



STATE OF HAWAII
DEPARTMENT OF HEALTH
KA 'OIHANA OLAKINO
P. O. BOX 3378
HONOLULU, HI 96801-3378
doh.testimony@doh.hawaii.gov

In reply, please refer to:
File:

**Testimony COMMENTING on HB0319
RELATING TO HEALTH**

REPRESENTATIVE LINDA ICHIYAMA, CHAIR
HOUSE COMMITTEE ON WATER AND LAND
REPRESENTATIVE NICOLE E. LOWEN, CHAIR
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Hearing Date: 2/2/2023 Room Number: 325

1 **Fiscal Implications:** This measure will impact the priorities identified in the Governor's
2 Executive Budget Request for the Department of Health's (Department) appropriations and
3 personnel priorities.

4 **Department Testimony:** This bill proposes that the Department create and operate a long-term
5 health registry to track health impacts, collect data, and communicate with persons affected by
6 the contamination of water caused by the November 2021 release from the Red Hill Bulk Fuel
7 Storage Facility. The Department appreciates the legislature's intent but believes it would be an
8 extreme challenge to assemble the necessary funding, staffing, and technical expertise to
9 undertake such a program within the Department and that it would be unnecessary and
10 duplicative to do so because two federal agencies are currently working to plan a similar registry
11 program(s). The Department would prefer to allow time for the development of the registry
12 system(s) already under discussion by agencies better suited to carry out the large, complex task
13 this bill contemplates.

14 The Agency for Toxic Substances and Disease Registry (ATSDR), within the Centers for
15 Disease Control and Prevention (CDC), and the Defense Health Agency (DHA), under the
16 Office of the Assistant Secretary of Defense for Health Affairs, are in the process of working out
17 the details to create at least one registry program similar to what this bill proposes and are
18 working with and receiving input from the Department. Both ATSDR and DHA run similar
19 types of long-term health registries, so both agencies have staff with the necessary

1 epidemiological expertise and the experience required to administer this type of program. The
2 Department is best suited to the consulting role it is currently playing in these efforts because we
3 do not have the expertise to oversee or direct this type of program. In addition, the funding and
4 staffing resources needed to establish a registry system would be enormous—a minimum of
5 \$10-20 million and dozens of dedicated staff positions—and, even allowing for cost recovery
6 efforts, may represent a disproportionate expenditure of public health funds.

7 There are advantages to a registry run by DHA because, as part of the Department of
8 Defense (DOD), DHA has access to protected health information about affected military
9 personnel and can create a more comprehensive “opt out” registry list. Based on Department
10 comments, DHA has committed to include affected civilians who “opt in” to any registry they
11 create. A more complete registry of affected individuals would allow the registry to provide
12 information to more affected people and would also generate more comprehensive and valid
13 data. Another likely possibility is for a third party to administer a registry established by
14 ATSDR with funding from DOD, but this would mean the registry could be assembled only by
15 the choice of both military personnel and civilians to “opt in,” likely meaning less coverage of
16 affected individuals and less complete data. An ASTDR-led registry has the advantage that
17 affected persons, especially civilians, may be more comfortable entrusting their personal and
18 health information to a sub-agency of CDC than DOD. It is also possible that both ASTDR and
19 DHA will create registry programs.

20 Thank you for the opportunity to testify on this measure.

21 **Offered Amendments:** None.

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com



February 2, 2023

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The Honorable Linda Ichiyama, Chair
and Members
Committee on Water and Land
House of Representatives
Hawaii State Capitol, Room 325
415 South Beretania Street
Honolulu, Hawaii 96813

The Honorable Nicole E. Lowen, Chair
and Members
Committee on Energy and Environmental Protection
House of Representatives
Hawaii State Capitol, Room 325
415 South Beretania Street
Honolulu, Hawaii 96813

Dear Chair Ichiyama, Chair Lowen and Members:

Subject: House Bill 319: Relating to Health

The Honolulu Board of Water Supply (BWS) supports House Bill (HB) 319 that includes lifetime medical care and treatment to the persons impacted by the Red Hill water contamination.

This measure proposes the creation of a comprehensive registry of persons who ingested or came into contact with contaminated water resulting from the November 2021 release of fuel at the Red Hill Bulk Fuel Storage Facility that contaminated the Navy's drinking water sources that services Joint Base Pearl Harbor Hickam (JBPHH). The purpose is to collect data, track, and monitor the long-term health impacts of these affected individuals. According to the proposed bill the long-term analysis of this data will assist the legislature and executive branch agencies in making future policy decisions, coordinating health needs for victims, and assisting in the pursuit of cost recovery from the federal government.

Data collection is important, but does not alleviate suffering and should be supported by lifetime medical care and treatment to those impacted persons who are feeling affects now. The cost of this medical treatment should be paid for by the Navy through a program that gives the maximum amount of choices in resources and places to receive that treatment to those affected. The health and welfare of our citizens is a fundamental right and should have as much importance as cleaning up the aquifer to remove the contamination.

The Honorable Linda Ichiyama, Chair
The Honorable Nicole E. Lowen, Chair
and Members
February 2, 2023
Page 2

Thank you for the opportunity to testify in support of HB319.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Ernest Y. W. Lau', written in a cursive style.

