



**STATE OF HAWAII
DEPARTMENT OF HEALTH**

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**Testimony in OPPOSITION to SB 2776
RELATING TO THE ENVIRONMENT**

SENATOR MIKE GABBARD, CHAIR
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

SENATOR LAURA H. THIELEN, CHAIR
SENATE COMMITTEE ON GOVERNMENT OPERATIONS
Hearing Date: February 4, 2020 Room Number: 225

1 **Fiscal Implications:** Additional funding, field staff positions, laboratory staff positions, and
2 laboratory supplies will be required to collect samples, analyze samples, and post informational
3 signs around the State. This measure may impact the priorities identified in the Governor's
4 Executive Budget Request for the Department of Health's (Department) appropriations and
5 personnel priorities.

6 **Department Testimony:** The Department respectfully opposes SB2776. The bill proposes to
7 direct the Department to fill the vacant division chief staff position within the Environmental
8 Management Division (EMD) by October 1, 2020; require the Clean Water Branch to perform
9 water quality testing during brown water advisories and inform the public of health risks
10 associated with water runoff during brown water advisories; and establish an EMD Oversight
11 Advisory Board. The bill also proposes to require and appropriate funds to the Auditor to
12 conduct a performance and management audit of the EMD. The Department provides an
13 explanation for opposition to each of the sections of the proposed bill below:

14 Section 1(a)(1) of the bill proposes to require the Department to fill the vacant EMD
15 Chief staff position by October 1, 2020. The Department started the interview process for the
16 vacant EMD Chief and should fill the position by October 1, 2020.

1 Section 1(a)(2) of the bill proposes to require the Clean Water Branch to include as part
2 of its Hawaii beach monitoring program, water quality testing during brown water advisories,
3 including, but not limited to, testing water samples from affected Tier 1 beaches during these
4 advisories; provided that no water sample shall be collected by Clean Water Branch personnel
5 until any hazardous conditions at the affected beach has subsided.

6 Water quality testing during brown water advisories is unnecessary. The Clean Water
7 Branch issues brown water advisories as a preemptive, precautionary notice to the public of the
8 potential risks of entering coastal waters, especially during predicted storm events. Data
9 collected by the Clean Water Branch and several scientific studies has shown that waters
10 impacted by surface runoff (the cause of brown water) almost always showed increased levels of
11 enterococci of which the sources cannot be determined.

12 The primary pollutant of concern during routine testing of recreational waters is sewage.
13 The Clean Water Branch uses the Environmental Protection Agency (EPA) recommended fecal
14 indicator, enterococci, to detect the presence of sewage in recreational waters, because sewage
15 may contain pathogens, which may make swimmers ill. Most of the enterococci species are not
16 pathogens.

17 Studies conducted by the University of Hawaii Water Resources Research Center and
18 other universities have shown that enterococci are not a reliable indicator of sewage in Hawaii.
19 In addition to human sources, enterococci have been shown to originate from decaying organic
20 matter, sediment, land and aquatic vegetation, and wildlife. The EPA acknowledges that
21 enterococci associated with animal sources pose a significantly lower health risk than
22 enterococci from human sources (i.e., sewage); however, the extent of the risk is undetermined.
23 Also, there is no established risk associated with non-animal sources of enterococci in the
24 environment.

25 Surface water runoff leading to brown water advisories may also contain pollutants that
26 are not detected by the fecal indicators, including pesticides, solvents, heavy metals, and other
27 toxic chemicals. As such, brown water advisories issued by the department are proactive in
28 alerting the public of the possible risks associated with recreating in the affected waters.

1 Tier 1 beaches are monitored statewide on a weekly basis. After the brown water
2 advisory has been cancelled, monitoring of Tier 1 beaches are not more than a week away.

3 Section 1(a)(3) of the bill proposes to require the Clean Water Branch to issue health
4 advisories during brown water advisories that explain the health risks associated with water
5 runoff, including, but not limited to, informational signs posted during these advisories at
6 affected Tier 1 beaches.

