...Water, Our Most Precious Resource...

You may also access your 2023 South Kohala Water Quality Report online at:

https://www.hawaiidws.org/CCRSKohala2023.pdf

Where does my water come from?

The normal sources of water for South Kohala Water System are Waikoloa and Kohākōhau 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 1 and Waimea Well are utilized to supplement the water for South Kohala, when needed. The source(s) of supply may change depending on the supply and demand.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Shutting off water while brushing your teeth, washing your hair, and shaving could save up to 500 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

For more information,
go to
https://www.hawaiidws.org
& follow the conservation links
or visit
https://www.epa.gov/watersense

Source Water Assessment Program

In 2004, the preliminary source water assessment report was released. The report was updated in 2005 and 2007. 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, cemetary, residential parcels, roads, recorded spill, septic tanks, and cesspools. Atrazine has been detected in this system which is attibuted 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 Kawika Uyehara, P.E., at 808-961-8670.

How can I get involved?

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

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

2023 South Kohala Water System Annual Water Quality Report

COUNTY OF HAWAI'I

Department of Water Supply

What is the purpose of the Water Quality Report?

List of Abbreviations:

CCR..... Consumer Confidence Report
CDC ..... Center for Disease Control & Prevention
EPA ..... Environmental Protection Agency
HDWS..... Hawai'i Department of Water Supply

What is the purpose of the Water Quality Report?

The EPA is responsible for making sure that public water supplies within the United States are safe. In 1974, Congress passed the Safe Drinking Water Act in order to protect the nation's public drinking water supply. This law gives the EPA authority to set the standards for drinking water quality (to determine what levels of contaminants are safe to have in the water) and to oversee the states and water suppliers who implement these standards.

The EPA requires community water systems to deliver a CCR, also known as an annual drinking Water Quality Report, to their customers. These reports provide information to customers about their drinking water quality for the past year. All water quality reports must contain certain content elements and must be made available each year by July 1st for the preceding year.

The EPA determines what levels of contaminants are safe to have in the water, and the water quality report will show customers how the levels of contaminants in their water source compare to the EPA standard.

The water system must provide the EPA standard in the data table for each regulated contaminant detected. The customer can then compare the level of contaminants in their water to the EPA standard.

Is my water safe?

Yes it is. Last year, as in years past, our tap water met all U.S. EPA and State drinking water health standards. HDWS vigilantly safeguards its water supplies and once again we are proud to report that we have 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 EPA Safe Drinking Water Hotline 1-(800) 426-4791. If you have any questions regarding this Water Quality Report, please call Kawika Uyehara, P.E., at (808) 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 EPA Safe Drinking Water Hotline at 1-(800) 426-4791.

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 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, the 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.

Water Quality Report Online

This year, you are likely reading the report online, rather than the traditional paper copy sent by mail. The EPA recently changed the requirements to allow utilities to communicate this important information digitally.

Customers are still able to request a paper copy and can do so by the following methods. (Please provide us with your account number, phone number, mailing or email address, and water system name so that we can provide you with the correct report.):

- Call us at (808) 961-8670
- Email us at dws@hawaiidws.org
- Write to us at:
  Department of Water Supply/Micro Lab
  889 Leilani Street
  Hilo, HI 96720

Lead and drinking water

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 and not usually from the source water. HDWS 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 in your home plumbing undisturbed 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 choose to have your water tested by contacting private laboratories that are certified by the State for doing drinking water analyses. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead. You can also contact the National Lead Information Center at 1-800-424-LEAD (5323) which provides the general public and professionals with information about lead, lead hazards, and their prevention.

Sodium in drinking water

There is no State or Federal maximum contaminant level for sodium. Monitoring for sodium is performed primarily to gather information for the consumers, the Safe Drinking Water Branch, and HDWS.

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.

2023 South Kohala System Water Quality Data Tables

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 Contaminant Data Tables

Regulated Contaminants							
			South Kohala Water System				
Contaminants (units)	MCL	MCLG	Level Found	Range of Detections	Sample Date	Violation	Typical Source of Contaminant
Microbiological Contaminants							
Turbidity (NTU) **	TT = maximum of 1 NTU	0	1.18	none	2023	Yes	Soil runoff.
	TT = percentage of samples ≤ 0.3 NTU in at least 95% of measurements taken each month		100%	none	2023	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.							
Disinfection By-Products							
Haloacetic acids (HAA5) (ppb)	60	n/a	31.0	ND - 45.8	2023	No	Byproduct of drinking water disinfection.
Total Trihalomethanes (TTHMs) (ppb)	80	n/a	16.8	ND - 17.9	2023	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)].							