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

A small, stylized handwritten mark or flourish in blue ink, located below the printed name.



Environmental Caucus of The Democratic Party of Hawai'i

To: The Honorable Linda Ichiyama, Chair
The Honorable Mahina Poepoe, Vice Chair
Committee on Water & Land

The Honorable Nicole E. Lowen, Chair
The Honorable Elle Cochran, Vice Chair
Committee on Energy & Environmental Protection

Re: **HB 319 – RELATING TO HEALTH**

Hearing: Thursday, February 2, 2023, 8:40 a.m., Conference Room 325 & Videoconference

Position: **Strong support**

Aloha, Chairs Ichiyama and Lowen, Vice Chairs Poepoe and Cochran, and Members of the Committee on Water & Land and Committee on Energy & Environmental Protection:

The Environmental Caucus of the Democratic Party of Hawai'i stands in strong support of HB 319. This measure establishes the Red Hill water contamination health impacts program within the Department of Health to track the long-term impacts of the 2021 petroleum release from the Red Hill Bulk Fuel Storage Facility.

The Democratic Party of Hawai'i Platform on the environment provides that its members are to “protect and preserve Hawai'i's environment and achieve energy sustainability, advance measures to re-establish a healthy climate and environment for humans and fellow species, including actions to urgently address climate change, and work towards 100% renewable energy goals.

We believe that all people have the right to live in a clean, healthy and safe environment. We believe that the preservation of our natural environment and its ecological well-being is essential to ensuring a safe, healthy, bountiful life for future generations in Hawai'i. We support policies that create a more sustainable society. We support the restoration, preservation, and protection of native ecosystems.

We believe in the resource management principles outlined in the Public Trust doctrine [in Article XI, Section 1 of] the Hawai'i State Constitution.” [OUR PLATFORM | DPH \(hawaiidemocrats.org\)](#)

Fuel leaked from the Navy's Red Hill fuel storage facility into the drinking water of Pearl Harbor during the week of Thanksgiving 2021 where 20,000 gallons of fuel gushed from a Red Hill pipe near the drinking water. Many military and civilian families, who were previously healthy, experienced a litany of health ailments, including seizures, gastrointestinal disorders, neurological issues, burns, full-blown rashes, lesions, diarrhea, vomiting, brain fog, fatigue, hallucinations, temperature spikes, thyroid abnormalities and neurobehavioral challenges. These symptoms persisted even [after the water system was deemed safe](#) and some continue to this day. In addition, although a military health care clinic was made available in January 2023, many these sick families still have been unable to access adequate medical testing and treatment through this new health care clinic.



February 2, 2023

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Approximately 2,000 people [reported health impacts](#) from the Red Hill fuel leaks in 2021, including fatigue, headaches and skin irritation, with 17 people having been hospitalized. Some continue to suffer gastrointestinal issues, brain fog, vertigo, and seizures. Some received horrible migraines, blurred vision and gastrointestinal problems while others continue to suffer urinary tract issues and rashes, and gastrointestinal bleeding.

Rightly, many of these families seek compensation for their past and future physical suffering, mental anguish, lost income, loss of property, fear of unknown long-term health impacts, including cancer, infertility, miscarriage, and other issues.

Establishing the Red Hill water contamination health impacts program within the Department of Health to track these long-term impacts of the 2021 petroleum release from the Red Hill Bulk Fuel Storage Facility is vital for human health and monitoring and is consistent with the state and counties' duties under the Public Trust Doctrine and the DPH Platform environmental plank advancing measures to re-establish a healthy climate and environment for humans and fellow species.

Please support and pass this bill.

Mahalo for the opportunity to testify on this measure.

/s/ Melodie Aduja and Alan Burdick

Co-Chairs, Environmental Caucus of the Democratic Party of Hawai'i



To: The House Committee on Water & Land (WAL)
and
The House Committee on Energy and Environmental Protection (EEP)
From: Sherry Pollack, 350Hawaii.org
Date: Thursday, February 2, 2023, 8:40am

In Strong Support of HB319

Aloha Chairs Ichiyama and Lowen, Vice Chairs Poepoe and Cochran, and members of the WAL and EEP committees,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii **strongly support HB319** which establishes the Red Hill water contamination health impacts program within the Department of Health to track the long-term impacts of the 2021 petroleum release from the Red Hill Bulk Fuel Storage Facility.

Hawaii's precious drinking water supply is already at risk due to the effects of climate change. With recent tragic events resulting from the Navy's negligence in maintaining their Bulk Fuel Storage Facility, we have had a glimpse into what it means to lack access to safe, fresh drinking water as we have witnessed the tragic suffering of families who are users of the Navy's Red Hill drinking water well and who are now struggling with an on-going water contamination and health crisis.

Families under the Navy's water system are still reporting problems with their water. More must be done to remediate this situation and track the long-term health impacts of the Red Hill fuel leak, in addition to providing medical and mental health services for those who have been exposed to the Navy's contaminated drinking water system. The health needs of the victims from the Navy's criminal contamination of our drinking water must be taken care of. We must step up where the Navy has failed.