7 The Clean Water Branch currently provides public risk communication in the form of
8 email advisories to all subscribers that explain the health risks associated with water runoff. The
9 public is always encouraged to subscribe to receive water quality email notifications and
10 advisories. In addition, ongoing water quality advisories are posted on the Clean Water Branch
11 website at <https://eha-cloud.doh.hawaii.gov/cwb/#!/landing>. Below is a typical brown water
12 advisory:

13 “A Brown Water Advisory has been issued at Koloa Landing/Sheraton Beach on Kauai.
14 Stormwater runoff has resulted in stormwater runoff entering into coastal waters. The
15 public is advised to stay out of flood waters and storm water runoff due to possible
16 overflowing cesspools, sewer, manholes, pesticides, animal fecal matter, dead animals,
17 pathogens, chemicals, and associated flood debris. Not all coastal areas may be impacted
18 by runoff, however, if the water is brown stay out. Continue to practice good personal
19 hygiene and follow-up with your primary care physician if you have any health
20 concerns.”

21 It is not reasonable to post informational signs at all potentially affected Tier 1 beaches.
22 Brown water advisories may include non-Tier 1 beaches and may span several adjoining
23 beaches, an entire portion of an island, an entire island, or the entire state. Posting signs only at
24 Tier 1 beaches may send the wrong information to beach users recreating at non-Tier 1 beaches.
25 Brown water can affect all beaches in the state. It is also unreasonable to post informational
26 signs at all beaches impacted by brown water, especially on the neighbor islands where there is
27 only one staff member to cover the entire island. Also, as brown water advisories are often

1 issued during heavy or severe storm conditions, it is unsafe to have the Clean Water Branch staff
2 traveling and posting signs in coastal areas.

3 Section 1(a)(4) of the bill proposes to require the establishment of an oversight advisory
4 board to provide oversight and guidance to the EMD. It is not clear what the purpose and scope
5 is of an EMD oversight advisory board. The EMD covers all the Clean Water Act, Safe
6 Drinking Water Act, Clean Air Act, and the Resource Conservation and Recovery Act programs.
7 It would seem infeasible to assemble an advisory board that can adequately and knowledgeably
8 oversee and provide guidance on all the programs under EMD.

9 Sections 2 and 3 of the proposed bill requires the auditor to conduct a performance and
10 management audit of the EMD with a focus on the EMD's Clean Water Branch and Wastewater
11 Branch. It is not clear what the purpose and scope is of the auditor's performance and
12 management audit of the EMD, since the EMD's Clean Water Branch and Wastewater Branch
13 have very large and broad program responsibilities (which include the National Pollutant
14 Discharge Elimination System [NPDES] permitting, water quality standards, surface water
15 monitoring and assessment, Total Maximum Daily Loads, BEACH Act monitoring and
16 notification, NPDES enforcement and compliance, non-point source management, state
17 revolving funds management for water pollution control projects, management and regulatory
18 oversight of individual wastewater systems, onsite wastewater and reuse treatment facilities,
19 water reuse, and wastewater sludge reuse programs). Also, the Clean Water Branch already
20 completed an extensive internal operational review conducted by the EPA's contractor, Blue
21 Earth Consultants, a Division of ERG. Their report, the "Hawaii Department of Health Clean
22 Water Branch Program Evaluation, Final Report" was completed on June 29, 2018. The report
23 preparation cost the Department over \$200,000, which represents a significant amount of EPA
24 grant funds. The Department realizes that improvements can and should be made to managing
25 the Clean Water Act programs. That was one of the reasons for having the Blue Earth report
26 completed. Another independent review and report by an auditor in less than two years is
27 repetitive and unnecessary.

28 **Offered Amendments:** None.

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

SB-2776

Submitted on: 1/29/2020 3:12:18 PM

Testimony for AEN on 2/4/2020 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Alexandra Kahn	Testifying for Surfrider Oahu	Support	No

Comments:



February 3, 2020

Agriculture and Environment Committee
Government Operations Committee
Hawai'i State Capitol
Honolulu, Hawai'i 96813

Dear Chairman Gabbard, Vice-Chair Ruderman, Chairwoman Thielen, Vice-Chair Inouye, and Members of the Agriculture and Environment, and Government Operations Committees,

The Surfrider Foundation would like to offer this testimony in support of SB 2776.

The Surfrider Foundation is a national nonprofit organization dedicated to the protection and enjoyment of our ocean, waves, and beaches. Surfrider maintains a network of over 150 chapters and academic clubs nationwide, including 5 chapters in the Hawaiian Islands. One of Surfrider's five primary initiatives is the protection of clean water, and we work at the local, state and federal level to ensure adequate monitoring programs are in place to protect public health in recreational waters across the country.

