

MINUTES
FOR THE MEETING OF
THE COMMISSION ON WATER RESOURCE MANAGEMENT

DATE: January 7, 2022
TIME: 9:00 am
PLACE: Online via Zoom
Meeting ID: 847 8525 0127

Chairperson Suzanne D. Case called the meeting of the Commission on Water Resource Management to order at 9:03 a.m. and stated it is being held remotely and being live streamed via YouTube for public viewing due to the ongoing Covid-19 pandemic. It was noted the meeting was set to take live oral testimony and written testimony received would be acknowledged upon the submittal item. The use of the closed-captioning capability was stated and Deputy Manuel explained how to enable the function. Also noted was the chat feature which is only used to ask technical issue questions of the meeting host. The standard contested case statement was read.

MEMBERS: Chairperson Suzanne Case, Mr. Michael Buck, Mr. Neil Hannahs, Dr. Aurora Kagawa-Viviani, Mr. Wayne Katayama, Ms. Joanna Seto, Mr. Paul Meyer

COUNSEL: Ms. Lauren K. Chun

STAFF: Deputy M. Kaleo Manuel, Mr. Neal Fujii, Mr. Ryan Imata, Mr. Dean Uyeno, Ms. Rae Ann Hyatt

OTHERS: Captain Kent Hendricks (NAVFAC Pacific), Mr. Jeremy Mitchell (Joint Base Pearl Harbor-Hickam [JBPHH]), Mr. Travis Hylton (NAVFAC Pacific), Capt. Randy Harmeyer (JBPHH), Mr. Ernest Lau (Hon. Board of Water Supply), Mr. Barry Usagawa, (Hon. Board of Water Supply), Ms. Fenix Grange, (Dept. of Health), Ms. Kathy Ho (Dept. of Health)

All copies of written testimonies submitted will be included at the end of the minutes and is filed in the Commission office and are available for review by interested parties.

010722 00:03:31

A. APPROVAL OF MINUTES

November 16, 2021

PUBLIC TESTIMONY – None

**MOTION: (BUCK/KATAYAMA)
To approve the minutes as submitted.
UNANIMOUSLY APPROVED**

010722 00:04:16

B. ACTION ITEM

- 1. Briefing by Department of Health and Naval Facilities Engineering Systems Command Hawai'i (NAVFAC Hawai'i) on Red Hill, Discussion on NAVFAC Hawai'i Ground Water Use Permits 00085 (Red Hill Shaft - Well No. 3-2254-001), 00086 ('Aiea-Hālawa Shaft - Well No. 3-2255-032), and 00111 (Waiawa Shaft - Well No. 3-2558-010), Moanalua and Waipahu-Waiawa Aquifer System Areas, O'ahu; and Action Thereon, including a Decision by the Commission as to Whether to Establish a Permitted Interaction Group Pursuant to HRS 92-2.5.**

Chairperson Case explained that this briefing is solely dedicated to a briefing on the Red Hill situation as this has been a top concern for members of the public and government for a long time and within the last month. The staff of the Commission and presenters has been working very hard on it. There's lots to discuss and we want to have this discussion in an open sunshine meeting so that members of the public can hear and participate as it's an important and serious situation.

Deputy Manuel explained there will be (3) briefing/presentations. The first given by Dept. of Health, Ms. Joanna Seto. Second briefing given by the Dept. of Navy, then a briefing followed by CWRM staff. CWRM want to make sure to have this holistic conversation with everyone. As we've been working with all of our other fellow state regulators, as well as the Navy and staff will highlight a lot of that work that's been put into this and more recently what CWRM has been doing and engaging on.

Ms. Seto introduced Ms. Kathy Ho, Deputy Director of Environmental Health and Ms. Fenix Grange, Acting Manager Department of Health Hazard Evaluation Emergency Response

PRESENTATION GIVEN BY: Ms. Joanna Seto, Environmental Management Div.
Chief, Department of Health

Ms. Seto shared a presentation of the Joint Base Pearl Harbor-Hickam Public Water System incident. DOH's Safe Drinking Water Branch regulates the Navy's Joint Base Pearl Harbor-Hickam (JBPHH) public water system (PWS 360). Which is under legal authority of HRS §340E-4 which indicates that the Navy is responsible for maintaining the safe and reliable source of drinking water to its customers and providing alternate sources of drinking water for human consumptive uses as deemed necessary.

The timeline of the events of incidents were noted which started back in January 2014, and over the years has had a quite a few situations and on November 28, 2021, the complaints of fuel like odors in the drinking water were publicly noted. The DOH is actively coordinating with state, county and federal partners. The current drinking water health advisory informs the consumers of the Navy water system that all users should avoid using the water for drinking cooking or oral hygiene, and also pets should not drink the water. Symptoms of the exposure were stated and one should call the Hawaii Poison Control Center if these occur.

A map of the area of the complaints received were shown. The next steps of the Navy's requirements include: a plan for flushing contaminated water lines, plan ensuring safe drinking water, and remediation plan. An Interagency Drinking Water System Team (IDWST) was formed

to coordinate development and implementation with the goal to protect the health of the people in Hawai'i utilizing the various coordination by the IDWST with response coordination by various State and City entities including the U.S. Geological Survey and have also reached out to other entities around the World. The IDWST also follow a strict checklist, operating procedures and protocols, and recovery plan to ensure the flushing of the distribution system and houses/buildings properly.

The flushing zone map was shared and explained of the areas involved. If the discharge is going to a storm drain system or to a state water, they have an NPDS permit coverage for the discharge of treated effluent from the leaking underground storage tanks. The areas that do not have a gap may be going to the City and County of Honolulu sanitary sewer, and do not need to be GAC treated. The drinking water sampling plan and addendum 1 is what the Navy and the Department of Health are following (*the plan steps of Addendum 1 were further explained*).

The IDWST Red Hill Shaft restoration of water source and long-term solutions were noted. emergency order for the red Hill operations was recently supported and included the following five steps which were to immediately suspend operations at the Red Hill Bulk Fuel Storage Facility, which they have done. They take immediate steps to install a drinking water treatment system at the Red Hill Shaft. They are currently in the process of doing the Aquifer recovery so, the drinking water treatment system is not at this time in progress. The Final Decision, Order, Findings of Fact, and conclusions of law were finalized on January 3, 2022. The order is to suspend the operations and empty the underground storage tanks. This ruling finalizes the department's, December 6, 2021, Emergency Order.

QUESTIONS/COMMENTS

Commissioner Buck – commented on staff's recommendation 1a.1 and to have DOH to look at their language in their plans to make sure it deals with 1a.1. Noted in the Commission's letter in 2016 to Department of Health, we asked and urge for an emergency response plan in case of a catastrophic release of oil, and specifically what would be the timetable and responsibilities and the resources committed to address that? From your perspective or the staff that is participating in the AOC, what was the nature of that dialogue and what was the Navy's response to that?

Commissioner Seto – not aware of what's happening with the AOC as (her) focus is on the response but can get that information later.

Commissioner Buck – commented on the AOC the 2014 fuel spill which the Navy was required to complete a monitoring study to determine the direction in which the ground water flows. In the testimony, there was major disagreement between the Navy and Department of Health of what modeling studies they would use. Asked of what is the Department of Health's position is concerning the ground water modeling issue?

Commissioner Seto – called upon Fenix Grange (DOH)

Ms. Grange – answered we do remain concerned about both groundwater modeling and the work that is needed to be done for what we call contaminant fate and transport. Issues with the groundwater model have to do with the fact the model doesn't reflect the field conditions particularly the gradient from the tanks towards Red Hill Shaft and in other directions. We feel strongly that the work needs to be done immediately on contaminant fate and transport because fuels move very differently in the subsurface than water; so we're driving a bit blind right now.

Commissioner Buck – what was the Navy's response when you were able to voice your concerns?

Ms. Grange – we have not provided final comments on the revised groundwater model, but we have had multiple meetings with the Navy and have commented on these issues going back to 2018. We are having meetings through the emergency response and have also ongoing AOC discussions, to be able to get this moving in the way that it needs to happen.

Commissioner Buck – asked if that dialogue redacted or open to the public?

Ms. Grange – noted at this time, the discussions are not public to allow more open discussions between the parties; the Navy public meetings might be a way to accomplish that.

Commissioner Buck – asked to look at the staff recommendations as to what groundwater modeling that we prefer; if that language is helpful or accurate, we'd appreciate that.

Commissioner Kagawa-Viviani – what is POAM? In the news, the Army reported that flushing wasn't working in the drinking water system. My understanding is the organics could attach to PVC lines; it's not simply rinsing water from the system. What are those contaminants, how long they take?

Commissioner Seto – the Army are expanding their flushing area and are looking at other additional fire hydrants to flush from and are working to make sure that the distribution system flushing has been done and the discharge in those areas to the sanitary sewer system.

Commissioner Kagawa-Viviani – how do they know it's not working?

Commissioner Seto – the results of the samples received after the distribution system has been flushed, there was one that was above the detection level and are going back and flushing further as part of the sampling flowchart.

Commissioner Kagawa-Viviani – with the type of contaminants, how is the Navy and other entities ensuring the contaminant levels are dropping?

Commissioner Seto – the benzene, other contaminants and TPH are part of the lines of evidence that we are reviewing for this incident and are using that to ensure that the drinking water for the communities is safe to drink.

Commissioner Kagawa-Viviani – noted on the number of parts per billion in regard to contamination level of the drinking water.

Commissioner Seto – the TPH that we are using for our lines of evidence is set at less than or equal to 200 parts per billion; that is the number that we will be using to review the quality of the drinking water.

Commissioner Kagawa-Viviani – is there an understanding of what those degradation products are and are they being monitored?

Commissioner Seto – the flowchart includes the long-term monitoring program that includes compliance monitoring parameters for different methods. The monitoring of the aquifer is in development. Once the aquifer is recovered and the move toward restoration and use of that aquifer, we will be monitoring for the quality of water prior to use.

Commissioner Kagawa-Viviani – has DOH developed the strategy for high frequency, or spatially

dense monitoring in both ground water and also surface water because we know there's surface connections?

Commissioner Seto – those who are under development and will make sure to incorporate them in our plans.

Commissioner Kagawa-Viviani – is there any focus on PFS or other fire suppression chemicals that would affect the solubility but what about PFOSS?

Commissioner Seto – the department did samples to determine if there was PFOSS in the water and there was nothing found

Chair Case – it was my understanding that those are relatively very recent fire suppression lines, and they haven't been used yet, so there would not necessarily be that substance in the lines.

Commissioner Seto – correct, the system was completed in 2019, and in order to put it online, they tested it with drinking water. POAM is Plan of Action and Milestones.

Commissioner Meyer – asked on a D lab testing facility here in Hawai'i and have it been discussed with the Navy?

Commissioner Seto – we've had discussions with the Navy, Legislators, with the congressional delegation, there's many different, different organizations who are looking to have a new certified lab in Hawai'i.

Commissioner Meyer – I would certainly support that it would be very beneficial to have same day or next day service. Per Fenix Grange, with the contaminant migration of fuels was much faster than the normal migration and flow of the natural water resources. Is there any data that could be used given that type of product that's released that could be useful in estimate or magnifying the pace of that migration?

Commissioner Seto – on a past release?

Commissioner Meyer – yes, and it didn't affect drinking water at all, would it be useful as an estimating procedure as a shortcut to conducting additional sample testing?

Ms. Grange – that is a key part of contaminant fate and transport analysis is to understand how that works. And for us, a whole lot of the information that we need and want is to have a better representation of the subsurface. There's actually some great data from the barrel logs from when the tanks were put in to start with and being able to incorporate that lithology into the modeling work, would be very helpful. Our colleagues at EPA work together on the AOC and have put together a localized model for a different purpose, particularly having to do with the water flow, but it does have that background structure in place that would be very helpful.

Commissioner Katayama – what is the area of contention in agreeing to a sampling plan? Is it an economic issue, a level of confidence in the methodology, or is it the scope of work to come to some kind of resolution on this?

Commissioner Seto – there is no contention between the partners for the sampling that we are conducting. We have worked together as the IDWST to develop the sampling plan for both the Navy and the Department of Health to collect samples in the distribution system and the houses and buildings. The groundwater monitoring plan will be developed together with the Navy, and ensure

what the DOH needs are included in those sampling plans. We do know that the plans are called Evergreen, meaning that added changes can be made to them as we see need or add parameters or sample types.

Commissioner Katayama – referring to Felix's comments saying the migration plan hasn't been resolved at this point, is that correct? What is keeping this from being implemented?

Chairperson Case – clarified you're referring not just to the sampling of the water in the distribution lines; you're talking about the groundwater modeling for potential migration of fuel contamination.

Commissioner Katayama – agreed and noted that's our focus and concern as a Commission.

Commissioner Seto – the groundwater modeling monitoring that has been done has continued from prior to this incident and there have been additional wells that have been included in the monitoring. The monitoring going forward after remediation of the shaft is something that has not yet been developed but likely continue with what we have so far and building on the existing groundwater monitoring programs that have been in operation at this time.

Commissioner Katayama – the department needs to understand the migration of these light fuels like JP five. When will you come to some kind of action that's going to be implemented, so you can understand what this migration looks like in the water table.

Commissioner Seto – I believe in the Navy's presentation, they will be showing you the monitoring they've done immediately after this incident and they've been looking at additional monitoring wells surrounding the shaft, not so much the tank area and are also in development of a GAC treatment system for recovering of the shaft. We're working to get that information to ensure the recovery of the aquifer.

Commissioner Hannahs – thanked Joanna for the presentation and thanked Commissioner Kagawa-Viviani for her questions posed. As we look at video of fire hoses pushing water that's been flushed what assurances can you offer the public that we're not contaminating our soils and waters and where is that going?

Commissioner Seto – the discharge into the storm drain and land application is first going through granular activated carbon treatment prior to it being discharged to the land or storm drain. The Department of Health is collecting samples at various locations to ensure they are meeting their National Pollutant Discharge Elimination System General Permit Coverage to discharge to state waters.

Commissioner Hannahs – the granular in the carbon, when it gets captured where does that go?

Commissioner Seto – the granular activated carbon that's been collecting all of the total petroleum hydrocarbons and pollutants is disposed in a approved solid waste facility.

Commissioner Hannahs – reiterated if it's going into streams.

Commissioner Seto – discharged from the fire hydrants are being treated if they are going to the land, storm drains or state waters.

Commissioner Hannahs – has the department considered engagement of infographic type of talent in order to put this in a framework that's simpler to understand than your flowchart, which is very technical?

Commissioner Seto – yes, the department is working with our communications office as well as the Joint Information Center to develop materials that can be placed on websites and presented to the public. It's been a very long process of reacting to the incident and making sure that we get the things done in a timely manner.

Commissioner Hannahs – you issued an emergency order, is there a statutory legal standard of what constitutes an emergency? What is the standard that the Department of Health uses?

Commissioner Seto – deferred to DOH Deputy Director, Ms. Kathy Ho.

Ms. Ho – the standard is emanated substantial, so when the department has determined there's an eminent and substantial endangerment to public health or the environment, we can take emergency action, which we did.

Commissioner Hannahs – commented on the larger challenge in future risk scenarios and the possibilities of contamination of the larger BWS system.

Ms. Ho – we must remember that the Navy is the purveyor of this water, their obligation is to provide safe drinking water to its customers. Secondly, this is unprecedented, and I think we've learned from this, and we should get together with Board of Water Supply and other stakeholders to come up with a contingency plan if this were to happen again.

