Virgin Islands Water and Power Authority
Water Quality Report 2024

St. Croix District

January 1, 2024 through December 31, 2024

Dear Water Distributors/Water Customers:

I am privileged to present the Virgin Islands Water and Power Authority's (VIWAPA) 2024 Consumer Confidence Report (CCR), also known as our Water Quality Report. This annual report provides essential information regarding the quality of our drinking water, including the results of rigorous testing and monitoring conducted throughout the year. We remain steadfast in our mission to deliver clean, safe, and reliable water to the residents of the U.S. Virgin Islands while continuously improving our infrastructure to meet regulatory standards and enhance service delivery.

Throughout 2024, our team has worked diligently to ensure that the water supplied to your homes and businesses meets or exceeds all local and federal drinking water standards. Our testing procedures include monitoring various contaminants, ensuring compliance with the Safe Drinking Water Act, and maintaining transparency with our consumers. We are pleased to report that the quality of our water continues to be safe for consumption and adheres to all health guidelines.

In addition to maintaining high water quality standards, we have made significant strides in modernizing and upgrading our water infrastructure across the territory. These improvements are critical to enhancing service reliability and efficiency.

- **St. Croix:** Water service lines were upgraded to meet regulatory compliance at 44 locations throughout the island. Furthermore, we completed waterline rehabilitation projects in Estates Hannah's Rest and Campo Rico. These projects included replacing outdated ductile iron pipes with new PVC lines, improving water distribution, and reducing service disruptions.

On behalf of VI Water and Power Authority, I extend my deepest gratitude to our hardworking staff, community partners, and, most importantly, our valued customers for your trust and support. Your feedback and engagement are vital as we strive to provide the best possible service.

Thank you for allowing us to serve you. If you have any questions or would like more information regarding this report, please do not hesitate to contact us.

Respectfully,

Don Gregoire

Don Gregoire

Interim Chief Operating Officer-Water Systems

This report contains very important information about your drinking water. Please translate it or speak with someone who understands it.	Ce rapport contient des informations très importantes au sujet de votre eau potable. S'il vous plaît de le traduire ou de parler avec quelqu'un qui le comprend.	Este informe contiene información muy importante sobre su agua potable. Por favor, traducirlo o hablar con alguien que lo entienda.

WATER QUALITY DATA

DISINFECTANTS-CHLORINE RESIDUAL												
Monthly Ave. (ppm)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
	1.4	1.2	1.2	1.2	1.3	1.0	1.2	1.1	1.0	1.1	1.2	1.2
Quarterly Running Ave.	1.3			1.2			1.1			1.2		
Running Annual Ave. (RAA)	1.1			1.1			1.1			1.2		
MRDL	**MRDLG**			**VIOLATION**			**LIKELY SOURCE**					
4 as Cl2	4 as Cl2			No			Water additive used to control microbes					

Note: Reported RAA for quarters 1-3 are based on results from previous quarters in 2023 and are not reported on this Disinfectants-Chlorine table.

OCCURRENCE OF MICROBIOLOGICAL CONTAMINANTS (REVISED TOTAL COLIFORM RULE)		
CONTAMINANTS	**HIGHEST # OF POSITIVE SAMPLES IN ANY ONE MONTH**	**TOTAL # OF POSITIVE SAMPLES FOR 2024**
Total Coliform	0	0
E. coli	0	0

MICROBIOLOGICAL CONTAMINANTS (REVISED TOTAL COLIFORM RULE VIOLATIONS)				
CONTAMINANTS	**MCL**	**NUMBER**	**VIOLATION**	**LIKELY SOURCE**
E. coli	E. coli positive repeat following *E. coli* positive routine	0	NO	Naturally present in the environment. Human and Animal waste.
	TC-positive repeat following *E. coli* positive routine	0	NO	
	Failed to take required repeat samples following *E. coli* positive routine	0	NO	
	Failed to test for *E. coli* when any repeat test positive for TC	0	NO	

LEVEL 1 & LEVEL 2 ASSESSMENTS (REVISED TOTAL COLIFORM RULE)				
ASSESSMENT	**NO. OF REQUIRED ASSESSMENTS**	**NO. OF COMPLETED ASSESSMENTS**	**NO. OF CORRECTIVE ACTIONS REQUIRED**	**NO. OF CORRECTIVE ACTIONS TAKEN**
LEVEL 1	0	0	0	0
LEVEL 2	0	0	0	0

WATER QUALITY DATA

STAGE 2 DISINFECTANTS AND DISINFECTION BY-PRODUCTS RULE (DDBP)

Trihalomethanes and Haloacetic Acids are byproducts of disinfecting water with chlorine. Some people who drink water containing Trihalomethanes in excess of the highest allowed (MCL) over many years may experience problems with their liver, kidneys, or central nervous system and may have an increased risk of getting cancer.