We support a robust citizen science program called the Blue Water Task Force (BWTF) that is providing valuable water quality information to coastal communities so people know where it is safe to get into the water. We currently have over 50 BWTF labs established in coastal states across the country, including a water testing program on each of Hawaii's main islands; Oahu, Maui, Kauai, and two programs on the Big Island. Through the Blue Water Task Force program, Surfrider volunteers are testing marine beaches and estuarine and freshwater outflows onto beaches for enterococcus fecal indicator bacteria, and sharing their results with local agencies, decisionmakers and the general public.

In Hawaii, we have worked extensively with the Hawaii Dept. of Health (DOH) and their Clean Water Branch (CWB) to support robust water testing and public notification programs so the beach-going public has the information they need to make decisions on where it is safe to surf, swim and play at the beach in Hawaii.

SB 2776 directs the Department of Health to make changes to the Clean Water Branch's (CWB) beach water quality and public notification program to better assess the threats to public health in Hawaii's recreational waters and to take further steps to communicate these risks to the public, so people can make informed decisions on where and when it is safe for them or their families to get into the water. The bill also recommends more oversight and guidance be provided to the Environmental Management Division for better implementation of their clean water permitting, monitoring and research programs.

Brown Water Advisories

Currently the CWB suspends all testing activity when Brown Water Advisories are issued. No samples are collected from any of the affected beaches, not even Tier 1 beaches, until the BWAs are lifted as a result of visual inspections. The problems with this approach are multi-faceted. First, there are virtually

no data to really describe the pollution levels and health risks during Brown Water Advisory conditions so the public doesn't necessarily heed the warnings. In some cases, the bacteria levels could be extremely high and dangerous, and the public should be aware of that risk. Additionally, by never testing during BWAs, cumulative water quality statistics communicated by the CWB beach monitoring program do not give an accurate picture of water quality conditions at many of Hawaii's beaches, and certainly not during wet weather conditions when public health is most likely to be threatened. EPA Region 9 has likewise recommended to the CWB, *"Establishing a protocol to test in Brown Water Advisories would provide much better and accurate data in regards to the water quality."*

In addition to providing better information to describe the health risk, testing during Brown Water Advisories could also allow the CWB to lift those advisories more quickly when testing results show bacteria levels dropping to safe conditions. This would minimize the disruption to people's enjoyment of Hawaii's beautiful beaches and coastal environment. Tourism and water sports activity companies are severely impacted when BWAs are issued as they cannot operate due to liability issues. The CWB must do more to monitor pollution levels during wet weather conditions and to lift BWAs sooner when water quality conditions return to normal.

Likewise, physical signs posted at the beach during BWAs would provide better notification to beach goers as they are stepping onto the beach that water quality conditions are likely affected from Brown Water conditions, allowing families with young children and people with compromised immune systems to take precautions from becoming sick. Many local residents and those who use Hawaii's beaches frequently are aware of the BWAs that HDOH issues online and shares via email and radio/TV in some cases, but there are many tourists and visitors who have no idea that Advisories have been issued and Brown Water could be affecting water quality conditions. Signs posted at popular Tier 1 beaches, would help provide better warning to visitors and those unfamiliar with HDOH's online advisories, and should not require any more staff time or logistical problems than it does to post temporary advisory signs for high bacteria readings. Surfrider feels confident that the Clean Water Branch could work out a system with beach managers or property owners of Tier 1 beaches to develop a reasonable plan to make this work.

Oversight of Environmental Management Division

The Surfrider Foundation also supports the provision of SB 2776 that requires HDOH to fill the vacant Environmental Management Division (EMD) Chief Staff position. This position has remained unfilled since Stuart Yamada left HDOH employment over 2 years ago, and should be filled as soon as possible for optimal oversight and implementation of the various Division programs.

We also agree that an oversight advisory board should be created to provide oversight and guidance to the Environmental Management Division (EMD). A similar board was active in the past, but it has been over 10 years since this board has been convened. This board could provide much needed guidance to the EMD and Clean Water Branch to ensure that a responsible balance of scientific integrity, public health protection and due diligence are applied to all the clean water permitting and monitoring programs that they run, as well as any special research or pollution investigations that they undertake.

Thank you for your consideration of this testimony in support of SB 2776, submitted on the behalf of the Surfrider Foundation's 5 Chapters in Hawaii and all of our members who live in the state and visit to enjoy the many coastal recreational opportunities offered by all of the islands' coastlines.

