From: Sarah Weber
To: S. Weber
Subject: [EXTERNAL] Aloha, in regards to Red Hill Facilities
Date: Thursday, May 12, 2022 5:54:10 PM
Attachments: Sustained_Ylem_Corporation_Report.docx

Aloha,

I am writing to submit a report for your review and consideration in the decision-making and process of actionable response regarding the Red Hill Facilities fuel leaks as well as other pollution points within Hawaii and the island of Oahu.

I am aware that while you may not be individually responsible for the Red Hill fuel leaks, other environmental pollutants, or the situation of illegal occupation/statehood of Hawaii, you are receiving this email because you have the position and potential to make a valuable difference in the present circumstance. You are gravely needed in order for a sustainable and healthy Hawaii to exist.

My worker-owned company, Sustained Ylem Corporation, has recently been established as an environmental, biocultural remediation, and energy products corporation with additional products and services provided. I am submitting this report as a point to be taken into high consideration for action, regardless of the corporation, as a deeply concerned resident of Hawaii through notable law.

Please feel free to, share or reply with any questions on proposed remediation or concerns to my report/proposal for an actionable response to the Red Hill Facility fuels leaks, within the Moanalua Ahupua'a, and surrounding contamination of Hawaii.

I hope to see an adequate and immediate governmental response to the Red Hill Fuel leak catastrophe, as well as a legitimate response to primary concerns regarding the much-needed long-term resolution to an illegally occupied Hawaii and pollution there within.

Hope all is well,
Seren Weber
[redacted]
Sustained Ylem Corporation
https://amphibian-beige-tkgx.squarespace.com/
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Seren Weber

HWST 455

220512

Defining Land and Water – Kuleana (Responsibilities) – for a State of Emergency in Hawai‘i

It is necessary to begin to identify and uncover law and policy relating to biocultural customs of native Hawaiians and their resources that have been infringed upon as well as to define biocultural remediation approaches that provide real-life solutions for a world facing extreme pollution, wars, and social disparity familiar to an occupied Hawai‘i. There is a considerable amount of depth to this material and what is represented here is a part of a larger topic regarding pollution and illegal occupation of a foreign nation by the United States of America. Addressing chemical and hazardous waste in Hawai‘i can set precedence in biocultural remediation, and affirmative action for native Hawaiian communities through bioenergy production, resource, and pollution management. Critical resource pollution, energy wars, and climate crisis threaten every part of the planet. Sustainable energy and resource management for social justice is vital and action is required following the Naval Red Hill Fuel Storage Facilities environmental disaster that threatens the island of Oahu’s primary aquifer. It is important to recognize that land access has been lost to native Hawaiian communities, that established land & water in trust for native Hawaiians have been neglected & poisoned, and that something needs to be done.

State laws, duties, and citizen rights that have been neglected and connecting them to water as a biocultural resource must be recognized. Solutions in emergency large-scale bioremediation and affirmative action can alleviate concerns regarding poorly supported or implemented land, water, & contamination management in Hawai‘i; additionally, Hawai‘i must begin to mitigate for climate crisis in the protection of its critical resources.

Promoting land and water in trust for access, security, and safety rights of native Hawai‘ians can involve results-driven manufacture of bioculturally sensitive remediation as alternative energy with biomass/fuels and other products.

To resolve the Red Hill facilities environmental pollution catastrophe involves the following principles: 1) recognizing stakeholders, legislation, regulation, and policy that upholds the environmental and affirmative action required to overcome the Red Hill fuel leak catastrophe, and other contaminated sites. 2) Increase the level of public access and relationship to biocultural traditions regarding land and water in Hawaii. 3) Process contaminated waste from sites for full or best possible scenario remediation. 4) Properly dispose of hazardous waste through biofuels and energy production, or other product production including leached metal species such as rare earth elements, (REE‘s).

There are a wide range of challenges surrounding the Red Hill pollution event and present circumstance in Hawaii. Significantly, dangerous amounts of fuel that have leaked into Oahu’s aquifer. Land & water public access and level of involvement in biocultural traditions in Hawai‘i have suffered. Number of contaminated waste sites continues to grow. Legislation, regulation, and policy that uphold environmental and affirmative action need enforcement. Remediation is perceived as uneconomical and much-needed bioenergy is seen as inefficient.

Foremost, Hawai‘i has been a military and anthropogenic dumping ground for too long; the foundation of which is built on an illegal occupation and statehood. The present, occupying government of Hawai‘i “is illegal because it violates a series of *jus cogens* norms – the prohibition of the acquisition of territory by force; the obligation to respect the right of peoples to self-determination (Hughes 2020, 1087-1103)”, where the free pursuit of economic, social, and cultural development (Hannum 2022) has been oppressed through a century of dispossession and impoverishment (Barnard 2006-2007); “and the duty to refrain from imposing regimes of alien subjugation, domination, and exploitation (Hughes 2020, 1087-1103).” Second, “President Bill Clinton signs legislation apologizing for the U.S. role in the 1893 overthrow of the Hawaiian monarchy (US National Library of Medicine 2022).” The Apology Resolution legitimizes the illegal occupation since the 1893 overthrow. “Third, it is necessary to declare that the occupation has become illegal to move beyond this humanitarian/managerial paradigm and reconcile the resulting tension between the requirements of state responsibility (international law) and the preference for negotiations (politics) (Hughes 2020, 1087-1103).” “In case of the rules of jus cogens, these rules are binding regardless of the consent of the parties concerned and regardless of the states' own individual opinion to be bound since these rules are too fundamental for states to escape responsibility (Hossain 2005)”, even surpassing treaties through the U.N. if in violation. In fact, the aforementioned violations have occurred, and statehood is considered void in Hawai‘i.

In principal sovereignty of native Hawaiian people resides in the people and its duly constituted government; that the people possess the right of self-governance and therefore may choose independence or self-government in free association with any nation(s); that the people have the right to adopt, amend, change or revoke any constitution or governmental plan at any time; and

that free association should be formed as a revocable compact, terminable unilaterally by either party. This precedence is required prior to draft of future legislation, where former statehood legislation may be reapproved and adopted.

Specific solutions surrounding the Red Hill pollution catastrophe presented include biocultural remediation considering knowledge-intensive cultural and agricultural practices modeling biofuel feedstocks for integrated biomass systems that support environmental resource management in energy production. This provides an opportunity to set precedents for management of military-related contamination sites and others across Hawai‘i and the Pacific. Brief examples of military contamination are continuous, previously exploded, and unexploded ordnance, fuel & hazardous material spills, and nuclear explosives & waste, etc..

Ongoing quality evaluation, integrated risk management strategies, and ensured reliability are crucial to best remediation practices. To set precedents across the pacific in the recognition, relevant policies aimed at helping in the management of anthropogenic and military presence-related contamination sites must be acknowledged. Further descriptions to integrated risk management strategies are further discussed throughout this article but include strategy, assessment, response, communication & reporting, technology, and most importantly, “monitoring for identification and implementation of processes that methodically track governance objectives, risk ownership/accountability, compliance with policies and decisions that are set through the governance process, risks to those objectives and the effectiveness of risk mitigation and controls (Gartner IRM 2022).”

Advanced methods for contamination processing, disposal, recapture, or reuse including biofuels, bioenergy, and other products can be defined while introducing appropriate biocultural

remediation techniques. Affirmative action through the promotion of land and water in trust for access, security, and safety rights of native Hawaiians and natural resources, as well as data sovereignty are also considered. Setting up biocultural remediation farms may be developed through existing laws that protect land and water rights, land access, traditional customs, and industry of native Hawaiians.

Agricultural production of remediation, restoration & conservation energy crops can be coupled with biocultural customs of native Hawaiians for resource management and protections.

Establishing partnerships will build accountability and trust in systems to leverage necessary change. Pollutants such as military presence & waste, e-waste, and ocean plastics are also significantly affecting the Hawaiian Islands. Approximately 80,000 tons of plastic is sitting in the Pacific, additionally coating coastlines, beaches, toxifying the food chain, and killing wildlife species rapidly. In Hawai‘i and across the pacific, military-related pollutants are too incredible to count including nuclear sites. As technological advances aid in the development of mankind around the globe there are 50 million metric tons of metal-containing e-waste produced annually. The aforementioned pollutants are potential recycled materials, energy, and fuels resources. Waste and pollution, when managed properly, also provide climate crisis mitigation.

Prevailing missions in resolution of the present circumstance, damage, and continued endangerment of the island of Oahu‘s freshwater aquifer include evaluation of chemical and hazardous waste in Hawai‘i, instilling bioenergy production and remediation with biocultural approaches and techniques. Social and cultural demographic interviews with native Hawaiians using biocultural activity and psychological wellbeing measurements should be taken, discerning

relationships to traditional customary practices and resources, and ability for self-determination in Hawai‘i to elucidate where improvements can be made.

Cultural significance indices for a variety of species in Hawai‘i and relating them to biocultural activities of native Hawaiians will aid in rehabilitation of resources as well. Recognizing biocultural significance of a land division, such as ahupua‘a, restoration, and conservation management zones, that are affected by pollution sources, degradation, and erosion, can be quantified by the use of cultural significance indices, CSI‘s, as modified from “the value of a rose” by (Turner 1988), indicate quality of use, intensity of use, and exclusivity of use, and are intended to identify the qualitative and quantitative awareness of a species or resource, its cultural uses, and identity.

The kukui tree (*aleurites mollocanus*, candlenut), the state tree of Hawai‘i, a well-known and beloved species to Hawaiians, models as an excellent biofuels and remediation tool. Many additional values for CSI‘s may include such values for economy, health, knowledge transmission, and ecosystem services such as habitat. The highly significant and protected sea bird Manu-o-Kū, white Tern utilizes the kukui tree as a primary nesting host throughout the urban environments of Honolulu. CSI, modeled for a variety of species as well as land and water uses may be utilized to enable protections of Native Hawaiian resource rights. Knowledge of kukui will shed light on the cultural importance of the species to native Hawaiians and inform key stakeholders such as Hawaiian residents, researchers, and policymakers when considering the use of kukui for remediation, reforestation, and as a potential source of biofuel and energy.

Kukui is the Kino Lau, or form, of the Hawaiian pig god of agriculture and fertility, Kamapua’a, family of Lono, seen in the leaf of the kukui as snout and ears. Now, Hawaii’s state tree, Kukui

(*Aleurites moluccanus*) was brought by the earliest Polynesian settlers as a canoe plant and was used for a variety of uses including fuel or charcoal production in the Hawaiian Islands. Sacred groves, established in underutilized zones within both upland and coastal areas show kukui was historically cultivated in agroforestry systems across the islands. Kukui has considerable cultural and industrial significance. The kukui nut represents a component in the solution of present challenges in sustainable, economic, and environmental biomass/fuel production, showing promise as a sustainable feedstock due to its high oil content, unique characteristics, and ecosystem services provided by the species when used as a biocultural remediation tool. Kukui is a seed-bearing drupe, although kukui is classified as a nut tree species, it is anatomically closer to a peach. In Hawaii, kukui was used for building materials, dyes, jewelry, medicine, food, fishing, varnish, fuel, and light. As a fast growing and highly productive tree, kukui provided protection and nutrients such as nitrogen, phosphoric acid, and potash for understory crops, improved soil health, and sequestered carbon. (Lincoln 2021) Additionally, as a member of the *Euphorbiaceae* family, a prominent hyper accumulator, remediation, and phyto-mining efforts should be investigated.

Kukui has a wide range of tolerable environmental parameters, tolerating depleted soils and may be planted in urban environments. Unique characteristics of traditionally used fuels and biomass can support modern industrial production, while addressing sustainability from a foundational knowledge drawn from intensive cultural and agricultural practices. Sustainable biocultural restoration of indigenous crops in Hawaii includes restoring traditional landscapes, protection and stewarding of land and community, restoring biocultural heritage, promoting resilience & abundance, and to revitalize knowledge base. To further scientific research and understanding of kukui's biocultural significance an interview was conducted to learn processing methods for the

kukui nut. Three processing methods of kukui through the Department of Land and Natural Resources, (DLNR) Kahana Cultural Living Park of the Kahana ahupua'a, were provided. This represents a strong biocultural significance of the species, also providing valuable knowledge for the mechanical processing of kukui informing of a rancidity test, heating times and methods, as well as cooling and cracking methods. Additionally, when utilizing kukui as a remediation tool, a reciprocal resource relationship is developed with water and land nutrient deposits. Considerations of past and current distributions of kukui can help to inform management tradeoffs, such as those encompassed in biocultural and ecosystem services.