Total Trihalomethanes (TTHM) (ppb)	1st Quarter 2024 (Mar)	2nd Quarter 2024 (Jun)	3rd Quarter 2024 (Sept)	4th Quarter 2024 (Oct)
88 Pearl B. Larsen	76.1	61.5	No Data	123
LRAA	79.8	73.8		86.9
317 Calquohoun	4.4	1.7	No Data	1.4
LRAA	2.1	2.2		2.5
395 Airport	2.9	5.3	No Data	4.7
LRAA	3.3	3.9		5.3
327 F'sted Dock	2.3	6.5	No Data	3.2
LRAA	4.0	3.7		4

RANGE	HIGHEST LRAA	MCL	MCLG	VIOLATION	LIKELY SOURCE
1.4—123	86.9	80	N/A	YES	Byproduct of drinking water disinfection

Haloacetic Acids (HAA5) (ppb)	1st Quarter 2024 (Mar)	2nd Quarter 2024 (Jun)	3rd Quarter 2024 (Sept)	4th Quarter 2024 (Oct)
88 Pearl B Larsen	6.7	7.0	No Data	11.5
LRAA	11.5	9.3		8.4
317 Calquohoun	1.1	BDL	No Data	BDL
LRAA	2	1.4		BDL
395 Airport	BDL	1.1	No Data	1.1
LRAA	.95	.95		BDL
327 F'sted Dock	BDL	1.2	No Data	BDL
LRAA	0.7	1.0		BDL

RANGE	HIGHEST LRAA	MCL	MCLG	VIOLATION	LIKELY SOURCE
BDL—11.5	11.5	60	N/A	YES	Byproduct of drinking water disinfection

A MCL exceedance occurred in the 4th Quarter for TTHM as both the quarterly and LRRA results at 88 Pearl B Larsen were above the MCL. The 3rd Quarter no sampling was conducted due to hurricane (Helene) activity in vicinity of vendor who conducts chemical analysis.

Note: Reported LRAA for quarters 1-3 are based on results from previous quarters in 2023 and are not reported on these

WATER QUALITY DATA

INORGANIC CHEMICALS (IOC)							
Contaminant	**Location**	**Units**	**Level Detected**	**MCL /AL**	**MCLG**	**Violation**	**LIKELY SOURCE**
Arsenic	St. Croix Entry	ppm	BDL	0.010	0	No	Naturally occurring in the environment. Byproducts of some agricultural and industrial activities.
Copper	St. Croix Entry	ppm	BDL	1.3	1.3	No	Runoff from fertilizer use, leaching from septic tanks, sewage, corrosion of natural products.
Cyanide	St. Croix Entry	ppm	BDL	0.2	0.2	No	Runoff from fertilizer use, leaching from septic tanks, sewage, corrosion of natural products.
Lead	St. Croix Entry	ppm	BDL	0.015	0	No	Runoff from fertilizer use, leaching from septic tanks, sewage, corrosion of natural products.
Nitrate	St. Croix Entry	ppm	BDL	10	10	No	Runoff from fertilizer use, leaching from septic tanks, sewage, corrosion of natural products.
Nitrite	St. Croix Entry	ppm	BDL	1	1	No	Runoff from fertilizer use, leaching from septic tanks, sewage, corrosion of natural products.

Note: VIWAPA-STX is on a reduced monitoring schedule of once every three (3) years for IOC. Last monitoring was in 2021. A total of fifteen (15) chemical contaminants were tested under IOC. All other results were Below Detection Limit (BDL).

VOLATILE ORGANIC CHEMICALS (VOC)							
Contaminant	**Location**	**Units**	**Level Detected**	**MCL**	**MCLG**	**Violation**	**LIKELY SOURCE**
21 Regulated VOCs	St. Croix Entry	ppm	BDL	-	-	No	Naturally occurring in the environment. Byproducts of some agricultural and industrial activities

Note: VIWAPA-STX is on a reduced monitoring schedule of once every three (3) years for VOC. Last monitoring was in 2021. The twenty-one (21) regulated VOCs contaminants were tested. All results were Below Detection Limit (BDL).