Mr. Ernie Lau, Manager/Chief Engineer, Board of Water Supply [BWS] – it's a good question and is the reason why we're taking such aggressive action to shut off our wells. With a contamination as this, once it gets into the BWS which serves over 400,000 people and is much larger than the Navy's system, would be a nightmare scenario as we do not have the resources of the Navy.

If Halawa Shaft got contaminated and we pumped 10 million gallons over multiple days of fuel contaminated water into the water supply system, in the worst case scenario if that happened, it would spread throughout the Honolulu water system and potentially end up between the Halawa area and out to East Honolulu to Hawaii Kai and would not be contained and move to different locations; and affect potentially tens of thousands water customers.

That is why we cannot allow that to happen and it's so important to determine what's happening with the aquifer because we use the same aquifer with the Navy and is contaminating. That's my response. Thank you.

Commissioner Hannahs – commented on the relocation of the thousands of residents of the Navy's facilities. Where would we put all our 400,000 people? It is urgent.

Commissioner Kagawa-Viviani – asked on the saturated carbon materials and if there's a testing lag to get back water quality results?

Commissioner Seto – answered there is a lag but believe they have a system in place to check on their GAC materials as they are moving their units around.

Commissioner Kagawa-Viviani – further asked on the Navy's and now DOH's ability to be transparent with the public and how is the data being released and communicated to assure the public when the water is safe to use?

Commissioner Seto – the department is working with the ID WST checklist to review the data that

comes in and compared with the lines of evidence to meet the criteria before amending the drinking health advisory and at that time, the thought is to release the numbers for that zone.

Commissioner Kagawa-Viviani – will individual households be able to get the reassurance that their household is now safe to drink from? Will there be household tests?

Commissioner Seto – the sampling plan in the Navy is to test 10% of the houses in the zone not all houses will be tested; however, in the long-term monitoring program, 5% and 10% of the additional homes so different from the original set of homes during the compliance step four process will be tested.

Commissioner Kagawa-Viviani – asked on DOH’s capacity now and foreseeable future, where is help needed?

Commissioner Seto – DOH is stretched and has pulled staff from all different branches to help with the effort and reached out to contractors and subject-matter experts to assist on different topics. In the long run, we would like to fill the vacancies we have so that the rest of the staff can provide the Environmental Protection for the rest of the State; we are aware that it is our responsibility to protect the environment for the entire State, not just for this Navy incident. Moving forward, we have not asked for any positions and hope to get to a better state where the system is back online, and systems are in place to protect the system from future incidents.

Commissioner Kagawa-Viviani – referred to the Manana Housing project in relation to ppb’s.

Commissioner Seto – prior to the incident, they were on emergency connection with the Honolulu Board of Water Supply and since that time, they have still been on BWS water; so, thank you to the Board of Water.

For the Aiea-Halawa Shaft, the sample was collected in the pre chlorination sample tap and are still investigating that line. Investigations are ongoing and our Safe Drinking Water Branch Chief has been working with the neighborhood and BWS to determine use of the water in the neighborhood where there have been stipend lines, this is the possible reasons of the calls we’re getting for that neighborhood.

Chair Case – clarified so members of the public understand, you (Ms. Seto) are a sitting member of the Commission; that's because the Department of Health, ex officio sits on the water commission. Generally, we hear about this from different angles and from the staff, but this is helpful to articulate so that we get the big picture of what part of the elephant you checking out?

Our role in the water commission is the protection and sustainable use of our groundwater and surface water in the state. Could you please articulate from your point of view, what is the role of the Department of Health, versus the role of the water commission from your angle.

Commissioner Seto – the Department of Health regulates the quality of the water, both in the drinking water system as well as in the ground and the surface water, including the water at the wastewater treatment plant discharges. The connection between the quality and the quantity of the water is where we intersect. The quantity of the water that the Commission regulates is relied on by the quality of the water so that the people can receive safe drinking water.

Chair Case – reiterated the point of intersect that water quality impacts the quantity of water available and vice versa.

RECESS: 10:12 AM

RECONVENE: 10:23 AM

Deputy Manuel welcomed the NAVFAC Hawaii group who will be giving their presentation on the submittal item.

Capt. James Meyer, Commanding Officer, introduced Capt. Randy Harmeyer, Public Works Officer; Mr. Jeremy Mitchell, Deputy PWO; and Mr. Travis Hylton, Environmental Business Leader. Capt. Meyer thanked the Commission members for their time and opportunity to present on updates today; also appreciated Dept. of Health and EPA in coordination to work together and their guidance and regulation to move forward.

PRESENTATION GIVEN BY: Capt. Meyer, NAVFAC Pacific & Mr. Jeremy Mitchell

A PowerPoint presentation was shared. The Joint Base Pearl Harbor-Hickam (JBPHH) water system is fed by (3) wells: Red Hill, Aiea-Halawa and Waiawa Shafts with total permitted allocation of 20.33 mgd, with the main water supply coming from the Waiawa Shaft. The monthly water reporting to CWRM is currently up to date. The sequence of notable events was noted and explained. The historical usage for the past two years, the Red Hill shaft has supplied approximately 21% of our total usage and the Waiawa shaft has been our predominant source at 77%. Up until the flushing started, the average was about 14.2 million gallons a day of use and went up to about 15.6 million gallons a day use 100% of Waiawa Shaft.

There is a Conservation Plan on file with the Commission filed in March 2020. With three phases each reducing the amount of water usage. Collaboration with an interagency team helped to develop the Water System Recovery and Flushing Plan (WSRFP). The agency team include: DOH, EPA, Dept. of Navy, Army and Marine Corps Public Health Ctr.; with cooperative input from DLNR and USGS. This plan was signed on 12/17/2021. Currently it is in the Execution of Recovery Plan that consists of (4) stages: a) Recovery of Distribution System & tanks; b) flushing points of service; c) certify potable standards; d) monitor.

Currently in the process of flushing out the distribution system and been ongoing for the past few weeks. It was done with treated water from the granulated activated carbon, and if it is over land, discharge or sewer discharge. There are some smaller portions that are being washed into the city and county wastewater system and the permit for that was issued on the 27th of December, and some of it after being treated as going through the DOT storm drains with a permit issued on the 21st of December. The Flushing Zone map and diagram was shown and explained and noted the amount of flushing is determined by the system volume in each area.

PRESENTATION GIVEN BY: Mr. Travis Hylton, Environmental Business Leader

Mr. Hylton presented on the remediation and aquifer recovery. An Aquifer Recovery Focus/Stakeholder Group was formed on 12/8/2021 with stakeholders from the Federal, State & City & County agencies which involves leaders and subject matter experts across our government. This group focuses on: a) recovery & remediation; b) monitoring & sampling; c) groundwater modeling.

In terms of the investigation on December 7, Navy divers entered the development tunnel of Red Hill well to get a visual characterization and confirmed there was an emulsion and fuel on the surface of the well. To get a further characterization, a remotely operated vehicle will be used and

are coordinating with Department of Health to survey the infiltration tunnel.

Secondly, the product recovery from RHS Well is being done as an initiation of skimming operations and a pump is pulling off the surface to capture any of the fuel, sheen or emulsion of the well surface; 70,000 gallons was pulled-off and out of that recovered, on the order of about 100 gallons of fuel directly off the well surface. Deploying of absorbents such as pillows and blankets, is also used to pull the product off the surface and enhance the captured as well.

The third element is working towards initiating a ground water capture zone. The intention is to pump the well about 5 million gallons per day to create a draw down in the area of the well, to prevent odor or lessen any migration of fuel that's been confirmed in the well. The NPDES permit will allow the discharge into Halawa Stream. DOH & CWRM has been instrumental in forming the plan to protect the stream as well as assist from DLNR-Div. of Aquatic Resources and Forestry/Wildlife. Also working with USGS to do a seepage study of Halawa Stream to characterize what portions of the stream are gaining or losing with respect to groundwater. In the area intended to discharge, it's a channelized storm water channel that's about 40-50 feet above groundwater. We're looking at future remediation actions or the unsaturated and groundwater in response to this release.

Capt. Meyer noted for the commission to understand the location of the fuel release to the Red Hill Well in close proximity as shown in the graph, it characterizes the tunnel floor where the release occurred on 20 November. In the graph, the red highlighted area is a surplus area that goes about 700 feet to the low point to where that fuel was pulled and recovered from the 20 November release (shown on diagram proximity of well).

Mr. Hylton further explained the aquifer monitoring and sampling that is currently being done in collaboration with other agencies and shown and explained the groundwater well network monitoring plan with respect to the offline-wells and waterlines. The Navy developed a pilot program to do continuous soil vapor monitoring below the tanks. The commission is also conducting deep well monitoring for chlorides in the area. It's mentioned to have water quality testing on Island and so the Navy approached the University of Hawai'i through the Office of Naval Research, to expand the capabilities and capacity of the University's lab, with the goal of having an accredited lab here for quicker turnaround times on samples from the island. Also, the Navy is working in expanding the capability of monitoring in every direction around where the release occurred, to determine if that releases is migrating in any direction from the well.

Lastly, the groundwater modeling was explained noting the hydrogeology being very complex. Inter-agency modeling will also help to assist. For example, the salt-water intrusion models will help us model the effects of the pumping being distributed differently, across the island in response to this and these wells in the nearby area that are offline; and the meeting of the potable demand that had to come from a redistribution of pumping across the island, will be looked.

QUESTIONS/COMMENTS

Commissioner Kagawa-Viviani – how does the current pumping, especially due to the flushing compare to prior use to what was happening in October?

Mr. Mitchell – our 12-month average ending in December at Waiawa Shaft was averaging 15.1 million gallons a day. Currently with the flushing operations we are at 15.6 million gallons a day. We ceased irrigation which was a major demand on our system and made up the difference of the Red Hill pumpage. When Red Hill is turned on again, and if we pump out a 5 million gallon a day rate, it will align with our flushing plan where we're getting out of the distribution phase and into the

home flushing which is not as intensive demand and should be relatively close to our 12-month average of about 20 million gallons a day.

Chair Case – asked to clarify how does that compare to October, before all this happened.

Mr. Mitchell – noted he does not have the exact number, but it was relatively the same with total system a bit over 20 million gallons a day in October.

Mr. Ryan Imata (CWRM, Groundwater Hydrologic Program Manager – shared screen (*chart on projected flows/pumpage*) and noted that CWRM requested weekly pumping numbers from the Navy and recognized that pumpage from Waiawa is going to make up for the loss of the Red Hill and Aiea-Halawa Shafts; and want to ensure there's no increase in chlorides as the result of increased pumpage, due to the Commission's role in protecting the aquifer. Currently, there's nothing alarming to note in regard to salinity. The 12-month moving average was a total of 16.56 million gallons/day for the month of October.

Commissioner Kagawa-Viviani – asked for a better explanation of the map of the “hotspots”

Cpt. Meyer – the diagram showed a very close snapshot of the specific area around the Red Hill Well, specifically where the 20 November fuel release occurred. When the release occurred when that fire suppression line was broken, the fuel came down landed on the tunnel floor, and then flowed down gradient to the lowest point in the tunnel roughly about 700 feet away, there was a collection cell where the fuel collected and pooled, and from there, was pulled and pumped out in the recovery. In those hotspots, we put in roughly 45 solo paper monitoring ports along that 700-foot section to help us characterize what might be underneath the concrete in the soil directly beneath the concrete help us understand what that contamination potential release of fuel might be in that area.

Commissioner Kagawa-Viviani – where is that in relation to the infiltration gallery?

Cpt. Meyer – explained the diagram/map when the flow-down to the low point, roughly the distance between the 700-foot section.

Commissioner Kagawa-Viviani – asked on explanation of what an infiltration gallery is.

Cpt. Meyer – explained of the well style in relation to the pumps that go into the infiltration gallery – with Red Hill (Well) it's about a 111-foot infiltration gallery – a 10-foot diameter tunnel at the surface of the water, to help capture that water as it gets filtrated into that tunnel and then is pumped out from the well itself and where the shaft is and pumped out for you.

Commissioner Kagawa-Viviani – as mentioned, the discharge from the Red Hill shaft treated water will be discharged into the Halawa stream in a channelized section, does this require any permits from Army Corps or SCAP from CWRM?

Mr. Hylton – working with DOH for a NPDES

Commissioner Kagawa-Viviani – does it require any other permits?

Mr. Hylton – we coordinated with the City Department of facilities maintenance as they operate that storm channel. That application has been submitted to them as part of this whole package.

Deputy Manuel – clarified that from CWRM side, it does not require a SCAP (Stream Channel Alteration Permit; no CWRM permits are triggered in this case.

Commissioner Meyer – with the series of GAC units you're installing and using for treating various, various sources of the water and given the contaminant in question, do you have a specific time we can expect breakthrough of the contaminant, given the volume shoved through the filters? If so, do you do any testing of the effluent for those GAC units?

Cpt. Meyer – there's two granulated activated carbon system; one larger one for the Red Hill Well itself and the smaller ones at each fire hydrant that discharges

Cpt. Harmeyer – further explained with each of the GAC units used on the distribution system, these are roughly 1 million gallon a day capacity and are two different tanks. The water flows into one, then out into another, and is then discharged. Each area has a specific volume to be cycled through and are all designed to capacity for that particular volume. It is checked to ensure the carbon is clean to withstand the anticipated flow for that area.

Mr. Hylton – noted for the five million gallon per day GAC system at Red Hill Well to create the capture zone, that will be a series of GAC units and will have eight units in total. Also, looking at multiple lines of barrier to prevent pulling any other contamination out of the well and discharge to the stream. Within the well itself, the pump inlets are 18 feet below the surface to prevent any vortexes occurring. About the breakthrough calculations, we're working with Department of Health and will be sampling points throughout the system. Ultimately, we'll have in-line monitors to monitor in real-time, but due to the emergency nature, will be using other field test methods until we can get that there.

Commissioner Hannahs – in regard to the offline wells, it's a wash as you're pumping about the same rate from the other two wells, is that correct?

Mr. Mitchell – yes, that is accurate.

Chair Case – asked when residents come back, how does that number change?

Cpt. Meyer – explained when residents come back in, ideally our flushing efforts will have ceased so hopefully it'll be a wash and we're working to make sure those calculations remain the same

Mr. Mitchell – clarified that residents aren't going to come in until the flushing is over; however don't have good data as there's still some residents in their house, using it for non-potable uses; so without a good metering system in place, we don't know those numbers

Cpt. Meyer – reiterated in many cases, a large percentage of our residents are still in their homes while some have elected to go to hotels.

Commissioner Hannahs – clarified again that pumping usage relatively is the same average and will remain similar with the return of residents.

Mr. Mitchell – that's our expectation.

Commissioner Hannahs – asked if there's more of a need from Waiawa Shaft

Cpt. Meyer – the exact numbers are yet to be determined on when residents return and how much water is exactly used.

Commissioner Hannahs – you may be making an additional ask for the Board of Water supply for

resource to meet that need?

Cpt. Meyer – understands the concern however not sure on the need to ask as we have no expectation to ask Board of Water Supply for additional water but, appreciate their help at Manana Housing area due to maintenance work being done by the Navy system. If we have a need that we can't manage with our conservation effort, there could be an ask to potentially increase the capacity in permit at the Waiawa Well.

Commissioner Hannahs – are you still using any of the potable water the supply to you through Waiawa Shaft for irrigation purposes and can that be replaced by a non-potable source?

Mr. Mitchell – that's part of what we are looking at and considering at issuing a study to determine alternate water sources to provide irrigation but are in the beginning stages and don't have anything to report.

Commissioner Hannahs – how long will it take to get that information?

Cpt. Harmeyer – we haven't initiated the contract or the study that would do that but has been a definite consideration how we might in the long term, be able to support the mission of the Air Force and the Navy, as well as the well-being of the base itself in terms of irrigation and upkeep.