Military presence on Oahu not only threatens the island's primary aquifer and source of clean drinking water but has also had an incredible impact in consistent pollution and degradation of Hawaiian resources. Additionally, in Hawaii, most towns and cities are under-prepared for rapid growth in the case of increased tourist activities or industry where infrastructure lacks in access roads, directed traffic, parking, wastewater and septic problems in local environments, and where climate crisis threatens flooding, landslides, the spread of contamination and pollution, among many other issues. Specifically, a restricted, contaminated, or otherwise devastated aquifer also significantly hinders, if not eliminates, continued sustainable development on Oahu.

To safely and appropriately remediate all contamination and chemical properties requires in-depth mapping, and identification of properties and plume locations and spread. Details of rates of discharge together with likely constituents, concentration, acidity, and suspended solids in aqueous chemical waste need to be identified and given directives for remediation and management of contamination sites for human safety and health, environmental sustainability, and economical sustainability.

Biocultural remediation site design approaches include site characteristics and pollutant analysis, industry, and waste-stream contracts for alternative energy production and products. This approach provides carbon sequestration, aquifer protection, nearshore protection, reduced pollution (heavy metals, hydrocarbons, chemical waste, etc.), enhancement of biodiversity, reforestation, salinity management, erosion reduction, water treatment, watershed management, and ecosystem remediation. Phyco- /phyto-remediation with prevalent heavy metal pollutants has potential to amplify the success of bioremediation and resource acquisition in toxified resources. Highest priority contaminants are determined by risk assessment, LD50, prevalence/concentration in the environment, environmental cost, and ecosystem impact. In a given medium contaminants can be specifically targeted by biomass production for resource, remediation, restoration, and conservation purposes.

Plant smelting and biofuels can be integrated and optimized with remediation sites using pollution targeting species. For land and water resource pollution management, primary remediation infrastructure, treatment processing, recapture and energy facilities should be designated at National Priority Listed Sites, Brownfields, and degraded lands where-else applicable to serve long-term pollution mitigation strategies. A full analysis of the pollutants present, including heavy metals, will dictate the type of remediation and recapture processes used. At a 1980 jet fuel leak site in Pearl City arsenic, lead, benzene, toluene, barium, selenium, silver, and petroleum hydrocarbon contamination was sampled from soils (Environment Hawaii 2022). Oil and fuel spills account for a wide range of highly toxic chemicals and metals, C9–C16 hydrocarbons are present in jet fuels and contain things more commonly heard of when thinking about chemicals we don’t want to expose ourselves to such as n-paraffins, isoparaffins, naphthenes, and aromatics. According to the CDC Jet fuels are known to cause harmful effects

on humans' respiratory tract, gastrointestinal tract, and nervous system when ingested. Studies from the CDC also indicated neurological dysfunction from jet fuel exposure.

Additional military related fuel contamination sites on Oahu include but are not limited to, an abandoned approximately 9 million gallon fuel tank near Pearl Harbor that was intentionally drained into the ground and collapsed, the sunken USS Arizona Ship in Pearl Harbor with continuous contamination leaks, the discharge disposal area or oil waste sludge pit at the Red Hill Facilities with discharge into Halawa Stream, a 315,000 gallon fuel spill at Ewa junction, an abandoned sewage treatment plant in Pearl City Peninsula, four fuel storage tanks and a former drumming plant near Wheeler, and eight abandoned storage tanks in four different residential areas of what is now Mililani Town, as well as four additional sites in the area (Environment Hawaii 2022). Manana ahupuaʻa Naval ship boneyard is another primary land division ecosystem in need of remediation.

Through climate crisis mitigation, current and past Hawaiian laws, established living parks may serve as functionally managed ahupua'a resource governance and security. Living parks are recognized in 1977 Hawaiʻi State Legislature, Senate Resolution 264, where a "living park" is defined as "The purpose of a 'living park' in Hawaii is to nurture and foster native Hawaiian culture and spread knowledge of its values and ways, and that in such a living park, the individuals living there shall participate in the purposes of the park by helping in the education of the public and by incorporating into the structure of their daily lives such values and ways."

To understand the breadth of water as a resource in Hawaiʻi and the significance to its appropriate management it is important to understand the itʻs relationship to the Red Hills toxification of Oahu's primary aquifer, climate change with predicted droughts, and increasing

island populations & tourism. For a perspective on the island of Oahu water as a resource the future 2030 annual water usage is predicted to be 206mgd or over 74 billion gallons annually (Group 70 Intl. BWS 2009). To visualize one year's worth of water usage on Oahu, it would represent around 230,000 acres or 60% of the island covered in 1 cubic foot of water, or ~2.5 times the amount of Mount Kilauea's eruption, or ~270,000 filled empire state buildings. This is an enormous amount of water that needs secure protections from further degradation and extreme pollution.

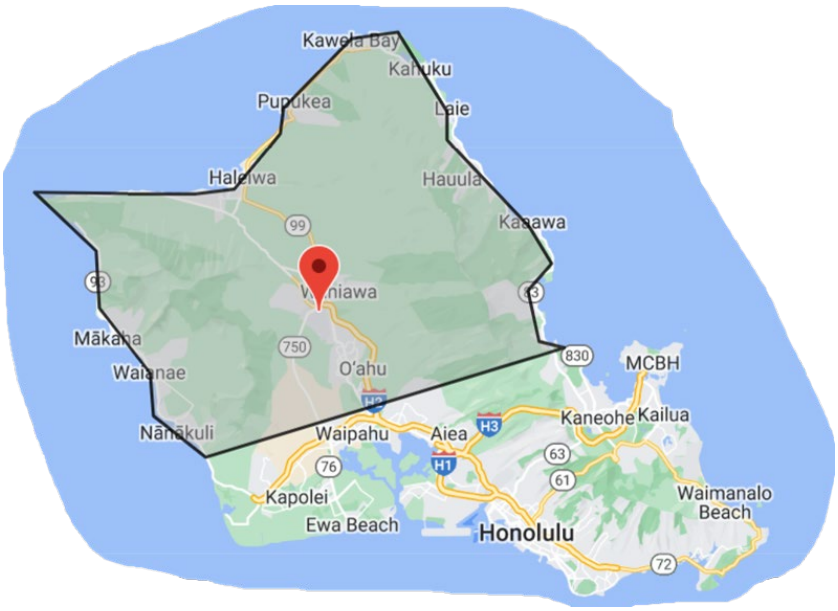

Figure 1. Island of Oahu with ~60% or ~ 230,000 Acres Covered in the Projected, 2030, Annual Water Usage of over 74 Billion Gallons of Water.

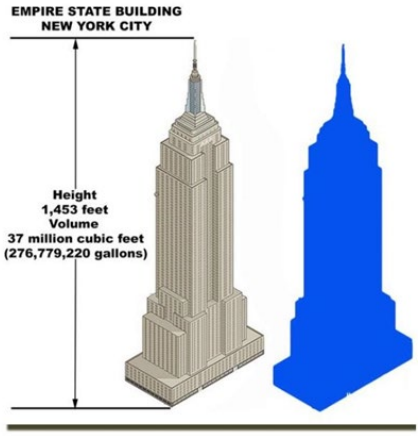

Figure 2. One of 270,000 Representative Empire State Building Filled with Water for Oahu‘s 2030 Water Usage

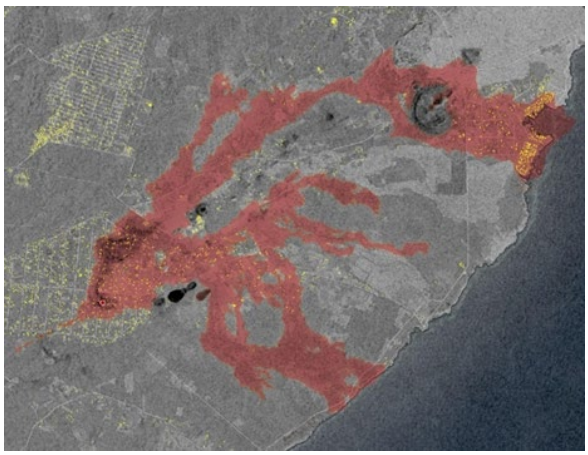

Figure 3. Left Image a.) Shows Mt Kilauea Eruptive Lava flow. Right Image b.) Shows Mt Kilauea Estimated Erupted Volume of 30 Billion Gallons of Lava.

Pertaining to the appropriate management of water resources at the Red Hill Facilities, contaminated wells, concerning the damaged aquifer, water may be designated as R-3 water. Designation as R-3 water is non-potable, with no requirement for disinfection, and can be used with careful consideration and implementation of appropriate infrastructure. Polluted water from

contaminated wells at the Red Hill Facilities, instead of being poorly treated and dumped into the Halawa stream, as currently defined in the January 2022 Red Hill Shaft Recovery and Monitoring Plan with minimal filtration and an oil boom placed at the end, may be processed and remediated through designation as R3 water in biocultural remediation practices involving alternative energy production. Currently, the tanks have not been defueled even after multiple emergency orders. This inherently shows the lack of ability and inaction of the government of Hawaii, the Navy, and other legally responsible government organizations or stakeholders. “On May 6, 2022, the Hawai‘i Department of Health (DOH) issued an additional Emergency Order, Docket No. 22-UST-EA-01, regarding the defueling and closure of the 20 underground storage tanks, surge tanks, and associated piping at the Red Hill Bulk Fuel Storage Facility (Hawaii State Dept. of Health 2022).” “The Navy must provide DOH with its independent contractor’s assessment on facility operations by May 15 and a plan and implementation schedule to defuel by June 30, and a plan for closure of the facility by November 1(Hawaii State Dept. of Health 2022)”. The university of Hawai‘i is intended to conduct monitoring surveys for the stream and affected area according to the recovery and monitoring plan. Engineering reports and submittals for water treatment facilities as reuse projects are required through the Hawai’i State Department of Health Waste-water Branch.

Utilizing refurbished tanks in place as water storage allows for remediation crop agriculture up to 250 million gallons. Additionally, aquaculture with a variety of species including algae, fish, or mussel larvae for biofuels production can be done. Use of the existing tanks may be possible where least surrounding contaminated is present and where most easily repaired with least corrosion or leaks. Tanks may be rebuilt with composites and 3-D printing as water storage tanks for agricultural remediation purposes. The tanks contain enough steel to manufacture 12,000

‘classic cars’, five freeway miles of concrete, and 12.5 million gallons of capacity. There are 20 tanks 100 ft diameter, 250 ft depth, below a volcanic mountain ridge in solid rock, consisting of 2.5-4ft thick reinforced concrete and ¼” to ½” thick steel plate. Repurposed tanks for advanced filtration to remove contaminants may include high flow velocity water suction pumps that utilizes venturi effect with higher flow velocities in the suction channel by use of a closed pit. Tools to analyze tanks include phased array flaw detectors. Total focusing method portable digital phased array flaw detectors provide consistent nondestructive test flaw detection for weld inspection & corrosion mapping of tanks & pipelines. 3D scanners also can be used for portable nondestructive testing pipeline inspection. Non-Destructive Testing (NDT) pipeline inspection in the oil and gas sector is essential for pipelines and storage tanks to remain completely safe during transportation and storage. Non-destructive weld testing is integral to assuring stringent industry standards. Material composites, such as TuFF composites, can be stamped like sheet metal-where previous composites are hand-laid for the refurbishing of tank walls.

Other water resource management includes elucidating biocultural significance indices of stream(surface), ground, and aquifer, water indicating quality of use, intensity of use, and exclusivity of use, and are intended to identify the qualitative and quantitative awareness, its cultural uses, and identity of water to native Hawaiians. There are 37 counts of “Wahi Pana” or legendary, celebrated, or noteworthy sites with high cultural significance within the Moanalua aquifer, twenty-one of which are loʻi kalo that would heavily rely on freshwater sources if allowed to function as intended.