WATER QUALITY DATA

LEAD AND COPPER						
MONITORING PERIOD	CONTAMINANT	AL (ppm)	90th PERCENTILE VALUE	RANGE	VIOLATION	LIKELY SOURCE
July—December 2024	Lead (Pb)	0.015	0.0014	None	YES*	Corrosion of household plumbing systems; Erosion of natural deposits.
	Copper (Cu)	1.3	0.031	None	YES*	

Note: VIWAPA-STX has been mandated to collect a minimum of 80 samples. VIWAPA-STX failed to collect the minimum 80 samples. In addition to, VIWAPA-STX did not submit results within 10-days of the end of the sampling period. 90th percentile value is based on the collection of 39 samples. Value is under Action Level (AL) for both lead and copper. *Violation is due to a failure to monitor and non-submittal in the mandated time frame.`

LEAD AND COPPER

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. Public utilities are responsible for providing high quality drinking water. 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 are available locally at www.cleanwaterusvi.com and from the National Safe Drinking Water Hotline (1-800-426-4791) or at **http://water.epa.gov/drink/info/lead/index.cfm**

REDUCE YOUR EXPOSURE TO LEAD AND COPPER

Clean Faucet Aerators: Aerators should be regularly cleaned to remove particulate matter and prevent lead-bearing particulates from leaching lead into drinking water.

Flush Your Tap Water: Before drinking, flush your home's pipes by running water at the tap. Flushing involves opening taps and letting the water run to remove water that has stagnated in pipes, faucets and/or fixtures. Let cold water run from the tap for approximately 30-45 seconds or 8 oz.

Install Lead-Free Plumbing: Lead in drinking water may result from lead plumbing or a wide array of lead containing pipes, fittings and devices made of leaded brass/bronze alloys, like kitchen faucets or water fountains. When replacing your plumbing, ensure that the new plumbing materials comply with the current "lead free" requirements and NSF/ANSI/CAN 61 certified plumbing components.

Use a Filter for Added Protection: Point of use or pitcher water filters (NSF/ANSI-53 filters and NSF/ANSI-42) can be used, either alone or in combination with flushing, to reduce exposure in water used for consumption (drinking, cooking, etc.).

WATER QUALITY DATA

UNREGULATED CONTAMINANT MONITORING RULE (UCMR) 5

The **Unregulated Contaminant Monitoring Rule (UCMR 5)**, implemented by the U.S. Environmental Protection Agency (EPA), is focused on monitoring specific contaminants in drinking water that are currently unregulated but may pose a potential risk to public health. UCMR 5 covers a range of chemical and microbial contaminants, and the data collected is used to inform future regulatory decisions.

UCMR 5 Monitoring Focus:

1. **Per- and Polyfluoroalkyl Substances (PFAS):** UCMR 5 includes monitoring for several types of PFAS, a group of man-made chemicals used in various industrial and consumer products. PFAS are known for their persistence in the environment and human body, leading to concerns about their potential health effects, such as cancer and liver damage.

2. **Additional Contaminants:** UCMR 5 also targets other chemical contaminants, including certain volatile organic compounds (VOCs), pesticides, and metals that may be present in drinking water. These contaminants can originate from industrial processes, agricultural runoff, or naturally occurring sources.

3. **Microbial Contaminants:** While the primary focus of UCMR 5 is on chemical contaminants, the rule may also include monitoring for certain microbial contaminants that could indicate the presence of pathogens or harmful bacteria in drinking water.

4. **Data Collection:** Public water systems (PWS) of various sizes across the U.S. are required to participate in this monitoring program. They collect water samples and test for the listed contaminants, providing valuable data on their occurrence and concentrations in drinking water supplies.

Purpose and Impact: the data collected through UCMR 5 helps the EPA identify contaminants that may need future regulation to protect public health. By monitoring these unregulated contaminants, the EPA can proactively address emerging threats to water quality and ensure safe drinking water for communities nationwide.

CONTAMINANTS Units (ppb)	SE 2 JAN 2024	SE 3 MAY 2024	SE 3 SEP 2024
Lithium	BDL	No Data/No Collection	BDL
533 PFAS Compounds	No Data/Rejected due to presence of Chlorine	No Data/No Collection	BDL
537.1 PFAS Compounds	No Data/Rejected due to presence of Chlorine	No Data/No Collection	BDL
LIKELY SOURCE	The contaminants monitored under UCMR 5 can enter drinking water supplies from various sources, including industrial processes, agricultural activities, municipal waste, natural geological formations, and specific firefighting activities. By identifying these sources, the UCMR 5 program helps to assess the extent of contamination and guide efforts to mitigate potential health risks associated with these unregulated contaminants.		

TERMS DEFINED

90th Percentile Levels – The highest concentration of lead or copper in tap water that is exceeded by 10 percent of the sites sampled during a monitoring period. This value is compared to the lead action level (AL) to determine whether an AL has been exceeded.

Action Level (AL) – the concentration of a contaminant, which if exceeded, triggers treatment or other requirements**.**

EPA Goal/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.

EPA Limit/ 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 technology.

Maximum Residual Disinfection Level (MRDL) - means a level of disinfection added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.

