

DILLINGHAM AIRFIELD WATER QUALITY REPORT 2011 MONITORING PERIOD

Annual Consumer Confidence Report

The Safe Drinking Water Act requires all community water systems to provide to their customers on an annual Consumer Confidence Report (CCR). CCRs are designed to educate the public on where their water comes from, where potential problems originate, and what is being done to ensure that their water is safe to drink. The State of Hawaii Department of Transportation Airport Division is preparing this report on behalf of the U. S. Army Garrison, Hawaii as a service to the community in conjunction with this requirement.

What is The Source of Water?

The source water supplied by the Dillingham Water System (number 338) is pumped from a groundwater well located on the west side of Dillingham Airfield, Mokuieia, Oahu. Groundwater is pumped from the well, treated with chlorine, and then pumped up to an elevated water tank located south of the airfield property. The treated water is then gravity-fed upon demand to Dillingham Airfield and its tenants and customers.

The susceptibility of the Dillingham Water System to contamination has been evaluated under the Hawaii Source Water Assessment Program (SWAP). The result of the Assessment, dated March 2004, is available for review by contacting the Directorate of Public Work, Environmental Division, at (808) 656-2878.

Where Potential Ground Water Quality Problems Come From?

As water percolates through the ground, it dissolves naturally occurring minerals. Substances resulting from the presence of animals or from human activity can also be introduced to ground water or through the distribution system. 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.

Substances that may be mixed with ground water or may be introduced through the distribution system are:

- Microbial organisms, such as viruses and bacteria, which may come from sewage spills and wildlife, Indicator organisms include total and fecal coliforms and not pathogens.
- Inorganic compounds, such as salts and metals, are naturally occurring or could result from urban storm water runoff, industrial or domestic wastewater discharges, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemicals, including synthetic and volatile organic chemicals, could be byproducts of industrial processes, petroleum distribution, and can also come from gas station, and urban storm water runoff.
- Radionuclides can be naturally occurring or could be the result of oil and gas production.

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 (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How Does this CCR Work?

An essential part of the CCR is the table showing the highest level of each detected substance (see next section). There are three columns on the table which should be given special attention: the Maximum Contaminant Level (MCL), the level detected, and whether a violation occurred.

The contaminants detected in the groundwater source are shown below. If a substance is not shown, it was not detected. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the date presented in this table is from testing done in the calendar year of the report. Some contaminants, as allowed by the EPA and State of Hawaii Department of Health, are monitored less than once per year because the concentrations of these contaminants do not change frequently. As a result, some of the data, though representative, are more than one year old.

Water Quality Table

Contaminant	Unit	Detected Level	Date	MCL	MCLG	Violation
Inorganic Chemical						
Nitrate	ppm	0.68	9/24/2008	10	10	No
Volatile Organics						
Total Trihalomethanes*	ppb	1.9	9/24/2008	80	None	No

Contaminant	Average Level Detected	Range of Detection	Date	AL	MCLG	Violation
Inorganic Chemical						
Copper (ppm)	0.05**	0***	6/2008	1.3	1.3	No
Lead (ppb)	5.0**	0***	6/2008	15	0	No

***Total Trihalomethanes (TTHM):** By-product of chlorination comprising of four chemical constituents (Chloroform, Bromodichloromethane, Dibromochloromethane, and Bromoform). Some disinfectants and disinfection byproducts (DBPs) have been shown to cause cancer and reproductive effects in lab animals and suggested bladder cancer and reproductive effects in humans.

** In accordance with EPA and State regulations, this number represents the 3rd highest (90th percentile) value of the 11 samples collected.

***Number of samples above the action level.

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

Maximum Contaminant Level (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.

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 allow for a margin of safety.

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

mg/L: milligram per liter. In this report, one part per million (ppm) is the same as one milligram of substance in one liter of water (mg/L).

ug/L: microgram per liter. In this report, one part per billion (ppb) is the same as one microgram of substance in one liter of water.

pCi/L: picocuries per liter (a measure of radiation).

Additional Information

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 providers. Environmental Protection Agency/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 (800-426-4791).

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 can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Lead (Pb): 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 State of Hawaii, Department of Transportation, Airports Division 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 or at <http://www.epa.gov/safewater/lead>.

Violation

There were no system violations nor any individual sampling deficiencies found in the Coliform/Bacteriological and chemical monitoring programs for the Dillingham Airfield Water System for the year 2011.

A Sanitary Survey, conducted in March 2011 by the Department of Health (DOH), identified the potential for cross contamination of a hydraulically connected well at Dillingham Airfield. This well is used by an airport tenant. The status of its authorized use was resolved by the Department of Transportation - Airports Division (DOT-A) and Department of Land and Natural Resources (DLNR) in April 2012. The DOT-A will be communicating the need for either a device or measure to mitigate the potential for cross contaminating the ground water source from the tenant's activity. Our anticipated completion date to resolve the subject deficiency is 3 August, 2012.

For more information about the Dillingham Airfield water system, contact the Water System Project Manager at (808) 834-6091. This report was prepared on June 20, 2011.