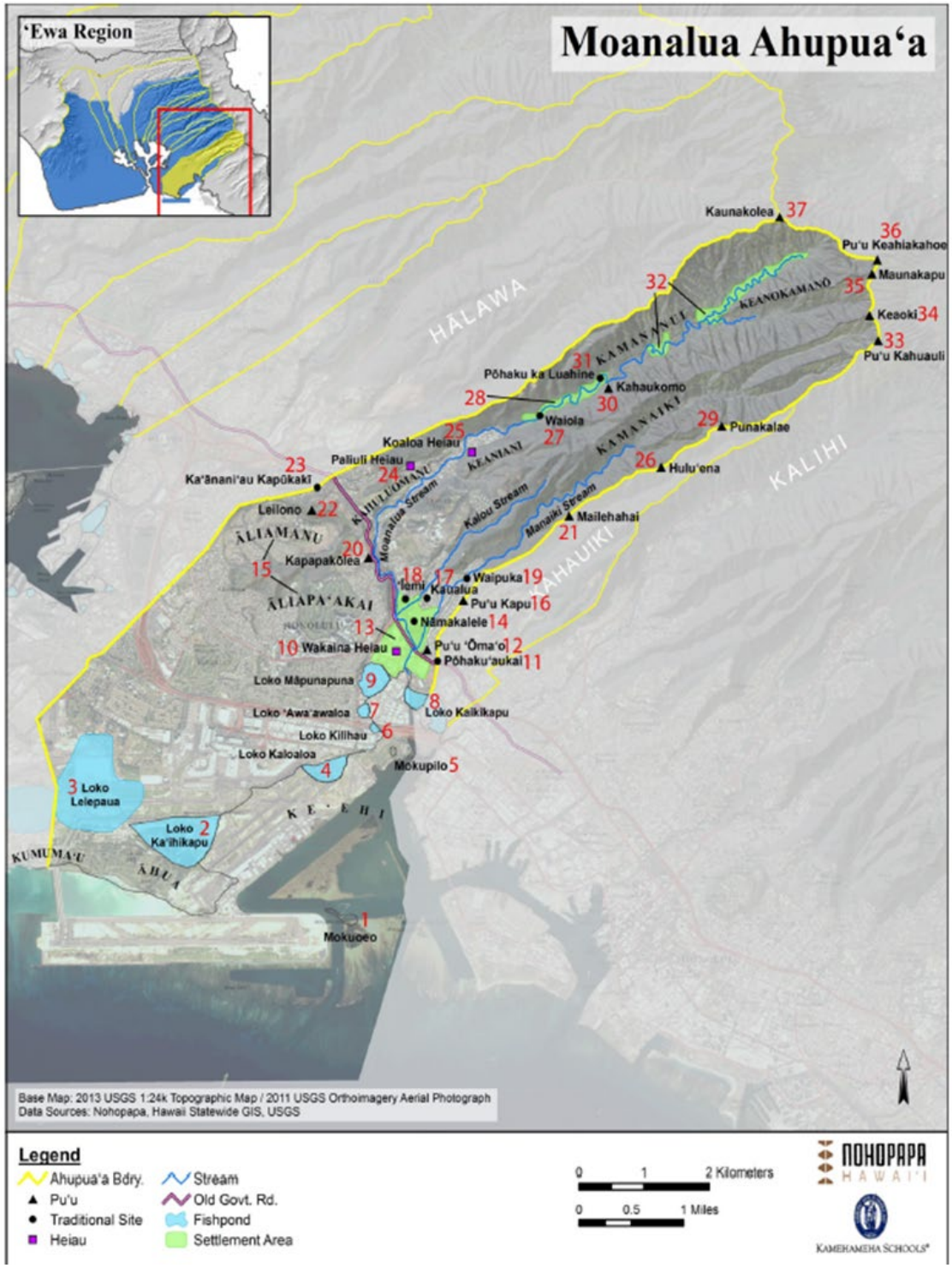

Figure 4. Moanalua Aquifer GIS map with significant Hawaiian cultural and natural resources

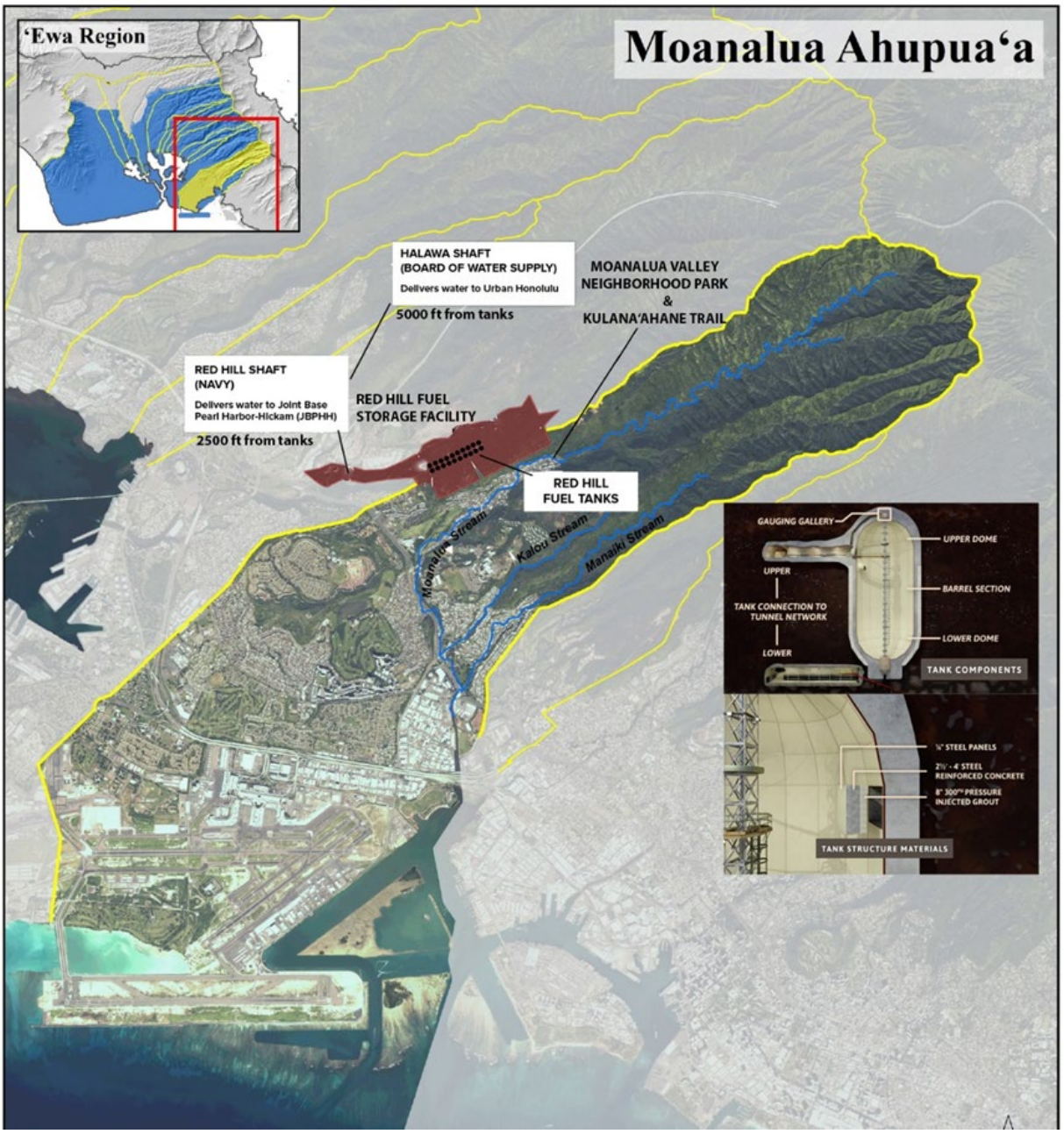

Figure 5. Maonalua Ahuapa'a with Red Hill Facilities and tank structure

In whole the government of Hawaii has been slow to respond to the island of Oahu's recurrent catastrophic Red Hill fuel tank leaks into the water system, threatening the aquifer and heavily impacting the Moanalua ahupua'a land division. In Hawaii and across the Pacific, little has been done in facilitating measures to be put in place for various remediation projects.

Re-establishing stream health, known agroforestry and related lo‘i kalo systems with culturally significant species such as kukui can produce bio-oil and biomass that can be used as a fuel and as a fertilizer in traditional Hawaiian Taro farming pā composting enclosures referred to as pākukui. Kukui can produce over 3000 pounds of crude bio-oil/acre or nearly 400 gallons of biodiesel from the nut oil alone with basic technologies(Shaah 2021). Understanding the historical use, potential, and unique characteristics of a resource such as kukui can contribute to meeting sustainability challenges in Hawaii. Additionally, soil erosion reduction rates have been reduced by pairing kukui with cacao plants under sustainable forestry management in Indonesia and other places around the world (Jumiyati et al. 2017, 198). This is important to Hawaii’s overcrowded, increasingly eroded, highly invasive, and diseased ecosystem, as well as to the increasingly eroded shorelines where upland deforestation heavily contributes to lowland displacement and erosion through surface and ground water intrusions.

Potential collaborators in resolving the extreme pollution of the ahupua’a involve many groups. At a minimum, stakeholders include the Hawaii state legislature who may oversee official government conduct and remove public officers from position where necessary, the Department of Defense and the United States Navy, Department Of Health, Board of Water Supply, City and County of Honolulu, Department of Land and Natural Resources, Department of Forestry and Wildlife, and their Na ala hele trails program, native Hawaiian communities, military communities, local Hawaii residents, tourists, natural resource users, and recreationists.

To elucidate upon the integrated risk management, (IRM) approach, from the Gartner definition, strategy, assessment, response, communication & reporting, monitoring, and technology are briefly defined below. This is in response to the slow and inactive Red Hill Task Force and Fuel

Tank Advisory Committee that has been inappropriately unresponsive to the state of emergency regarding the fuel leaks at red hill for approximately 8 years.

- Strategy: Enablement and implementation of a framework, including performance improvement through effective governance and risk ownership
- Assessment: Identification, evaluation, and prioritization of risks
- Response: Identification and implementation of mechanisms to mitigate risk
- Communication and reporting: Provision of the best or most appropriate means to track and inform stakeholders of an enterprise's risk response
- Monitoring: Identification and implementation of processes that methodically track governance objectives, risk ownership/accountability, compliance with policies and decisions that are set through the governance process, risks to those objectives and the effectiveness of risk mitigation and controls
- Technology: Design and implementation of solution architecture

To understand the full scope of risk, organizations require a comprehensive view across all units of operation at Red Hill Facilities and risk & compliance functions, as well as key stakeholders, purveyors, and outsourced entities involved, participating at, or within the Red Hill Facilities. Developing this understanding requires risk and security leaders to address all IRM attributes. The stakeholders can operate under an integrated risk management approach, for native Hawaiian land, water, and traditional and customary rights, as well as ecosystem and resource monitoring to track governance objectives.

To address all problems facing Hawaii, knowing important background information regarding pollution and resource management as well as current management obligations through law and stakeholder cooperation may help resolve the complex problems. The native Hawaiian and pacific island populations of Hawai'i have decreased with 127,930 people from 2010 to 2020 moving to the mainland (Omaye 2021). Additionally, migration includes internally displaced persons. People usually migrate for reasons involving resources, safety, and security. War, famine, and occupation also instigate migrations. They may have to migrate through several locations or may never find all the elements essential to a healthy long-lived life. It is not very easy for internally displaced migrants to leave an island body. Internally displaced individuals or migrants may consider safety amongst the greatest importance, food availability, as well as the ability to find a home or work. Considerably the Red Hill Fuels catastrophe has affected military personnel and local residents. This is on top of an illegal occupation as defined by jus cogens, the Presidential Resolution, the overthrow and protested annexation of Hawaii.