Thank you for the opportunity to testify on this extremely important measure.
Sherry Pollack
Co-Founder, 350Hawaii.org



**TESTIMONY IN SUPPORT OF HOUSE BILL 319
RELATING TO HEALTH**

**House Committee on Water & Land
The Honorable Linda Ichiyama, Chair
The Honorable Mahina Poepoe, Vice Chair**

**House Committee on Energy & Environmental Protection
The Honorable Nicole E. Lowen, Chair
The Honorable Elle Cochran, Vice Chair**

Thursday, February 2, 2023 at 8:40 A.M.

Via Videoconference
Conference Room 325

Chairs Ichiyama and Lowen, Vice Chairs Poepoe and Cochran, and Members of the Committees:

The Hawaii Military Affairs Council ("MAC") **supports** House Bill 319 which establishes the Red Hill water contamination health impacts program within the Department of Health to track the long-term impacts of the 2021 petroleum release from the Red Hill Bulk Fuel Storage Facility.

The Hawaii Military Affairs Council (MAC) was established in 1985 when the Chamber was appointed by the State to serve as the liaison to the military. The MAC advocates on behalf of Hawaii's military, and is comprised of business leaders, academic institutions, State and County officials, members of the CODEL, community leaders, labor unions and organizations and retired U.S. flag and general officers. The MAC works to support Hawaii's location as a strategic U.S. headquarters in the Indo-Asia-Pacific region which is crucial for U.S. national and homeland security.

There is an established a Joint Task Force-Red Hill (JTF-RH) that ensures the safe and expeditious defueling of the Red Hill Bulk Fuel Storage Facility (RHBFSF) through coordination with State and Federal stakeholders in order to set conditions for closure while continuing to rebuild trust with the State of Hawaii and the local community of Oahu.

Additionally, there is bi-monthly Defueling Information Sharing Forum (DISF) meeting to share the latest defueling progress and current timeline with forum members, and to collaboratively work through any challenges. DISF members share questions and concerns from



their communities and constituents and offer ideas to ensure communities and the people of Oahu have a voice in the defueling process.

Public health and safety are our priority. We support the Navy's efforts to proactively communicate as they move toward the closure of Red Hill in a safe and collaborative manner, and keeping regulators and stakeholders informed.

Thank you for the opportunity to express our support for this measure.



HIPHI Board

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Coalition for a
Tobacco-Free Hawai'i

Community Health
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COVID-19 Response

Hawai'i Drug & Alcohol Free
Coalitions

Hawai'i Farm to School Hui

Hawai'i Oral Health Coalition

Hawai'i Public Health Training Hui

Healthy Eating + Active Living

Kūpuna Collective

Date: January 31, 2023

To: Representative Linda Ichiyama, Chair
Representative Mahina Poepoe, Vice Chair
Members of the House Committee on Water & Land

Rep. Nicole E. Lowen, Chair
Rep. Elle Cochran, Vice Chair
Members of the House Committee on Energy &
Environmental Protection

Re: Support for HB 319, Relating to Health

Hrg: February 2, 2023, at 8:40 AM Via Videoconference

Hawai'i Public Health Institute (HIPHI)ⁱ is in support of HB 319, which establishes the Red Hill water contamination health impacts program within the Department of Health.

Fresh, clean drinking water is a precious resource, with access to clean drinking water being a fundamental human right that is "essential for the enjoyment of life and all human rights." While petroleum has only been found in the Navy's water system, it gets water from the same aquifer that provides water to primary drinking water resources for 400,000 people from Hālawā to Hawai'i Kai.

HIPHI is alarmed by the recent events surrounding Red Hill and the confirmation of petroleum in our water supply. Fresh, clean drinking water is a precious resource, with access to clean drinking water being a fundamental human right that is "essential for the enjoyment of life and all human rights."ⁱⁱ

Over a year after the Red Hill water contamination, hundreds of people continue to experience adverse health effects after consuming the tainted water. The Hawai'i Department of Health and the CDC Agency for Toxic Substances and Disease Registry conducted a follow-up survey in September 2022. A total of 986 individuals participated in the survey, and 55% reported their

physical health declined, and 50% reported a decline in mental health after the Red Hill incidentⁱⁱⁱ

HB 319 will track the long-term health impacts of those negatively affected by the 2021 Red Hill water contamination. By collecting this information, the state will be able to make informed decisions regarding future policies, effectively coordinate the health needs of victims, and pursue recovery costs for our community from the federal government.

This public health crisis was preventable, and we support the state in ensuring that we care for those affected by the crisis, hold the federal government accountable, and protect our water supply. Clean water is essential for life, and access to safe drinking water is a fundamental human right.

Thank you for this opportunity to testify in SUPPORT of HB 319.

Mahalo,

Peggy Mierzwa

Peggy Mierzwa
Policy and Advocacy Director
Hawai'i Public Health Institute

ⁱ Hawai'i Public Health Institute is a hub for building healthy communities, providing issue-based advocacy, education, and technical assistance through partnerships with government, academia, foundations, business, and community-based organizations.

