Navy Water System Incident: Update on Drinking Water System Flushing and Water Quality Data Collection

Agenda Item D.2.a.

Hawai‘i Department of Health for Department of Land and Natural Resources Commission on Water Resource Management

February 15, 2022
Agenda

1. Public Health Advisory
2. Status of the Drinking Water System Flushing
3. Water Quality Data Collection - Sampling Plan & Long Term Monitoring of the Drinking Water
4. Guidance to Amending the Public Health Advisory - Lines of Evidence

https://health.hawaii.gov/about/navy-water-system-quality-updates/
Current Advisory

Navy water system users under advisory should avoid using the water for drinking, cooking or oral hygiene.

Pets under advisory should not drink water.

Those who detect a fuel-like odor should also avoid using the water for bathing, dishwashing or laundry.

Symptoms from Exposure to Petroleum Hydrocarbons in Drinking Water

• Stomach upset, nausea, vomiting and diarrhea
• Lightheadedness, headache and difficulty concentrating
• Skin irritation, redness or peeling skin
• Difficulty breathing, coughing and a pneumonia like syndrome

Hawaii Poison Control Center
1-800-222-1222
Navy Drinking Water System - Health Advisory Status (as of 2/14/2022)

Navy Drinking Water System Flushing Status (as of 2/15/2022)

No Shortcuts: The Path to Safe Tap Water
HEALTH ADVISORY AMENDMENT PROCESS

FIRST REPORTS TO DOH OF DRINKING WATER CONTAMINATION NOV. 28, 2021
93,000 Residents
9,000 Families
19 Zones
COMMUNITY IMPACT

DOH ADVISORY: STOP DRINKING THE WATER NOV. 29, 2021

SYSTEM FLUSHING & SAMPLING
19 Zones completed flushing

RESIDENTIAL & NON-RESIDENTIAL FLUSHING
19 Zones completed flushing

FINAL CERTIFIED LAB SAMPLING & TESTING
16 Zones in testing stage

IDWST REVIEW & RECOMMENDATION
2 Zones under IDWST review

HAWEI STATE DEPARTMENT OF HEALTH FINAL REVIEW
0 Zones ready for DOH review

UPDATE HEALTH ADVISORY SAFE TO DRINK WATER & RETURN TO HOMES
1 Zone with safe tap water

Zone status as of February 15, 2022
IDWST Water System Flushing Zone
Water System Testing/Results Status
(as of 2/14/2022)

Stage 4 Sampling Results Report Red Hill Housing (Flushing Zone I1) (as of 2/9/2022)

Interagency Drinking Water System Team

Drinking Water Distribution System Recovery Plan: Stage 4 Sampling Results Report for Red Hill Housing (Zone I1) Joint Base Pearl-Hickam (JBPHH) 09 February 2022

Drinking Water Sampling Plan: Initial Sampling Effort

Initial Sampling Effort of 10% of homes and non-residential buildings with a minimum of 3 non-residential buildings per zone. All Schools and Child Development Centers were sampled.

Zone I1

135 houses + 6 non-residences + 1 School = 142 total

Initial samples collected by Navy and DOH during Public Health Advisory = 30 house/buildings (25 @ 25 houses; 20 @ 1 school; 4 @ 4 buildings)
Drinking Water Sampling Plan: Long Term Monitoring

Months 1-3 after initial sampling: Sample an additional 5% of homes per month, per Zone; minimum of 5 houses/buildings.

Months 4-24 after initial sampling: Sample an additional 10% of the homes per zone over each 6-month and remaining 3-month period (i.e., not per month); minimum of 15 houses/buildings per period.

Zone I1 total samples collected under Long Term Monitoring Plan:
- 3 months of 8 houses/buildings = 24 houses/buildings
- 4 periods of 15 houses/buildings = 60 houses/buildings

Total # houses/buildings sampled in Zone I1 (initial & LTM sampling) = 133
DOH Guidance to Amend the Public Health Advisory

Table 1: Lines of Evidence Under Evaluation

<table>
<thead>
<tr>
<th>Objective</th>
<th>Line of Evidence</th>
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<tbody>
<tr>
<td>1a</td>
<td>All reported sources of contamination.</td>
</tr>
<tr>
<td>1b</td>
<td>The regulated public water data is complete.</td>
</tr>
<tr>
<td>1c</td>
<td>No additional contamination distribution system is new.</td>
</tr>
</tbody>
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Table 2: Threshold Determinations that Drinking Water is NOT FIT For Human Consumption

<table>
<thead>
<tr>
<th>Parameter</th>
<th>DOH MCL (ppb)</th>
<th>DOH Project Screening Limit (ppb)</th>
<th>Basis</th>
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<tbody>
<tr>
<td>Fluoride</td>
<td>1</td>
<td>20</td>
<td>NTMA</td>
<td>NTMA</td>
</tr>
<tr>
<td>Nitrate</td>
<td>10</td>
<td>100</td>
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<td>NTMA</td>
</tr>
<tr>
<td>Sulfate</td>
<td>250</td>
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Table 3: Threshold Concentrations to Trigger Intervention

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<td>Water within the District and Federal DW MCL, or TSP.</td>
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<td>Water in previous planning meets State and Federal DW MCLs, or TSP.</td>
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Contact the following with concerns

Department of Health Safe Drinking Water Branch
808-586-4258 / sdwb@doh.hawaii.gov

US Navy:
808-449-1979
808-448-3262
808-448-2557
808-448-2570
808-448-2583

US Army:
808-620-7938
808-620-7951
DOH’s mission is to protect public health and the environment.