To further understand the implications surrounding the Red Hill Facilities catastrophe and illegal occupation of Hawai'i, it is important to recognize that internal displacement leads to forced migrations. Many individuals within military reservations and surrounding area have been forced to leave the contaminated sites where their water has been affected both permanently and temporarily. Where people have returned there are ample reports of continued and severe effects on the health and wellbeing of these individuals, their family members including children, as well as their pets where people have reported the death of some animals (Malji 2022). The Naval water system serves some 93,000 people (McCullough 2022). Additionally, there is the Halawa Correctional Facility at Red Hill, the Red Hill Elementary School and 29 other schools, as well as the Kaiser Moanalua Medical Center, and Tripler Army Medical Center in the area using the

water system. As of January 24thth 2022 Zone I1 contaminant detection has been reported for a variety of contaminants. Highly significantly the 1-methylnaphthalene, 2-methylnaphthalene, and total organic carbons have not been reported and are described as n/a, whereas in other distant zones that have also been tested these contaminants are listed in ppb, except for zone D1 which has also reported n/a for 1-methylnaphthalene or 2-methylnaphthalene (Interagency Drinking Water System Team 2022) , additionally and significantly perchlorates have not been tested in any of the zones. Perchlorates are important to investigate as there are at least 11 prototyped and, or operational rocket fueled jets in the United States military at present with numerous rocket fueled jets in past production, additionally rocket fuel may be used as jet fuel but not vice versa. It is vitally important that it is known if rocket fuel has ever been or is stored at the Red Hill Facilities as perchlorate pollution from rocket fuels is critically more dangerous and toxic than hydrocarbon pollutants.

To fulfill pollution, waste, and resource management strategies with remediation bioenergy crops additional facilities are required. Anaerobic digestion for agricultural biomass, waste-water sludge, and other biowaste for the region should be included, as well as flocculation and tube settlers. Waste-water sludge treatment to fuels and products can be implemented for parts of Oahu that are suffering from improper sewage management entering the nearshore environments. With the current bioenergy facilities, H-Power utilizing incineration is rapidly gathering resistance to implementation due to inefficiencies. Advanced technologies include adaptations to boiler and steam turbine systems to recapture lost heat with the anaerobic digestion, dual fluidized beds, advanced technology plasma gasification, and carbon loop technologies, providing additional available power to a new power plant. Utilizing multiple advanced technologies increases the available intake of waste as well as products. The Oahu H-power

energy incineration plant can produce up to 90 MW of energy based on 3000 tons/day of Municipal solid waste. Whereas plasma gasification can be, at minimum, 30% more efficient in energy production. Additional products may be created using Fischer-Tropsch catalysts with both dual fluidized bed and plasma gasification to produce a wide variety of gasses or chemicals such as hydrogen, ethanol, methanol, mixed alcohols, olefins, liquid petroleum gas, kerosene, waxes, ammonia and synthetic natural gas. Location of a new power plant nearby the Honolulu International airport is intnetional. With the anaerobic digester, dual fluidized bed, Fischer Tropsch plasma gasification many products may be created as well as a variety of inputs may be utilized. This includes products of recycled metals, bioleaching including rare earth metals, and a variety of fertilizers including biochar and ash soil amendments, figures 6 and 7. Inputs include polluted site agriculture, demolition waste, e-waste, ocean plastics, reforestation, restoration, and conservation biomass, pretreated wastewater sludge, and non-polluted agricultural wastes. Advanced gasification technologies allow for more advanced fuels to be produced. Including hydrogen and fuel cells, which is the most advanced direction for modern fuels and energy becoming more appealing than battery technology with the outright heaviness of batteries disabling efficient flight, high waste of resources already in short supply, energy inefficiencies, and waste management challenges. The dependence on foreign supplies for fossil fuels and battery technology also poses challenges to a sustainable Hawai'i. Pictured below are potential product generation from proposed remediation efforts figure 6 and 7.

Product Generation		
Metals, biochar, ash	**Inputs**	**New remediation tools/products**
Heavy metals, industrial metals, rare earth elements	Polluted site agricultural biomass	Algal biomass remediation crop capsules
	Demolition waste	
	Polluted waste	
		Mussel larvae biomass filtration capsules
Slag rich carbonaceous residue (REE's)	E-waste	Fungi bioswale capsules
	Polluted site agricultural biomass	
		Remedial fungi exudate product (root nematode biocontrol)
Clean Biochar soil amendment	Reforestation/restoration/conservation biomass	Aquaculture remediation units
	Food and landscaping waste	
	Pretreated waste-water sludge	
	Nonpolluted agricultural biomass	
		Slug harvesting tanks and bait to fuel
Biochar adsorption material for heavy metals/ water filtration product	Reforestation/restoration/conservation biomass	Remedial microbial bioinoculant, fungi and bacteria
	Food and landscaping waste	
	Pretreated waste-water sludge	
	Nonpolluted agricultural biomass	
Clean ash industrial building material	Pretreated waste-water sludge	
	Leached polluted site biomass	
	Leached demolition waste	
Clean ash fertilizer, phosphorus	Reforestation/restoration/conservation biomass	
	Food and landscaping waste	
	Sewage sludge	
	Nonpolluted agricultural biomass	
Clean biomass digestate fertilizer, nitrogen	Reforestation/restoration/conservation biomass	
	Food and landscaping waste	
	Sewage sludge	
	Nonpolluted agricultural biomass	
Clean ash biomass fertilizer, calcium	Reforestation/restoration/conservation biomass	
	Food and landscaping waste	
	Sewage sludge	
	Nonpolluted agricultural biomass	
Clean ash biomass fertilizer, sulfur	Reforestation/restoration/conservation biomass	
	Food and landscaping waste	
	Sewage sludge	
	Nonpolluted agricultural biomass	
Clean ash acidic soil amendment, fertilizer	Reforestation/restoration/conservation biomass	
	Food and landscaping waste	
	Sewage sludge	
	Nonpolluted agricultural biomass	
Biorenewable calcined coke for carbon anodes, steel carburization, graphite synthesis	all materials	

Figure 6 Remediation Product Generation

Anaerobic digestor, AnDFB, Fischer Tropsch and plasma gasification products	Inputs
Methane Ethanol co-production (Ethylene, acetic acid, formaldehyde, dimethyl ether, methyl acetate, polyolefins, petrol)	Co2 + flue gas algae, Sewage sludge, Wastewater, Polluted algae, etc. biomass, Polluted site biomass, all materials
Syngas (iron reduction synthetic natural gas)	Methane plus catalysts, all biomass and waste materials
Fischer Tropsch (naphtha, petrol, diesel, wax)	All materials
Hydrogen (ammonia, chemicals, fuel cells)	All materials
Power generation (integrated gasification combined cycle, steam and power)	Syngas, all materials

Figure 7, Advanced Remediation Product Generation

To fully realize a sustainable and healthy Hawaii with appropriate resource management existing laws and rights are critical to recognize. Kuleana, defined as responsibility, is required for protection of resource rights of native Hawaiians. Existing laws, regulations, legislation, duties, laws, bills, acts, obligations, and duties surrounding emergency pollution, native Hawaiian public trust rights to land and water resource protections, climate crisis, traditional and customary practice rights, resource management obligations, as well as targets within the energy sector are defined below. Notably, there are an unidentifiable, and considerable, amount of bills, amendments, and other requests to the Hawaii state government that have been denied, ignored, tabled or as they say left out to ‘die’ regarding native Hawaiians access to healthy water and land, as well as desired protections to traditional and customary rights. This lack of acknowledgement and action is a direct violation of civil rights and should be investigated as a crime against the Native Hawaiian community. There have also been 15 legislative sessions directly regarding the Red Hill Fuel Storage Facility that still has no appropriate response.

It is not well understood what the actual number of native Hawaiian land and water users is and could be, and how far away users need to travel because of the lack of adequate access to healthy land and water. Improving native Hawaiians' access to land would directly respond to many issues including erosion, neighborhood conflicts, land and water loss of access, poor management, and ecological and personal health. Pressures from tourism also increase the island's pollution drastically with challenges in remediation approaches and has put a tremendous stress on native Hawaiian populations and their ability to practice traditional customs. There is high public use and a draw for tourist activity on Hawaiian lands with no significant economic return to the native Hawaiian community. Socioeconomic and well-being metrics to help elucidate where Native Hawaiian land and water rights are being infringed upon most can be identified then cross-referenced for remediation/restoration/conservation potential. Hawai‘i's land and coastlines have a high volume of erosion along with poor management strategies for overall soil health which has impacted the current state of the lands. Maximizing the number native Hawaiians is a priority because it keeps those in the community satisfied who care most about their public lands. To satisfy the concerns of stakeholders, like the DLNR, includes taking actions such as educating the public through various means and teaching them about their responsibilities as shared land users. Where it is most desperately needed, land and waterway re-construction and restoration should be implemented to prevent further soil loss in severely degraded areas. Degradation reduction and access retained projects may include land access facilities such as deed-restricted living parks for agricultural biofuel/remediation/reforestation/cultural purposes (food crop) housing, land access roads, and may be implemented by various government stakeholders.

Without question the following laws collectively require direct response and action to the Red Hill Catastrophe, military occupation, pollution, and degradation of Hawai‘i.

The Hawai‘i Supreme Court in re Waiāhole Ditch Combined Contested Case (“Waiāhole”), 94 Hawai‘i 97, 154–55, 9 P.3d 409, 446–67 (2000) adopted the precautionary principle as a corollary to the Public Trust mandate that “where [scientific] uncertainty exists, a trustee’s duty to protect the resource mitigates in favor of choosing presumptions that also protect the resource.” (“Waiāhole”), 94 Hawai‘i 97, Id. at 154, 9 P.3d at 466. (2000)

The state water code of 1987 declares all water as a public trust mandating “protection of traditional and customary rights, the protection and procreation of fish and wildlife, the maintenance and proper ecological balance and scenic beauty, and the preservation and enhancement of waters for municipal uses (Auth; State Water Code ‘Ch. 174C) (Imp: HRS Chapter 174C).” The state water code also notes the regulation of Hawaii‘s water resources for “Reasonable and Beneficial Use (Auth; State Water Code ‘Ch. 174C) (Imp: HRS Chapter 174C)”, whereas dumping of poorly filtered water into the Halawa Stream does not fall within this regulation. The Waiāhole Ditch case mandates to protect the resource and mitigates in favor of protection of the resource, the duty of the department of health to protect the citizens of Hawai‘i, a myriad of cultural and traditional rights to use and access of healthy land and water resources. (“Waiāhole”), 94 Hawai‘i 97, 154–55, 9 P.3d 409, 446–67 (2000) Additionally, the state code prohibits discharge of any substance into the water unless it is treated to render it harmless to water quality (Auth; State Water Code ‘Ch. 174C) (Imp: HRS Chapter 174C).” Where all waters of the State are subject to regulation under the provisions of chapter 174C unless specifically exempted.

Within HRS 174C-2 policy declaration includes that: a) It is recognized that the waters of the State are held for the benefit of the citizens of the State. It is declared that the people of the State are beneficiaries and have a right to have the waters protected for their use; b) There is a need for a program of comprehensive water resources planning to address the problems of supply and conservation of water. The Hawaii water plan, with such future amendments, supplements, and additions as may be necessary, is accepted as the guide for developing and implementing this policy; c) The state water code shall be liberally interpreted to obtain maximum beneficial use of the waters of the State for purposes such as domestic uses, aquaculture uses, irrigation and other agricultural uses, power development, and commercial and industrial uses. However, adequate provision shall be made for the protection of traditional and customary Hawaiian rights, the protection and procreation of fish and wildlife, the maintenance of proper ecological balance and scenic beauty, and the preservation and enhancement of waters of the State for municipal uses, public recreation, public water supply, agriculture, and navigation. Such objectives are declared to be in the public interest; d) The state water code shall be liberally interpreted to protect and improve the quality of waters of the State and to provide that no substance be discharged into such waters without first receiving the necessary treatment or other corrective action. The people of Hawaii have a substantial interest in the prevention, abatement, and control of both new and existing water pollution and in the maintenance of high standards of water quality; e) The state water code shall be liberally interpreted and applied in a manner which conforms with intentions and plans of the counties in terms of land use planning.