ⁱⁱ Resolution A/RES/64/292. United Nations General Assembly, July 2010.

ⁱⁱⁱ <https://health.hawaii.gov/about/red-hill-water-information/#survey>

HB-319

Submitted on: 2/1/2023 8:30:22 AM

Testimony for WAL on 2/2/2023 8:40:00 AM

Submitted By	Organization	Testifier Position	Testify
Dave Mulinix	Our Revolution Hawaii	Support	Remotely Via Zoom

Comments:

Aloha Committee,

On behalf of Our Revolution Hawaii's 5,000 members and supporters statewide, we stand in strong support of HB319.

Mahalo for your kind attention,

Dave Mulinix, Cofounder & Statewide Organizer

Our Revolution Hawaii



House Committee on Water & Land / House Committee on Energy & Environmental Protection

Hawai'i Alliance for Progressive Action (HAPA) Supports: HB319

Thursday, February 2nd, 2023 8:40 a.m. Conference Room 325

Aloha Chair Ichiyama/Lowen, Vice Chair Poepoe/Cochran and Members of the Committees,

HAPA supports HB319 to establish the Red Hill water contamination health impacts program within the Department of Health to track the long-term impacts of the 2021 petroleum release from the Red Hill Bulk Fuel Storage Facility.

The presence of leaky fuel tanks at Red Hill and the Navy's mismanagement of this crisis directly impacts the health and quality of life of O'ahu's residents, and will continue to for generations to come. Some of our staff and many of our supporters are directly affected by this crisis. Our water is precious and we all have a duty to protect our islands' source of life for present and future generations.

O'ahu's residents are facing a serious crisis which will continue for years. Board of Water Supply's Ernie Lau said that the Hālawa shaft – which was shut down as a precaution following the Navy's Red Hill well contamination – could be shut down for years, even permanently.

Approximately 93,000 people living in military housing have been impacted and the entire aquifer will have lasting damage.

It's absolutely critical that the State Legislature do everything it can to track the impacts associated with these releases and ensure the long term quality and safety of O'ahu's water.

Please support HB319

Thank you for your consideration.

Respectfully,

A handwritten signature in black ink, appearing to read 'Anne Frederick', written in a cursive style.

Anne Frederick
Executive Director

HB-319

Submitted on: 1/31/2023 8:59:01 AM

Testimony for WAL on 2/2/2023 8:40:00 AM

Submitted By	Organization	Testifier Position	Testify
Erin Castaldi	Individual	Support	Written Testimony Only

Comments:

Erin Castaldi

Strong support for HB 319.

In 2021, military leadership downplayed the situation and potential acute and long-term health risks after the leak at Red Hill. Many people seeking medical treatment were told it was not connected to the water crisis. Our families ingested contaminated water. Our families were lied to. Our families' long-term health is at risk. Please pass this bill to help affected families access care and for legislators to collect data for future policy decisions.

HB-319

Submitted on: 1/31/2023 6:39:02 PM

Testimony for WAL on 2/2/2023 8:40:00 AM

Submitted By	Organization	Testifier Position	Testify
Amanda Ybanez	Individual	Support	Written Testimony Only

Comments:

Water is life, and is a precious commodity here on our island paradise. We must do whatever we can to prevent and utilize data of this RedHill public contamination community crisis. The long term community health fallout is unknown and thus must be monitored.

There is much we can learn about this situation and to possibly help prevent other crisis of similar nature in the future. Many have been exposed to these highly toxic chemicals, therefore these individuals deserve to be monitored for health impacts.

Our beautiful island is unique and so are our people, therefore this crisis will affect our people's health in different ways, let this journey of learning and healing begin. Money will be needed in this venture, but let it be looked at as an investment into our community's health and well-being. Preservation of our precious water is paramount, and we must do whatever we can to ensure it's quality to the people who live on our island paradise.

I support this Bill that supports the health of our community.

Amanda Ybanez NHB#15 Vice Chair

HB-319

Submitted on: 1/31/2023 8:41:17 PM

Testimony for WAL on 2/2/2023 8:40:00 AM

Submitted By	Organization	Testifier Position	Testify
Nanea Lo	Individual	Support	Written Testimony Only

Comments:

Hello,

My name is Nanea Lo. I'm born and raised in the Hawaiian Kingdom a Kanaka Maoli.

I'm writing in STRONG SUPPORT of HB319.

me ke aloha 'āina,

Nanea Lo

HB-319

Submitted on: 1/31/2023 8:49:42 PM

Testimony for WAL on 2/2/2023 8:40:00 AM

Submitted By	Organization	Testifier Position	Testify
Will Caron	Individual	Support	Written Testimony Only

Comments:

The Red Hill Bulk Fuel Storage Facility sits directly above the Southern O‘ahu Basal Aquifer, which supplies 77% of O‘ahu’s water. It is the “principal source of drinking water” for O‘ahu, which, if contaminated, “would create a significant hazard to public health,” according to the U.S. Environmental Protection Agency. In November 2021, a release of approximately 14,000 gallons of fuel from the Red Hill Bulk Fuel Storage Facility contaminated the Red Hill shaft, one of the drinking water sources that services the United States Navy’s water system.

