



**35<sup>TH</sup> LEGISLATURE OF THE VIRGIN ISLANDS  
COMMITTEE OF THE WHOLE**

**THE VIRGIN ISLANDS DEPARTMENT OF HEALTH**

**Testimony**

On the ongoing crisis of the Water and Power Authority's potable water system, to include findings of elevated lead and copper levels in the St. Croix district, and the issue of discolored water and active mitigation efforts to support St. Croix residents.

Virgin Islands Department of Health  
Emergency of WAPA potable water system

1 Honorable Senate President Novelle E. Francis, Jr.; Chair of the Committee of the Whole, and Esteemed  
2 Members of the 35<sup>th</sup> Legislature, I am Dr. Nicole Craigwell-Syms, Acting Health Commissioner of the  
3 Virgin Islands of the United States, appearing on behalf of Health Commissioner, Justa E. Encarnacion,  
4 accompanied by our team including Dr. Esther Ellis, Territorial Epidemiologist; Wanson Harris, Director  
5 of Environmental Health and Safety; Dr. Brett Ellis, Director of Laboratory; Christine Lett, Director of  
6 Communications; and Ovid Williams, Director of Preparedness Division.

7 The purpose of our appearance today is to provide essential testimony addressing the ongoing emergency  
8 affecting the Water and Power Authority's potable water system, to include findings of elevated lead and  
9 copper levels in the St. Croix district, and the issue of brown and red water and active mitigation efforts to  
10 support St. Croix residents.

11 The Department's testimony will cover the significant findings of elevated lead and copper levels within  
12 the St. Croix district. The team acknowledges the challenges faced by the US Virgin Islands considering  
13 water infrastructure crises nationwide, including those in Flint, Michigan; Washington D.C.; Chicago;  
14 Newark, New Jersey; Benton Harbor and Detroit, Michigan, underscoring the urgent need for immediate  
15 action.

16 In anticipation of potential public health consequences, President Biden signed the bipartisan infrastructure  
17 bill in late 2021, allocating \$50 billion to address national water infrastructure concerns. This allocation  
18 reflects the gravity of the situation and the pressing need for comprehensive remediation.

19 The Virgin Islands Department of Health (VIDoH) responded promptly to water quality concerns within  
20 the community, ensuring a state of readiness. Recognizing the inherent risks associated with lead  
21 contamination, the VIDoH initiated a comprehensive blood level testing program targeting children aged  
22 zero to six, and pregnant women, who are most at risk. The primary aim of this program is to detect any  
23 traces of lead in their bloodstream. VIDoH's intention is to provide free blood level testing to all children  
24 within this age group, beginning with approximately 1,000 young children on the island of St. Croix.

1 While the immediate focus remains on childhood lead exposure, it is vital to emphasize that lead is a toxic  
2 heavy metal with far-reaching adverse effects on human health, even at low levels of exposure. On October  
3 30, 2023, VIDOH introduced the "Safe Haven: A Lead-Free Family Initiative" to raise awareness of lead  
4 exposure and conduct blood lead level testing for children. This move was critical for a number of reasons.

5 From a neurological perspective, lead exposure, particularly in children, has been associated with cognitive  
6 impairments, leading to reduced IQ scores, learning difficulties, and impaired academic performance.  
7 Additionally, lead exposure within this age group may manifest as behavioral issues, including heightened  
8 hyperactivity, impulsiveness, and attention difficulties.

9 Lead disrupts hemoglobin production within the human body, potentially leading to anemia, characterized  
10 by symptoms such as fatigue, weakness, and noticeable skin paleness. Chronic lead exposure has also been  
11 linked to elevated blood pressure, increasing the risk of heart disease and stroke in adults, as well as the  
12 risk of kidney damage or failure due to the accumulation of lead in the kidneys over time.

13 It is crucial to recognize that lead exposure poses a heightened threat to pregnant women and young children  
14 due to their increased vulnerability, given their developing bodies and brains. Various healthcare  
15 organizations, including the Centers for Disease Control and Prevention (CDC), have developed guidelines  
16 with a primary focus on minimizing lead exposure and closely monitoring lead levels, particularly in  
17 children, to mitigate the detrimental neurological, physiological, and psychological consequences. In cases  
18 where lead exposure is suspected, seeking medical guidance, and implementing appropriate measures to  
19 reduce exposure and address associated concerns is imperative.

20 Dr. Tai Hunte-Cesar, Medical Director, has already engaged with the healthcare providers in the territory  
21 to provide awareness for a complete healthcare response to include the public and private sectors. The  
22 priority will be to respond to children ages 0-6 and pregnant women. However, adults will need access to  
23 blood level testing with the development of any acute or chronic symptoms for the appropriate management.

Virgin Islands Department of Health  
Emergency of WAPA potable water system

1 Blood level testing for pregnant women and adults will be facilitated by their healthcare providers. Primary  
2 and prenatal care providers will be educated on the need to provide access.

3 The Department's Division of Environmental Health has been actively engaged in assessing and mitigating  
4 this emergency, collaborating with technical experts, including water quality engineers from the National  
5 Environmental Health Association (NEHA), environmental epidemiologists, and toxicologists, to ensure a  
6 well-informed and scientifically robust response. The team meticulously adhere to federal and state  
7 regulations and strongly encourage residents to assess their homes for lead exposure, consider the  
8 installation of filters or a water filtration system to safeguard against lead ingestion or inhalation from water  
9 or paint, and utilize the blood lead testing for children aged zero to six. It is important to also note that  
10 blood lead levels are routinely tested in children aged 9 months to 1 year by pediatricians in the territory as  
11 a way to screen for those who may be exposed to lead in the environment such as older homes or  
12 contaminated soil.