The general powers and duties of administration under the state water code are carried out by the commission on water resource management and are but not limited to: 1) carry out topographic surveys, research, and investigations into all aspects of water use and water quality; 2) Shall

designate water management areas for regulation under this chapter where the commission, after the research and investigations mentioned in paragraph 1, shall consult with the appropriate county council and county water agency, and after public hearing and published notice, finds that the water resources of the areas are being threatened by existing or proposed withdrawals of water; 3) Shall establish an instream use protection program designed to protect, enhance, and reestablish, where practicable, beneficial instream uses of water in the State; 4) May contract and cooperate with the various agencies of the federal government and with state and local administrative and governmental agencies or private persons; 5) May enter, after obtaining the consent of the property owner, at all reasonable times upon any property other than dwelling places for the purposes of conducting investigations and studies or enforcing any of the provisions of this code, being liable, however, for actual damage done. If consent cannot be obtained, reasonable notice shall be given prior to entry; 6) Shall cooperate with federal agencies, other state agencies, county or other local governmental organizations, and all other public and private agencies created for the purpose of utilizing and conserving the waters of the State, and assist these organizations and agencies in coordinating the use of their facilities and participate in the exchange of ideas, knowledge, and data with these organizations and agencies. For this purpose the commission shall maintain an advisory staff of experts; 7) May appoint and remove agents, including hearings officers and consultants, necessary to carry out the purposes of this chapter, who may be engaged by the commission without regard to the requirements of chapter 76 and section 78-1; 8) May acquire, lease, and dispose of such real and personal property as may be necessary in the performance of its functions, including the acquisition of real property for the purpose of conserving and protecting water and water related resources as provided in section 174C-14; 9) Shall identify, by continuing study, those areas of the State

where salt water intrusion is a threat to freshwater resources and report its findings to the appropriate county mayor and council and the public; 10) 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. 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, and except that the department of business, economic development, and tourism shall continue to carry out its duties and responsibilities under chapter 205A; 11) Shall plan and coordinate programs for the development, conservation, protection, control, and regulation of water resources, based upon the best available information, and in cooperation with federal agencies, other state agencies, county or other local governmental organizations, and other public and private agencies created for the utilization and conservation of water; and 12) Shall determine appurtenant water rights, including quantification of the amount of water entitled to by that right, which determination shall be valid for purposes of this chapter.

Appurtenant water rights are designated as a public trust in the state of Hawaii in accordance with the State water code. Additionally, there is an established water resource management fund that may be used for "monitoring programs and activities concerning water resource quality, protection, and management (HRS 174C-5.5)", as well as other purposes. Regarding dispute resolution regarding statewide water resource protections the commission hones the final decision on any matter as well as for, water permits, or constitutionally protected water interests, or where there is insufficient water to meet competing needs for water, whether or not the area involved has been designated as a water management area (HRS 174C-10).

Significantly under HRS 174C-14 regarding acquisition of real property (a) The legislature declares it to be necessary for the public health and welfare that water and water related resources be conserved and protected. The acquisition of real property for this objective shall constitute a public purpose for which public funds may be expended; b) The commission may acquire real property and easements by purchase, gift, devise, lease, eminent domain, or otherwise for flood control, water management, or water and water-related resource conservation; c) Land, water areas, and related resources which may be acquired for this purpose include, but are not limited to, streams and other watercourses, parks and recreation areas, beaches, submerged lands, and other open areas, as well as necessary access sites and rights-of-way.

Additionally, under HRS 174C-15 Penalties and common law remedies; a) The commission may enforce its rules and orders adopted pursuant to this chapter by suit for injunction or for damages or both; b) Any person who violates any provision of this chapter, or any rule adopted pursuant to this chapter, may be subject to a fine imposed by the commission. Such fine shall not exceed $5,000. For a continuing offense, each day during which the offense is committed is a separate violation; c) No provision of this chapter shall bar the right of any injured person to seek other legal or equitable relief against a violator of this chapter; d) Except as otherwise provided by law, the commission or its authorized representative by proper delegation may set, charge, and collect administrative fines or bring legal action to recover administrative fees and costs as documented by receipts or affidavit, including attorneys' fees and costs; or bring legal action to recover administrative fines, fees, and costs, including attorneys' fees and costs, or payment for damages resulting from a violation of this chapter or any rule adopted pursuant to this chapter.

The Red Hill Facilities has had at least 73 recurrent leaks (Jedra 2022) beginning since a major 1948 leak of 48,000 gallons following an earthquake shortly after installation of the tanks (Schank 2022). Since then, the United States Navy and responsible parties for inaction potentially including the Department of Health and Hawaii State Legislature are responsible for $135,050,000 in ongoing fines at minimum. Under 174C-15.5 With the mutual consent of both the commission and the department, the commission may use the civil natural resource violations system of the department of land and natural resources; provided that the commission shall act whenever the board is authorized to act, to process violations of chapter 174C or any rules adopted thereunder (HRS 174C-15.5).

Additionally relevant are, HRS 174C-31 Hawaii water plan, 174C-32 Coordination, 174C-44 Groundwater criteria for designation, 174C-45 Surface water criteria for designation, 174C-47 Modifying and rescinding designated areas, 174C-49 Conditions for a permit, 174C-58 Revocation of permits, 174C-62 Declaration of water shortage, 174C-68 Water quality plan, 174C-41 Designation of water management area. (a) When it can be reasonably determined, after conducting scientific investigations and research, that the water resources in an area may be threatened by existing or proposed withdrawals or diversions of water, the commission shall designate the area for the purpose of establishing administrative control over the withdrawals and diversions of ground and surface waters in the area to ensure reasonable-beneficial use of the water resources in the public interest, and 174C-101 Native Hawaiian water rights. (a) Provisions of this chapter shall not be construed to amend or modify rights or entitlements to water as provided for by the Hawaiian Homes Commission Act, 1920, as amended, and by chapters 167 and 168, relating to the Molokai irrigation system. Decisions of the commission on water resource management relating to the planning for, regulation, management, and

conservation of water resources in the State shall, to the extent applicable and consistent with other legal requirements and authority, incorporate and protect adequate reserves of water for current and foreseeable development and use of Hawaiian homelands as set forth in section 221 of the Hawaiian Homes Commission Act; b) No provision of this chapter shall diminish or extinguish trust revenues derived from existing water licenses unless compensation is made; c) Traditional and customary rights of ahupua‘a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778 shall not be abridged or denied by this chapter. Such traditional and customary rights shall include, but not be limited to, the cultivation or propagation of taro on one's own kuleana and the gathering of hihiwai, opae, o‘opu, limu, thatch, ti leaf, aho cord, and medicinal plants for subsistence, cultural, and religious purposes; d) The appurtenant water rights of kuleana and taro lands, along with those traditional and customary rights assured in this section, shall not be diminished or extinguished by a failure to apply for or to receive a permit under this chapter (HRS 174C-101).

Relevant case notes under HRS 174C include “Although the Hawaii administrative rules denominate aquifer-specific reservations of water to the department of Hawaiian home lands, such a limitation for purposes of water resource management does not divest the department of its right to protect its reservation interests from interfering water uses in adjacent aquifers 103 H. 401, 83 P.3d 664 (HRS174C-101 Case Notes).” “Where commission on water resource management refused to permit cross examination of water use applicant's oceanography expert regarding the limu population along the shoreline, in effect precluding the commission from effectively balancing the applicant's proposed private commercial use of water against an enumerated public trust purpose, the commission failed adequately to discharge its public trust duty to protect native Hawaiians' traditional and customary gathering rights, as guaranteed by the

Hawaiian Homes Commission Act, §220, article XII, §7 of the Hawaii constitution, and this section 103 H. 401, 83 P.3d 664. (HRS174C-101 Case Notes)."

HRS Chapter 199D -1] Civil natural resource violations system authorization including authority of emergency rules surrounding natural resources allows that: a) There is established, within the department of land and natural resources, a civil natural resource violations system, whose purpose shall be to process violations of departmental regulations for which administrative penalties have been authorized by law or rules adopted thereunder; b) The department shall adopt, amend, and repeal rules, subject to chapter 91, for the purposes of this chapter; c) The rules may include, but are not limited to, the following: 1) Notice of natural resource infraction; (HRS 199D-1) as well as, -1] Civil natural resource violations system authorization; a) There is established, within the department of land and natural resources, a civil natural resource violations system, whose purpose shall be to process violations of departmental regulations for which administrative penalties have been authorized by law or rules adopted thereunder; b) The department shall adopt, amend, and repeal rules, subject to chapter 91, for the purposes of this chapter. c) The rules may include, but are not limited to, the following: 1) Notice of natural resource infraction. Further emergency rules and authority are defined under the county of Hawaii government.

Commission on water resource management's conclusion that "no evidence was presented" to suggest that the rights of native Hawaiians would be adversely affected by permit applicant's proposed use erroneously shifted the burden of proof to complainants; thus, commission failed to adhere to the proper burden of proof standard to maintain the protection of native Hawaiians' traditional and customary gathering rights in discharging its public trust obligations (HRS 174D 116 H. 481, 174 P.3d 320).

Historically, the kingdom of Hawaii 1840 constitution includes trust concepts for land held in trust, defining "trust relationship between Aliʻi (chiefs) and makaʻainana (people who lived on the land)" (University of Hawaiʻi School of Law Library). The 1978 constitution established Hawaiian protections of customary rights and practices through an environmental and cultural lens. Hawaii administrative rules outline water protections and use under four chapters 13-167 through 13-171. Appurtenant rights to protected, trust purpose resource under the Surface Water Use Permit Applications, Integration of Appurtenant Rights and Amendments to the Interim Instream Flow Standards, Nä Wai ʻEhä Surface Water Management Areas of Waiheʻe, Waiehu, ʻĪao, & Waikapü Streams, Maui Case No. CCH-MA15-01 where in light of all public trust purposes, including higher-priority traditional and customary Native Hawaiian rights to cultivate kalo (“T&C rights") and appurtenant rights, as well as instream uses that the Commission must continue to protect and promote these rights to the extent feasible (STATE OF HAWAII 2016). Present constitution of the State of Hawaii under Act 334, Session Laws of Hawaii 1949, adopted November 7, 1950, Article 7-7, Article 6-1 and Article 6-7 respectively declare the state and its political subdivisions must “conserve and protect Hawai’i natural beauty and all natural resources, promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the state; all public natural resources are held in trust by the state for the benefit of the people", and “the state has an obligation to protect, control and regulate the use of Hawaii’s water resources for the benefit of its people. (Hawaii State 1950)”

Chapters 128D and 128E on activities of the Department of Health Environmental Health Administration Office of Hazard evaluation and emergency response and use of the environmental response revolving fund allow for action to be taken regarding the Red Hill Fuel

Facilities environmental catastrophe, additionally where the Hawaii State Response Program (HSRP) and the Hazard Evaluation and Emergency Response (HEER) Office operating sections may address 1) Emergency preparedness and Response (EP&R), 2) Hazard Evaluation (HE), and 3) Site Discovery, Assessment and Remediation (SDAR). The HSRP must provide oversight, assessment cleanup during chemical emergencies and high and medium priority contaminated sites across the Hawaiian Islands. (Dept. of Health State of Hawaii 2019) It should be duly noted these aforementioned parties have not fulfilled their obligations for decades over continuous leaks at the Red Hill Facilities and other contamination sites.

Under legislative section 2014 SCR 73 requests the director of health to convene a task force to study the effects of the January 2014 fuel tank leaks at Red Hill Fuel Storage Facilities. As prior mention notes this task force has been slow and unresponsive in their duties to address the recurrent Red Hill Facilities fuel leaks. There have been only about twelve task force meetings since 2014 that have proven incompetence in dealing with the threats to the water resource and aquifer at the Red Hill Facilities where recurrent spills since formation of the task force now amount to, at minimum 55,318 gallons of fuel (McCullough 2022). The Navy has repeatedly had to correct inaccurate estimates of fuel leaks over time (McCullough 2022) where the likely innacurate total surpasses 155,000 gallons.

The military occupation and pollution of Red Hill is an extreme danger to the quality of life in Hawai‘i and has verifiably infringed upon dozens of rights through negligent pollution, inaction, and intentional oppression of Hawai‘ians and the health of their resources. The de-fueling and thorough clean-up of the entire Red Hill Facilities under emergency action orders provided in regulatory obligations and law should be enacted immediately.

Codified under HRS Chapter 226 the Hawaii State Planning Act of 1978 is set to "improve the planning process in this state, to increase the effectiveness of government and private actions, to improve coordination among different agencies and levels of government, to provide for wise use of Hawaii's resources and to guide the future development of the state" (HRS 226-1). Additionally, "the purpose of this chapter is to set forth the Hawaii state plan that shall serve as a guide for the future long-range development of the State; identify the goals, objectives, policies, and priorities for the State; provide a basis for determining priorities and allocating limited resources, such as public funds, services, human resources, land, energy, water, and other resources; improve coordination of federal, state, and county plans, policies, programs, projects, and regulatory activities; and to establish a system for plan formulation and program coordination to provide for an integration of all major state, and county activities" (HRS 226-1).