Many residents who drank the tainted water became acutely ill, experiencing rashes, aches, vomiting and other gastrointestinal problems, and other symptoms. A survey of persons who were affected by the water crisis, conducted in early 2022, found that 87% of those surveyed reported new or worsening health symptoms after coming into contact with the contaminated water. This is an ongoing environmental disaster and public health crisis that the state must monitor closely and take all appropriate preventative action to avoid repeating. Please support HB319.

HB-319

Submitted on: 1/31/2023 11:02:24 PM

Testimony for WAL on 2/2/2023 8:40:00 AM

Submitted By	Organization	Testifier Position	Testify
Keoni DeFranco	Individual	Support	Remotely Via Zoom

Comments:

This is Keoni DeFranco, I am submitting written testimony in favor of this bill.

Red Hill is the worst environmental disaster Hawai'i has ever faced. The Department of Health has not responded to this crisis with a sense a urgency, as a result a tremendous amount of data has been lost.

It's crucial that the long term health impacts of the Red Hill fuel spill are properly tracked as our communities will be dealing with the consequences for decades.

HB-319

Submitted on: 2/1/2023 7:10:03 AM

Testimony for WAL on 2/2/2023 8:40:00 AM

Submitted By	Organization	Testifier Position	Testify
Noel Shaw	Individual	Support	Written Testimony Only

Comments:

Aloha,

I am a 4th generation Hawaiian Homesteader, mother of 3, and community organizer- who resides just 12 minutes from Kapukāki in Kalāwahine Hawaiian homestead. I write in strong support of HB319 as someone who knows there will be long term ramifications to the US Navy's poisoning of our waters.

The data collection on health impacts, including mental health implications will help to ensure resources are allocated appropriately. The data collected thus far has been limited to the residents who live on the Navy line, when in reality it impacts us all. We people of Hawai'i who have resided here for generations know how our water systems work and the interconnectedness of them. We know that everyday the tanks continue to hold 104 million gallons of jet fuel we are at risk. We know the cultural importance of water to our essences as Hawaiian people. We know that families have already been impacted and hurt and continue to struggle with illnesses that they developed after the spill. We know much much more work will need to be done to make sure our water systems are safe and are community is taken care of and well.

The US Navy's poisoning of our waters will be something they will need to be held accountable for many years to come because their actions hit the heart beat and life center of what keeps O'ahu alive. We need to collect the proof to be able to do so for as long as it takes to make us whole. Please pass HB319 and make the US Navy fund all portions of this programming.

Mahalo,

Noel

House Bill 319

I support the intent of this bill. Representatives may not be aware of a letter sent out to all healthcare providers on Oahu by State toxicologist, Diane Felton.

Those who drank contaminated water thought this a slap in the face. In addition, healthcare providers should not be told the diagnosis, types of tests to order and other information without an initial appointment/consultation.

Some comments after the letter was seen by those who were ill from the water contamination.

(1) There is chemical screening available for urine and blood. And after doing mine it was really helpful to doctor as to what detox medicine would help. That is just the start to get some inflammation down. Then the doctor can follow up with symptoms and test and treat other health issues. All of it is really important to overall health.

It's vitally important to number one, get away from contamination so that you're not micro poisoning your body over and over and never healing.

And step two is testing.

Step three is treatments to stop it from becoming permanent damage.

*(2) Technically, the info contained in the letter is correct, but can I just say ** a toxicologist for having the arrogance to tell physicians how to practice medicine and the balls to try to intervene in my own personal, private relationship with my physician.*

(3) This was sent out due to the number of provider calls to the department. On March 11 no one had the facts yet. It has taken 9 months for the Navy to admit something that they denied for 8 1/2 months. Department of health has no right to send out a blanket letter to providers that basically says "don't try to help them, there is nothing you can do."

(4) While there are not tests that will be accurate this far out for benzenes, etc. due to their half life, there are a ton of panels that can be run to check blood cell counts, liver/kidney/thyroid function, etc. My frustration also lies in the fact that the military is refusing that monitoring - tests to check these items would total less than \$30 in taxpayer money, so they really have no excuse.

(5) For those of us trying to get answers and treatment, this is the guidance that was sent to all island physicians by the state toxicologist. They are basically being advised not to test or treat us for hydrocarbon exposure. Only test for and treat symptoms. Also, no means of documenting or collecting data either.

(6) So this explains why no hospital would see my son for the rash he has over his entire body now they kept referring me back to Tripler, whose doctors have different opinions one says heat rash and the other says Exema

(7) "Cannot reliably indicate exposure"... ugh. You know what can? The fact that my daughter had hair that had clearly been soaked in oil after a bath. That reliably indicates exposure in my book. Oh, also, THE FACT THAT WE WERE ALL GETTING WATER SOURCED FROM RED HILL. How is that not enough of a reliable indicator?

So, if and when this happens the Department of health personnel standing up this program must honor their illnesses and symptoms in order to coordinate health needs for victims.

I am providing you with screenshots of this letter from March 2022. This letter affected all civilians living in areas on the Navy water distribution system who were/are ill.