Commissioner Hannahs – what can you tell about the integrity of your fire suppression capabilities now that it's been weakened by this?

Cpt. Harmeyer – the event that occurred was a release from a drain line, the capacity to fight a fire is there and we still have the integrity but are assessing the drain lines to ensure that integrity but, there is still the firefighting capability that was there before.

Commissioner Hannahs – about your Navy's asset renewal policy, as this is an 80-year-old facility, what's different about this that you don't seem to have an interest in renewing the asset and investing in something that's more modern, efficient, and placed in a different place where it doesn't create this risk.

Cpt. Meyer – referring to the RHF, in general the Navy has a policy to recapitalize facilities over a period of time and recapitalization of the timeframe varies from the type of facility and routine reoccurring maintenance affect that ability to extend that life, but each type of facility has a different life expectancy.

Commissioner Hannahs – we're focused on the water and we're anxious to see what the Navy has in mind in terms of a plan for recapitalization. The Navy is under an order now from the Department Health to decommission that facility. Have you commenced your contingency plan in the event your exception that you take to that decision, doesn't fall your way? How would you do that to replace that facility, and how can we help you?

Cpt. Meyer – we have followed that order to suspend operations that also includes the defueling of the facility

Commissioner Hannahs – are we (CWRM) in dialogue on that as it seems like its an effort to get that kind of a facility permitted in place as you look at the alignment of people who want this replaced and moved with lots of support for a relocation site. I encourage you to do that contingency planning in collaboration with such agencies so that it can be achieved expeditiously.

Cpt. Meyer – we appreciate the offer.

Commissioner Buck – would you identify the major threats that you see in the removing the fuel from the Red Hill tanks.

Cpt. Meyer – we understand the concern on how we would operate in defueling the tanks. The team here is focused on the water distribution recovery, and not experts on fueling operations but will help to answer that in the future, but anytime you move fuel there is risk and likely the movement of that fuel would include potential movement to ship tankers.

Commissioner Buck – on the aquifer, is the basic method of capture, pumping, treat, a major remediation you would employ for the overall aquifer health?

Mr. Hylton – the 5 mgd capture zone is an initial step to better characterize the extent of the contamination of potential for migration before other remediation activities can be designed and deployed.

Commissioner Buck – how do you capture water that has already migrated or capture oil that's migrated beyond your capture zone?

Mr. Hylton – would be to enhance the capture zone and to drill a vertical well. The advantage of the vertical well, is a capture mechanism to get a much more drawdown per flow of water than you're extracting from the aquifer.

Commissioner Buck – would it be located between Halawa Shaft and BWS?

Mr. Hylton – if that were where we've determined that fuel had migrated that would be the strategy.

Commissioner Buck – how else could you determine if there is any East West movement in the groundwater unless you established as well?

Mr. Hylton – the modeling will help that's why we're enhancing the groundwater monitoring well network so that we have better data on water levels throughout the area to better predict what the groundwater flow and contaminant migration might be.

Commissioner Buck – mentioned the concern between disagreements between DOH and Dept. of Navy on the groundwater models used. To operate on the precautionary principle which is the mission of the water commission, I'm hoping the dialogue between the two entities would be more transparent and that the water Commission would have the ability to be at the table to determine our own water model to determine permits. *(spoke of the 2014 oil spill as the Navy was required to do a modeling study and asked for comment on it.)*

Mr. Hylton – (I) have not been involved in that; but in terms of models to be used in this situation, through the ARFG and interagency teams, everyone is bringing models to the table and we look at how adequate or not, it may be so that we can look at the range of possibilities in work through consensus with the aquifer.

Commissioner Buck – mentioned that the existing permit was approved in 1981, as the Water Code was not established then, and asked are you aware of the standards and conditions? Conferred on a permit condition which is not to interfere with other existing legal uses, and at this point in time, the BWS was not able to use the water for their concern; and warned that Dept. of Navy may be in violation of the permit.

Commissioner Katayama – what system do you have in place for leak detection and how sensitive is that as we work through the current events and where do we want to end up to have a better system? And once leaks are detected, what is your remediation or your ability to keep that from entering the groundwater?

Cpt. Meyer – there is leak detection methods and from the 2014 year we have been focused heavily on the kinks and the leakage of the tanks and have been doing more testing and monitoring of the tanks and add more layers of protection for the tanks itself. With these recent events, all were related to leakage at the fuel pipeline caused by human error which is an ongoing discussion and Pacific-Fleet Command investigation by Admiral Pacarro to look at that entire system and is still ongoing.

Commissioner Katayama – has there been any assessment on the risk of any leakage?

Cpt. Meyer – the assessment comes from the AOC administrative order on consent which includes various risk assessments to improve the integrity of the tanks.

Commissioner Katayama – ask if there have been ongoing assessments stemming from previous times as now with this sense of urgency to remediate this (current) issue.

Cpt. Meyer – with the tanks standing today, it showed indication of tightening, there's no ongoing any type of leakage from the tanks and that they are secure as we do the assessments/testing twice per year with it most recently done this past fall and indicated the tanks were tight and shown no concerns at this time.

Commissioner Katayama – asked on the distribution piping ability to recapture leaks or spills from entering the groundwater system.

Cpt. Meyer – the distribution of the Red Hill Facility is secure; the pipelines are secured too. The events that occurred on the 20th of November that caused our contamination was at that point in time, and there are no ongoing releases that are continuing to further increase contaminants at this time.

Commissioner Meyer – asked for more time in advance to review materials (presentations, submittals, etc.)

Cpt. Meyer – understands and in the future will try to provide information in advance and invited the Commissioners to see the actual wells and the area of the fuel release.

Commissioner Kagawa-Viviani – asked on the status of the Navy's Emergency Response Plan as requested by CWRM back in early December of 2016?

Cpt. Meyer – as part of the AOC there are the Red Hill Bulk Fuel storage facility and has emergency response plans that they implement through the Pearl Harbor logistics center that is in regard to fuel operations and emergency actions regarding the water distribution system which Captain Harmeyer will speak of.

Cpt. Harmeyer – in 2021 we completed an emergency response plan for general emergencies of our potable water system and considered various types of contingencies to include power outages, earthquakes and storm events. So if there was an inadvertent inclusion of contaminant in the system, we did have a plan in place and by our actions starting on the 28th of November, confirmed that plan; it's very general but the basics of the plan were followed.

Commissioner Kagawa-Viviani – referred to past coordination by inter-agencies as in the past there was never an event that triggered such collaboration and asked what triggers a report of a release to Department of Health as there was a huge lag that shown problematic as the contaminant was in the tap (water). What is the normal workflow, should have been and what should it be in the future?

Cpt. Meyer – any fuel release that we have, we'd notify Department of Health and as appropriate within the 24 hours that was required; and when we had initial indications on the 28th of November there was water quality issues and indications of potential fuel contaminants within the water distribution system.

Commissioner Kagawa-Viviani – what is your frequency of monitoring of water quality at Red Hill Shaft?

Cpt. Meyer – it varied over time but more recently in the month of November, we monitored that on weekly basis.

Commissioner Kagawa-Viviani – commented it is insufficient and that the operations at the Red Hill Fuel facility are operated on high standards but there's multiple vulnerabilities in the system with a lot of focus on the tanks; but within the pipe system there's an infiltration tunnel below where fuel could flow – and asked what level of upgrades or overhaul is having to be done to assure the public there's no risk to the water supplies?

Cpt. Meyer – the Navy Engineering Systems Command is focused on the water distribution system, but the Bulk Fuel Storage Facility itself and would expect the investigation to cover that (question) and there's large immediate discussions still ongoing.

Commissioner Hannahs – having read most of the testimony in advance and knowing there's a growing distrust of the Navy's capabilities as well as transparency in this matter, must be a serious concern; what are your strategies and plan do you have in place to help rebuild trust the community so that we can realign ourselves

Cpt. Meyer – that's a concern of ours as well and would like to have the Navy enjoy a good reputation and that trust. With the water distribution system, we are looking to better partner with Department of Health and EPA ensuring that the Navy does do the right thing and that we are transparent in providing that information through some of our data management systems in knowing what is going on with the testing results.

Due to (computer) technical issue of the Deputy AG, the Commission will recess

RECESS: 11:38 AM

RECONVENE: 11:46 AM

Commissioner Buck – asked if the Navy reviewed the staff's submittal (for this discussion) and asked on any comments.

Cpt. Meyer – looked at proposal and have no initial comments at this time.

Commissioner Buck – noted on the 150 written comments received by the Commission, most of the public asked for monthly meetings with Red Hill on the agenda; would you be able to fill that requirement?

Cpt. Meyer – if the Commission asks us to be part of that, we would do what we can to attend those meetings.

Commissioner Kagawa-Viviani – (to Mr. Hylton) in the Aquifer recovery discussion of the AOC construct to a new phase of engagement can you describe what does that look like in terms of being more open?

Mr. Hylton – when we started the Aquifer Recovery Focus Group, the charge was to be transparent and expedient from Navy leadership to share everything we could quickly and opened that to subject matter expertise and community stakeholders and sharing developments at the staff level. With the Interagency Drinking Water Systems team, we're working in partnership with the Department of Health, the US EPA and Army to develop solutions together like Joanna presented with the distribution system flushing, and sampling plans. With the capture zone we're developing a plan to support the discharge permit and add context to the recovery remediation.

We're going to need immediate short-term models that are analytical but quicker than developing a robust numerical model that comprehensively tries to represent the complex hydrogeology and will need to look at smaller models that simplify on a much smaller area to analyze where we can have better confidence and compare those against the groundwater level of quality that we're seeing. We're widening the call for helping to develop tools to have informed decisions at the facility.

Commissioner Kagawa-Viviani – is the Navy open to external peer review?

Mr. Hylton – yes as example with USGS - for written review of products to express, how their best supply and what the limitations that each of the models may be.

Commissioner Kagawa-Viviani – asked on the handling of the sampling process in terms of UH Lab and the Navy moving forward.

Mr. Hylton – because of the interagency construct, the regulatory authority remains. We'll work with the Department of Health, EPA in constructing the sampling and working through the sampling protocols to meet all regulatory requirements.

Commissioner Hannahs – commented on the need to have all agencies represented and to work together and establish a single point of contact at the Navy to coordinate responses with the varying agencies.

Cpt. Meyer – I will help take that back to make sure we have the right representation here; when it comes to water in the wells and environmental management in the hub of the water distribution system that is me. With the Red Hill Fuel Storage Facility we will we need to bring in additional people if there's a desire talk about operations of the fuel facility.

Commissioner Hannahs – I think the point which we're going to solve this in the most expeditious way possible, we need all the right players at the table.

Chair Case – commented I've spent a lot of time in the last month on this issue. I listened to the entire contested case hearing, reviewed the decision and order, the emergency order and a lot of technical discussions with the Navy. For the benefit of the public, I appreciate you guys are focused on making sure the system is safe for the people using it right now; that's the flushing and distribution plan. In the process of doing that, making sure the water quality is good for the people receiving that and it doesn't harm fish and wildlife in the stream and in wetlands.

In the next stage of this effort, you're about to launch, which is pumping water from underneath the surface of the shaft at a high rate to ensure and control migration of the water to ensure no fuel contaminated water moves further West, and it's a very urgent matter. Then there's the next step of looking at a water treatment plant, to make sure in the longer term if there is ongoing contamination the water remains safe to drink for the people from that well.

All of that really is preliminary to where the water commission gets involved and the bigger issue is the health and safety of the long-term health and safety of the aquifer. We are going to be continuing to look at the mitigation or elimination through a wide variety of means of the risk of contamination of the aquifer from the system. We do have this longer-term urgent situation to make sure our aquifer remains safe and it's not necessarily in this particular location.

Do you anticipate in this remediation phase, going over 5 million gallons a day?

Mr. Hylton – I believe not; there are a number of variables. The 5 mgd rate will get a level of draw down within the Red Hill Well. If you pump harder at a higher rate, you'll create more drawdown and get a larger capture that would give you a higher level of confidence you're mitigating against the potential for migration. There are a number of other variables that would keep us from doing this as we monitor groundwater levels around water quality, to see what the effectiveness of the capture zone is, the 5 mgd is limited by several things and is a bit over the 4.7 allocation for the shaft and pumping at a higher rate would be a risk of saltwater intrusion.

One of the primary things that we're working against is real estate for the GACs. The granular activated carbon units, has eight vessels on site and outside the attic space takes most of the space we have available for that treatment. Also, the issue of discharging a higher amount of water to the stream would be a higher impact and we'll ultimately have to determine the effectiveness of that capture zone through monitoring.

Chair Case – our responsibility is to is to make sure this quantity issue is watched very closely and that includes our overall Pearl Harbor aquifer planning, watershed management and ensuring in an era of declining rain, we maximize water recharge and minimize drawdowns that are not essential for domestic drinking water quality use. Do you have an understanding of what the number of withdrawals the Navy takes now compared to the sustainable recharged level of the aquifer? - does the Navy support watershed protection in the Pearl Harbor aquifer area, financially?

Cpt. Meyer – I'd have to get back to you.

Chair Case – reiterated on the understanding of the Navy in knowing about taking water out and putting it back in and using it for the right things. Noted the connection between the water that comes out of your faucet and the shaft that it gets pumped from, and the water when the rain that happens up in the forest, is a critical one in an island system. I'm wanting to make sure there's a program in place on the Navy side to make sure that you're understanding the big picture and participating in it.

Cpt. Meyer – understood when it comes to water resources, of not drawing down and ideally replenishing the aquifer overall as a whole. Mitchell here to my right, has been working on this in the utility distribution system for some time and as well aware as with many of our workers within our Joint Base Pearl Harbor Hickam.

Chairperson Case thanked the Navy for their participation and continued work and in taking this situation very seriously and will continue to collaborate with you on a daily basis.

PRESENTATION GIVEN BY: Mr. Ryan Mata, Hydrological Program Manager,
CWRM Groundwater Regulation Branch

Mr. Imata provided a PowerPoint presentation and highlighted the roles of CWRM and DOH as related to the State Water Code HRS-174C noting water quality, water pollution control laws; also noting CWRM's primary focus in the Red Hill matter focuses on water "quantity" in monitoring water use, regulation of wells, protection of public trust purposes (traditional/customary rights usage), water use permits in a designated Water Management Areas (WMA), partner with other agencies for the same purposes.

CWRM's involvement relating to the Red Hill issue prior and since the incident include(s): Fuel Tank Advisory Committee (FTAC), groundwater modeling/monitoring group, monitoring well group; and post (11/20/21) water restoration updates (daily), Aquifer Recovery Focus Group, Halawa Stream monitoring group.

Mr. Imata noted the AOC summary which includes tank inspection, repair & maintenance, upgrade alternatives, release detection & tightness, corrosion & metal fatigue practices, investigation & remediation of releases, groundwater protection & evaluation, risk/vulnerability assessments. The selected timeline of the Red Hill Fuel Tanks was stated. There are (3) aquifer systems in the general affected area of the shafts that the Navy uses. The graph table of the existing conditions of the deep-monitor wells were shown and explained. In the Moanalua Aquifer System Area, there are a total of (52) wells.

There are ongoing modeling efforts research and studies to assess the ongoing situation with the contaminant/transport model still being developed. In 2015 & 2016 CWRM sends a letter to DOH stating concerns regarding the AOC about timeframes and components to: upgrade facilities, locate & delineate release of fuel, and develop mitigation/recover strategies to protect drinking water in the vicinity. In 2016, the letter sent to DOH concerned about more transparency, more monitoring needs, and recommend emergency response plan. Many groundwater regulation efforts have been made to date with 1) assist in permitting of monitor wells such as Conventional wells and West Bay wells; 2) coordination with subject matter experts; 3) representation of DLNR/CWRM with working groups; 4) letter from DLNR Chair noting the various requests made and concerns in regards for the continued protection of the aquifer(s) health and water sources; CWRM staff is continuing coordination and assistance with BWS and DOH.