Relevant duties under HRS 226-53 include but are not limited to: 1) Conduct strategic planning by identifying and analyzing significant issues, problems, and opportunities confronting the State, and formulating strategies and alternative courses of action in response to identified problems and opportunities; and 2) Prepare a report identifying emerging issues for use in the revision of parts I and III, including the updating of state functional plans. The report may include a scan of conditions and trends in population, the economy, and the environment, linking the findings of the state scanning project with policy and program activities where the office may contract with public and private agencies and persons for special research and planning assistance.

Under HRS 226-101, and HRS 226-102, respectively, relevant purpose and direction for state planning are: 1) to establish overall priority guidelines to address areas of statewide concern; and

2) strive to improve the quality of life for Hawaii's present and future population through the pursuit of desirable courses of action in seven major areas of statewide concern which merit priority attention: economic development, population growth and land resource management, affordable housing, crime and criminal justice, quality education, principles of sustainability, and climate change adaptation.

Energy produced must be renewable as a utility within Hawaii by 2045 and was targeted for 30% renewable by 2020 (HB623 HD2 SD2 CD1, 2015). Many species may be chosen as targeted remediation species energy and product crops, such as native mussels, fish, fungi, microbes, and algae for removal of pollutants, fuels and energy production and additional products such as fertilizers, soil amendments, and recaptured & bioleached metals and REE‘s.

The Intergovernmental Panel on Climate Change (IPCC) recently suggested that to have a better-than-even chance of avoiding more than a 2 °C temperature rise, the carbon budget between 2011 and 2050 is around 870–1,240 Gt CO2 (McGlade & Ekins 2015). Additionally, there is likely to be a loss of 20% of Hawaii’s forests due to plant disease. Many of the uncertainties facing Hawaii are globally ubiquitous regarding containment of temperature rise and implementation of renewables and should incorporate carbon sequestration such as with, BECCS, bioenergy with carbon capture and storage. Climate crisis mitigation includes biocultural living parks, invasive species removal, reforestation, ocean plastics, and e-waste sequestration to fuels. Climate crisis mitigation also includes affirmative action where poor populations feel the pressures from climate crisis first and foremost. Additionally, extreme droughts, warming seas with increases in El nino periods, intense storms, risk to drinking water supplies in shortages, increased wildfires, and degraded agriculture & tourism through ecosystem losses are all determined threats according to the State of Hawaii Climate Change Portal.

In the Hawaii 2050 Sustainability Plan, allowing for judicious use of natural resources, priority actions include to create a sustainability ethic, preserve, and perpetuate Kanaka Maoli and island cultural views, to reduce reliance on fossil fuels, increase recycling, & waste reduction strategies as well as maintain responsible & respectful use of resource allowing for replenishment and preservation for future generations. The sustainability plan may instill mediation mechanisms to mitigate and resolve conflicts over use of conservation lands or natural resources, determine feasibility of product development for commercially viable natural resources and is set to assist in initial steps necessary for such determination including the development and implementation of informative and educational programs directed toward specific areas and users of lands and natural resources (Kondo 2018). Goals of the plan include management of natural resources for high quality, integrity of resource, diversity, and function of ecosystems with the objective of developing and applying protective, preventive, and restorative strategies and tactics in order to attain management goals within and across the system (Kondo 2018). Enforcement and protections within the plan includes but is not limited to communication with judiciary and other governmental branches to underscore the importance of natural resource protection and enforcement challenges and ensuring that the air, land, and water transportation systems respect environmental, natural, cultural, and historic resources; with additional expectations to support the programs of State and Federal natural resource agencies, as well as support ongoing lines of communication and coordination with these agencies and the improvement of the technical basis for natural resources management (Kondo 2018).

The 2017 State of Hawaii Emergency Operations Plan, Basic Plan was prepared for the Hawaii Emergency Management Agency and was approved on May 9, 2017. The plan, which is often referred to as the “Basic Plan,” establishes a shared framework for the effective coordination of

response and initial recovery operations during large-scale or complex emergencies and disasters that require the support of the state. This plan defines roles and responsibilities for state emergency management functions, establishes the conditions under which state resources are mobilized and describes the organizational concepts and structures used to coordinate actions of state entities and other levels of government.

Under HRS 226-1 planning for the state's economy shall be directed towards, but not limited to, the following objectives: 1) Growth and development of diversified agriculture throughout the State; 2) An agriculture industry that continues to constitute a dynamic and essential component of Hawaii's strategic, economic, and social well-being. To achieve objectives, policy within HRS 226-1 includes but is not limited to: 1) encouraging agriculture by making the best use of natural resources; 2) the promotion and assistance in establishment of sound financial programs for diversified agriculture with support of displaced agricultural workers; 3) Perpetuate, promote, and increase use of traditional Hawaiian farming systems, such as the use of loko iʻa, māla, and irrigated loʻi, and growth of traditional Hawaiian crops, such as kalo, ʻuala, and ʻulu; 4) Increase and develop small-scale farms.

Under HRS 226-24 relevant objectives and policies include but are not limited to: 1) Provide effective services and activities that protect individuals from criminal acts and unfair practices and that alleviate the consequences of criminal acts in order to foster a safe and secure environment; 2) Uphold and protect the national and state constitutional rights of every individual; 3) Assure access to, and availability of, legal assistance, consumer protection, and other public services which strive to attain social justice; and 4) Ensure equal opportunities for individual participation in society.

Under HRS 226-103 relevant objectives and policies include but are not limited to: a); 1) Maintain and improve water conservation programs to reduce the overall water consumption rate; 2) Encourage the improvement of irrigation technology and promote the use of non-potable water for agricultural and landscaping purposes; 3) Increase the support for research and development of economically feasible alternative water sources; 4) Explore alternative funding sources and approaches to support future water development programs and water system improvements; 5) Encourage the development and expansion of agricultural and aquacultural activities which offer long-term economic growth potential and employment opportunities; 6) Continue the development of agricultural parks and other programs to assist small independent farmers in securing agricultural lands and loans; 7) Identify, conserve, and protect agricultural and aquacultural lands of importance and initiate affirmative and comprehensive programs to promote economically productive agricultural and aquacultural uses of such lands; 8) Assist in providing adequate, reasonably priced water for agricultural activities; 9) Encourage public and private investment to increase water supply and to improve transmission, storage, and irrigation facilities in support of diversified agriculture and aquaculture; 10) Provide retraining programs and other support services to assist entry of displaced workers into alternative employment; 11) Allocate educational resources to career areas where high employment is expected and where growth of new industries is desired; 12) Encourage the expansion of technological research to assist industry development and support the development and commercialization of technological advancements; 13) Seek a variety of means to increase the availability of investment capital for new and expanding enterprises; 14) Encourage investments which reflect long-term commitments to the State that (i) Reflect long-term commitments to the State; (ii) Rely on economic linkages within the local economy; (iii) Diversify the economy; (iv) Reinvest

in the local economy; (v) Are sensitive to community needs and priorities; and (vi) Demonstrate a commitment to provide management opportunities to Hawaii residents; and encourage (i) Present or former residents acting as entrepreneurs or principals; (ii) Resources unique to Hawaii that are required for innovative activity; and (iii) Complementary or supportive industries or government programs or projects; and 15) Expand vocational training in diversified agriculture, aquaculture, information industry, and other areas where growth is desired and feasible; Provide public incentives and encourage private initiative to develop and attract industries which promise long-term growth potentials and which have the following characteristics: (A) An industry that can take advantage of Hawaii's unique location and available physical and human resources; (B) A clean industry that would have minimal adverse effects on Hawaii's environment; (C) An industry that is willing to hire and train Hawaii's people to meet the industry's labor needs at all levels of employment; (D) An industry that would provide reasonable income and steady employment. Additionally, HRS 226-103 priority guidelines for energy use and development are: 1) Encourage the development, demonstration, and commercialization of renewable energy sources.

Under HRS 226-25 relevant objectives and policies include but are not limited to: 1) Foster increased knowledge and understanding of Hawaii's ethnic and cultural heritages and the history of Hawaii; 2) Support activities and conditions that promote cultural values, customs, and arts that enrich the lifestyles of Hawaii's people and which are sensitive and responsive to family and community needs; 3) Encourage increased awareness of the effects of proposed public and private actions on the integrity and quality of cultural and community lifestyles in Hawaii; and 4) Encourage the essence of the aloha spirit in people's daily activities to promote harmonious relationships among Hawaii's people and visitors.

Under HRS 226-26 relevant objectives and policies include but are not limited to: 1) Assurance of public safety and adequate protection of life and property for all people; 2) Optimum organizational readiness and capability in all phases of emergency management to maintain the strength, resources, and social and economic well-being of the community in the event of civil disruptions, wars, natural disasters, and other major disturbances; and 3) Promotion of a sense of community responsibility for the welfare and safety of Hawaii's people. (b) To achieve the public safety objectives, it shall be the policy of this State to: 1) Ensure that public safety programs are effective and responsive to community needs. (c) To further achieve public safety objectives related to criminal justice, it shall be the policy of this State to: 1) Provide a range of correctional resources which may include facilities and alternatives to traditional incarceration in order to address the varied security needs of the community and successfully reintegrate offenders into the community. (d) To further achieve public safety objectives related to emergency management, it shall be the policy of this State to; 1) Ensure that responsible organizations are in a proper state of readiness to respond to major war-related, natural, or technological disasters and civil disturbances at all times; and 2) Enhance the coordination between emergency management programs throughout the State.

Under 226-108 priority guidelines and principles to promote sustainability are set to include: 1) Encouraging balanced economic, social, community, and environmental priorities; 2) Encouraging planning that respects and promotes living within the natural resources and limits of the State; 3) Promoting a diversified and dynamic economy; 4) Encouraging respect for the host culture; 5) Promoting decisions based on meeting the needs of the present without compromising the needs of future generations; 6) Considering the principles of the ahupua’a

system; and 7) Emphasizing that everyone, including individuals, families, communities, businesses, and government, has the responsibility for achieving a sustainable Hawaii.

Relating to trees, where agroforestry may be promoted through invasive species removal and planting of trees for public improvements Under HRS 135 Chapter 107 as defined: a) The department shall require that for all projects undertaken on public land, three new trees shall be planted whenever an existing tree is cut down. Additionally, under chapter 135 Emergency use of real property is defined as where emergency means the imminent or actual occurrence of an event, which has the likelihood of causing extensive injury, death, property damage, or impedes the safe and necessary movement of persons or vehicles over public highways, including but not limited to the spillage of hazardous material on a public highway or public place.

Under HRS 226-106 priority guidelines for the provision of affordable housing are to: 1) Seek to use marginal or nonessential agricultural land, urban land, and public land to meet housing needs of extremely low-, very low-, lower-, moderate-, and above moderate-income households; 2) Encourage the use of alternative construction and development methods as a means of reducing production costs; 3) Improve information and analysis relative to land availability and suitability for housing; 4) Create incentives for development which would increase home ownership and rental opportunities for Hawaii's extremely low-, very low-, lower-, and moderate-income households and residents with special needs; 5) Encourage continued support for government or private housing programs that provide low interest mortgages to Hawaii's people for the purchase of initial owner-occupied housing; 6) Encourage public and private sector cooperation in the development of rental housing alternatives; 7) Encourage improved coordination between various agencies and levels of government to deal with housing policies and regulations.

Under HRS 226-104 relevant objectives and policies include but are not limited to: 1) Encourage planning and resource management to insure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawaii's people; 2) Manage a growth rate for Hawaii's economy that will parallel future employment needs for Hawaii's people; 3) Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State; 4) Encourage major state and federal investments and services to promote economic development and private investment to the neighbor islands, as appropriate; 5) Explore the possibility of making available urban land, low-interest loans, and housing subsidies to encourage the provision of housing to support selective economic and population growth on the neighbor islands; 6) Seek federal funds and other funding sources outside the State for research, program development, and training to provide future employment opportunities on the neighbor islands; 7) Support the development of high technology parks on the neighbor islands; 8) Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures, and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles; 9) Make available marginal or nonessential agricultural lands for appropriate urban uses while maintaining agricultural lands of importance in the agricultural district; 10) Pursue rehabilitation of appropriate urban areas; 10) Direct future urban development away from critical environmental areas or impose mitigating measures so that negative impacts on the environment would be minimized; 11) Identify critical environmental areas in Hawaii to include but not be limited to the following: watershed and recharge areas; wildlife habitats (on land and in the ocean); areas with endangered species of plants and wildlife;

natural streams and water bodies; scenic and recreational shoreline resources; open space and natural areas; historic and cultural sites; areas particularly sensitive to reduction in water and air quality; and scenic resources; 12) Identify all areas where priority should be given to preserving rural character and lifestyle; 13) Utilize Hawaii's limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline, conservation lands, and other limited resources for future generations; and 14) Protect and enhance Hawaii's shoreline, open spaces, and scenic resources.

Under 226-27 relevant objectives and policies include but are not limited to: 1) Efficient, effective, and responsive government services at all levels in the State; 2) Pursue an openness and responsiveness in government that permits the flow of public information, interaction, and response; 3) Stimulate the responsibility in citizens to productively participate in government for a better Hawaii; 4) Assure that government attitudes, actions, and services are sensitive to community needs and concerns.

Under HRS 226-105 Priority guidelines in the area of crime and criminal justice; 1) Support law enforcement activities and other criminal justice efforts that are directed to provide a safer environment; 2) Target state and local resources on efforts to reduce the incidence of violent crime and on programs relating to the apprehension and prosecution of repeat offenders; 3) Support community and neighborhood program initiatives that enable residents to assist law enforcement agencies in preventing criminal activities; 4) Reduce overcrowding or substandard conditions in correctional facilities through a comprehensive approach among all criminal justice agencies which may include sentencing law revisions and use of alternative sanctions other than

incarceration for persons who pose no danger to their community; 6) Increase public and private efforts to assist witnesses and victims of crimes and to minimize the costs of victimization.

Under HRS 226-11 Planning for the State's physical environment with regard to land-based, shoreline, and marine resources shall be directed towards achievement of the following objectives: 1) Prudent use of Hawaii's land-based, shoreline, and marine resources. 2) Effective protection of Hawaii's unique and fragile environmental resources. To achieve the land-based, shoreline, and marine resources objectives, the policy is, but not limited to: 1) Exercise an overall conservation ethic in the use of Hawaii's natural resources; 2) Ensure compatibility between land-based and water-based activities and natural resources and ecological systems; 3) Manage natural resources and environs to encourage their beneficial and multiple use without generating costly or irreparable environmental damage; 4) Consider multiple uses in watershed areas, provided such uses do not detrimentally affect water quality and recharge functions; 5) Encourage the protection of rare or endangered plant and animal species and habitats native to Hawaii; 6) Provide public incentives that encourage private actions to protect significant natural resources from degradation or unnecessary depletion; 7) Pursue compatible relationships among activities, facilities, and natural resources; 8) Promote increased accessibility and prudent use of inland and shoreline areas for public recreational, educational, and scientific purposes.

Additional objectives and policies for the physical environments regarding scenic, natural beauty, and historic resources are defined under HRS 226-12. Relevant objectives in policy include but are not limited to 1) Promote the preservation and restoration of significant natural and historic resources. 2) Provide incentives to maintain and enhance historic, cultural, and scenic amenities. 3) Protect those special areas, structures, and elements that are an integral and

functional part of Hawaii's ethnic and cultural heritage. 4) Encourage the design of developments and activities that complement the natural beauty of the islands.

Under 226-13 objectives in policy include but are not limited to: 1) Maintenance and pursuit of improved quality in Hawaii's land, air, and water resources; 2) Promote the proper management of Hawaii's land and water resources; 3) Promote effective measures to achieve desired quality in Hawaii's surface, ground, and coastal waters; 4) Reduce the threat to life and property from erosion, flooding, tsunamis, hurricanes, earthquakes, volcanic eruptions, and other natural or man-induced hazards and disasters; 5) Encourage design and construction practices that enhance the physical qualities of Hawaii's communities; 6) Encourage urban developments in close proximity to existing services and facilities; 7) Foster recognition of the importance and value of the land, air, and water resources to Hawaii's people, their cultures and visitors.

Under HRS 226-10 relevant objective policies include but are not limited to: 1) Facilitate investment and employment growth in economic activities that have the potential to expand and diversify Hawaii's economy, including but not limited to diversified agriculture, aquaculture, renewable energy development, creative media, health care, and science and technology-based sectors; 2) Facilitate investment in innovative activity that may pose risks or be less labor-intensive than other traditional business activity, but if successful, will generate revenue in Hawaii through the export of services or products or substitution of imported services or products; 3) Encourage entrepreneurship in innovative activity by academic researchers and instructors who may not have the background, skill, or initial inclination to commercially exploit their discoveries or achievements; 4) Recognize that innovative activity is not exclusively dependent upon individuals with advanced formal education, but that many self-taught, motivated individuals are able, willing, sufficiently knowledgeable, and equipped with the

attitude necessary to undertake innovative activity; 5) Increase the opportunities for investors in innovative activity and talent engaged in innovative activity to personally meet and interact at cultural, art, entertainment, culinary, athletic, or visitor-oriented events without a business focus; 6) Expand Hawaii's capacity to attract and service international programs and activities that generate employment for Hawaii's people; 7) Accelerate research and development of new energy-related industries based on wind, solar, ocean, underground resources, and solid waste; 8) Develop, promote, and support research and educational and training programs that will enhance Hawaii's ability to attract and develop economic activities of benefit to Hawaii; 9) Encourage the development and implementation of joint federal and state initiatives to attract federal programs and projects that will support Hawaii's social, economic, physical, and environmental objectives; and 10) Foster the research and development of non-fossil fuel and energy efficient modes of transportation.

Under HRS 226-16 Objective and policies for facility systems regarding water include but are not limited to (a) Planning for the State's facility systems with regard to water shall be directed towards achievement of the objective of the provision of water to adequately accommodate domestic, agricultural, commercial, industrial, recreational, and other needs within resource capacities; b) To achieve the facility systems water objective, it shall be the policy of this State to: 1) Coordinate development of land use activities with existing and potential water supply. 2) Support research and development of alternative methods to meet future water requirements well in advance of anticipated needs; 3) Reclaim and encourage the productive use of runoff water and wastewater discharges. 4) Assist in improving the quality, efficiency, service, and storage capabilities of water systems for domestic and agricultural use. 5) Support water supply services to areas experiencing critical water problems; and 6) Promote water conservation programs and

practices in government, private industry, and the general public to help ensure adequate water to meet long-term needs.

Under 226-14 objective and policies for facility systems--in general. (a) Planning for the State's facility systems in general shall be directed towards achievement of the objective of water, transportation, sustainable development, climate change adaptation, sea level rise adaptation, waste disposal, and energy and telecommunication systems that support statewide social, economic, and physical objectives. Including but not limited to 1) Encourage flexibility in the design and development of facility systems to promote prudent use of resources and accommodate changing public demands and priorities; and 3) Ensure that required facility systems can be supported within resource capacities and at reasonable cost to the user.

Under HRS 226-109 climate change adaptation priority guidelines include but not limited to are: to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas; natural and cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall: 1) Encourage community stewardship groups and local stakeholders to participate in planning and implementation of climate change policies; 2) Invest in continued monitoring and research of Hawaii's climate and the impacts of climate change on the State; 3) Consider native Hawaiian traditional knowledge and practices in planning for the impacts of climate change; 4) Encourage the preservation and restoration of natural landscape features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands, that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change; 5) Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate

change impacts to the natural and built environments; 6) Promote sector resilience in areas such as water, roads, airports, and public health, by encouraging the identification of climate change threats, assessment of potential consequences, and evaluation of adaptation options; 7) Foster cross-jurisdictional collaboration between county, state, and federal agencies and partnerships between government and private entities and other nongovernmental entities, including nonprofit entities; 8) Use management and implementation approaches that encourage the continual collection, evaluation, and integration of new information and strategies into new and existing practices, policies, and plans; and 9) Encourage planning and management of the natural and built environments that effectively integrate climate change policy.

Under 226-18 relevant objectives and policy includes but are not limited to: 1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people; 2) Increased energy security and self-sufficiency through the reduction and ultimate elimination of Hawaii's dependence on imported fuels for electrical generation and ground transportation; 3) Greater diversification of energy generation in the face of threats to Hawaii's energy supplies and systems; 4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use; and (b) To further achieve the energy objectives, it shall be the policy of this State to: 1) Support research and development as well as promote the use of renewable energy sources; 4) Promote all cost-effective conservation of power and fuel supplies through measures, including but not limited to: a) Adoption of energy-efficient practices and technologies.

Additionally HRS 226-14 policy includes but is not limited to 1) Ensure, to the extent that new supply-side resources are needed, that the development or expansion of energy systems uses the least-cost energy supply option and maximizes efficient technologies; 2) Support research,

development, demonstration, and use of energy efficiency, load management, and other demand-side management programs, practices, and technologies; 3) Promote alternate fuels and transportation energy efficiency; 4) Support actions that reduce, avoid, or sequester greenhouse gasses in utility, transportation, and industrial sector applications; and 5) Support actions that reduce, avoid, or sequester Hawaii's greenhouse gas emissions through agriculture and forestry initiatives.

Under 226-19 relevant objectives and policy include but is not limited to: 1) Facilitate the use of available vacant, developable, and underutilized urban lands for housing. 2) Foster a variety of lifestyles traditional to Hawaii through the design and maintenance of neighborhoods that reflect the culture and values of the community. 3) Promote appropriate improvement, rehabilitation, and maintenance of existing rental and for sale housing units and residential areas.

Under 226-20 relevant objectives and policy include but is not limited to: 1) Fulfillment of basic individual health needs of the general public; 2) Maintenance of sanitary and environmentally healthful conditions in Hawaii's communities; 3) Elimination of health disparities by identifying and addressing social determinants of health; 4) Provide programs, services, and activities that ensure environmentally healthful and sanitary conditions; 5) Improve the State's capabilities in preventing contamination by pesticides and other potentially hazardous substances through increased coordination, education, monitoring, and enforcement; and 6) Prioritize programs, services, interventions, and activities that address identified social determinants of health to improve native Hawaiian health and well-being consistent with the United States Congress' declaration of policy as codified in title 42 United States Code section 11702, and to reduce health disparities of disproportionately affected demographics, including native Hawaiians, other

Pacific Islanders, and Filipinos. Additional measures under health planning and resources development exist under HRS chapter 323D.

Under HRS 226-23 relevant objectives and policy include but is not limited to: 1) Foster and preserve Hawaii's multi-cultural heritage through supportive cultural, artistic, recreational, and humanities-oriented programs and activities; 2) Provide a wide range of activities and facilities to fulfill the cultural, artistic, and recreational needs of all diverse and special groups effectively and efficiently; 3) Enhance the enjoyment of recreational experiences through safety and security measures, educational opportunities, and improved facility design and maintenance; 4) Promote the recreational and educational potential of natural resources having scenic, open space, cultural, historical, geological, or biological values while ensuring that their inherent values are preserved; and 5) Assure the availability of sufficient resources to provide for future cultural, artistic, and recreational needs.

Act 5, Session Laws of Hawaii 1987, section 5, and section 1 of Act 238, Session Laws of Hawaii 1988, states in part: "The department of land and natural resources is authorized to subdivide and provide for the creation of a residential subdivision in Kahana valley for persons who receive long term leases under the provisions of this act". To assist in the relocation of valley residents and construction of new dwellings on the designated house lots, Act 238, Session Laws of Hawaii 1988, section 2, authorized the housing finance and development corporation to offer mortgage financing up to $50,000 per lessee where this sum should be increased relative to infaltion at minimum.

In Hawaii revised statutes 115-1 under findings and purpose “the legislature finds that miles of shorelines, waters, and inland recreational areas under the jurisdiction of the State are

inaccessible to the public due to the absence of public rights-of way; that the absence of public rights-of-way is a contributing factor to mounting acts of hostility against private shoreline properties and properties bordering inland recreational areas; that the population of the islands is increasing while the presently accessible beach, shoreline, and inland recreational areas remain fixed; and that the absence of public access to Hawaii's shorelines and inland recreational areas constitutes an infringement upon the fundamental right of free movement in public space and access to and use of coastal and inland recreational areas (Auth: HRS 115-1 L 1974, c 244, §1; am L 1977, c 164, §3).” “The purpose of this chapter is to guarantee the right of public access to the sea, shorelines, and inland recreational areas, and transit along the shorelines, and to provide for the acquisition of land for the purchase and maintenance of public rights-of-way and public transit corridors (Auth: HRS 115-1 L 1974, c 244, §1; am L 1977, c 164, §3). HRS 115 also describes penalty to obstruction of public property where a) A person commits the offense of obstructing access to public property if the person, by action or by having installed a physical impediment, intentionally prevents a member of the public from traversing: (1) A public right-of-way; (2) A transit area; (3) A public transit corridor; or (4) A beach transit corridor.