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File:

March 11, 2022

MEDICAL ADVISORY:

CHEMICAL SCREENING (AKA BIOLOGICAL MONITORING) FOR EXPOSURES TO PETROLEUM HYDROCARBONS IN DRINKING WATER

- CHEMICAL SCREENING FOR EXPOSURES TO PETROLEUM HYDROCARBONS IN DRINKING WATER IS NOT RECOMMENDED
- PATIENTS PRESENTING WITH SYMPTOMS POSSIBLY RELATED TO EXPOSURE TO CONTAMINATED WATER SHOULD BE EVALUATED WITH A THOROUGH HISTORY AND PHYSICAL
- DIAGNOSTIC TESTING SHOULD BE DRIVEN BY THE CLINICAL EVALUATION

Dear Healthcare Provider:

Background: Since November 2021, thousands of people on Oahu have sought medical care related to possible exposure to petroleum hydrocarbons in the drinking water. Patients and families are interested in chemical screening of body tissues and fluids, or “biological monitoring,” to help document exposure and predict current and future health effects. This type of assessment, while a useful tool in a variety of situations, has limited application in evaluating patient complaints specific to petroleum contamination in drinking water.

Summary: Available blood and urine testing **cannot:**

- Reliably indicate exposure to JP-5 jet fuel in drinking water
- Determine if presenting symptoms are from exposure to petroleum hydrocarbons in drinking water
- Predict potential future health effects
- Help direct management of patient’s symptoms or clinical condition

Because of these limitations, biological testing related to exposure to petroleum hydrocarbons in drinking water is not recommended. Patients presenting with symptoms possibly related to exposure to the water should be evaluated with a thorough history and physical.

- History should include all pertinent details of symptom onset and evolution, potential exposures (including occupational), and additional symptoms
- Diagnostic testing should be driven by the clinical evaluation

Explanation: The utility of blood or urine screening for a specific chemical or metabolite should include consideration of:



MEDICAL ADVISORY: CHEMICAL SCREENING (AKA BIOLOGICAL MONITORING) FOR EXPOSURES TO
PETROLEUM HYDROCARBONS IN DRINKING WATER

MARCH 11, 2022

PAGE 2

- The chemicals of interest
- What happens to the chemicals once inside the body (metabolism)
- How the chemicals will leave the body and how quickly that will happen (elimination)
- How specific the results are with regard to a given exposure
- Whether the result will reliably indicate exposure, health effects from an exposure or direct treatment

Petroleum products such as JP-5 jet fuel are comprised of hundreds of different hydrocarbon compounds, each present at a relatively low concentration within the overall mixture. Once absorbed into the bloodstream, certain compounds can be detected in the blood for a very brief period of time. However, these compounds require very specific laboratory methods and can only be detected if found at high enough concentrations. In many cases, the majority of hydrocarbon compounds that enter the body will disappear from the blood within a matter of hours (<1 day), further decreasing the likelihood that they will be detected in the blood.

For each type of compound, there is a “window” in which the compound or a metabolite may be detected in blood or urine. In most cases, the half-life (i.e., the time it takes to reduce the concentration in the body by 50%) for many of the hydrocarbons found in petroleum products is on the order of a few to 15 hours. This means that >50% of the amount of the compound/metabolite will have left the body within the first 24 hours after an exposure, and >75% will have left within 48 hours. Therefore, for biological testing to detect the presence of these compounds or their metabolites, specimens must be collected within hours of the exposure.

It should also be considered if the compound(s)/metabolite(s) tested for would indicate exposure to a chemical or be specific to a particular exposure or event. In this particular case of petroleum hydrocarbons in the drinking water, there are no identifying compounds that may be detected during biological monitoring which are specific to JP-5 fuel exposure. Many of the compounds that can be identified in blood or urine testing are also commonly found in the environment such as in standard gasoline, cigarette smoke and air pollution. Detection of these chemicals in blood or urine does not clearly indicate the source of the exposure and may instead represent exposure from regular daily activities.

Uncertified laboratories are offering urine testing for many compounds or metabolites that may be misinterpreted to be an accurate marker of exposure to petroleum hydrocarbons.

- Laboratory methods and comparison controls are often not validated or clearly reported
- Results from these uncertified laboratories do not have evidence-based values for intervention, nor do they accurately indicate exposure
- Care should be taken to fully understand the utility and limitations of these laboratory tests prior to ordering them, particularly when the analysis requires payment out of pocket

Some examples of chemicals reviewed as possible candidates for biomonitoring and determined to not be useful related to exposure to petroleum hydrocarbons in drinking water include:

- **Total Petroleum Hydrocarbons (TPH):** Requires specialized collection and laboratory instrumentation and samples must be collected within hours of exposure.
- **Benzene** (metabolite: N-Acetyl Phenyl Cysteine (NAP)): Benzene is a confirmed component of JP-5 jet fuel; however, the amount of benzene in JP-5 is <0.2% of the overall mixture. The



very low level likely contributes to why the drinking water samples taken throughout the Navy Water System and at the Red Hill well did not have detectable levels of benzene. Given the very small amount of benzene in JP-5 jet fuel, there would not likely be high enough levels to be detected in blood or urine of people drinking the contaminated water. The half-life for benzene is very short (6-15 hours) so if benzene were present, samples would need to be collected within hours to a day of exposure. Further, any detection of benzene or NAP does not necessarily imply that JP-5 was the source, since cigarette smoke, gases, exhausts, glues, paints, and many other common exposures can also introduce benzene into the body through inhalation.