13 Their comprehensive monitoring and blood level testing program, utilizing state-of-the-art instrumentation  
14 for continuous monitoring and rigorous sampling protocols, allows for close monitoring of the effectiveness  
15 of their remediation efforts. The division also advocates for technical policies prioritizing water quality  
16 improvements, infrastructure investments, and advanced monitoring technologies to preempt future lead  
17 and copper contamination.

18 The Department Health is actively engaged in securing technical and financial resources from NEHA to  
19 enhance advanced water treatment technologies, acquire analytical equipment, and employ skilled  
20 personnel the CDC, thereby strengthening their response capabilities. From a technical standpoint, their  
21 commitment centers on establishing a preventive framework encompassing routine water system  
22 assessments, corrosion control strategies, infrastructure asset management, supporting blood lead testing  
23 and public education programs addressing lead and copper risk mitigation. We anticipate boots on the  
24 ground assistance from CDC starting next week.

Virgin Islands Department of Health  
Emergency of WAPA potable water system

1 This week, the VI Department of Health’s Epidemiology Division, in collaboration with the VI Department  
2 of Education, launched a pilot blood level testing program at the Alfredo Andrews Elementary School, for  
3 students in pre-K to first grade. This pilot is now completed, and 64 children were tested for the presence  
4 of lead in their blood and all 64 children tested negative and no confirmatory blood level testing was needed  
5 in that population. Commencing on November 6, 2023, VIDOH will extend the program to provide  
6 complimentary blood lead level tests for children aged zero to six on St. Croix. Parents or guardians are  
7 required to register their children on the VIDOH online portal to provide consent. Blood level testing will  
8 be conducted by the VIDOH Epi team from 8:30 a.m. to 5 p.m., Monday through Friday, at the Community  
9 Health van located near the department's modulars in Estate Richmond. Registration details are available  
10 at the following link [health.usvi.care/pediatric-lead-blood level testing.html](https://health.usvi.care/pediatric-lead-blood-level-testing.html) and will be disseminated  
11 through local news outlets, the VIDOH website ([www.doh.vi.gov](http://www.doh.vi.gov)), and the VIDOH Facebook page  
12 (@virginislandsDOH) starting on November 1, 2023. In the event any positives are found the Department  
13 of Health will deploy its normal lead protocol which starts with a home assessment as well as referring the  
14 individuals to appropriate providers. We also have an XRF machine which allows for in the field blood  
15 level testing of lead. Household XRF screening will be offered to families with a child who received a  
16 positive blood lead level capillary test ( $\geq 3.3$  ug/dL) confirmed by a venous blood draw. The primary  
17 application of household XRF screening is to detect lead-based paint and other materials that may contain  
18 harmful levels of lead. This equipment has already been used to assist WAPA and DPNR to show that  
19 remediation efforts are being successful, as components that contain lead and copper have been removed  
20 and replaced with components that are lead and copper free as verified by the XRF machine.

21 The outreach initiatives, performed as a unified effort, will begin next week, and will serve as an integral  
22 component to addressing the issue of elevated lead levels within our communities. Upon the detection of  
23 elevated lead levels, it becomes imperative to actively engage, with the primary objectives of enhancing  
24 awareness, disseminating essential information, and extending support. These outreach endeavors are  
25 multifaceted, commencing with the implementation of educational campaigns, the dissemination of

1 informative graphics, the organization of town hall meetings, and the administration of resident surveys for  
2 the purposes of data collection. These activities are meticulously designed to educate residents about the  
3 specific risks linked to lead exposure and to explain the preventive measures that individuals and families  
4 can adopt. Furthermore, the outreach endeavors seek to debunk prevalent myths and misconceptions by  
5 fostering a cohesive sense of community solidarity and mobilizing community members, these outreach  
6 efforts effectively contribute to the prevention of lead exposure, the mitigation of its adverse health  
7 repercussions, and the initiation of sustainable long-term solutions, including enhanced infrastructure and  
8 comprehensive environmental remediation measures.

9 The VIDOH expresses gratitude to local laboratories (St.Croix clinical laboratory) and FQHC (Frederiksted  
10 healthcare) for their support in providing additional blood level testing supplies and equipment and  
11 expediting the blood level testing process. In addition, the public health laboratory has advanced equipment  
12 (ICP-MS) and is committed to getting this new equipment set up in order to increase on island water testing  
13 capacity.

14 For inquiries related to lead blood level testing, residents may contact the Department of Health hotlines at  
15 340-712-6299 or 340-776-1519 during business hours. In the event of a positive capillary blood lead test,  
16 VIDOH will recommend follow-up blood level testing, including a venous blood draw for confirmation,  
17 with results expected within a few days. In cases of confirmed lead poisoning, follow-up services will be  
18 recommended. Residents are strongly encouraged to assess their home environments for potential lead  
19 exposure.

20 In conclusion, the Department of Health is committed to reducing health risks, increasing access to quality  
21 healthcare, and enforcing health standards. We have a commitment to the health and safety of our  
22 community. I would like to thank the members of the VIDOH team who have been actively engaged in this  
23 response. Again, thank you for the opportunity to provide testimony on the ongoing water emergency  
24 affecting St. Croix, we stand ready to respond to any questions you may have.