Sincerely,

A handwritten signature in cursive script that reads "Mara Dias". The signature is written in black ink and is positioned below the word "Sincerely,".

Mara Dias

Water Quality Manager

Surfrider Foundation

Feb. 3, 2020

In Support of SB2776 Relating to Environmental Protection
Senate Committees on Agriculture & Energy (AEN) and Government Operations (GVO)
Feb. 4, 3:30pm, Room 225

Aloha, Chairs Gabbard & Thielen, Vice Chairs Ruderman & Inouye and Members of the Committee:

I am writing in strong support of SB2776. Along with other provisions, this bill would protect water quality by making sure that the Dept. Of Health's Clean Water Branch tests during Brown Water Advisories. Currently, Hawaii is one of the only states that suspends water quality monitoring during rain events, and this creates an inconsistent record and insufficient data about the safety of our waters.

The Surfrider Foundation is a national nonprofit organization dedicated to the protection and enjoyment of our ocean, waves, and beaches, with 5 chapters located in Hawaii. We work at the local, state and federal level to ensure adequate monitoring programs are in place to protect public health in recreational waters across the country.

Though our citizen-science Blue Water Task Force water quality testing program, we have worked extensively with the Hawaii Dept. of Health (DOH) and their Clean Water Branch (CWB) to support robust water testing and public notification programs so the beach-going public has the information they need to make decisions on where it is safe to surf, swim and play at the beach throughout the state.

SB 2776 directs the Department of Health to make changes to the Clean Water Branch's (CWB) beach water quality and public notification program to better assess the threats to public health in Hawaii's recreational waters and to take further steps to communicate these risks to the public, so people can make informed decisions on where and when it is safe for them or their families to get into the water. The bill also recommends more oversight and guidance be provided to the Environmental Management Division for better implementation of their clean water permitting, monitoring and research programs. We strongly agree with both objectives.

The CWB should follow its normal beach monitoring schedule under Brown Water Advisories to better assess water quality conditions and communicate public health risk.

- Currently all testing activity is suspended under BWAs, leaving virtually no data to really describe the pollution levels and health risks during these conditions.
- As a result, water quality statistics communicated by the CWB beach monitoring program do not give an accurate picture of water quality conditions at many of Hawaii's beaches, and certainly not during wet weather conditions when public health is most likely to be threatened.
- EPA Region 9 has likewise recommended to the CWB, *"Establishing a protocol to test in Brown Water Advisories would provide much better and accurate data in regards to the water quality."*
- Testing during BWAs could help lift those advisories sooner, minimizing the disruption to people's enjoyment of Hawaii's beautiful beaches and coastal environment, especially for tourism and water sports activity companies that cannot operate due to liability issues.



Physical signs posted at the beach during BWAs would provide better notification to beach goers.

Physical signs posted at popular Tier 1 beach entrances would provide better warning:

- To families with young children and people with compromised immune systems to take precautions from becoming sick.
- To tourists and visitors who have no idea that Advisories have been issued and Brown Water could be affecting water quality conditions.
- And should not require any more staff time or logistical problems than it does to post temporary advisory signs for high bacteria readings. The Clean Water Branch should be able to figure out a system with beach managers or property owners to develop a reasonable plan to make this work at Tier 1 beaches.

Oversight of Environmental Management Division

The vacant Environmental Management Division (EMD) Chief Staff position should be filled as soon as possible for optimal oversight and implementation of the various Division programs.

An oversight advisory board should be created to provide oversight and guidance to the Environmental Management Division (EMD). A similar board was active in the past, but has not convened for over 10 years. This board could provide much needed guidance to the EMD and Clean Water Branch to ensure a responsible balance of scientific integrity, public health protection and due diligence are applied to all the clean water permitting and monitoring programs that they run, as well as any special research or pollution investigations that they undertake.

Mahalo for your leadership on this issue and consideration of this bill. Please let me know if you have any questions or concerns.

Aloha,
Stuart Coleman
Stuart H. Coleman

Aloha,

HDOH needs oversight and we strongly support bill SB2776.

Below is a copy of a formal complaint filed after DOH, without prior notice to any of the local residents, removed warning signs from a stream and beach at Maha`ulepu Kauai where the fecal indicator bacteria, enterococcus, continues to be chronically and outrageously elevated above 8,000, more than 200 times in excess of the minimum EPA and HDOH threshold of 35.