With the Navy system flushing, CWRM's goal is to ensure the protection of stream health from discharge to ensure minimal impact on resources; and if there are any impacts, CWRM will further seek compensation. Regarding the remediation process, CWRM is working to develop a discharge and flushing plan with DAR & DOFAW.

PRESENTATION GIVEN BY: Mr. Neal Fujii, CWRM Planning Program Manager

Mr. Fujii continued the presentation highlighting the Pearl Harbor Water Shortage Plan that was adopted by the Commission on August 18, 2020. The plan established water shortage triggers as well as implementation in the event of a water shortage, based on hydrologic data received. Such actions include agency coordination, public notification, and tiered water restrictions. However, this plan does not the Moanalua Aquifer System Area in which the Red Hill Shaft is located.

The water shortage criteria highlight HAR 13-171-41 with also the water emergency condition

noting the Water Code HRS 174C-62(g). Generally, the PHWSP note that staff must closely monitor water levels and chlorides to see how any changes in pumpage may affect the aquifer.

The Board of Water Supply is currently addressing the shutdown of the shaft and wells due to the Red Hill contaminant issue. We are currently in a “wet season” of La Nina, but when the dry season comes around, BWS is looking at strategies to address that. Also noting that the Honolulu ASA is being pumped close to the sustainable yield. The 12-month moving average of the monthly pumpage chart for the Honolulu ASA was shown.

(Mr. Imata continued the staff's presentation)

The current and future CWRM staff's efforts were highlighted noting its continuous efforts to ensure CWRM and DLNR's mission statements are advocated with continued collaboration of inter-agencies as well as monitoring and modeling efforts.

Chairperson Case thanked staff for the informative presentation and asked Commissioners to hold questions until after public testimony from the return of the upcoming lunch recess.

RECESS: 12:55 PM

RECONVENE: 1:18 PM

PUBLIC TESTIMONY

Mr. Ernie Lau, (BWS, Manager & Chief Engineer) – I had a meeting with the head of region nine from the US EPA about the red Hill situation, so I was able to get that done. Thank you, Chair Case and members of the Commission Water Resource Management. I really appreciate you holding this meeting. It's valuable information for our community for people to understand what's happening.

This is an important issue and bottom line; we need to take quick action to protect the water resources which is vital to our community. So, the Navy should immediately be required to defuel the facility and relocate the fuel if they must have fuel storage on this island, to other locations that are not directly over a drinking water aquifer. Our request is for the commission to support the Department of Health Emergency order and ask the Navy not to challenge that order, but just get down to business and comply with that order. Thank you.

QUESTIONS

Commissioner Buck – all the commissioners really want to thank you for your efforts, you've been a real hero. Is there anything in the staff submittal that you would add to further the needs and desires of the Board of Water Supply?

Mr. Lau – I apologize as I did not have the chance to review it and will let Kaleo know if there's anything. We really appreciate the support of the commission on this and the staff.

What's needed here is for everybody, the Commission, the Board of Water Supply, the Department of Health, EPA, and the community to stand together with one voice, with one direction here. They are all heroes in my mind, thank you.

Commissioner Buck – how can the Board of Water Supply and the Commission be at the table, not just consulting, to be able to make decisions?

Mr. Lau – in terms of getting the Navy’s water system restored, that’s the kuleana of the Navy and the Department of Health and EPA because it does not affect the BWS system as we don’t have contaminated water, petroleum getting into our system; but the effect on our system is the shut-down of three sources. Our involvement should be focused on the resource itself, the aquifer there.

Commissioner Hannahs – were you watching the presentation by staff that cited water emergency section 174C-62 (g)?

Mr. Lau – sorry, I’ve missed that as I was in the meeting with EPA.

Commissioner Hannahs – stated the water emergency and asked if the withdrawal from Halawa Well constitutes as an emergency?

Mr. Lau – losing that much supply capacity is an emergency for us, but in terms of the risk to the aquifer, at the moment, I don’t think it rises to the occasion. Respectfully, I think the situation we’re dealing with is between the water utility, the Board of Water Supply and its customers and try to make sure that supply and demand equal each other. We’re going to be very careful not to damage the water resource itself and work closely with the commission. The shortage plan is a good thing if there is a prolonged or multi year drought.

In this case, it’s a groundwater contamination issue which we need the Department of Health to continue to show leadership and courage to hold the Navy accountable for cleaning up the resource, determining the nature and extent of the contamination, and to remove the risk of future threats or eminent peril to the resource itself.

PUBLIC TESTIMONY CONT’D

Dr. Kamana Beamer – (*read his submitted written testimony*).

Chairperson Case thanked Dr. Beamer on his depth of knowledge and continued passion on water issues.

Councilmember Ms. Radiant Cordero, Honolulu County – Aloha Char Case and members of the Commission. Thank you so much for the opportunity to testify and for all of your expertise and valuable questions. I have the honor of serving Liliha to Iwilei, to Ford Island and Hickam which includes many of the families who is the primary victims of the recent water contamination crisis. This catastrophic embarrassment has desecrated the truest victim of all, our life’s precious resource, water.

Along with being present through the confusion from November, before any announcements were made to the beginning of the town halls, were many of the media and myself were kicked-out, to being on the ground speaking to residents, keeping up with the contested hearings and orders, I finally had the opportunity to visit the facilities at Kapūkakā yesterday. The erosion of the facilities pipelines, the lines of communication, coupled with the erosion of trust in the Navy’s ability and vulnerability and the management of the tanks confirms that further catastrophe is imminent.

As a public servant we invest in and protect our communities and to address its longstanding issues whereas Chair Case also mentioned the impacts of the quality of water thus impacts the quality of life. Without preserving our water quality, we cannot continue to support our community with needed affordable housing development, upgraded infrastructure, and implementing city and state development plans-without that protection of that water. As you’ve seen communities here at home

and across the world come together, please hear the pleas and continue to take action to demand complete reparations for the generational damage to the aquifer, the communities and for the Bulk Fuel Storage Facility to be decommissioned, not to kick it to any other community for further harm.

We are in a critical juncture for action here. Along with the statements in my written testimony I humbly request further cross jurisdictional and interagency efforts be made for proactive preventive measures including in the water shortage plan and any funding that would garner more teeth to support state agencies.

Also, to consider the people that dumping and flushing water into Halawa Stream impacts. Halawa Stream has a great portion of my community and I'm very concerned and ask for you to be concerned and once again remember the actual people that lived there. Next, we must demand that the Navy stakeholder group, which I never even heard of until today, includes members from this commission and for you all to question the relationships of the Navy, to those that are handpicked, in that stakeholder group. What actual impact that could mean for how we are holding the Navy accountable? Lastly, we need to demand more nonmilitary service residents that were impacted with their water from Kapilina to Manana to the schools, and persons working in Pu'uloa.

Along with the affirmation requests, I want to echo the request to all stand united as people of Hawai'i to demand that the Navy immediately shut down the bulk storage facility at Kapūkakā and know that I can be another partner for the efforts of the City and County of Honolulu level. Mahalo for your time and I really appreciate you all.

Commissioner Buck noted to Chairperson Case, that the Navy was not present during this time of public testimony.

PUBLIC TESTIMONY CONT'D

Ms. Ann Wright, Colonel, Ret. US Army & former US Diplomat – I've lived in Honolulu for 20 years and I just like to thank you and the Commission for letting us have our say as citizens here.

I've been in the military and know the Navy's using this thing of national security; we got to have the tanks for our national security, but we got to have human security, and that's us. If they're killing us that live on the island, that's not national security. Human nature is that these incidents and accidents that have been going on at Red Hill will continue. The testimony and the contested hearing just show how what the future will bring to us in the predicted numbers of leaks that there will be. There's no plan as you all have mentioned before, on how to take care of us as civilians if there's another big spill, and it comes into our part of the island.

The Navy, the military has taken care of its own and the 93,000, they put people in hotels and given them water, but we do not have a plan for what is going to happen to us if there's another major leak. I was up at Red Hill to the housing area on Christmas Eve and talked to some guys that were doing the flushing of the fire hydrant and were flushing it into the sewer system. I said, can our sewer system handle contaminated oil, petroleum? - and the guy answered it was an army civilian engineering, I just was told to put it down the sewer and that's what we're doing.

I went back up to red Hill yesterday and the contractors from Wisconsin, who are part of the clean harbor contract said well, we're now fixing these big blue filtration tanks, and now we'll start using them, but we will flush this stuff down the storm drain. Which brings to the point of where it goes in the storm drain and down through the Halawa Stream, and then out to the ocean - nobody knows how much of that Oil Pollution petroleum pollution is now out in the ocean that's been going out whether through the sewage plants, which may or may not be able to take that stuff out or not.

Bottom line is even in the military housing areas, this army engineer said, you know in every one of those houses they're polyethylene little tubes in your refrigerator and your dishwasher and your washing machine, they're not going to take those things out and you cannot get the oil or fuel products out of those lines. It's a massive deal. Please continue to stand in shutting down those tanks permanently and draining the tanks. The military knows how to get the petroleum up from ships into the storage areas and store it and how to get it down to put it in ships that go out to sea. It's not a big a deal they can do it, we just need to have the political will to force them to do it. Thank you very much.

Dr. Kyle Kajihiro, UH Manoa – Thank you Commissioners, Chair Case, and all the members of the public who are here. I'm an instructor in geography and Ethnic Studies at the University of Hawai'i at Manoa and also a volunteer with Hawai'i Peace and Justice, and I'm working with the O'ahu Water Protectors. I submitted a written testimony, so I won't go over all of that, but I just wanted to highlight a few things.

I went and looked at some of the Commission's foundational documents and found the mission and I want to site that briefly “to protect and manage the waters of the State of Hawaii for present and future generations”. I think that's says everything about what your sacred mission is - to protect and manage these waters. I want to urge you to take that first part the protection of the water seriously. I understand there's historically been a division between quality and quantity; but you can't have any water, as we've seen with this recent disaster, if it's contaminated.

The two must work together and as Dr. Beamer stated earlier, the public trust doctrine is one of the highest standards of care that we have for a resource; and that's entrusted to you, as commissioners. I'm urging you to expand your authorities to also regulate the quality as well as the quantity of water. What powers do you have to sanction bad actors? The Navy has shown that their negligence, their contempt for our laws, our environment and our communities which has resulted in a genuine disaster as people have been sickened and have not been able to live in their homes, and this is only a small portion of our larger community.

It's not a theoretical problem anymore, it is an actual disaster that has affected people. If history is any guide for the future, we have to demand that the tanks be defueled as soon as possible and that they be permanently decommissioned. I urge you as a Commission to use all of your authority to make that statement clear and to leverage, whether you have control over these permits, as a way of forcing the Navy to do what is necessary and the right thing to shut down these tanks forever.

Again, ola i ka wai - Water is life; shut down Red Hill, thank you.

QUESTIONS

Commissioner Buck – I just wanted to thank you for your public testimony was incredibly well written, you're asking the right questions. I urge all our Commissioners as we go through the hundred and 160 plus public testimony to check out the doctor's testimony as he's asking the kind of questions that I think are important for all of us to consider.

PUBLIC TESTIMONY CONT'D

Mr. Justin Keli'ipa'akaua – Aloha e Chair Case, Commissioners and Deputy Director Manuel. Like everyone here, I'm one of many living beings on O'ahu that requires clean, fresh drinking water to sustain my life. I'm a member of the Kali'uokapa'akai Collective 'Aha Kuapapa which is a steering

committee. Today I'm speaking on behalf of Nohopapa Hawai'i, a native Hawaiian and wahine owned hui serving the kuleana of Hawai'i in stewardship. For 20 years there's been gross lack of public transparency on part of the US Navy regarding the potential dangers posed by millions of gallons of jet fuel that been held only 100 feet above our aquifer at their facility at Kapūkakī also known as Red Hill.

Now that fuel is showing up in the homes and bodies of O'ahu residents and at the very least, we require a regular venue to receive updates and information from the Navy, with the public to also make our concerns known. This situation is dire, and although the Navy has denied that the pollution constitutes a crisis, there's no denying the effects that high-octane drinking water is having on the bodies of the people of O'ahu, upon the 'āina and wai that have sustained us for hundreds of generations. The egregious outcome of the Navy's negligence goes beyond the desecration of cultural resources and the destruction of our environment.

I stated in a previous interview with Dr. Kamana Beamer, present here, the actions and inactions reflect the quote ...“a kind of terrorist act and threat that the military supposed to protect Hawai'i from, and yet they're the cause of it here in our islands”. This suffering and serious injury to physical and mental health caused by the pollution of our water, if this were caused intentionally will be classified as a crime against humanity under Article Seven of the Rome Statute of International Criminal Court, which is the latest document reflecting the latest consensus among the international community on what constitutes crimes against humanity.

The actions or inactions of the Navy may not be intentional, which is probably even more disturbing as we face the same dire effects due to their negligence. This crisis, though caused by the Navy, requires collective action from all of us to mitigate its effect, which may potentially last for decades. We cannot take effective action without necessary information in order to guide it to aid in making this information discussion, publicly accessible request the following: the commission support the DOH order, the Commission agendized monthly hearings on Kapūkakī (Red Hill), that the director of the Department of Health commit to future conversations regarding Red Hill and public meetings and out of any AOC or administrative order consent, request the commission review all of your permits and what do you see in Kapūkakī for potential impacts on the aquifer, and that the Commission order the Navy to attend all public hearings of the commission, not only the presentation portions but also the testimony portion for which are currently absent. Also require the Navy to get a Stream Channel Alteration Permit (as they do not have one), prior to even considering dumping any filtered water into any stream including the Halawa Stream. Also, if the mechanism does not currently exist, a mechanism be provided for the public to ask questions to the Navy and DOH if none currently exists.

Finally, we recommend the immediate defueling and decommissioning of the Red Hill Facility. Mahalo nui again to this commission for your continued inquiries into this matter over the years, Mahalo nui to Ernie Lau and Board of Water Supply, though you're not taking on the title of hero, your actions are nothing less than heroic. Mahalo to the Sierra Club of Hawai'i for assisting in carrying these heavy burdens over the past few decades. Mahalo also to the Ka'ohē Wai Coalition, and to the O'ahu Water Protectors for engaging and activating our communities on this important issue that affects every single one of us who rely on clean water to live. Modern again for your time, ola i ka wai!

PUBLIC TESTIMONY CONT'D

Ms. Rebekah Garrison – *(read written testimony submitted)*

Ms. Elizabeth Wiggins – Aloha and thank you water Commission for the time to speak today. I'm a

science teacher on Hawai‘i Island. There are many components of this catastrophic event address in this meeting today, for the sake of my patient students, I'd like to address the overall impacts and suggestions for change.

The Red Hill Fuel leakage is an example of unacceptable organizational negligence of which the consequences are still neither fully disclosed nor understood. What is clear is that the Navy occupying this area has not preserved it to the standards by the water commission, citizens, water and the plants and animals that depends on it, have been affected by the leak under the DOD jurisdiction, an organization that has been established to protect and defend the very lands, they destroy.

This is a human rights violation, as outlined by the United Nations to have access to safe and sufficient, and affordable water. This is the opportunity for the Red Hill Fuel reserves to be completely defueled, removed, and for funding to be allocated to integrate sustainable management outside of exclusively Navy stakeholders.