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 to 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.

•**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.

•**cyst** = The infectious stage for *Giardia*.

•**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

2023 Treatment Technique Violation				
TT Violation	Explanation	Length	Steps Taken to Correct the Violation	Health Effect Language
Turbidity exceedence on January 2, 2023	A loss of power at the treatment plant facility led to air entering the analyzer port which yielded inaccurate turbidity readings that exceeded the standard of 1 turbidity unit. The drinking water returned to a turbidity of less than 0.1 NTU within 30 minutes as air bled out of the sample ports. Normal turbidity levels are less than 0.1 NTU immediately following filtration.	approximately 10 minutes	DWS updated the configuration of the turbidity analyzers to prevent air from entering into the port which will help to prevent inaccurate measurements. DWS has also implemented additional alarms for the monitoring equipment. To ensure the water was safe to drink, DWS monitored chlorine levels for proper disinfection as well as sampled for presence of coliform bacteria and other water quality parameters.	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
Turbidity exceedence on May 24, 2023				

2023 South Kohala System Water Quality Data Tables (continued)

Unregulated Contaminant Data Tables

LT2ESWTR Cryptosporidium (Not Regulated by State or Federal Government)							
			South Kohala Water System				
Contaminants (units)	MCL	MCLG	Level Found	Range of Detections	Sample Date	Violation	Typical Source of Contaminant
Microbiological Contaminants							
Giardia (cysts/L)	n/a	n/a	Source water before filtration			No	Can be found in soil, food, water, or on surfaces that have been contaminated with feces from infected humans or animals.
			0.011	ND - 0.174	2019		

Sodium (Not Regulated by State or Federal Government)							
			South Kohala Water System				
Contaminants (units)	MCL	MCLG	Level Found	Range of Detections	Sample Date	Violation	Typical Source of Contaminant
Inorganic Contaminants							
Sodium (ppm)	none	none	6.0	none	2023	No	Erosion of natural deposits; additive used for corrosion control.

Giardia

The U.S. Environmental Protection Agency (EPA) published the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) on January 5, 2006. The LT2ESWTR improves control of microbial pathogens and requires source water monitoring for public water systems (PWSs) that use surface water. Based on system size and filtration type, water systems need to monitor for Cryptosporidium, *E. coli*, and turbidity.

The purpose behind the LT2ESWTR rule is to address the health effects associated with Cryptosporidium in surface water used as a drinking water supply and does not require monitoring for *Giardia*. However, samples were also analyzed for *Giardia* as it provides the Department of Water Supply additional water quality information.

Two of the total twenty-four water samples analyzed indicated the presence of *Giardia* in the untreated source water. The untreated source water was then sent through a filtration and disinfection process at the Waimea Water Treatment Plan where the treated water meets all Federal and State requirements.

In 2019, the source water monitoring data was used to categorize the source water into one of four "bin" classifications that have associated treatment requirements. Based on water quality results, the Department of Health informed us that our South Kohala Water System fell into the lowest risk "Bin 1" category which requires no additional treatment at the Waimea Water Treatment Plant.

More information regarding the LT2ESWTR can be found at: https://www.epa.gov/dwreginfo/long-term-2-enhanced-surface-water-treatment-rule-documents#Overview

2023 South Kohala System Water Quality Data Tables (continued)

Unregulated Contaminant Data Tables

UCMR5 - Unregulated Contaminant Monitoring Rule [UCMR] (Not Regulated by State or Federal Government)				
	South Kohala Water System			
Contaminants	**Level Found**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND	2023	No	Per- and polyfluoroalkyl substances (PFAS) are manufactured chemicals used in many household products including nonstick cookware (e.g., Teflon), stain repellants (e.g., Scotchgard), and waterproofing (e.g., GORE-TEX). They are also used in industrial applications such as in firefighting foams and electronics production. There are thousands of PFAS chemicals, and they persist in the environment. Two well-known PFAS chemicals are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). These were phased out of production in the United States and replaced by hexafluoropropylene oxide-dimer acid (commonly known as GenX), perfluorobutane sulfonic acid (PFBS) and others.
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	ND	2023	No	
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	ND	2023	No	
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	ND	2023	No	
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ND	2023	No	
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	ND	2023	No	
hexafluoropropylene oxide dimer acid (HFPO DA)	ND	2023	No	
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND	2023	No	
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND	2023	No	
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2023	No	
perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	2023	No	
perfluoro-3-methoxypropanoic acid (PFMPA)	ND	2023	No	
perfluoro-4-methoxybutanoic acid (PFMBA)	ND	2023	No	