Maximum Residual Disinfection Level Goal (MRDLG) - means a level of disinfectant added for water treatment that may not be exceeded at the consumer tap.

Coliforms - bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliform indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment (s) to identify problems and to correct any problems that were found during these assessments.

Level 1 Assessment - is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment - is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system.

E. coli – are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short term effects such as diarrhea, cramps, nausea, headaches or other symptoms.

Non-applicable (N/A) - Not applicable. **Non–detected (N/D) -** Not detected. **BDL** – Below detection limit.

Parts per billion (ppb) – one part per billion (micrograms per liter) corresponds to one minute in 2,000 years, or one penny in $10 million.

Parts per million (ppm) – one part per million (milligrams per liter) corresponds to one minute in two years, or a single penny in $10,000.

Curie - the curie (symbol Ci) is a non SI unit of radioactivity, defined as 1 Ci = 3.7 x 10^{10} decays per second.

PicoCurie – (pCi) 0.000,000,000,001 (one trillionth) of a Curie, an international measurement unit of radioactivity.

Million Fibers per Liter (mfl) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers**.**

Treatment Technique (TT) – a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

VIWAPA

The Virgin Islands Water and Power Authority (VIWAPA) is a publicly owned utility company, which produces and distributes electricity and potable water to the residents of the United States Virgin Islands. Operation of the Authority's water distribution systems and standpipes are done on St. Croix, St. Thomas and St. John.

VIWAPA obtains water produced by Seven Seas Water from one source, seawater. As water travels over the land and into the sea or filters through the ground settling in aquifers, it dissolves naturally occurring minerals and can pick up contaminants resulting from the presence of animals or human activity.

REGULATING AGENCIES

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 mean that the water poses a health risk.

The Virgin Islands Department of Planning and Natural Resources (DPNR) and the United States Environmental Protection Agency (EPA) ensures that potable water is safe to drink. Both agencies have prescribed limits on the contaminants in water provided by public water systems. DPNR has established the same criteria for contaminants in bottled water.

EPA defines a water contaminant as any physical, chemical, biological, or radiological substance or matter in water. EPA sets legal limits on the levels of certain contaminants in drinking water. The legal limits reflect both the level that protects human health and the level that water systems can achieve using the best available technology. Besides prescribing these legal limits, EPA rules set water testing schedules and methods that water systems must follow. The rules also list acceptable techniques for treating contaminated water.

The Safe Drinking Water Act gives individual territories the opportunity to set and enforce their own drinking water standards if the standards are at least as strong as EPA's national standards. Most territories directly oversee the water systems within their borders.

SPECIAL PRECAUTIONS

Some people are 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 for infections.

These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available for EPA's Safe Drinking Water Hotline (1-800-426-4791) or EPA's website at www.epa.gov/safewater. More information about contaminants and potential health effects can also be obtained from the hotline or EPA's website.

Nitrate and Nitrite are nitrogen-oxygen chemical units which combine with various organic and inorganic compounds. Once taken into the body, nitrates are converted to nitrites. EPA has set a MCL because the possible presence can pose a health risk for infants of less than six months of age. The MCL for nitrates has been set at 10ppm, and for nitrites at 1ppm. Excessive nitrate levels in drinking water can cause metahemaglobanemia also called blue baby syndrome. If you are caring for an infant, you should ask for advice from your health care provider.

VIWAPA –STX WATER FACTS

1. **Roughly about 146 miles of interconnecting pipeline.**
2. **7 Pressure reducing pump stations, 2 pumping stations and 5 booster stations to assist with delivering water and 220 fire hydrants.**
3. **Consist of 40 sample stations for water quality testing. Approximately 225 bacteriological test performed every month.**

WATER FUN FACTS

1. **Roughly 70% of the human body is made up of water.**
2. **Water makes up 83% of our blood, 70% of our brain, and 90% of our lungs.**
3. **Drinking too much water too quickly can lead to water intoxication. Water intoxication occurs when water dilutes the sodium level in the bloodstream and causes and imbalance of water in the brain.**
4. **By the time a person is feeling thirsty, his or her body has already lost over 1% of it's total water amount.**
5. **The weight a person loses directly after intense physical activity is weight from water, not fat.**
6. **Pure water (solely hydrogen and oxygen atoms) has a neutral pH of 7, which is neither acidic nor basic.**
7. **Flushing toilets represent the largest portion of indoor water use.**
8. **Water dissolves more substances than any other liquid. Wherever it travels it carries chemicals, minerals and nutrients with it.**

VI Water and Power Authority

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Please contact VIWAPA's Communications Division at (340)773-2250 or communications@viwapa.vi if you have any questions about this Potable Water Quality Report for VI0000097 (St. Croix)