2023

WATER QUALITY REPORT

KA'ANAPALI DISTRICT

TABLE OF CONTENTS

About Your Water Quality

At Hawaii Water Service (Hawaii Water), our goal is to deliver safe, high-quality drinking water, 24 hours per day, seven days per week, 365 days per year. As part of that effort, we produce this annual water quality report, which includes information about where your water comes from, what it contains, and how it compares to state and federal standards. **Most importantly, it confirms that in 2023, our water met or surpassed all standards set by the Hawaii Department of Health and U.S. Environmental Protection Agency (EPA) to protect public health.**

KAA

YOUR WATER SYSTEM

SOURCE WATER PROTECTION INFORMATION

Hawaii Water has provided high-quality water utility services in Ka'anapali since 2003. Our customers receive water that is pumped by nine active groundwater wells on the mauka (mountain) side of Ka'anapali, and stored in eight tanks until needed.

Ka'anapali's drinking water is monitored and tested by our laboratory as well as an independent, certified laboratory and the Hawaii Department of Health for all contaminants established by the Safe Drinking Water Act.

The Hawaii Department of Health's Safe Drinking Water Branch completed the preliminary draft of Ka'anapali's source water assessment and protection program in March 2004.

FOR ADDITIONAL DRINKING WATER QUALITY INFORMATION

- EPA Safe Drinking Water Hotline
  (800) 426-4791
  Water.epa.gov/drink
- State of Hawaii Safe Drinking Water Branch
  Department of Health: (808) 586-4258
  Health.hawaii.gov/sdwb
- Hawaii's Source Water Assessment and Protection Program
  Health.hawaii.gov/sdwb/swap
  Www.fsa.usda.gov/Internet/FSA_File/hicreppeafinal.pdf

If you have any questions or concerns, please contact our Customer Center at (808) 883-2046 or toll-free at (877) 886-7784, or through the Contact Us link at hawaiiwaterservice.com.

POSSIBLE CONTAMINANTS

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some substances. The presence of substances does not necessarily indicate that the water poses a health risk.

More information about substances and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

INDIVIDUALS WITH SPECIAL HEALTH CONCERNS

Some people may be more vulnerable to substances in drinking water than the general population. Immunocompromised people, such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, or people with HIV/AIDS or other immune system disorders; some elderly people; and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological substances are available from the Safe Drinking Water Hotline at (800) 426-4791.

Protecting Your Water

The sources of drinking water (both tap and bottled) include rivers, lake, 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 human activities. Prior to entering the distribution system, source water with constituents over maximum contaminant levels is treated to reduce levels to meet standards set by public health experts. Contaminants that may be in untreated 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 compounds, 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.

So that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulates contaminants in bottled water to protect public health.

CROSS-CONNECTION CONTROL

To confirm that the high-quality water we deliver is not compromised in the distribution system, Hawaii Water has a robust cross-connection control program in place. Cross-connection control is critical to making sure that activities on customers' properties do not affect the public water supply. Our cross-connection control specialists see to it that all of the existing backflow prevention assemblies are tested annually, assess all connections, and enforce and manage the installation of new commercial and residential assemblies.

Backflow can occur when certain pressure conditions exist either in our distribution system or within the customer's plumbing, so our customers are our first line of defense. A minor home improvement project—without the proper protections—can create a potentially hazardous situation, so careful adherence to plumbing codes and standards keep the community's water supply safe. Please be sure to utilize the advice or services of a qualified plumbing professional.

Many water-use activities involve substances that, if allowed to enter the distribution system, would be aesthetically displeasing or could even present health concerns. Some common cross-connections are:

- Garden hoses connected to a hose bib without a simple hose-type vacuum breaker (available at a home improvement store).
- Improperly installed toilet tank fill valves that do not have the required air gap between the valve or refill tube.
- Landscape irrigation systems that do not have the proper backflow prevention assembly installed on the supply line.

Customers must confirm that all plumbing is in conformance with local plumbing codes. Additionally, state law requires certain types of facilities to install and maintain backflow prevention assemblies at the water meter. Hawaii Water's cross-connection control staff will determine whether you need to install a backflow prevention assembly based on water uses at your location.

ABOUT LEAD

As the issue of lead in water continues to be top of mind for many Americans, Hawaii Water wants to assure you about the quality of your water.

None of these conditions exist at Hawaii Water. We have worked proactively to eliminate lead-bearing materials from our water systems, and we are compliant with health and safety codes mandating the installation of lead-free materials in public water systems. We test our water sources to confirm that the water we deliver to customers' meters meets water quality standards and is not corrosive toward plumbing materials.

LEAD IN HOME PLUMBING

The water we deliver may meet lead standards, but what about your home plumbing? Because lead in drinking water comes primarily from materials and components associated with service lines and home plumbing, the Lead and Copper Rule is a critical part of our water quality monitoring program.

The Lead and Copper Rule requires us to test water *inside* a representative number of homes that have plumbing most likely to contain lead and/or lead solder. This test, with other water quality testing, tells us if the water is corrosive enough to cause lead from home plumbing to leach into the water. If the "Action Level" for lead is exceeded, we work with our customers to investigate the issue and, if necessary, implement corrosion control before the lead levels create a health issue.

Elevated levels of lead, if present, 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. Hawaii Water is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components.

MINIMIZING EXPOSURE

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 two 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 by a certified lab. 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 **www.epa.gov/safewater/lead**.

In your system, results from our lead monitoring program, conducted in accordance with the Lead and Copper Rule, were non-detectable for the presence of lead.

PFAS

In April 2024, the EPA adopted the final water quality regulation for certain per- and polyfluoroalkyl substances (PFAS):

- MCL of 4 ppt for PFOS and PFOA.
- MCL of 10 ppt for PFHxS, PFNA, and GenX.
- Hazard Index of 1.0 combined for PFHxS, PFNA, PFBS, and GenX.

Water systems must begin monitoring for these PFAS within three years (2027) and comply with the regulation within five years (2029).

At Hawaii Water, protecting our customers' health and safety is our highest priority, and we are committed to complying with all requirements set by the public health experts. We have been preparing for the EPA regulation and its potential impact on—and any treatment needed in—our systems. To that end, Hawaii Water proactively tested active sources in our systems for these PFAS in 2023.

To date, no PFAS compounds have been detected in any of our active water sources.

Additionally, we believe a comprehensive approach is needed to properly address the situation. We urged the EPA to establish a consistent, science-based standard as quickly as feasible, and strongly supported state legislation that will prohibit the sale and use of certain products that contain PFAS, require the certification of accurate testing methods for PFAS, and establish a publicly accessible database that houses the sources of PFAS entering water supplies. We have also filed lawsuits to hold PFAS manufacturers responsible—and ultimately prevent our customers from bearing the costs of treatment, to the extent possible—and are pursuing grants where available to further offset customer cost impacts.

As background, PFAS are manmade compounds that have been used to make carpets, clothing, fabrics for furniture, paper packaging for food, and other materials (e.g., cookware) that are resistant to water, grease, or stains. These compounds are also used for firefighting at airfields, which is one way they have found their way into groundwater in certain areas.

Studies indicate that long-term exposure to PFAS over certain levels could have adverse health effects, including developmental effects to fetuses during pregnancy or infants; cancer; or impacts on liver, immunity, thyroid, and other functions. Potential health effects related to PFAS are still being studied, and research is still evolving on this issue.

TABLE INTRODUCTION

The 2023 Water Quality Table lists all of the contaminants that we detected in your drinking water in 2023 (except where noted).

Although the EPA requires water systems to test for up to 125 substances, we list only those substances detected in your water. See the **Potential Contaminants** web page for a complete list of contaminants we test for.