2023 South Kohala System Water Quality Data Tables (continued)

Unregulated Contaminant Data Tables

UCMR5 - Unregulated Contaminant Monitoring Rule [UCMR] (continued) (Not Regulated by State or Federal Government)				
	South Kohala Water System			
Contaminants	**Level Found**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
perfluorobutanesulfonic acid (PFBS)	ND	2023	No	Per- and polyfluoroalkyl substances (PFAS) are manufactured chemicals used in many household products including nonstick cookware (e.g., Teflon), stain repellants (e.g., Scotchgard), and waterproofing (e.g., GORE-TEX). They are also used in industrial applications such as in firefighting foams and electronics production. There are thousands of PFAS chemicals, and they persist in the environment. Two well-known PFAS chemicals are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). These were phased out of production in the United States and replaced by hexafluoropropylene oxide-dimer acid (commonly known as GenX), perfluorobutane sulfonic acid (PFBS) and others.
perfluorobutanoic acid (PFBA)	ND	2023	No	
perfluorodecanoic acid (PFDA)	ND	2023	No	
perfluorododecanoic acid (PFDoA)	ND	2023	No	
perfluoroheptanesulfonic acid (PFHpS)	ND	2023	No	
perfluoroheptanoic acid (PFHpA)	ND	2023	No	
perfluorohexanesulfonic acid (PFHxS)	ND	2023	No	
perfluorohexanoic acid (PFHxA)	ND	2023	No	
perfluorononanoic acid (PFNA)	ND	2023	No	
perfluorooctanesulfonic acid (PFOS)	ND	2023	No	
perfluorooctanoic acid (PFOA)	ND	2023	No	
perfluoropentanesulfonic acid (PFPeS)	ND	2023	No	
perfluoropentanoic acid (PFPeA)	ND	2023	No	

2023 South Kohala System Water Quality Data Tables (continued)

Unregulated Contaminant Data Tables

UCMR5 - Unregulated Contaminant Monitoring Rule [UCMR] (continued) (Not Regulated by State or Federal Government)				
	South Kohala Water System			
Contaminants	**Level Found**	**Sample Date**	**Violation**	**Typical Source of Contaminant**
perfluorotetradecanoic acid (PFTA)	ND	2023	No	Per- and polyfluoroalkyl substances (PFAS) are manufactured chemicals used in many household products including nonstick cookware (e.g., Teflon), stain repellants (e.g., Scotchgard), and waterproofing (e.g., GORE-TEX). They are also used in industrial applications such as in firefighting foams and electronics production. There are thousands of PFAS chemicals, and they persist in the environment. Two well-known PFAS chemicals are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). These were phased out of production in the United States and replaced by hexafluoropropylene oxide-dimer acid (commonly known as GenX), perfluorobutane sulfonic acid (PFBS) and others.
perfluorotridecanoic acid (PFTrDA)	ND	2023	No	
perfluoroundecanoic acid (PFUnA)	ND	2023	No	
Lithium	ND	2023	No	Naturally occuring element found in rocks, soil and water.

Unregulated Contaminant Monitoring Rule (UCMR)

The Safe Drinking Water Act (SDWA) requires that once every five years the EPA issue a list of unregulated contaminants to be monitored by public water systems (PWSs).

The fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published on December 27, 2021, and water sampling will occur between 2023 and 2025. Consistent with the EPA's PFAS Strategic Roadmap, UCMR 5 will provide new data that will improve the agency's understanding of the frequency that 29 per- and polyfluoroalkyl substances (PFAS) and lithium are found in the nation's drinking water systems, and at what levels. The monitoring data on PFAS and lithium will help the EPA make determinations about future regulations and other actions to protect public health under SDWA.

Additional information on PFAS from the U.S. EPA can be found at https://www.epa.gov/pfas

More information on the UCMR program can be found at https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule