

**BOARD OF WATER SUPPLY
KA 'OIHANA WAI
CITY AND COUNTY OF HONOLULU**

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September 24, 2024

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Martha Guzman
Regional Administrator
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, California 94105

and

Kenneth S. Fink, MD, MGA, MPH
Director of Health
Hawaii State Department of Health
1250 Punchbowl Street
Honolulu, Hawaii 96813

Dear Ms. Guzman and Dr. Fink:

Subject: Resident Testimony Concerning Lead in Water Samples from Joint Base Pearl Harbor-Hickam (JBPHH) Received at September 23, 2024 Board of Water Supply (BWS) Board of Directors Meeting

On September 23, 2024, BWS received the enclosed testimony at its Board of Directors meeting from a resident concerned about the high lead levels found in water samples collected from various JPBHH locations. BWS requests your assistance to review and respond to the resident's concerns about the health significance of the lead levels detected. The name of the resident submitting the testimony is Susan Pcola-Davis. BWS would appreciate receiving a copy of your response to Ms. Pcola-Davis.

Thank you for your assistance with this matter. If you have any questions, please contact Erwin Kawata, Deputy Manager, at (808) 748-5066.

Very truly yours,

Ernest Y.W. Lau, P.E.
Manager and Chief Engineer

Enclosures

Ms. Martha Guzman and Dr. Kenneth Fink
September 24, 2024
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cc: Rear Admiral Stephen Barnett
Commander
Navy Region Hawai'i
850 Ticonderoga Street, Suite 110
Joint Base Pearl Harbor-Hickam, Hawai'i 96860

Kathleen Ho
Deputy Director
Environmental Health Administration
Hawai'i State Department of Health
1250 Punchbowl Street
Honolulu, Hawai'i 96813

Nā'ālehu Anthony
BWS Board Chair

Board of Water Supply

Meeting September 23, 2024

Susan A. Pcola-Davis

1. Lead EXCEEDANCES in Drinking Water >15 ug/L
 - a. Zones with Schools
 - i. D1: Pearl Harbor Kai Elementary
 - [March 31 and April 1, 2022-18.8 ug/L and 26.3 ug/L]
 - ii. E1: Montessori Center of Pearl Harbor
 - [March 22, 2022-30.2 ug/L]
 - iii. F1: Moanalua Pre-School and Kama'aina Kids
 - [March 29, 2022-33.4 ug/L]Pearl Harbor Elementary School
[February 9, 2023-17.2 ug/L]
 - b. Why is this important?
 - i. Due to LEAD sampling protocol not being followed, you can't be sure these results are correct
 - ii. The EPA also can't absolutely say that the Navy is following the Lead sampling protocol.
 - iii. Even these detections show a strong pattern.
 - iv. The Regulators are not monitoring sample collections by contractor AECOM.
 - c. Health effects of Lead over time ASTDR

8. REGULATIONS AND ADVISORIES

ATSDR - TOXICOLOGICAL PROFILE FOR LEAD (epa.gov)

In an effort to protect human health by reducing the lead levels in drinking water at consumers' taps to as close to the maximum contaminant level goal (MCLG) of zero, water system authorities are required to:

- (1) install or improve **corrosion control** to minimize lead levels at the tap while ensuring that treatment does not cause the water system to violate any national primary drinking water regulation;
- (2) install **treatment to reduce lead in source water entering the distribution system**;
- (3) **replace lead service lines when >10%** of targeted tap samples exceed 0.015 mg/L lead in drinking water if corrosion control and/or source water treatment does not bring lead levels below the lead action level; and
- (4) conduct **public education** programs if lead levels are above the action level (EPA 1991a).

The Lead Contamination Control Act of 1988 mandates that the Consumer Product Safety Commission (CPSC):

- Require that states establish programs to assist educational agencies in testing and remediating lead contamination of drinking water in schools

On average, it requires slightly more than 1 year for children enrolled in case management with BLLs ≥ 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) to decline to < 10 $\mu\text{g}/\text{dL}$ [Dignam et al. 2008].

Implications of Biological Fate

It is important that primary care physicians:

- Evaluate a patient with potential lead poisoning,
- Examine potential current and past lead exposures,
- Look for other factors that affect the biokinetics of lead (such as pregnancy or poor nutrition), and
- Rule out lead poisoning in cases of unexplained seizures or coma.

Key Points

- Children absorb a higher percentage of ingested lead than adults.
- Once in the bloodstream, lead is primarily distributed among three compartments – blood, mineralizing tissue, and soft tissues. The bones and teeth of adults contain more than 95% of total lead in the body.
 - In times of stress (particularly pregnancy and lactation), the body can mobilize lead stores, thereby increasing the level of lead in the blood.
 - The half-life of lead in adult human blood has been estimated as 28 days.
 - The body accumulates lead over a lifetime and normally releases it very slowly.
 - Both past and current elevated exposures to lead increase patient risks for adverse health effects from lead.

Neurological Effects:

Children. Decreased cognitive function; altered mood and behaviors that may contribute to learning deficits, altered neuromotor and neurosensory function, peripheral neuropathy, and encephalopathy.

Adults. Decreased cognitive function including attention, memory, and learning; altered neuromotor and neurosensory function; altered mood and behavior; and decreased peripheral nerve conduction velocity.

**LEAD EXCEEDANCES
MARCH 11, 2022 – JANUARY 24, 2024**

Susan A. Pcola-Davis

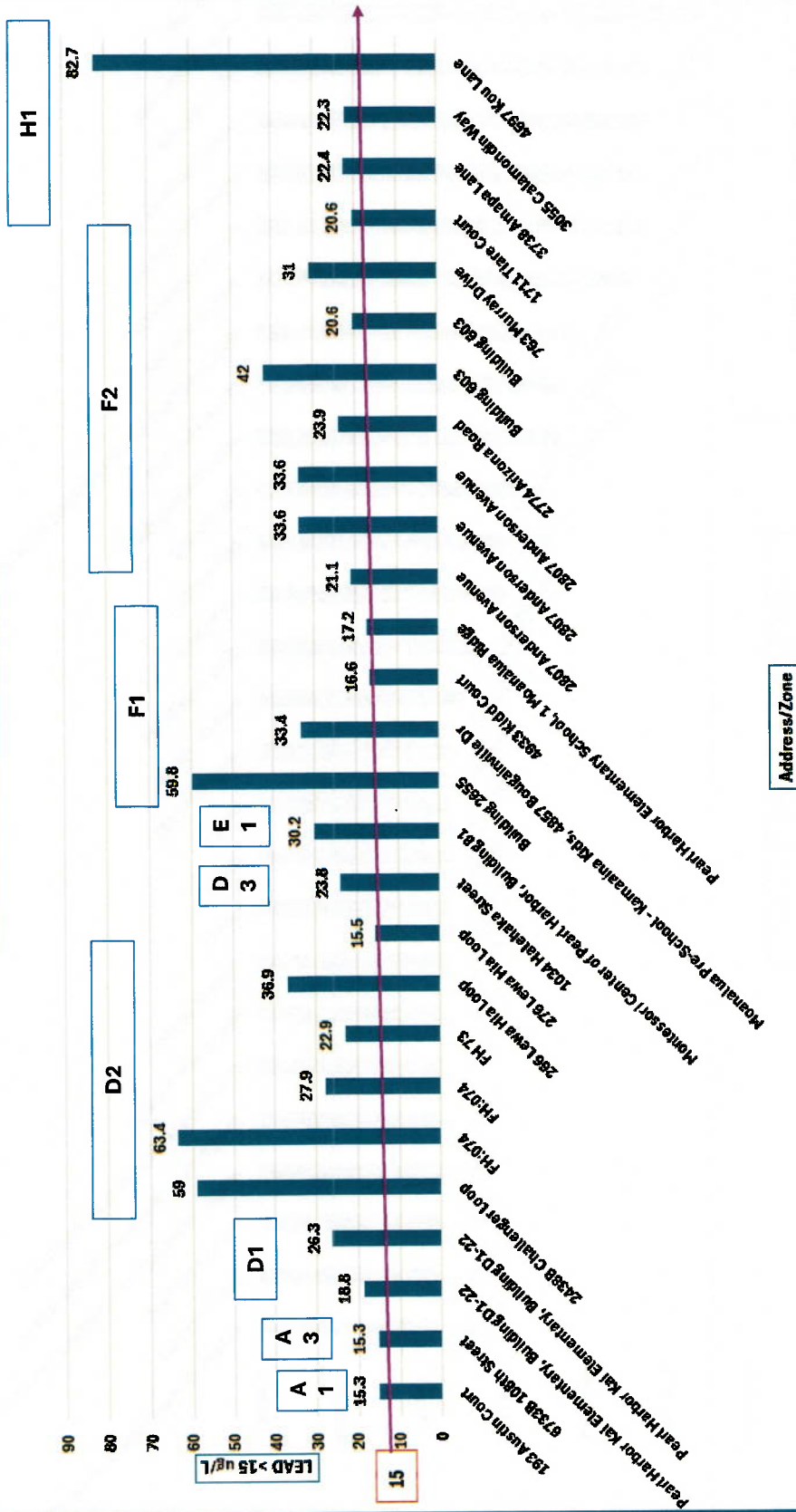
Long Term Monitoring

Extended Drinking Water Monitoring (last slide)

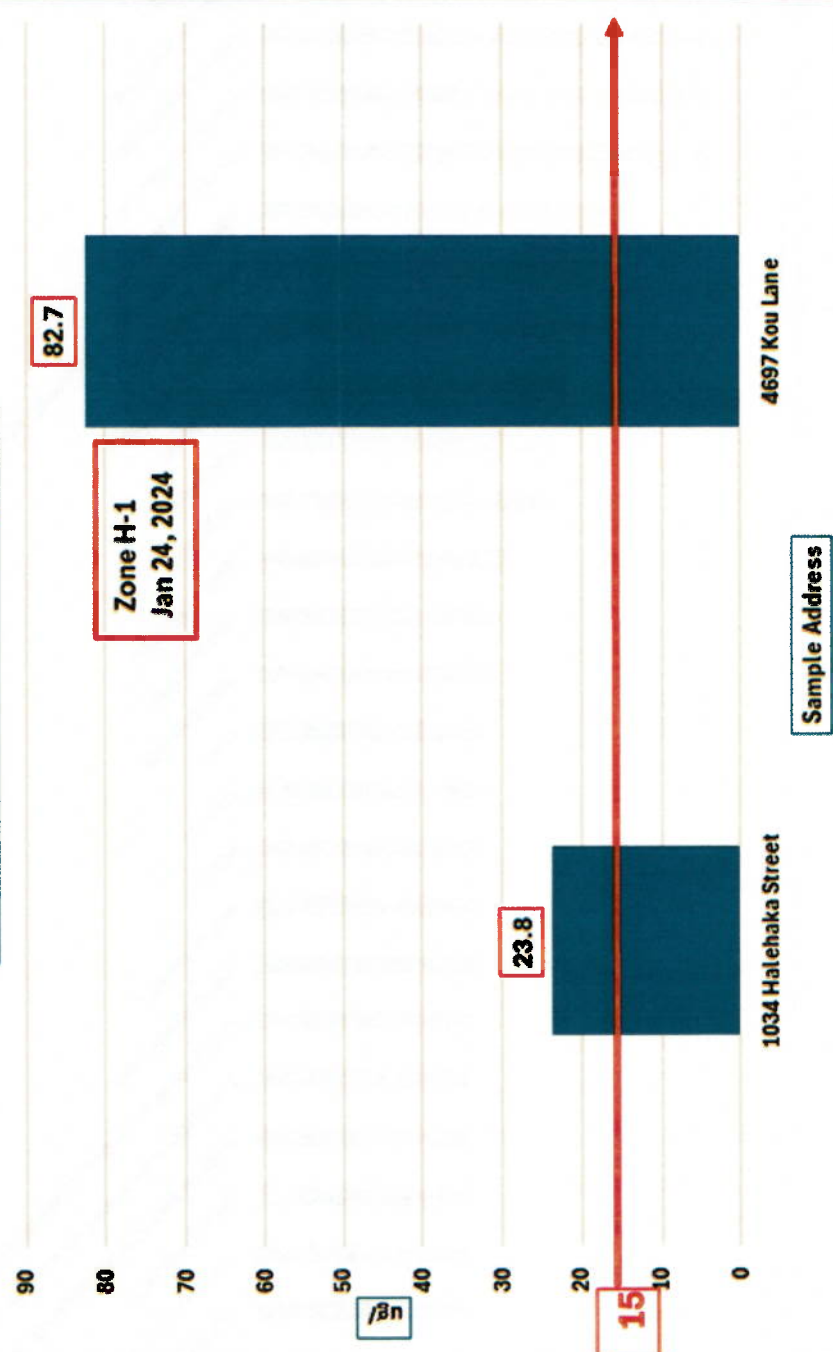
ZONES with Schools

- D1: Hale Moku, Hukulani;
 - **Pearl Harbor Kai Elementary**
- E1: Makalapa;
 - **Montessori Center of Pearl Harbor**
- F1: NEX, Moanalua Terrace;
 - **Moanalua Pre School, Kamaiana Kids**

**Lead Exceedances >15ug/L
By Address/Zone
March 11, 2022 - January 24, 2024**



**Extended Drinking Water Monitoring
Lead Exceedance > 15ug/L**



Zone H-1
Jan 24, 2024

Sample Address

**Lead Exceedances >15ug/L
By Zone
March 11, 2022 - January 24, 2024**