- **Xylenes** (metabolite: methylhippuric acids): Xylenes are present at very low concentrations in JP-5 and are also constituents of standard gasoline used in automobiles, paints, varnishes, inks, adhesives and various cleaning agents. Detection of methylhippuric acids in the urine may indicate that xylenes were present in the body but does not identify the source of xylene exposure. Sampling of the jet fuel spilled into the Red Hill Aquifer does not indicate a significant presence of xylenes and drinking water samples have confirmed that xylenes are not present in a significant amount in this contamination incident.
- **Methyl Tert-Butyl Ether (MTBE)/ Ethyl Tert-Butyl Ether (ETBE)** (metabolite 2-Hydroxyisobutyric Acid (2HIB)): MTBE and ETBE are not components of jet fuel. They are additives to gasoline that improve octane ratings. Findings of, or increases in, MTBE/ETBE in biological samples are not due to jet fuel exposure. In addition, urine testing for MTBE/ETBE is usually through the detection of the metabolite 2-Hydroxyisobutyric Acid (2HIB). 2HIB is also formed normally within the body from degradation of branched-chain amino acid degradation and ketogenesis.
- **Perchlorate**: Perchlorate is commonly found in the environment. It is a component of fireworks, and rocket and missile fuels, but is not a component of jet fuel. It is used industrially in the production of many items including fertilizers, and frequently ends up in food due to its use in food packaging.

If you have questions about a possible laboratory test option and its utility in aiding your care of a patient exposed to petroleum hydrocarbons in drinking water, please contact the Hawaii Department of Health State Toxicologist Dr. Diana Felton (808-586-0963 diana.felton@doh.hawaii.gov) or Navy Region Hawaii Public Health Emergency Officer, Commander/Dr. Patrick Hennessey (808-465-9030 patrick.j.hennessey2.mil@mail.mil).

Sincerely,



Diana Felton, M.D.
State Toxicologist
Department of Health



Accordingly, the legislature finds that more must be done to track the long-term health impacts of the Red Hill fuel leak, including the:

- (1) Creation of a comprehensive registry of persons who ingested or came into contact with contaminated water;
- (2) Dedication of resources to track these impacted individuals to monitor health impacts, including long-term health impacts;
- (3) Collection and aggregation of data, including individual health and toxicology records to the extent practical; and
- (4) Coordination with other entities, including federal agencies.

The long-term analysis of this data will assist the legislature and executive branch agencies in making future policy decisions, coordinating health needs for victims, and assisting in the pursuit of cost recovery from the federal government.

Accordingly, the purpose of this Act is to establish a Red Hill water contamination health impacts program within the department of health.

My name is Katherine McClanahan and my family and I were sickened during the Red Hill contamination. To date our families' symptoms, new and never before experienced symptoms prior to November 2021 include over 15 symptoms some frightening in nature including tremors, excessive muscle twitching, migraines, ataxia, postural instability, nystagmus, chronic diarrhea, and vestibular dysfunction. One of the scariest words we have heard are from emergency room doctors who said, "unfortunately there has not been a lot of research on the effects of jet fuel within populations who lived in the contamination." I urge leaders to prevent a repeat of such a horrific situation as that of the ongoing medical issues of the Red Hill families. The future health of Hawaii's people depend on the studying and understanding of the health impacts of Red Hill. The research will not just aid the families already exposed but future communities who must face these terrifying events. Thank you, Katherine McClanahan

Chair Linda Ichiyama
Vice Chair Mahina Poepoe

House Committee on Water & Land

Chair Nicole Lowen
Vice Chair Elle Cochran

House Committee on Energy & Environmental Protection

Thursday, February 2, 2023
8:40AM

TESTIMONY IN SUPPORT OF HB319 RELATING TO HEALTH

Aloha Chair(s) Ichiyama & Lowen, Vice Chair(s) Poepoe & Cochran, Members of the House Committee(s) on Water & Land and Energy & Environmental Protection,

My name is Jun Shin. I am a graduate of the University of Hawai‘i at Mānoa and a current member of the Hawai‘i State Youth Commission, testifying as an individual in **SUPPORT** of **HB319**, Relating to Health.

In November 2021, a release of approximately 14,000 gallons of fuel from the Red Hill Bulk Fuel Storage Facility contaminated the Red Hill shaft, one of the drinking water sources that services the United States Navy’s water system.

Many of the residents who drank the tainted water became acutely ill, experiencing rashes, aches, vomiting and other gastrointestinal problems, and other symptoms. A survey of persons who were affected by the water crisis, conducted in early 2022, found that 87% of those surveyed reported new or worsening health symptoms after coming into contact with the contaminated water. This is an ongoing environmental disaster and public health crisis that the state must monitor closely and take all appropriate preventative action to avoid repeating.