Ms. Anna Chua – Good afternoon. I'm a water drinker and resident of Mō'ili'ili, and member of the Water Protectors and testifying today on behalf of the Sierra Club of Hawai‘i in my capacity as the clubs Red Hill organizer. Mahalo Chair Case members of the Commission for holding this important meeting. As you should all be well aware or was on the brink of an existential disaster, as we speak, well over 100 million gallons of petroleum fuel are being stored in 80-year-old 12.5-million-gallon capacity petroleum fuel tanks, 100 feet above EPA Region-9 sole source of the basal aquifer.

Fuel from these tanks has already contaminated the Navy's Red Hill Shaft and we do not know if or when the Board of Water Supply's currently offline municipal wells that also draw from this aquifer, including the Halawa shaft located one mile away from the contaminated Red Hill shaft, can be safely brought back online. What we do know is that each day that fuel remains in the Red Hill Facility, threatens a greater existential crisis for the Islands water supply, environment, economy, and way of life with the millions upon millions of gallons of fuel in them right now. Eight of them have not been inspected over 20 years, three of these have not been inspected in nearly 40 years, if not longer. The steel aligners to the Red Hill Fuel tanks are actively corroding due to moisture trapped within their respective concrete casings which themselves, cannot be inspected or assessed for potentially structural failure.

The Navy's own phase-1 risk and vulnerability assessment published in 2018, which incorrectly assumes a 20-year inspection cycle for all the Red Hill Fuel tanks, has also predicted an 80% chance that up to 33 million gallons of fuel will leak from the Red Hill facility within the next five years. This probability does not include any consideration of the risk of external and unpreventable events such as an earthquake. The inaction and years of indifference to Navy's assurances have led to the current contamination of the Red Hill Shaft, which is now poison and displaced thousands of people and effectively wasted untold amounts of what was once clean, fresh and abundant public trust water, can no longer be tolerated.

The water commission as a primary entity tasked with upholding the public trust in water and protecting our precious water resources, must take all possible action under its jurisdiction to ensure that the existential threat posed by the Red Hill Facility, be addressed including the immediate defueling and permanent decommissioning of the facility. At minimum, given its status as the entity primarily tasked with upholding the public trust in water as established under the Hawai‘i State Constitution as incumbent upon the Commission to take immediate steps to address the current contamination crisis, including but not limited default limited to the following: 1) require that

immediate interim amendments be made to the state water resource protection plan, the state water projects plan and the Honolulu County's Water Use and Development Plan, to reflect indefinite reduction in sustainable yields, that has resulted from the Red Hill Facility contamination of the Southern O'ahu basal aquifer until there is a determination whether and how this aquifer can be safely utilized once again as this one sure that new water uses do not exceed what may be the current sustainable yield for the affected aquifer area; 2) hold monthly meetings regarding the status of the Red Hill facility including the status of Navy action to defuel tanks and demand to identify informed, maybe officials of these meetings, as I believe a commissioner and staff has brought up in this hearing; and 3) reject any efforts by the US Navy or other entities to withhold information relevant to the safety of the public and of our public trust water resources.

In echoing the many testifiers today, we stand with you as water protectors to prevent the further desecration of R-5; Water is life; thank you for the opportunity to testify.

PUBLIC TESTIMONY CONT'D

Mr. Andre Perez – Aloha mai, Kahuwai Pono. I am the founder and director of Hanakehau Learning Farm located here in Waiawa makai, on the shoreline near the Pearl City peninsula. I'm here to speak on behalf of my farm and my family. I'm also a member of Ka'ohē Wai Coalition. I'm also here to speak on behalf of other farmers in this area who cannot be present at this meeting, and so on behalf of myself and the people downstream. I'm not here to talk about facts and figures. I'm here to tell the human story.

We live on our farm in Waiawa. This is our residence, there's a long history of kalo production and farming in Waiawa, going back as far as human memory. Here in Waiawa there's traditional customary practice subsistence that's dependent on spring water. We have some of the most productive quality springs here in Waiawa along the shore of Pu'uloa or Pearl Harbor. Some of the things that are farmed and grown in this area include kalo, particularly specific varieties of kalo in the kāi family, which is known as one of the best tasting kalo, specific to this 'Ewa region. There's about three or four varieties that are in production, there's fish that's been farmed down here, 'uala, mai'a, watercress and other things farmed by various farmers here.

In our area, Waiawa, there's also a large amount of bird habitat; bodies of water that are habitat for endangered species like the 'ae'o, 'alae'ula, 'auku'u; there's 'ōpae in our water. Some years ago, Kamehameha Schools Bishop Estate, the landowner on which many of our farms sit, did their own water study, you should follow up with them. They determined that the spring water here in Waiawa makai had some of the cleanest water quality on the island. Approximately 60 yards makai across the bike path from my farm is the super fun fence line, the old Navy landfill. That is a super fun designation.

We live next to Navy contamination, now the contamination is moving from the mauka side, potentially; that's what we're concerned about with the groundwater. I'm here to bring it to your attention and implore you to not just look at tap water, tap water is important we all drink water. We also eat food, kalo, watercress, 'uala, etc. I want to speak to the farming impact that could be potentially in danger as we speak. If the fuel travels underground and makes its way to the aquifer that feeds our springs, the results would be disastrous for finding food production, subsistence and traditional customary practice.

We live in the midst of the Navy's history of contamination. I can look across from my farm and see the fence line with the notices that say keep out, hazardous to human health. We live next to a Super fun site that was caused by the Navy. We also live with the coconut rhinoceros beetle that has been introduced by militarism here in Hawaii, and we've been impacted probably greater than anyone by

the coconut rhinoceros beetle in my opinion, represents probably the #1 bio security threat for Hawai'i, O'ahu right now. That beetle will eat kalo, 'uala, mai'a, hala and other native and cultural use plants, if it's not controlled. Now contamination moving in from the mauka side with the coconut rhinoceros beetle with the Superfund site directly across from us on the makai side, as people who live on the inner, we're really starting to feel the contamination squeeze. If our springs become contaminated, it will be a disaster for farming and food production.

I want to close off by just reiterating what's at stake here, not just drinking water, but farming water, food production, wahi pana, historical and cultural sites, famous springs, and ultimately the future of our children is at stake here. There's only one sure way to ensure that we safeguard the future of our children, the future of farming, the future of drinking water, and the overall ecological health of O'ahu, and that is to shut-down Red Hill. There can be no chances taken when it comes to safe drinking water. We cannot afford the risk. We've already experimented with the Navy's assurances and mitigation attempts, and they've all failed, and now we're in this crisis right now.

As somebody who lives on this land and farms and engages with the water, I want to implore you to consider the farming impacts as well. If I could, I'd like to share screen with you for a second. As I close out and give you a visual of a little visual cue of what's at stake here (*shared screen of photo of waterways and farm lands*) these are waterways from other farmers who couldn't be here, and I got their permission to take pictures of their water to share with you. This is what's at stake if the contamination gets into our spring water. We got kalo farms that share large bodies of water, these waters also serve as habitat, there's fish production that's farmed in this area.

There're bodies of water that create habitat for a multitude of endangered bird species, some of which are extremely threatened. As you can see here on these pristine farms are at stake, as well as drinking water. I want to implore you to really give consideration to the also the potential threat to farming and spring water. In closing, the only safe way to ensure that our water will be safe, is to shut down this facility. We cannot play around with the Navy anymore and trust that this aging decrepit facility is going to keep our water safe, it hasn't. There's no trust and confidence and we believe that the only option at this point is to shut it down. Mahalo Nui, Aloha.

PUBLIC TESTIMONY CONT'D

Ms. Camille Kalama – Aloha mai kākou Chair Case, members of the Commission and Commission staff. I'm speaking to as a Director of Ho'i Honua, which is a nonprofit of Hanakehau Learning Farm that Andre just spoke about. I'm also a member of the Ka'ohe Wai Coalition. As some of you may remember, I've appeared before you as an attorney, supporting traditional kalo farming and other native Hawaiian traditional customer practices in East Maui, and worked on that issue for over a decade, until this commission made its groundbreaking decision to protect and take very important steps to employ a precautionary principle to protect traditional customary public trust purposes for the waters of East Maui.

Today I'm here as a member of the community in Waiawa, Ahupua'a and I wanted to share screen to give you a sense of where we're talking about, and where those pictures just came from (*shared screen of the map area noting the general area in relation to the Red Hill Shaft and Facility, highlighting the farms fish ponds which were documented in the Māhele documents*). The native testimonies maps from that time showing the immense food production that historically came from this area. Specifically in Waiawa, 176 lo'i kalo were recorded during the Māhele, as well as several fish ponds. In our 'ili 'aina of Hanekehau, there were 12 lo'i kalo. I know, I understand that doesn't give you a sense of acreage but it's important to understand that documentation because the Commission's duty is really to protect not just current but also potential traditional and customary practices that are in the public trust.

We know that there's potential because we know our history that this is there. What you see now is a picture of the rice fields that came in after the kalo in 1900, and I hope this commission understand that there's ongoing work to restore this historic lo'i in this area. What we would hate for is that the decades of work that we are all putting into restoring this important 'āina, we're unable to use one day because of contamination.

We have no alternative, if this water is contaminated whether by petroleum, or by saltwater intrusion. We can't turn off our taps and go to another aquifer. We are in Waiawa and are reliant on this water the water comes out of the ground. We can't simply shift to another pipeline, or well, or system, so this is dire for us, and it looks to be a long-term critical situation. I really appreciate the commission staff for the questions and the commissioners for the questions you're asking because I hear the disagreement about the groundwater modeling.

I know from my work on water issues that modeling can't get you very far, but it's still a model and our groundwater resources are so complex, and hearing about how fuel moves faster and move differently than water itself so we may be what looks to be a few ahupua'a away from the current contamination, but in 80 years, these fuel tanks being there, the system being in place, and an estimated, likely conservative estimate of over 200,000 gallons of fuel leaking from that facility; I don't believe it's beyond the realm of possibility that contamination could reach us one day if it hasn't already.

My concern is that at times, I do observe fuel sheens on the water, how do I know where that comes from and who's burden is it to monitor it, to test it, if the testing isn't even available here in Hawai'i. What are the long-term effects and who is going to be sure that we're keeping track of that? I think this commission is the right body because of the duties that you must consider holistically our public trust water resources. I would support the staff recommendations on how this commission is to stay involved at every step of the way, to the shortage.

To be honest, when the contamination first happened, I didn't appreciate the immense importance of the Waiawa aquifer to support any potential shortages from the long-term shutdown of the nearby wells. That's concerning to me as I hear that the Navy is now saying there is not much of an increase in pumping from Waiawa, but what happens in the summer months when our rainy season is over, when irrigation resumes and when the Board of Water supply is also pumping from Waiawa well to make up for the shortages? I'm very concerned about the long-term impact of that pumping and that the monitoring includes groundwater monitoring that goes beyond drinking water because of the highly sensitive nature of our region.

Lastly, I'm also concerned about the release of or the flushing into Halawa Stream and other streams potentially in this area. It's one thing for the water to be sent into our sewage system where it's going to be treated, but to be released into those streams, I have major concerns about impacts to this already highly impacted estuary region, and the whole Pu'uloa area. I think there may be a tendency to write off this region as already highly impacted and I'm here to speak to this kipuka of farming, of 'āina, of stewardship that we're working so hard, with many other groups to restore these sites to bring back fishponds and kalo farming, that we need your support and your continued vigilance; and I want to Mahalo you for all that you're doing so far; ola i ka wai! Mahalo.

PUBLIC TESTIMONY CONT'D

Ms. Gina Hara – Thank you for allowing the public to speak. I'm from Halawa Valley. I've been following Red Hill and going to every meeting since 2014. It did not start in 2014, there were 76 leak and maybe they discount 22 of them because of the tail-tail leaks is not counted. Every meeting

sound like this meeting. If you guys don't do something drastic this month, I don't want to be rude or anything, but this could just keep going on forever - because everyone is so polite and concern just like this meeting, and it's been going on for eight years. We went through the double the TUA, meeting after meeting, no matter who you talk to in the Navy. The Navy is this big bureaucracy, and it took the injunction hearing to find out that Del Toro, and everybody under him, Bilacki, nobody is interested in decommissioning the tanks, you have to go higher.

In fact, it took so long for Congress people to even say that it should be the decommissioned. The reason why I'm so adamant about this is not just because I'm from Halawa, I'm a property manager that runs after water leaks, every day. I have like two or three I'm working on right now and that's just water leaks. There's a protocol, you must cut off the source, you can't run in there with towels, like pillows and this sucking up thing, it's not going to work you have to cut the source. When they talk about the leak, they're talking about a leak seven months ago that they're still trying to figure out what happened during the injunction hearings a 13-hour injunction hearing was the most exciting meeting I have ever seen in the past eight years. It took an injunction hearing to ask questions that get answered.

It was May 6th for the injection hearing, we wouldn't have known 19,000 gallons was missing. It's not 38 gallons, not 1600 gallons, it's 19,000 gallons, plus 14,000 gallons in November. That's 33,000 gallons, which is bigger than 2014, which was 27,000 gallons. Total figures range from 180,000 gallons to 230,000 gallons. Now, it came out in the faucets of people's houses.

If this month, something drastic doesn't happen, for example, maybe you have to take back the permit for Waiawa. Hawai'i needs to just take the water back from the control of the Navy, they don't deserve to just have free water every time they are polluting our aquifer. If 20% of our aquifer is shut down for so long, we can't open it up because we might injure the rest of the 400,000 people. Then shouldn't at least, 20% of their water also be impacted, if not take back all of it, and I don't understand why we don't have people from Hawaii, controlling and knowing how much water is being used by the Navy.

If someone needs to be placed there our experts need to be there watching the situation, they should pay for it. Also, there should be a revolving fund, getting ready for the extra wells that have to be made to supply the rest of the water. I just want to throw it out there that if people don't pay for water, they will abuse it, that's what I know from property management; if you don't pay for electricity, they're going to just keep using it, same with water. If water is free, it's going to keep going. Maybe the Board of Water needs to add a line on the bill. The bill should say "20% extra you gotta pay, because we don't have that water anymore."

We have to prepare for the worst-case scenario, maybe we can't rely on the aquifer anymore if this keeps going. Ernie Lau told us in the first meeting in 2014, that the user is 13 million tons of activated charcoal to clean the pesticide on the 'Ewa plains. If he lines item on the water bill I think people will become much more aware of what's going on you know cause in property management, when you use something you gotta return it in the move in condition.

One more thing I wanted to say was remediation is not just about cleaning the lines, remediation is you have to use, microorganisms and clean up the water the aquifers. In Korean natural farming, as they do this in Asia, you got to attenuate the indigenous microbes, with those microbes that eat those fields. Hawai'i should be testing that. The Navy's not going to come up with the solution. Maybe, this committee needs to lead that on water remediation because we can use that also on the 'Ewa plains.

Anyway, I want to make a small remark that the Navy also doesn't understand water because the

fluoridate the water, I believe they're releasing the fluoridation into the environment, and that is cumulative, that's just a side note, I mean it's not about Red Hill, but that's how disconnected they are regarding water. Another thing I want to mention is that, if you don't go higher up because Del Toro is a no. Right. Everything is a no, no matter who you talk to, after three years they come back we're on our fourth cycle with these people. They can be very sincere when you talk to them. Some of them are not sincere, but nothing is going to happen. You gotta go Biden, Pentagon, go higher up and you got to be strong. If it passes this month or two months go by and nothing can be done, we're back to where 2014, just waiting for another week to happen. Every expert says it's not, if it's going to happen, it's when it's going to happen. The past leaks are on schedule. What I'm trying to say this is going to sound really mean, is if all of us don't do something in the next month or two, I know that's very demanding, we're going to be still going to these meetings for many, many years. That's scary. I just wanted to say that, so you don't waste any more time.