Mahalo nui loa,

Bridget Hammerquist, President
Friends of Maha`ulepu, a 501(c)(3)
Kia`i Wai o Wai`ale`ale, Co-founder
friendsofmahaulepu.org
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(808)742-1037



Aloha,

On behalf of the 1500 members of Friends of Mahaulepu (FOM) and Kia`i Wai `o Wai`ale`ale please accept this as a formal complaint for the recent decision by HDOH to remove warning signs from Mahaulepu Beach and the mouth of the Waiopili, signs that HDOH was directed to post by the EPA after more than a year of weekly and monthly extremely high enterococcus counts confirmed by HDOH testing and Surfrider, Kauai Chapter Blue Water Task Force. See EPA-HDOH letter of 7/25/2016 attached. As the geomean for the Waiopili Stream indicates, these chronic and exponentially high bacteria counts have persisted from March 2014 to present. So why have the signs been removed? Per HDOH's own test results of the area, enterococcus was never detected above any threshold until 2011. That was the first reading above 1 and it was 254 bacteria forming units in 100 ml of water. Since March 2014, that number has increased exponentially. Why? What was new in Mahaulepu... a biosolids disposal operation and perhaps the more likely culprit, a wastewater disposal operation that began in 2006 into a pond over cindery soil. Google Earth pics from 2013-2014 captured the biosolids site and wastewater disposal pool. One of the attached Google Earth photos actually shows a wastewater disposal truck backed up to the pond where Aqua Engineers disposed of wastewater that they said was not able to be processed at any of their wastewater treatment plants. See email and correspondence from Aqua Engineers attached. Under the disposal site there is not only a high groundwater table but carst lava tubes that likely aid in the bacteria's migration to the Waiopili. As the following facts demonstrate, it is unconscionable and a reckless disregard of the public's health for HDOH to have removed the warning signs without conducting any test of the soil of ground water coming from this site, especially when 32.6% of the PhyloChip samples were found positive for human source in moderate or nominal quantity.

Several FOM members have called to complain about the removal of the signs. One of our members and the Hawaiian Moku for this area, Billy Kaohelaui`i called to report that he had

seen a father with small children sitting in a pool on the sand formed by the Waiopili and its seeps just before it enters the ocean. Against the white sand, the grey murky foamy water evident 100 feet upstream, is no longer obvious and the water looks clean. Billy told the father about the bacteria in the water as his young baby was digging in the pool with his hands. The father took his children out and thanked Billy. Billy thought the signs were gone because of a recent high tide. Billy called HDOH and spoke to Gary Ueunten who explained that the signs were taken down by HDOH because Grove Farm didn't like them and the PhyloChip study had concluded the water was safe because there was no human source for the bacteria present.

As the following link to the PhyloChip meeting and report of Dr. Dubrinsky demonstrates, nothing could be further from the truth. Dr. Dubrinsky was asked by Arryl Kaneshiro, Grove Farm manager and current County Council Chair, how to explain the risk to the public, Dr. Dubrinsky had stated that they were unable to identify the source for the high fecal bacteria found in the stream and he answered Mr. Kaneshiro by stating, "unless you can identify the source, you don't know what the level of risk is." 1:49:30 PhyloChip meeting

<https://www.youtube.com/watch?v=Ye0vr2bIJVU> In fact, Dr. Dubrinsky had acknowledged earlier that, on review of his data, 32.6% of the samples tested "confirmed human source." 1:07:50 PhyloChip meeting. At 26:10 of the video, we were informed that the PhyloChip study was not able to rule out human source as the source of enterococcus in the Mahaulepu watershed.

As you likely know, Dr. Dubrinsky and his associates developed the PhyloChip and proposed its use to identify the likely source of the fecal indicator bacteria. He conducted the test and selected the PhyloChip signal threshold that he believed would indicate a positive hit for human or animal source. Although aware of the 45 acre biosolids disposal site, which we learned after the PhyloChip meeting was also an untreated wastewater disposal site from 2006 - 2014, Dr. Dubrinsky said that that 45 acre site and its ground water were not tested as the sites to be tested were determined by HDOH.

