (ppb)	60	n/a	4.08	2.6 - 7.0	2004	No	Byproduct of drinking water disinfection.
Total Trihalomethanes (TTHMs) (ppb)	80	n/a	6.98	2.1 - 10.9	2004	No	Byproduct of drinking water disinfection.
<small>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)].</small>							
*Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.							

Sodium (Not Regulated by State or Federal Government)							
Alili Tunnel/Pahala Well							
Contaminants (units)	MCL	MCLG	Level Found	Range of Detections	Sample Date	Violation	Typical Source of Contaminant
Inorganic Contaminants							
Sodium (ppm)	n/a	none	4.0	3.9 - 4.0	2004	No	Erosion of naturally occurring deposits.

Lead and Copper Rule Compliance							
Pahala Water System							
Contaminant	AL	MCLG	Level Found	# of Sites > AL	Sample Date	Violation	Typical Source of Contaminant
Copper (ppm)	1.3	1.3	0.12	0/13	2004	No	Corrosion of household plumbing systems; erosion of natural deposits.

Surface Water Treatment Rule

The Pahala Water System is in violation of the Surface Water Treatment Rule (SWTR). The violation exists because of the lack of a filtration system to treat the Alili Tunnel spring source, which has been classified as groundwater under the influence of surface water. Under the SWTR, filtration is required.

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

Interim standards of the SWTR are being met by increasing the disinfection levels to inactivate *Giardia*. No *Giardia* has yet been found in the tests that were conducted. The Department complies with the SWTR, which makes the Alili Tunnel drinking water safe. This spring source will be replaced with Pahala Deep Well No. 2 and the SWTR violation will end with the completion of Pahala Deep Well No. 2. The first phase (drilling) of the construction project for Pahala Deep Well No. 2 is anticipated to continue through the third quarter of 2005. Design and construction for the second phase will commence thereafter, and is expected to last a year and a half.

Where does my water come from?

The sources of water for Pahala Water System are Alili Tunnel Spring (a groundwater source under the influence of surface water) and Pahala Well (a groundwater source). The source(s) of supply may change depending on supply and demand. 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.

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
- TT** = Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water
- NTU** = Nephelometric Turbidity Units: This is a measure of the suspended material in water
- AL** = Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- 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.
- 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

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, 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.

Giardia

Giardia is a protozoan, or one-celled organism that causes intestinal problems in humans. This organism, which originates from animals, can be transmitted by drinking water. It produces a cyst, or dormant stage that is resistant to low levels of chlorine. For this reason, the Department monitors the chlorine levels at the Alili Tunnel spring source on a 24-hour basis to ensure that an adequate chlorine level is maintained.

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 mg/L because of the possible adverse effects on taste at higher concentrations. For persons on a sodium-restricted diet, sodium concentrations greater than 120 mg/L 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.