The Navy will say three things always, they will say they can't move the location. They can't move it because they want the gravity feed, because of the bedrock, and they're going to say the Asia Pacific region demands this kind of fuel. The first two are ridiculous because they can use pumps, one strike can knock us out anyway. About the Asia Pacific region, everybody else has updated tanks. What we need if they're going to move it, it has to be on the cap rock or another location, not on the water, away from the tsunami zone. I brought this up every single time at every single meeting that was CNL sites, one of the 14 sites they promised us to look at, but while was testifying on that they lied to me because they were getting 68 bids on that area that little Makalapa area, and they weren't even considering an alternative, they just been wasting eight years of everybody's time. I just want to just say that please don't waste your time and go for it because you're the biggest hope right now, thank you.

PUBLIC TESTIMONY CONT'D

Ms. Sam Ikehara – Thank you Commissioners and Chair Case. I was born and raised on O‘ahu and receive my water from the Halawa aquifer nearly my entire life. I'm a PhD candidate and instructor at the University of Southern California now and so I lived in LA for four years and every day there I thought about how much I missed water at home, and how good clean and pure it tastes straight from the top which I can't necessarily say about LA water. The drinking the water I grew up with is something I really looked forward to when I moved back home and that is why for both myself and so many others, this disaster that has been unfolding around the Red Hill Fuel Tank has been incredibly concerned, frustrated, sad, angry, full of grief. I submitted extended written comments so I know this has been a long meeting for everyone so I will just touch on my main points.

Because the Commission on Water Resource Management is tasked with regulating the water resources and the protection on water rights, I want to see the council for water resource management take a more active role in this ongoing struggle to shut down Red Hill. I'm really happy about this meeting, or this meeting being scheduled for December and then reschedule for today. DOH has been the primary state entity working with the Navy on this issue but the December news, neither the media nor the public would have access to the drinking water distribution system recovery plan was super troubling. It's apparent that throughout this process and still now in many ways, we're still struggling with the same issues of lack of trust and transparency from the involved parties.

This lack of transparency is of course unacceptable, and this is where I see the council for water resource management, perhaps having a more active role in this whole ongoing situation. Like others have mentioned today, I request that Council for water resource management have monthly hearings on Red Hill storage facility and that the DOH director and Navy officials are required to attend these meetings. They should not be allowed to know show like they did with a special city

council hearing, and you know they should be pressed when they have no answers to your questions. All these say, good question, it's like you know, it's a good question that's why we asked it.

In my classroom when student say that's a good question or they haven't done their homework and you know they were haven't done their assignments, there's consequences for their actions. In all the meetings I've been to, I haven't seen any of that for the Navy which is mind blowing to me. It's a total disregard for our time, your time, and our lives. I'm assigned as Protectors of Water, like so many others have asked me, I really urge and request of you to take a hard stance and commit to keeping Red Hill as a topic of public meetings. The people of O'ahu who have been in this exact position before with the tanks and leaks. We can't afford to wait for more spills. This is the most momentum that has ever been around this issue and we need the council for water resource management to help sustain this momentum and get the facility defueled and permanently shut down now.

This needs to end within our lifetimes, and we can't pass this on to future generations, because we don't have that kind of time with the urgency of the situation. I think that DOH can't be overseeing Navy permits and water usage by itself. The Commission must have a crucial and primary role in this specially to safeguard against any potential or sadly further damage and impact the Halawa aquifer. Pressingly, CWRM to acquire the Navy to get a stream channel alteration permit immediately. I also ask CWRM to think about what water use will look like this coming summer when water demands are at its highest. I know the Board of Water Supply has been bringing that up but I think that CWRM to consider, because there's this question that I've been thinking about which is how can the local communities use of water, farmers water be protected and prioritize over water guzzling by the Navy, the tourist industry, and places like golf courses? It's like real material questions that we kind of need answers to.

We can accept no less than an immediate and permanent shut down at this facility. I realized that it won't disappear tomorrow as much as we want it to and that moving this volume of fuel as safe as possible will take time. Now more than ever we need you all to stand by your sacred mission to protect Hawai'i's water and we need courageous leadership from all of you. I thank you in advance for that leadership and courage, thank you.

PUBLIC TESTIMONY CONT'D

Mr. 'Iokepa Paty-Miner – Aloha everybody. I'm here on behalf of myself and my 'ohana, just like Andre and Camille, we were resident and mahi'ai, farmers from the Waiawa-kai right on the edge of Pu'uoloa, that my family sits on a portion of land with our nonprofit organization focused on cultural habitat restoration as well as agriculture. The property we sit on was popped up in one of those maps were a portion of what was once the larger Kuhialoko area; at one point it was estimated to be up to 140 acre fish pond. We're sitting on a very small portion of that today, most of which has already been victim to years of desecration of land; to the point where our fishpond is now mainly land.

But still sitting on the low side at least 10 acres of land covered in ground fed water coming from underground to our springs on site. On our property we have five different sources of water converging on our property coming from separate springs coming from the ground. We also happen to be the furthest inland that the salt water in Pu'uoloa in that middle rock area, come together with all of that fresh water and converge. Within that, we hold a lot, we hold food, as Andre pointed out, for us, it's not easy to farm in that area on the best days. The concern is first and foremost, how are we going to continue to protect the food that we're already fighting kind of tooth and nail to grow. Conditions aren't right, we already fighting climate change, modern day pollution, the regular everyday things.

For us and our, our 'ohana hearing this what happened in the first place we think is not just about the tap water, what about what happens in that groundwater becomes tainted? For us we're fortunate to be able to live in the middle of both worlds where we can blend our kama'āina our kua'āina knowledge and skill set with Western technology. We test our waters was by sight and know by intimacy. Also, we bring in a tool that we tested pretty regularly so we know how pure our waters is. When you're coming down to our place, you'll see the evidence of that from the food, the fish, the microorganisms, those primary producers sitting in the water that help to take away the pollutants what Gina mentioned, those phytoplankton, organic silicate, all of those things that are present there for us is the concern of what happens if that pollution that is higher than the stuff that we face on every day, start to come in to wipe out that first layer of our organic system that we have on our 'āina.

And what continues to cascade into when those things are wiped out its harder to build them back, then from there, that goes down into the allergies, which now go into the fish, into the birds and also touch across all the other food that we're working to produce on site as well as the habitat. For us because we sit in that muliwai or estuary system from our property that's able to get out into the ocean and have even further impacts, then we start to hit the reef the more pelagic systems. It's a complete, trophy cascade and disruption to the larger system that Hawai'i is already facing towards sustainability.

I had a few pictures as Andre, to show what our 'āina is. We have large standing waters with a mix of different native species but also have a wealth of and a wide variety of native plants, both edible and non-edible. Medicinal plants that are all living in the water system. So once that water is polluted it all gets touched. Like everyone mentioned we cannot just turn that off, we cannot turn off our tap that affects us and our everyday life. We cannot walk away from that and just be relocated because when we come back, it's in the soils, the plants.

From an organization and a business standpoint, it's a complete disruption of all of that, it's thinking about the future, how far are we willing to let this run and how long are we going to sit around and wait to see the consequences before we come up with more solutions. Like Gina said, sometimes we just got to start pushing straight to the source and we need to cut things off at the source before we continue to let things flow downhill to find out that we took action to late. The consequences of the things are dire. A lot of them I don't believe there are ways to turn back.

I'm here to represent the other people on these lines that maybe don't want to put in the effort to sit here and speak but all feel the same opinion on. We need to have accountability, especially when it comes to our water. Water is a source of life for not just us but for every living being across these lands and 'āina. We were here yesterday, we're here today and we're gonna be here tomorrow. That's where we always going to be thinking is how we're going to continue to protect our water for today and tomorrow. With that, Mahalo to you folks and for the opportunity and Mahalo to everybody else for the continued effort and this push, Aloha.

PUBLIC TESTIMONY CONT'D

Mr. Manuel Kuloloio – Aloha Chairwoman Case, Ms. Seto, Please tell me so Linda Char that I would have preferred that she would have shown up today; Commission member Katayama, Mr. Meyer, Mr. Buck, Uncle Neil Hannahs, Ms. Kagawa-Viviani. I was born and raised on the island of Maui. My last name is supposed to be 'Kuloloia' ending with 'A'. A&B my grandpa's last name spelled it with a letter 'O' at the end instead of the letter 'A', Kulolo i'a was the ancestral name for Honolulu harbor. So on behalf of the sea, the reef, the Bay, the sands, the papa, the paie'a, the stone house, the ponds, and the stream of Kuloloia, come before you commissioners.

I recommend that you approve the establishment of a permitted interaction group. I have seen its benefit as a young man. Red Hill Shaft 3-2254-001 was constructed in 1943, and issued a water use permit 00085 in 1980. The Aiea-Halawa shaft 3-2253-032 was constructed in 1937 was issued a water use permit 00086 in 1980.

Miss Case, when was this cultural resource commission created?

(Chair Case replied) If you're talking about the water commission.

Yes, ma'am.

(Chair Case replied) Well it was authorized by the Constitutional Convention in the 70s and set up by the water code in 1988.

Exactly. This area is designated and one of your few designations that you have in Hawai'i, with the exception of Wai'anae on O'ahu. The entire Moloka'i, and a section of Maui. In 1987, I remember Chair Case, sitting on the island of Kaho'olawe with my dad, and two members not going to name their names; and we were going to write a request to ask for water use of the Commission. I don't know Mr. Manuel, if that thing is actually in your files, but it doesn't matter.

Today is an important day because that's why I'm speaking. On your website it says the Commission's mission is to protect and manage the waters of the State of Hawai'i for present and future generations. It goes on to say, to receive and process water related citizen complaints. It ends a paragraph, together, meaning the surface waters and the ground waters, the waters of Hawaii, are the lifeline of our islands. It ends with this motto, ke kahuwai pono exemplifies the Commission on water resource management and its responsibility in protecting the water resources of Hawai'i, recognizing that the waters of the state are held in trust for the benefit of the citizens of the state.

In the Hawaiian language it continues, 'wai' is water; kahu means guardian, caretaker, and pono stands for proper righteousness. Together, these words translate to 'the trustee who oversees the rightful sharing of water'.

It is with this conviction that the commissioners, Deputy Director, and staff strive to ensure the availability of fresh water for generations to come. Your staff mentioned your general powers and duties, under HRS-174 C 5-12, but it didn't state in its entirety, and I like to read its entirety commissioners, please follow it "...shall provide coordination, cooperation, or approval necessary to the effectuation of any plan or project of the federal government; in connection with or concerning the waters of the state"; and it adds "...the commission shall approve or disapprove any federal plans or projects, on behalf of the State. No other agency or department of the state shall assume the duties delegated to the commission. Under this paragraph, except that the Department of Health shall continue to exercise the powers vested in it with respect to water quality, accept that the Department of Business Economic Development and Tourism shall continue to carry out its duties and responsibilities under Chapter 205(A)".

You already know, but I say this because I am a father of two younger children born and raised, born at Kapi'olani, one born at Moanalua Kaiser, and we reside, live and go to school here, currently on the island of O'ahu. Chairman Case, you wrote a beautiful letter on June 17 2015; you wrote that this commission wrote to Keith Kawaoka of the Department of Health, that the 2014 leak of 27,000 gallons of JP-8 due to the poor contractor workmanship, draws into question the Navy's quality assurance/quality control, otherwise known as QAQC program; the effectiveness of the Navy's inspectors to ensure the proper completion of repair to the fuel systems; in this case was Tank five in particular, 100 feet above an important drinking water aquifer.

Commission, I participated today. It is now 5 hours and 48 minutes; that's nothing cause like you, Chairman Case, I listened to the 13 plus hours of testimony of the Emergency Order, I wanted to hear firsthand.

My recommendation to the Commission on Water Resources Management, that when the Navy submits its weekly usage of water pump and it's one week, please immediately forward that same information to the Board of Water Supply and Mr. Irwin Kawata and Mr. Ernie Lau, if not already. Also, please resend Chairman case, and commissioners sign your name on another letter to the Department of Health, similar to the one that you did on February 4, of 2016. However, with the updates for President Obama and Joint Chiefs of Staff Dempsey, and please include a copy to the Honolulu civil beat and my native Maui home, the Maui news.

I don't know about you, Mr. Katayama but help us do the Garden Isle, do West Hawaii today. Because, Chairman Case that's the only way I got my information, by listening to Honolulu Civil beat. Like when the Navy was gonna blow up that bomb on the Molokini last year. Nobody told us until we found out. So I speak as a young man who was intimately involved with the protect the Kaho'olawe 'ohana after the disappearance, murder or assassination of George Hillman Kimo Mitchell, who my Dad led the water safety. I was there, the bombing got stopped, but US President George Herbert Walker Bush, on October 22, 1990.

Miss Case, thank you for allowing me to speak today, not to just speak but that my voice is heard by all the commissioners and Ms. Seto, you tell Miss Linda Char, she has a decision to make. Let her know and Kathleen Ho, that I am praying for them. Please ask Kathleen if she's the same Kathleen that I traveled to Reno, Nevada and around 1914 for Western Governors Association meeting about Tribal Acceptance of Innovative Technologies on behalf of the Kaho'olawe Island Reserve Commission.

Chairman Case, I would like to end by saying thank you to your staff, Mr. Manuel; Rae Ann, thank you. Today, commissioners, I am thinking of drinking that water at the home of John and Mary Kelly. I am thinking of Kauka Kekuni Blaisdell. I am thinking of my professor Haunani K. Trask. I am thinking of Kawaipuna Pregine; I am thinking what my dad would say, that is why I'm speaking today. Chairman Case, this problem, that's why we were lucky on Kaho'olawe. We went to one Commission; all the rules were exempted via Inouye. Who is the new Inouye in politics. All I say to the staff in ending Miss case, they're going to show you the well. Please be hyper-vigilant in asking the tough questions. The Navy might invite you, let's go take a trip on a submarine, like a VIP tour. That's what happened to the Ihimemaru.

So, it needs to shut down, fuel needs to be removed and show us the best of the best engineers in the world. Take this some other place. It doesn't belong here in this area; thank you.

RECESS: 2:53 PM

RECONVENE 3:00 PM

Chairperson Case called upon the testifier who was awaiting in the Zoom waiting room

PUBLIC TESTIMONY CONT'D

Ms. Philamer Felicitas – Thank you, Chairwoman; I am returning kama'āina a resident of Waipahu.

How many zoom meetings are we going to have until we all finally get it? I laugh because

protecting our water supply should be an obvious choice. In our last zoom meeting, Hargrove said in a desert, the choice between fuel and water is clear. I wholeheartedly agree. I have lived a good part of my adult life in Odom otherwise known as Phoenix, Arizona and the Sonoran Desert and on the continental US, and the indigenous communities from those tribal nations share a similar relationship to the land as we do. I've seen them fight for access to clean water and put their lives on the line to protect their land and water, and here we are in Hawai'i doing the same.

We live on an island in the middle of the Pacific Ocean and if we mistreat our finite resources, we too will be living in a desert, in which we may die of thirst for clean water, human error. Now, this is direct human neglect, an injustice done on to our people and harm done to the land that has done nothing but love us, care for us and nurture us.

