



## Lānaʻi Drinking Water Quality Report to the Consumer for Year 2016

The Lānaʻi Water Company (LWC) Water Quality Report - also known as the "Consumer Confidence Report" (CCR) is provided to all water system customers. The CCR contains a wealth of information about your water quality.

What we all do and the habits that we practice every day will determine both the quality of our water and the quantity available for our use. Monitoring the quality of our water will not matter if we do not take care of our environment as individuals and as a community. Lānaʻi is blessed with water that is among the best quality in the world. At LWC, our job is to make sure it is also the safest.

That is why water from each of our sources is regularly tested. We must ensure that our water supply meets or exceeds the Safe Drinking Water Act requirements. As mandated under Federal and State law, the Hawaii State Department of Health (DOH) and the LWC regularly test our drinking water for more than 100 different kinds of chemical "contaminants".

We believe that keeping the public informed about the quality of its drinking water is an important part of our job. Because the health of all people depends on safe drinking water, it is truly our most precious possession. Every water user needs to actively participate in the conservation and protection of our water sources.

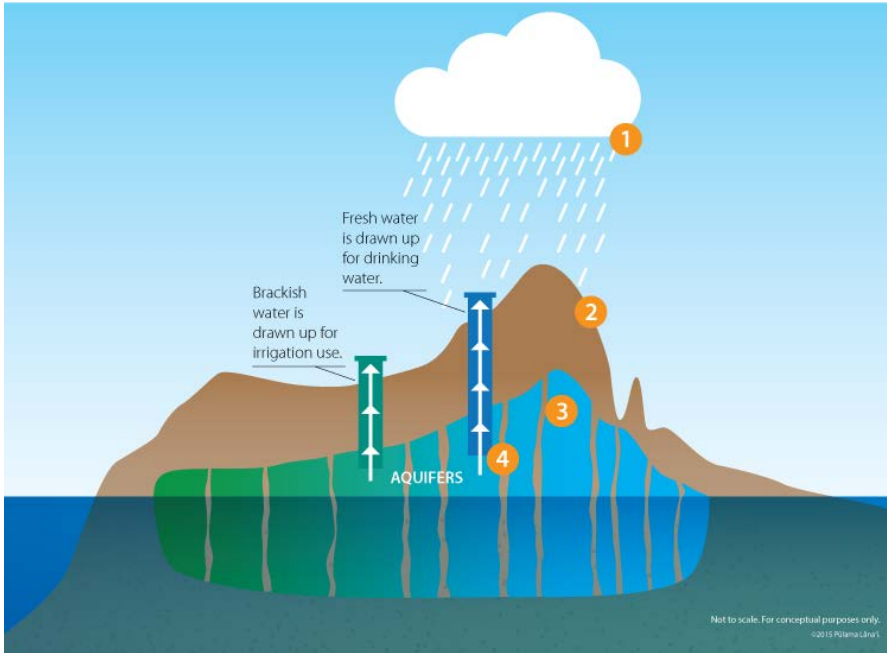
This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems were required to comply with the Total Coliform Rule from 1989 to March 31, 2016, and began compliance with a new rule, the Revised Total Coliform Rule on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbial (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a monthly maximum contamination level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any sanitary defects exist. If any sanitary defects are found, these must be corrected by the public water system.

Our water system violated drinking water monitoring requirements in 2015. Even though this was not an emergency, as our customers you have a right to know what happened and what we did to correct this situation. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During 2015, we did not complete monitoring for the new Well 3A at the Lanai City water system for Volatile Organic Chemicals (VOCs). As a new well source, we were to monitor for consecutive years for this new well and we did two in 2014, but did not complete the monitoring for 2015 due to confusion on the sampling years. The water was sampled again in August of 2016 and found to be in compliance for 2016.

### **Where does my water come from?**

The LWC system is supplied by groundwater wells. These wells are ground water sources that draw water from Lānaʻi's high level aquifer, mauka of Lānaʻi City. Our watershed for our wells is located in the central uplands of Lānaʻi and is hydrologically up-gradient (uphill) of major resort, residential and agricultural activities. As such, the potential for human land use activity contaminating your drinking water is minimized. Water from the wells is chlorinated to ensure that your drinking water meets the Safe Drinking Water Act Regulations of the EPA and the State of Hawaii Department of Health. The results of the 2016 water quality testing of your water were all within limits prescribed by the EPA and the State. The Hawaii Department of Health and the University of Hawaii, Resources Research Center completed a source water assessment in 2004

which has been periodically updated. The assessment may be viewed at the LWC during normal business hours.



### 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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

### 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 (EPA) Safe Drinking Water Hotline (800-426-4791). 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, that 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.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.
- 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. Lanai City & Manele Bay 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 or at <http://www.epa.gov/safewater/lead>.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that 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.

Every three years, Lanai Water company tests for lead and copper in the tap water within homes in the City. The testing is done at the tap because lead and copper can leach into the water from plumbing materials in the home. To meet EPA standards, 90% of the homes tested have to prove that lead and copper levels are below the EPA's Action Level. The 90<sup>th</sup> percentile is the highest result found in 90% of the samples when they are listed in order from the lowest to the highest results. As you can see in the table below, the results for copper were well below the Action Level or Non-Detectable.

### **Water Quality Data Table**

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. 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 vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
<b>Disinfection By-Products</b>								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5) (ppb)	NA	60	5.6	NA		2016	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	30.7	NA	30.7	2016	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>								
Chromium (ppb)	100	100	2.9	NA		2014	No	Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10	10	.64 (avg)	.53	.77	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Radioactive Contaminants</b>								
Alpha emitters (pCi/L)	0	15	2.9	NA		2016	No	Erosion of natural deposits
Beta/photon emitters (The EPA considers 50 pCi/L to be the level of concern for beta emitter)	0	4 (mrem/yr)	2.2 pCi/L	NA		2016	No	

Contaminants	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
<b>Inorganic Contaminants</b>						
Copper - action level at consumer taps (ppm)	1.3	.0126	2015	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	ND	2015	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
mrem/yr	mrem/yr: millirems per year (a measure of radiation absorbed by the body)
NA	NA: not applicable
ND	ND: Not Detected

Important Drinking Water Definitions	
Term	Definition
MCL	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.
MCLG	MCLG: 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.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Additional Information:**

For additional information concerning this report contact: Director of Utilities, Pulama Lanai, P.O. Box 630310, Lānaʻi City, Hawaii 96763, Telephone: (808) 565-3352. You can get a copy of this CCR at [www.lanaiwaterco.com](http://www.lanaiwaterco.com). We welcome your input and participation in the decision-making process that affects the quality of the drinking water supplied to you. Should you desire to provide input or have pertinent comments regarding the systems, please contact the Lanai Water Company.