So rather than test a site known to contain both partially treated and untreated human waste, a few hundred yards upstream from the Waiopili and Mahaulepu Beach, HDOH directed Dr. Dubrinsky to test 12 sites of the Waiopili and some sites along the Waikomo Stream, more than 2 miles west of the Waiopili and Mahaulepu Valley. There were residential cesspools in Koloa in the area of the Waikomo which someone at HDOH suggested might be the source for the bacteria that could have migrated underground via lava tubes to the Waiopili. Of note, they never determined that the Koloa cesspools were the source of the bacteria in the Waikomo and never found a connection between Waikomo and the Waiopili.

When HDOH conducted its Waiopili Sanitary Survey Part 1 from 2015-2016, their first effort to identify the source of the dangerously high bacteria found, they ignored data showing human factor in the enterococcus testing performed by Stanford labs, a copy of that data is attached to the HDOH Sanitary Survey report. The EPA was critical of HDOH for concluding that there was no human source in the bacteria found and for eliminating the biosolids site as a potential source, noting that the HDOH conclusions were contrary to their own data. See EPA letter of 7/25/2016 attached. The EPA told HDOH that further evaluation of the biosolids waste site and area should be done before discounting a link between the human waste site and the chronically high bacteria found in the Waiopili seeps and stream.

After the EPA letter, HDOH announced they had received \$100,000 from the EPA to conduct further testing, a PhyloChip study, to identify the source of the high fecal indicator bacteria in the Waiopili. A review of geomean for the water quality test results, chart below, demonstrates that even though other streams on Kauai have occasional high fecal bacteria counts, the geomean for the Waiopili Stream far exceeds the geomean for any other test site on Kauai. Why?? That was what the PhyloChip study was supposed to determine.

Unfortunately, the \$100k was spent but, once again, there was no testing done of the 45 acre known human waste disposal site. Nor was there any testing done at the downstream portion of the Waiopili where seeps from somewhere in the Mahaulepu watershed bubble into the stream, a location tested regularly by Surfrider's Blue Water Task Force which has detected extremely high concentrations of fecal indicator bacteria for more than five years. When the PhyloChip Study was finally released in May 2019, we learned that the samples for the study had been collected in fall 2016 and March 2017. It took more than 2 years for the study to be released, only to learn that no source was identified.

It was not until November 2019 that we learned an amazing piece of new information. Not only was there partially treated biosolids disposed of at Mahaulepu upstream from the Waiopili, but there was also untreated wastewater disposal in an evaporation pond that began in 2006. Local residents had followed wastewater pumping trucks into the biosolids disposal area and had seen the trucks put out hoses and unload liquid into what appeared to be a very large pond.

The public and local residents were unaware of any waste disposal operation in Mahaulepu. It was not until October 2014 when we learned that Aqua Engineers had a permit to dispose of 269 dry metric tons of waste in a 45 acre area leased from Grove farm in Mahaulepu. That information was shared with me and other FOM members who flew to Oahu for a meeting with Sina Pruder of HDOH to report what we thought was illegal wastewater dumping because we were already concerned about the anticipated 200,000 pounds of cow manure daily from a proposed dairy next to the Waiopili. Ms. Pruder told us then about the biosolids permits HDOH had given Aqua Engineers in 2003. We were assured that it was only biosolids and there was no wastewater pond despite what residents from the area had seen. We later searched Google Earth and found the attached pictures.

We now know, through emails released last year along with the attached Aqua Engineer's letter, that there was not only biosolids from 2003 - 2014, but also untreated wastewater from 2006 - 2014 being disposed of in Mahaulepu, just a few hundred yards upstream of the Waiopili and Mahaulepu Beach.

Please respond to this email as soon as possible. The warning signs at Mahaulepu need to be restored. The risk to the public is real and until the source is identified there is no way to know how serious the risk is. Even Janet Hashimoto (EPA on assignment to HDOH) stated that with the bacteria levels reported, no one can say that the waters of the Waiopili are safe for bathing, wading or swimming. 50:45 PhyloChip meeting video.

Mahalo,
Bridget Hammerquist, President

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SB-2776

Submitted on: 1/29/2020 3:04:59 PM

Testimony for AEN on 2/4/2020 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Benton Kealii Pang, Ph.D.	Individual	Support	No

Comments:

SB-2776

Submitted on: 2/3/2020 10:20:19 PM

Testimony for AEN on 2/4/2020 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jennifer Azuma Chrupalyk	Individual	Support	No

Comments:

Please let it be someone who grew up or has lived here for over ten years already. In addition, please make sure they took an anthropology class and a HWST 107 class. It is important.