The state allows us to monitor for some substances less than once per year because the concentrations of these substances do not change rapidly.

IMPORTANT DEFINITIONS

Maximum Contaminant Level Goal (MCLG)

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 (MCL)

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 (AL)

Concentration of a contaminant which, if exceeded, triggers treatment or other required action by the water provider.

TABLE KEY	
MRDL	Maximum residual disinfectant level
MRDLG	Maximum residual disinfectant level goal
mrem/yr	One thousandth of a rem (millirem) per year. A millirem is a dose of energy to the body.
N/A	Not applicable
ND	No detection
pCi/L	Picocuries per liter (a measure of radioactivity)
ppb	Parts per billion, or micrograms per liter (µg/L)
ppm	Parts per million, or milligrams per liter (mg/L)
SMCL	Secondary maximum contaminant level

Our testing equipment is so sensitive, it can detect constituents as small as 1 part per trillion. That is equivalent to 1 inch in over 15 million miles.

KAA

2023 WATER QUALITY

PRIMARY DRINKING WATER STANDARDS

Inorganic Chemicals	Year Tested	Unit	MCL (SMCL)	MCLG	In Compliance	Result or Range	Average	Source of Substance
Nitrate (as nitrogen)	2023	ppm	10	10	**Yes**	0.51	0.5	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Disinfection Byproducts	**Year Tested**	**Unit**	**MCL (SMCL)**	**MCLG**	**In Compliance**	**Result**		**Source of Substance**
Total haloacetic acids	2023	ppb	60	N/A	**Yes**	1.0		Byproduct of drinking water chlorination
Total trihalomethanes	2023	ppb	80	N/A	**Yes**	2.9		Byproduct of drinking water chlorination
Disinfectant	**Year Tested**	**Unit**	**MRDL**	**MRDLG**	**In Compliance**	**Range**	**Average**	**Source of Substance**
Chlorine	2023	ppm	4	4	**Yes**	0.31–0.78	0.5	Drinking water disinfectant added for treatment
Radionuclides	**Year Tested**	**Unit**	**MCL (SMCL)**	**MCLG**	**In Compliance**	**Range**	**Average**	**Source of Substance**
Beta particle	2023	pCi/L	50[1]	0	**Yes**	0–5.23	2.6	Erosion of natural deposits
Radium-228	2023	pCi/L	5	0	**Yes**	0–1.07	0.5	Erosion of natural deposits

OTHER REGULATED SUBSTANCES

Metals	Year Tested	Unit	AL	MCLG	In Compliance	90th Percentile	Samples > AL	Source of Substance
Copper	2021	ppm	1.3	1.3	**Yes**	ND	0 of 20	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	2021	ppb	15	0	**Yes**	ND	0 of 20	Internal corrosion of household plumbing systems; discharge from industrial manufacturers; erosion of natural deposits

SECONDARY DRINKING WATER STANDARDS AND UNREGULATED COMPOUNDS

Inorganic Chemicals	Year Tested	Unit	SMCL	MCLG	In Compliance	Result or Range	Average	Source of Substance
Sodium	2023	ppm	N/A	N/A	**Yes**	93–97	95	Erosion of natural deposits; seawater influence
Sulfate	2023	ppm	500	N/A	**Yes**	25	25	Runoff/leaching from natural deposits; industrial wastes

[1] The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

General Manager: Geoff Fulks

Hawaii Water Service
68-1845 Waikoloa Road, Unit 216
P.O. Box 384809
Waikoloa, HI 96738

Office: (808) 883-2046
Toll-free: (877) 886-7784

customerservice@hawaiiwaterservice.com
www.hawaiiwaterservice.com

Thanks for taking the time to learn more about your water quality.

If you have questions, comments, or concerns regarding your drinking water, please contact Hawaii Water Service.

We welcome your interest in Ka'anapali's water system.

Quality. Service. Value.®