This is a crisis; a manmade disaster and the Navy keeps denying this. How are you going to clean this up? I say we, because the community is going to have to clean the mistakes of the military and the lack of oversight from the organizations involved. The Navy can spin it however they want but the truth of the matter is, they are dodging accountability because our own government is letting them get away with this, but no more. This transactional relationship the state has with the military is not working for our communities, it has never been working for our communities, it has always been working against us, we cannot trust and shouldn't have trust the Navy because their disregard for the 'āina and our community has been evident for decades.

I hope and pray that the Commission hold the Navy accountable, and I also ask at the commission not only show up for our people and continue to do that at these meetings, but also give us a seat at the table so we too can show up for ourselves. Thank you for your time, salamat and Mahalo.

QUESTIONS/COMMENTS

Commissioner Buck – (to Ryan) looking at your slides and the historic over allocation at Pearl Harbor, it's a little scary when we're historically over allocated at an aquifer under stress.

Mr. Imata – agreed.

Chair Case – commented on the dumping of water in Halawa Stream under the plan for pumping out of Red Hill Shaft and asked for a short summary of the testing and monitoring requirements for stream species and the filtration before it get to that stage.

Mr. Imata – referred to Deputy Manuel and Dean, as there were much more involved in the Ecological Monitoring Plan.

Deputy Manuel – answered (CWRM) has been working closely with the Department of Health on the NPDES permit which was brought up by Department of Health and the Navy as any kind of discharge into state waters requires that NPDES permit. Being the point (for DLNR/CWRM), I want to make sure that we have all of our subject matter experts like aquatic biologists, instream flow staff, aquifer specialists as part of those conversations to support the Department of Health in the review of recommendations and actions proposed by the Navy.

We've been working with the Navy's experts to as proactive as possible ensure proper monitoring and mitigation in order to protect stream health and biology, which is the core of DLNR and the Commission. Fortunately, there was a proactive study done by UH Water Resource Research Center staff to collect a good baseline of the five main streams that feed into the Pearl Harbor-Pu'uloa estuary. We have a good baseline of habitat, presence/absence of species; and they use eDNA as a sample as one of many methods of collecting that data. We know prior to discharge, what that

baseline looks like, and we've come up with recommendations on what and how to monitor and how it will take place throughout the discharge period, when water is discharged into Halawa Stream.

Based on the representation to DLNR and CWRM, is that water will be of "drinking quality" before discharge into Halawa Stream. There's sampling and monitoring that must be done at various points out of the shaft through the GAC units, before entering the stream.

Commissioner Seto – the monitoring that they will be doing coming from the discharge point, as well as through the different units are going to be done on a quick turnaround time, so that they have the information they need prior to it discharging into the stream.

Deputy Manuel – clarified the (NPDES) permit has not been issued (to date); it's still in review by DOH. CWRM only provided guidance to DOH on what is required by CWRM regarding the permit; and hoping they will become part of the permit before they are approved.

Commissioner Hannahs – applauded the community testifiers as they were eloquent in delivery and awaited patiently to testify. Voiced disappointment in the Navy in not listening in to the testimonies and hoped they watched it via YouTube and hoped they would get the message portrayed by the community. Asked Joanna to comment on the filtration and asked what we have in terms of controls and systems to make sure that the memo doesn't get down to the guy on the water hose that's not following the protocols even the Navy would agree is necessary.

Commissioner Seto – the Department of Health has clean water branch staff that have been going around and observing in making sure the people that are operating the GACs at the fire hydrants are following the procedures that's agreed upon. They are also there to collect samples at different locations and has been working, seven days a week. We're trying our very best to make sure the water going to the streams and ocean, are as clean as possible because we don't want anything to happen to our land and animals.

Commissioner Hannahs – applauded and appreciated the Department of Health and asked if the Navy is doing its own monitoring of their own contractors and subcontractors?

Commissioner Seto – answered there are EPA subcontractors on site who are observing the sampling that has been conducted by the Navy and the Department of Health.

Deputy Manuel – added that CWRM has also been working with DAR and DOFAW and been doing its own spot monitoring and site visits during discharge events of the flushing of the facility. Staff have been able to access the Navy property, do our own monitoring, make its own analysis that they're meeting their recommended requirements of their flushing plan. CWRM helped to create data sheets to follow and is received from the Navy daily that is shared with staff. CWRM did push to have any effluent or discharge priority into the sewer system as the first preference so that there's extra treatment through the City and or Navy systems.

Commissioner Hannahs – noted to assure the testifier of our (CWRM) protocols

Commissioner Buck – is it possible that the results of the sample that's being released into the stream is made public so the public can have some confidence?

Commissioner Seto – need to confer with DOH team

Commissioner Kagawa-Viviani – what is the current water commission staff capacity and of DOH?

Deputy Manuel – that we are underwater is an understatement; understand the urgency but we don't have capacity as we lost multiple employees to retirement and just got the opening to recruit and trying to fill those vacancies. Currently, there are (4) staff statewide for groundwater regulation and management; DOH has 5-10x the amount of ground staff, so when disasters or emergencies like this come up and an all-hands-on deck situation, we are being stretched extremely thin to deal with all the other emergencies and priorities of this commission. Oftentimes there is this sentiment that we're not doing enough but the reality is we haven't really invested in the infrastructure as a state to support the need to protect our water resources. I've been trying to advocate in every space possible for additional capacity and resources, and we're doing what we can with the staff, resources and funding we have available.

Commissioner Kagawa-Viviani – what additional kind of personnel would we or could push for from the legislature or other programs – can you give a number?

Deputy Manuel – what we have times '10' - it's the reality with the amount of work that needs to be done; in total, CWRM has (20) staff (serving statewide), we need at least 100 staff to do our job effectively; that's how understaffed this agency is. For DLNR, on the "land" side has well over, 700-800 positions, we have 20 on water. If water is source the of life we're underinvested in the capacity of our programming, so any amount of additional staff and resources is needed. We have been pushing hard in meetings and this shouldn't be a burden on agency, the state. This is a function of the Navy putting all energy into building that capacity on funding, resources, staff and personnel.

Commissioner Kagawa-Viviani – with the flushing in terms of community assurance, what role is there for community groups to operate as observers so that they can be reassured-is there a mechanism for that?

Commissioner Seto – I see the value of having community, observing as they were very helpful early on when there was no proper process, or follow up on process when the Navy started doing their flushing prior to the permit. The concern is that they may not understand that the discharge is going to a sanitary sewer that's why they there's no GAC system or may not understand some of the process. I don't know if we have the capacity to spend the time to teach all of the communities to help us do the observation. If and when community reports to us on observations, it would help if they could tell us what street or fire hydrant number that they are observing, so that we can go back to the records that the Navy is providing to identify to us the GAC is supposed to be used at that location.

Commissioner Kagawa-Viviani – in a separate conversation I had with Ms. Grange earlier, it sounded like DOH was working with volunteers for sampling in some situations-I think it was household - is there a formalized outreach for that?

Commissioner Seto – not aware of that

Commissioner Kagawa-Viviani – (to Deputy Manuel) regarding DAR/DOFAW and possible impacted regions with fish/wildlife, what role are they playing with the monitoring?

Deputy Manuel – the Navy is coordinating with all of their federal partners, and they are part of that, these special subject matter expert conversations and have been reviewing proposals and documents to make sure that under the Endangered Species Act, the Navy is in compliance with the best management practices. The federal government and those agencies are active in this process

Commissioner Kagawa-Viviani – commented on the impact of water quality monitoring and asked is there a need to fill that water quality monitoring gap for instream?

Deputy Manuel – we've primarily been focusing on Halawa stream because that's the proposed discharge location and our instream team along with DAR, coordinated with UH stream experts design proper monitoring during and post discharge. We don't know how long this pumping is going to happen in order to contain this contamination or create a capture zone and because it's unknown, we built in as many contingencies. Dr. Strauch has been the lead for the instream flow side and there's been discussions about monitoring quality, and that's going to be coordinated with the Navy and UH equally.

Commissioner Kagawa-Viviani – as public servants, is there a mechanism for sharing the work that Water Commission does with better frequency the monthly meetings with the public?

Deputy Manuel – there's always need for data sharing. We all appreciate data that has been QA/QC. I don't think we can get that data as timely, shared with public. I'll discuss it with our team to see how we can share it at a greater frequency, if possible, beyond the commission meetings. At minimum, a goal of mine has been that every commission meeting was presenting the latest and greatest information that we have related to any type of data collection and I can work with Joanna, to see how we can share on water quality data that we're collecting.

Commissioner Buck – commented on addressing the submittal itself.

Chairperson Case asked Deputy Manuel to summarize the staff recommendation and the Commission can have further discussions on that.

Deputy Manuel – noted that under Hawai'i Revised Statutes Section, 92-2.5, talks about permitted interactions of members of a Board or Commission, and under that authority staff's recommendation (*read recommendation #1 of submittal*) ...“is to establish a Permitted Interaction Group or P.I.G. – of (3) commissioners with the scope of identifying specific actions for the Board/Commission to take within its jurisdiction at subsequent meetings The Commission shall delegate authority to each member of the PIG to carry out all actions necessary to accomplish the PIG's scope of work. The PIG's initial scope of work is as follows in items A-E of staff's recommendation of submittal.

Chairperson Case asked Deputy Manuel to read through items A-E of staff's recommendation. Deputy Manuel then read the items A-E.

DISCUSSION

Chair Case – noted the Water Commission has a different but longer-term role in this whereas, the Department of Health has done tremendous work in response with respect to the Emergency Order with the added support of the Commission to ensure the Commission is bringing added value to a framework of regulation involving both the Commission and DOH, in which the Board of Water Supply is a key user. Noted that the Commission is a 'Sunshine' body which can't have long-detailed conversations except in a full public meeting; although the Commission has interest in this matter, the Commission cannot talk to each other, except for limited individual conversations in this statutorily authorized Permitted Interaction Group structure; and asked the Commissioners if this is an appropriate direction.

All Commissioners raised their hands in agreement.

Commissioner Seto – asked Deputy Manuel if want only (3) in the P.I.G. because if she's in the meeting, she's taking up a “spot”.

Deputy Manuel – answered that per the statute, it cannot be more than a majority or quorum of the Board or Commission and noted that quorum is (4) (because majority), so it has to be less than that, so three (3).

Chair Case – wanted clarification and asked that legal counsel to clarify on the number that is allowed.

Deputy Manuel – reiterated the Hawaii Revised Statutes §92-2.5 Permitted interactions of members ...“(e) Two or more members of a board, but less than the number of members which would constitute a quorum for the board...”

Chair Case – noted that three (3) will then be the maximum allowed.

Deputy Manuel – noted that since Ms. Seto is DOH staff and sitting as (Water) Commissioner [ex-officio], if the P.I.G were to convene or want to attend meetings are factors needed to work through with the AG’s with the goal is for staff to play a role in meeting with DOH, however there are ways to get around the Sunshine issue.

Chair Case – agreed that both her and Joanna could not be P.I.G. members because of their capacity and steering clear of the any issues with the permitted interaction group; and asked the Commissioners, ‘who would want to participate?’

Commissioner Hannahs – noted his support of the P.I.G. but wanted to ensure it’s not limited to the scope of discussion (for example) of the Navy support for watershed protection, will that be allowable to discuss and negotiate under this framework?

Chair Case – agreed that it’s a good idea for inclusion within the permitted interaction group. Commissioner Hannahs asked for added language on it. Deputy Manuel noted the caution for scope purposes to add it within the recommendation as amended.

Commissioner Hannahs – referenced HR issues and asked if they can fund a position within staff to monitor the mitigation of the problem that they created.

Deputy Manuel – noted that not within the Commission however DOH has a lot more enforcement and regulation authority.

Commissioner Seto – commented that its possible but has not personally seen it happen.

Commissioner Hannahs – noted that it’s something the P.I.G may want to look at and was concerned about removal and the decommissioning and moving of the fuel storage system and asked who are we dealing with here and are they at the table.

Commissioner Buck – replied no.

Deputy Manuel – referred to Joanna as the Underground Storage Tank program runs through DOH.

Commissioner Seto – recognized the underground storage tank program would be the permitting organization for the underground storage tanks of Red Hill which is still in contested case and on hold with the recent emergency order and the way forward is that the Navy has to provide assurance they're permitted and once they fix everything that the facility that they want to continue to use, can meet all of the criteria set for that facility, before DOH can issue a permit, or contested case will continue.

Commissioner Hannahs – replied who at the Navy or Federal government makes this decision as the (Navy) group on call today do not have that authority.

Commissioner Buck – answered its political issue; the level of the Secretary of Defense and/or higher. Noted the question is what the Commission's role is to keep leveraging the State's capacity to convince the federal government and not use the 'military' card to ignore us. Sees the Commission's role in its ability to modify their (Navy's) permits to add to the support of DOH and other (government) agencies involved.

Commissioner Kagawa-Viviani – question about how that drafted letter was developed as concerns identified beyond the immediate emergency would be helpful for decision makers to hear as this affect water shortage plans as there's ramifications.

Commissioner Hannahs – suggested the concerns were linked as we've had a lot of effort in this but seems not talking to the right people at the table, so who do we talk to with the decision-making authority as if there's a political wall, we can leverage through the penalties and mitigation efforts

Chair Case – clarified that the role of the P.I.G would be to recommend actions to the commissioners. The letters back in 2015 2016 where full commission letters as the December letter just came from (Chair Case) for that reason (Sunshine Law) and the P.I.G could recommend to the commission that we all sign on to a letter that you think might be useful.

Commissioner Buck – noted he did the first draft of those memos and went to the full Commission for review and approval.

Chair Case – noted its difficult to do in Sunshine and noted that Commissioner Buck's played a big role in drafting it as it requires lots of time and back and forth.

Commissioner Hannahs – replied that sensitivity to the fact it has gone on for several years and the Commission has not produced the results wanted and asked what we can do to ensure the public with their growing concerns and see a closure that haven't yet achieved.

Deputy Manuel – answered the recommended action items as listed are staff's recommendation on where the Commission's core jurisdictions lay in creating that that stop gap to get decisions to not let it drag any longer and feel this is where the commission can and should weigh in this process.

Commissioner Hannahs – said he respected the Deputy's judgement.

Commissioner Buck – commented that with the Commission's legal authority to modify these permits hold leverage which would be the goal of the P.I.G. and asked if there any legal question of if we have a legal authority to modify.

Chair Case – responded that would be a good role for the P.I.G. to ask the AG’s to help analyze our legal authority as it applies to particular situations.

Commissioner Buck – commented its his understanding these are interim permits as the Water Code has never been formally reviewed of these permits and no specific conditions have been set.

Commissioner Katayama – asked Joanna with the USD permits do you see any way that you can make those tanks bulletproof as any compromise of the aquifer is going to come out of these tanks or the distribution system from the tanks and assurance that any leak from these tanks can be handled before it reaches underground.

Commissioner Seto – replied that would be the permit application that the Navy would have to submit to obtain a permit for the facility, which includes the tanks and the system, the fuel distribution lines and the requirement of the permit would include what you're suggesting to ensure the system does not impact the water aquifer which it sits above. The DOH Safe Drinking Branch will be reviewing potential impacts of the facility over that aquifer when it is requested to become a source again. At this time, it is not considered a drinking water source for the public water system.

Commissioner Katayama – asked on the general conditions of the tanks and their maintenance as there were conflicting testimonies from Navy and the public.

Commissioner Seto – answered the Navy is required to provide their inspection reports to DOH as well as all their monitoring information and can be found on the underground storage tank programs website but not sure if the information shared is user friendly but would need to personally see about any inspection reports or documents that are available.

Commissioner Katayama – asked on the USD permits stand.

Commissioner Seto – replied the contested case is still pending and not acted upon at this point and the emergency order is currently taking precedent.