Please **PASS HB319** out of your committee. This program should also use its funding toward offering assistance to those affected by this crisis.

Mahalo for the opportunity to testify,

Jun Shin,
State House District 23 | State Senate District 12
Cell: 808-255-6663
Email: junshinbusiness729@gmail.com

THE THIRTY-SECOND LEGISLATURE
REGULAR SESSION OF 2023

COMMITTEE ON WATER & LAND
Rep. Linda Ichiyama, Chair
Rep. Mahina Poepoe, Vice Chair

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Rep. Nicole E. Lowen, Chair
Rep. Elle Cochran, Vice Chair

DATE: Thursday, February 2, 2023

TIME: 8:40 A.M.

PLACE: VIA VIDEOCONFERENCE

Conference Room 325

State Capitol

415 South Beretania Street

Bill No. **HB319**

Position: **Support with Comments**

The Red Hill Bulk Fuel Storage Facility sits directly above the Southern Oahu Basal Aquifer, which supplies seventy-seven percent of Oahu's water. The Importance of water cannot be overstated living on an island. According to the United States Environmental, Protection Agency's region IX the southern Oahu Basal Aquifer "[is the] principal source of drinking water" for Oahu.

Unfortunately, due to mishaps and mismanagement across various federal entities, many residents who drank the tainted water became experienced rashes, aches, vomiting, and other gastrointestinal problems, and other symptoms some of which required hospitalization. The chemical release affected, residential and business areas, and the full scale of the health consequences of the fuel spill is likely still unknown.

The proposed language HB319 in its current form will establish a water contamination health impacts program within the Department of Health to track the long-term impacts of the 2021 petroleum release from the Red Hill Bulk Fuel Storage Facility. HB319 proposes field teams that are to be established to attempt to identify and track persons who were affected by the 2021 chemical release but who subsequently relocated outside of the affected areas, including locations outside of the State.

Any enhancement to any current joint coordination between the State of Hawaii, the City-County of Honolulu, and Federal agencies such as the Centers for Disease. Control and Prevention and the Environmental Protection Agency should be considered prudent and proactive. This is especially important that all agencies align themselves with the health assessment and monitoring efforts.

HB584 should be seen as proactive complimenting mitigation strategies and future prevention measure starts with a united f Therefore, it is my recommendation that bill HB584 be passed out of this committee and that changes to this bill should be in keeping with the introducer's intent. Thank you for the opportunity to submit my testimony.

Mahalo,

Ken Farm

HB-319

Submitted on: 2/1/2023 2:44:40 PM

Testimony for WAL on 2/2/2023 8:40:00 AM

Submitted By	Organization	Testifier Position	Testify
Colonel (Ret) Ann Wright	Individual	Support	Remotely Via Zoom

Comments:

I am retired US Army Colonel Ann Wright. I served 29 years in the US Army/Army Reserves. I have lived in Honolulu for 20 years.

I strongly agree that more must be done to track the long-term health impacts of the Red Hill fuel leak, including the: (1) Creation of a comprehensive registry of persons who ingested or came into contact with contaminated water; (2) Dedication of resources to track these impacted 9 individuals to monitor health impacts, including long-term health impacts; (3) Collection and aggregation of data, including individual health and toxicology records to the extent practical; and (4) Coordination with other entities, including federal agencies.

This data will be critical for the long-term analysis of this information to guide the legislature and executive branch agencies in making future policy decisions, coordinating health needs for victims, and assisting in the pursuit of cost recovery from the federal government.

It is very important that civilians who were living in the contaminated areas be put on a state registry--this is their only opportunity to be officially registered. The military has apparently made records of all the military families who were living in affected areas, but our civilians have been left out....in registries and in medical care. Many have already left Hawaii to find better medical care than has been available here in Hawaii. I hope you will require the commercial operators of the residential areas to provide the names and forwarding addresses of those who have left Hawaii so their names can be on the register.

Many residents who drank the tainted are STILL , one year later, experiencing rashes, aches, vomiting and other gastrointestinal AND Neurological problems, and other symptoms--and are still having to go to emergency rooms for help. Please read the daily entries in the Facebook JBPHH Water Contamination Support to understand the continuing medical and health problems that our military and civilian communities are still enduring. <https://www.facebook.com/groups/311603564169307>

Don't let the military off the hook on closing and cleaning up the 20 underground jet fuel storage tanks!

HB-319

Submitted on: 2/1/2023 5:16:03 PM

Testimony for WAL on 2/2/2023 8:40:00 AM

Submitted By	Organization	Testifier Position	Testify
Cassandra Gross	Individual	Support	Written Testimony Only

Comments:

We need long term monitoring of the catastrophic spill and all negative impacts caused by the military on Hawaiian soil and sea.

HB-319

Submitted on: 2/1/2023 10:57:37 PM

Testimony for WAL on 2/2/2023 8:40:00 AM

Submitted By	Organization	Testifier Position	Testify
Janice Toma Shiira	Shimanchu Wai Protectors	Support	Written Testimony Only

Comments:

I support HB 319