Commissioner Katayama – asked if it renders it moot if there’s a current emergency order.

Commissioner Seto – answered that emergency order takes precedent so the contested case for the USD permit is on hold but will need to follow-up with DOH’s team.

Commissioner Katayama – reiterated there's no remedy, but we have the exposure if there were to be a contamination, it would be a disaster and asked on stability to have time to work through some of these issues.

Commissioner Seto – replied the Navy does need to show us under that emergency order that they can operate the facility in a safe and secure manner.

Commissioner Kagawa-Viviani – asked Commissioner Seto as someone who sits on DOH, what is the best way Water Commission might support a complimented agency.

Commissioner Seto – responded the Commission has been very instrumental in providing DOH with the compliments and did receive those from the prior commission members in 2015 2016. DOH worked on the administrative order and consent with the Environmental Protection Agency and worked with them on replying and addressing those concerns. What the commission could do for

DOH and for Red Hill is what you are currently doing. Deputy Manuel and CWRM staff assisted with information regarding the fish and wildlife as well as sustainable yield that is being used for the Navy's effort. Appreciated all CWRM's staff time putting into it and the Commissioners in learning more about the progress of the AO and EO and welcome Commission's support in any way for this effort.

Chair Case – asked if it'd be useful and realistic for you (DOH) to sit on this permitted interaction group; useful, yes – realistic, no.

Commissioner Seto – replied that she's currently wearing a lot of different hats and is also currently the IDWST as an operations lead and is tied up with that and would not be able to split the work currently doing with DOH and as Commissioner.

Commissioner Meyer – noted on the reference made by Wayne to a catastrophic rupture and release if such a thing did happen and we have 15 tanks most in service with a total 180 million gallons of product (Chair Case confirmed the current level at 180 million gallons) if one of those ruptured how long would it take to replace in terms of supplying the public with replacement water and if it's feasible; also would we be have enough water from other resources.

Chair Case – noted it's a great question but a very big question and is part of the planning that the Navy should be doing in cooperation with the Department of Health, the Board of Water Supply and the Water Commission it's a key question and that kind of disaster recovery planning should be happening

Commissioner Meyer – reiterated the point of where the alternate drinking water resource could come from.

Deputy Manuel – answered CWRM are planning to bring the US Geological Survey study on climate change impacts to recharge and therefore impacts to a sustainable yield availability to the Commission that also will have an impact on water availability and where we can get water to potentially meet the demands and needs of the people on the island of O'ahu. That's part of this analysis and goal in working with the P.I.G. and to look at the permits and potentially modify them. And to bring back to the commission a greater presentation with more data and look at potential future alternatives to meet water demands.

Commissioner Meyer – noted on the large amount of water from other available sources would be needed in the event of a future catastrophic emergency or even barging water in from neighbor islands.

Deputy Manuel – noted it would be a multi-pronged approach.

Chair Case – replied is what the P.I.G could look into and is the reason why it is being proposed and recommended as a mechanism to facilitate these types of questions and if there are any proposed amendments to the scope and volunteer to be in the P.I.G group.

Commissioner Hannahs – made recommended amendments to the scope: "e" would read "identify financial and in-kind contributions the Navy can provide to the Ko'olau Watershed Partnership that promote Aquifer recharge to offset groundwater system losses due to the presence or risk of contamination from the Red Hill Fuel Bulk Facility. "F" would be "identify additional staff positions needed by DLNR to monitor and mitigate impacts of the Red Hill Fuel Bulk Facility and seek commensurate funding from the Navy

(Chair noted "Water Commission" and instead of DLNR, should read "CWRM")

Deputy Manuel – asked Commissioner Hannahs if he's making a motion to amend the recommendation with the additions.

Chair Case – agreed and asked if there are any other recommendations.

Commissioner Kagawa-Viviani – added "propose" in item "C" but the Pearl Harbor Water Shortage Plan doesn't account for this scenario and could use revisiting/revision. Another item to consider is how the Water Resource Protection Plan, Water Quality Plan, County Water Use Development Plan to converge around water quality and water quantity in planning together needs to happen moving forward.

Deputy Manuel – recommend that be deferred until this initial scope is addressed and the Commission can amend the scope at a future meeting. Although important, the recommendations now are hearing the testimony and the sentiment of the commission and urgency of the matter, the recommended primary items are immediate whereas your proposal is longer-term but could be include it into the scope if deemed necessary.

Commissioner Katayama – asked on the intent of 1.a.3

Deputy Manuel – replied the intent is to be as co-trustees (with DOH) in regard to water resources and recommended ways and has been engaging in that process and may involve working with the Attorney General's Office for example to look at our authorities on decision making over what DOH currently has.

Commissioner Buck – added that during that contested case, it's the secretary of Navy that makes the final decision even beyond what UH can do. It's addressing the issue that the State of Hawaii needs equal representation in the decision-making process

Deputy Manuel – commented it could also involve federal legislation working with congressional delegation; is the intent of how the commission and state participates and have more say in decisions.

Commissioner Katayama – asked is that the intent to be preemptive in terms of potential water harms to our water table, in recommendation #3.

Deputy Manuel – replied that it can be and also be all decision making, places and spaces that the Commission has a seat at the table and is a driver of that decision making process; and asked for a clearer recommended edit(s).

Commissioner Katayama – reiterated this Red Hill issue has exposed an area that the Commission has never delved in that poses a huge risk to the water table and asked how we manage that risk with the principal driver being the USD permitting process and need eyes on making sure the permit conditions are fully encompassing protection of that aquifer that lies below it; that needs to be the intent.

Deputy Manuel – replied that whoever the P.I.G members are, use its decision making to effectuate the purposes of the scope with the bodies of members currently present who are listening actively to the concerns and recommendations, with the abstract of the scope of the P.I.G to provide that flexibility.

Chair Case – commented the P.I.G will report back to the Commission on an agendized item which point the commission can vote to amend the scope and suggested to ‘wrap up’ discussion as there’s flexibility in this process to dig into some of these issues. Chair noted the (2) proposed amendments to the scope,

Commissioner Seto – commented on item 1.a.5 ...“regarding the sharing of the monitoring results and risks quickly and transparently with the Commission, DOH and the Board of Water Supply”; the IDWST, the Interagency Drinking Water System team has an Electronic Data Management System, which is supposed to be able to share the results with the parties and if the Commission can be on as a “read” access, it may help. The problem with the sharing of the data, is that it has to be approved by the entire team before we can share it with the general public.

Chair Case – reiterated the scope that it’s a recommended scope for review and can leave it with that flexibility; and noted the need to approve the P.I.G. in the scope of work and approve not more than three commissioners to be on the P.I.G. and asked the Commissioners to make a motion as amended (by Commissioner Hannahs).

Deputy AG Lauren Chun – asked if Commissioner Kagawa-Viviani was making two recommendations or whether she was just making one and withdrawing the other.

Commissioner Kagawa-Viviani – answered initially made two recommendations however withdrew both proposals; and asked is the drafting of the letter be added to or does that not need to be in the scope of work.

Chair Case – replied the P.I.G could make a recommendation following review like a recommended action item following review of the items in the scope.

**MOTION: BUCK/HANNAHS
To approve the P.I.G. and its scope of work as amended
UNANIMOUSLY APPROVED**

DISCUSSION

Chair Case asked for volunteers. Commissioner Meyer asked on required amount of time. Deputy Manuel noted 24/7 and unpaid and appreciate the volunteer efforts and added that the P.I.G drives and CWRM staff will continue to work and provide information as much as possible and within the scope, it is completely delegated to the P.I.G. with all discretion. Commissioner Buck noted on the P.I.G’s reporting to the Commission on a monthly basis. Deputy Manuel added and recommend any agendized items for action as a whole. Chair Case noted she is willing to volunteer if needed. Commissioner’s Hannahs and Buck raised their hands. Commissioner Meyer added that if the Navy have followed the recommendations in the letters sent in 2015 & 2016 and cooperated, that this problem wouldn’t exists; also noted that Chair should appoint the third P.I.G. member and noted that Commissioner Katayama would make a great P.I.G member. Chair Case asked the legal counsel if the Commission can delegate the decision to the Chair. Deputy Manuel shared an example as with the ADC Board Chair appointing members on permitted groups. Commissioner Buck called upon Commissioner Hannahs and Kagawa-Viviani as members. Commissioner Kagawa-Viviani noted she is unsure and asked to consult with the Deputy AG regarding her position at UH. Deputy AG Ms. Chun noted that three is not needed to set-up the P.I.G as it states ‘two or more’; so two could be appointed and one can be added at another meeting venue and could also consult with the Commissioners individually as it’s a permitted interaction. Commissioner Hannahs noted to defer the motion to constitute a P.I.G to Chair Case to give Commissioner’s time to reflect on the

commitment and have Chair form the group to the best of (her) knowledge.

Chair Case asked for a motion on that; Commissioner Hannahs voted to move. Chair Case clarified she could still be included in the P.I.G.

MOTION: HANNAHS/MEYER

To defer appointing P.I.G. members and delegate the authority to the Chairperson to appoint its members.

UNANIMOUSLY APPROVED

Commissioner Buck – noted the Commission’s stance today which was hearing information and a lot of public testimony and forming a group and have written out statements. Chair Case acknowledged to do it at a next meeting because of current time constraints and deferred to the Commissioners. Commissioner Buck shared screen of the following position statements:

Position Statements:

- The Water Commission stands united alongside Hawai‘i’s Congressional delegation and the Hawaii Department of Health calling on the Navy to immediately suspend operations at the Red Hill Bulk Fuel Storage facility and fully comply with the Emergency Order to begin the process of planning and executing the safe removal of fuel that continues to pose a threat to O‘ahu’s drinking water.
- We acknowledge and appreciate the tireless efforts of the Honolulu Board of Water Supply and Hawaii’s citizen groups in addressing this threat. Our hearts and aloha go out to the families affected by this preventable tragedy.
- The Water Commission will use its full range of authority and capacity to work with all stakeholders to monitor, evaluate, and enforce both short and long-term efforts and actions to eliminate the threat of the current Red Hill Bulk Storage facility to Oahu’s water resource.

And noted it’s important to stand uniformed in support. Commissioner Kagawa-Viviani appreciated Commissioner Buck’s language of the noted position statements. Commissioner Hannahs asked if it needed to be approved. Chair Case deferred to the Deputy AG who noted it can be adopted by motion as the agenda also stated ...“an action there on following the briefing”... and also noted that these statements aren't affecting any due process rights of any other parties. Chair Case cautioned on calling a citizen group in particular, the Sierra Club although there were very active in the contested case, there are many groups that are touched by this issue and edited the version to say ‘and Hawai‘i’s citizen groups’ would be more appropriate. Commissioner Meyer agreed.

MOTION: HANNAHS/KAGAWA-VIVIANI

To amend certain language in the Position Statement as noted and to capitalize the letter ‘f’ in Facility when referring to the Red Hill Bulk Fuel Storage Facility

UNANIMOUSLY APPROVED

Chairperson Case thanked CWRM staff and the Department of Health and commended Ms. Seto and her (and DOH) staff’s efforts through this process including time spent over the Holidays. Deputy Manuel also thanked the Commissioners and the community.

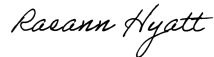
E. NEXT COMMISSION MEETINGS (TENTATIVE)

January 18, 2022 (Tuesday)

February 15, 2022 (Tuesday)

This meeting adjourned at 4:27 p.m.

Respectfully submitted,



RAE ANN HYATT
Secretary

OLA I KA WAI:



M. KALEO MANUEL
Deputy Director

Written Testimonies Received:

Due to the large amount of written testimony received in regard to the submittal, please refer to the Commission’s website at: <https://dlnr.hawaii.gov/cwrn/newsevents/meetings/> to read/view. <https://files.hawaii.gov/dlnr/cwrn/submittal/2022/sb20220107B1T.pdf>

Radiant Cordero , Hon. City Councilmember
Ann Wright , Ret. US Army Colonel
Dr. Kamana Beamer , Aloha Aina Water Protectors
Dr. Kyle Kajihiro , UH Manoa Dept. of Geography and Environment & Ethnic Studies
Keoni DeFranco
Brannon Kamahana Kealoha
Philamer Felicitas
Justin Kepo’o Keli’ipa’akaua
Shelley Muneoka
Rebekah Garrison
Elizabeth Wiggins

Anna Chua, Sierra Club of Hawai'i**Andre Perez****Hina Wong****Kēhau Abad****Camille Kalama****Kalehua Krug****Mehana Hind****Gina Hara****Samuel Kaleikoa Ka'eo****Sam Ikehara****Iokepa Paty-Miner****Manuel Kuloloio****'Ānela Evans, Protect Kaho'olawe 'Ohana****Melia Iwamoto Talagi****Cora Krewson****Kalani Reyes****Kawena Lauriano****Erin Tagomori****Rita Makana Risser Chai****Suzanne Marinelli****Nani Ka'ōhao****Ruby Menon****Lauren King****Erika A.****David Shizuma****Diliaur Tellei****Brandon****Claire Musial****Wailani****Heather****Patricia Blair****Cheryl Burghardt****Lois Berger****Charmaine T. Doran****Bob Douglas****Wynona Owen****'Uahihea Maile****Nora Schubert****Kuulei Higashi Kanahale****Jamaica Osorio****Arjuna Heim****Lauren Simpson-Gomez****Ethan Porter****Barryn Chun****Krystal Kahele****Brett Jones****Kylie Akiona****Doris Yang****Danielle Espiritu****Jason Mark Alexander****Lynda Nishihara****Breimon 'Ohana**

Sienna
Kelly Nakamura
Bruce Watson
Leiolani Faurot
Aree Worawongwasu
Grace Tsubaki-Noguchi
Alika Akiona
Kamuella Napoleon
Charlene Holani
Kristi Chun
Sun Kim
Kathleen Corpuz
Amy Parsons
Taylor García
Frederick Reppun, He'eia National Estuarine Research Reserve
Joy Loo
Danielle Smith
Kristen Young
Mari Matsuda
Nickie Shintani
Noel
Melodie Aduja, Democratic Party of Hawaii
Patti Choy
Mara Davis
Ashley Nishihara
Makana Cameron Reeves
Michelle Cabalse
Christine Ahn
Wendy Miles
Dr. David Harrington
Laurie Field, Planned Parent Hood Alliance
Rozlyn Calderon, Planned Parent Hood Alliance
Neil Vyas
Dr. Joseph Han
Lorraine Waianuhea
Elizabeth Weitz
Kallie Barnes
Joan Pan
Rosie Alegado
Marti Townsend
Pete Doktor
Stephanie Killion
Laura Ramirez
Alisha Summers
Mai Hall
Kiana Otsuka
D
Patrick Reyes
Patrick Watson
Carol Fahy
Lara Reynolds
Maile Burke

Alison Bailes
Dain Christensen
Shirley Swinney
Shad Kane , Ai Moku, Royal Order of Kamehameha I
Dr. Michael Reimer
Elna Nagasako
Kanoa Wong
Cory Harden
John Bond
Dr. Kyle Kajihiro
Dr. Angela Huntmer
Brittney O'Connor
Melissa Ng
Chez Canite
Noel Shaw
Meredith Buck
Mariko Reed
Kanoa Zimmerman
Nicole Childs
Kenna Reed
Malia Chun
Rachel
Dylan Ramos
Stanford Masui
Rachel O'Leary
Alexandra Gomez
Margaret Coons
Georgia Thompson
Bevin Parker-Evans
Pomai Stone
Sherry Pollack
Kahala Johnson
Lehua Lee Sanoria-Itokazu
Jennifer Valentine
Kim Jorgensen
Denise Boisvert