Watershed health can also be further studied elucidating the degree of impact seen from erosion, runoff, invasive species, stream IIFS’s, safety, educational information available, observed etiquette(garbage/pollution), number of conflicts, non-governmental and governmental associations, and accessibility. If the trail health and watershed function is determined at risk, then access, restrictions, restoration, or conservation may be necessary as elucidated in the HRS under Classification of program trails (HRS '198D-6). This is also outlined in the HRS under the Classification of program trails: (a) Each program trail and access or portion thereof shall be classified as Urban, Rural, Wildland, Sensitive, or other similar classification. (b) The

classification shall reflect: (1) The function of the trail; (2) The type of trail; (3) The actual or desired use intensity; (4) The desired condition of the environmental or historical setting; (5) The recreational setting; (6) The quality and nature of the expected experience, including the expected sights, sounds, and levels of interaction with other individuals; (7) The degree of physical modification to the environment; (8) The accessibility of the trail; (9) The mode of transportation for which the trail is intended; (10) The type of ancillary and complementary facilities; and (11) Other similar factors as the board may consider from time to time. [Eff.] (Auth: HRS '198D-6) (Imp: HRS '198D-6). HRS Chapter 198D also allows for regulating commercial activity and organizational engagement and could be implemented by executing a framework for commercial, non-profit, and community groups to integrate with management goals within living parks. According to the statutes, "Commercial activity means an activity on a program trail or access for commercial purposes, including, but not limited to, conducting tours, hikes, bicycle rides, equestrian rides, off-road vehicle rides and providing guide services. Commercial activity includes activities whose base of operations are outside the boundaries of the program trail or access, but that rent equipment or livestock for use on a program trail, or access, or provide transportation to or from program trails and accesses. "Compensation" includes, but is not limited to, monetary fees, barter, or services in-kind (HRS 198-D."

City ordinance can be applied to enact residential neighborhood permitted parking by the C&C and Department of Transportation Services, who are responsible under HRS 115-7 to maintain access, and requires them to fulfill the criteria set forth in Hawaii Code R. Ordinance 19-1, which includes public input. The City / County Department of Transportation services may also be a limiting factor if they are not able to fulfill Hawaii Code R. Ordinance 19-1 as noted by HRS 115-7 in agreement with the DLNR. The development and maintenance of the rights-of-

way and public transit corridors shall be the responsibility of the county. [L 1974, c 244, §7] [Eff.] (Auth: HRS '115-7) (Imp: HRS '115-7)

Fundamental objectives to improve present circumstances include maximizing the number of Native Hawaiians on desired lands, maximizing reduction in soil loss to mitigate erosion, minimizing the total cost of maintenance and restoration, and maximizing the native plant cover surrounding the land. Taking direct action towards a sovereign Hawaii through review of other pacific Island nation trust negotiations, where Hawaii would gain full sovereignty without forced military occupation and remediation of resources is crucial for a sustainable future in Hawaii. The potential of a sustainable and sovereign Hawaii provides increased access and availability to healthy resources for all users that will inherently promote native Hawaiian rights and vice versa. Taking action in biocultural remediation/restoration/conservation with energy production and recaptured material products that are currently not being done anywhere provides innovation to industry in Hawai‘i. Increased bioremediation products and tools become available to the public, industry, and military, and sets precedents for other nations around the world to follow suit. Taking a biocultural remediation to energy products approach replaces irrelevant, inactive, and poorly implemented remediation projects and proposals.

Drivers toward biocultural remediation and sovereignty in Hawaii include the catastrophic pollution threats to Hawaii’s critical land, water resources, and necessary affirmative action; the need for additional products and biocultural sensitivity of biofuel production, alternative energy production, and materials production, as well as the present inactivity in pollution remediation and poor waste stream management in Hawaii.

The goal is to return the land and water in an occupied Hawaii and provide industry with natural resource management to native Hawaiians. Establishing as much resource for native Hawaiians using public trust rights to water, land, and the right to practice traditional customs in the form of cultural livings parks with residence in affected ahupua'a's, coupled with alternative energy, tourism, and other industry where applicable is required for a sustainable Oahu.

Citations

Barnard, D. (2006-2007), Law, Narrative, and the Continuing Colonialist Oppression of Native Hawaiians., 16 Temp. *Pol. & Civ. Rts. L. Rev 1*

Dept. of Health State of Hawaii (2019), *REPORT TO THE THIRTIETH LEGISLATURE STATE OF HAWAII 2019 PURSUANT TO CHAPTERS 128D AND 128E, HAWAII REVISED STATUTES, REQUIRING THE DEPARTMENT OF HEALTH TO REPORT ENVIRONMENTAL RESPONSE LAW AND HAWAII EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT FINANCIAL AND ENVIRONMENTAL SITE INFORMATION FY 2018*, ENVIRONMENTAL RESPONSE AND PLANNING COMMUNITY KNOWLEDGE REPORT TO THE THIRTIETH LEGISLATURE, STATE OF HAWAII 2019.

Environment, H. (2022), *Oil Contamination is Pervasive -*, *Environment-hawaii.org*, viewed 12 May, 2022, <https://www.environment-hawaii.org/?p=3933>.

Gartner IRM (2022), *Definition of Integrated Risk Management (IRM) - Gartner Information Technology Glossary*, *Gartner*, viewed 10 May, 2022, <https://www.gartner.com/en/information-technology/glossary/integrated-risk-management-irm>.

Group 70 Intl. (2009), *Ko'olau Loa Watershed Management Plan - Oahu Water Management Plan*, *Boardofwatersupply.com*, viewed 10 May, 2022, <https://www.boardofwatersupply.com/bws/media/files/koolau-loa-wmp-prefinal-plan-rev2-2009-07-27.pdf>.

Hannum, H. (2022), *Legal Aspects of Self-Determination*, *The Princeton Encyclopedia of Self-Determination*, viewed 10 May, 2022, <https://pesd.princeton.edu/node/511#:~:text=Article%201%20i)%20All%20peoples,economic%2C%20social%20and%20cultural%20development.>.

Hawaii Emergency Management Agency (2017), *STATE OF HAWAII EMERGENCY OPERATIONS PLAN - BASIC PLAN* -, State of Hawaii.

Hawaii Revised Statutes No. 135 chapter 107, Hawai'i State Legislature

Hawaii Revised Statutes No. *226*, Hawai'i State Legislature, https://www.capitol.hawaii.gov/hrscurrent/Vol04_Ch0201-0257/HRS0226/HRS_0226-.htm

Hawaii Revised Statutes Act 238, Section 2, Session Laws of Hawaii, Hawai'i State Legislature

Hawaii Revised Statutes Act 238, Section 5, Session Laws of Hawaii, Hawai'i State Legislature

Hawaii Revised Statutes No. *174C*, Hawaii State Water Code, Hawai'i State Legislature

Hawaii State Climate Change Portal. (2022), *Less & Heavy Rain*, *Climate.hawaii.gov*, viewed 12 May, 2022, <https://climate.hawaii.gov/hi-facts/rain/>.

Hawaii State Dept. of Health (2022), *Red Hill Water Information*, *Health.hawaii.gov*, viewed 12 May, 2022, <https://health.hawaii.gov/about/red-hill-water-information/>.

Hawaii State, House Bill 623 HD2 SD2 CD1 (2015) Hawaii State Legislature

Hossain, K. (2022), The Concept of Jus Cogens and the Obligation Under the U.N. Charter, *Santa Clara Journal of International Law*, 3, (1), p. 78.

Hughes, D. (2020), Of Tactics, Illegal Occupation and the Boundaries of Legal Capability: A Reply to Ardi Imseis, European Journal of International Law, 31, (3), pp. 1087-1103.

Interagency Drinking Water System Team (2022), *Drinking Water Distribution System Recovery Plan: Stage 2 Sampling Results for Zone I1*, *JBPHH water systems information*, viewed 12 May, 2022, <https://www.cpf.navy.mil/Portals/52/Downloads/JBPHH-Water-Updates/2022-01-24-flushing-zone-i1-idwst-stage-2-data-release.pdf>.

Jedra, C. (2022), *How The Red Hill Fuel System Has Threatened Oahu's Drinking Water For Decades*, *Honolulu Civil Beat*, viewed 12 May, 2021, <https://www.civilbeat.org/2021/12/how-the-red-hill-fuel-system-has-threatened-oahus-drinking-water-for-decades/>.

Jumiyati, S., Rajindra, R., Tenriawaru, A., Hadid, A. and Darwis, D. (2017), Sustainable Land Management and Added Value Enhancement of Agricultural Superior Commodities, *International Journal of Agriculture System*, 5, (2), p. 198.

Kondo, L. (2018), *Hawai'i 2050 Sustainability Plan*, State of Hawaii Office of the Auditor, Ten Year Measurement Update.

Lincoln N, Zhang Q, Chen Q. State of the State Tree: Historical and Modern Ecology of Kukui (Candlenut, Aleurites Moluccanus) in Hawai'i. Pacific science 2021;74(4).

McGlade C, Ekins P. The geographical distribution of fossil fuels unused when limiting global warming to 2 °C. Nature. 2015 Jan 8;517(7533):187-90. doi: 10.1038/nature14016. PMID: 25567285.

Malji, A., Allen, M. and Martinez Machain, C. (2022), *The Navy's fuel leak in Hawai'i outraged local activists. That's happened around the globe. Military bases' environmental harms disproportionally hurt ethnic minorities — and they have pushed back*, *The Washington Post - Democracy Dies in Darkness*, viewed 11 May, 2022, <https://www.washingtonpost.com/politics/2022/01/13/red-hill-fuel-water-contamination-activism/>.

Omaye, J. (2021), *More Native Hawaiians and Pacific Islanders are living on the mainland and finding ways to keep their culture alive*, *Honolulu Star-Advertiser*, viewed 11 May, 2022, <https://www.staradvertiser.com/2021/09/05/hawaii-news/more-native-hawaiians-and-pacific-islanders-are-living-on-the-mainland-and-finding-ways-to-keep-their-culture-alive/>.

Senate Concurrent Resolution SCR No. 73, H.D. 1, The Senate Twenty-Seventh Legislature, 2014, State of Hawaii, https://www.capitol.hawaii.gov/session2014/bills/SCR73_HD1_.pdf

Senate Resolution No. *264*, S.D. 1, Regular Session of *1977*, Hawai'i State Legislature, https://www.capitol.hawaii.gov

Shaah MA, Allafi F, Hossain MS, Alsaedi A, Ismail N, Ab Kadir MO, et al. Candlenut oil: review on oil properties and future liquid biofuel prospects. INTERNATIONAL JOURNAL OF ENERGY RESEARCH 2021;45(12):17057-79.

STATE OF HAWAI'I, C. (2016), *Case No. CCH-MA15-01 Surface Water Use Permit Applications, Integration of Appurtenant Rights and Amendments to the Interim Instream Flow*

Standards, Nä Wai ʻEhä Surface Water Management Areas of Waiheʻe, Waiehu, ʻĪao, & Waikapü Streams, Maui..

State of Hawaii. (1950), *State Constitution*, *Lrb.hawaii.gov*, viewed 12 May, 2022, <https://lrb.hawaii.gov/constitution>.

US National Library of Medicine (2022), *President Clinton apologizes for 1893 overthrow of Hawaiian monarchy - Timeline - Native Voices*, *Nlm.nih.gov*, viewed 10 May, 2022, <https://www.nlm.nih.gov/nativevoices/timeline/578.html#:~:text=of%20Hawaiian%20monarchy-,1993%3A%20President%20Clinton%20apologizes%20for%201893%20overthrow%20of%20Hawaiian%20monarchy,overthrow%20of%20the%20Hawaiian%20monarchy.>.

University of Hawaii School of Law Library (2022), *How Jon Van Dyke Analyzed the Hawaiian Constitutions of 1840-1893 · Exploring the Scholarship of Jon Van Dyke Exhibit · The Archival Collections at the University of Hawaiʻi School of Law Library*, *Archives.law.hawaii.edu*, viewed 12 May, 2022, <http://archives.law.hawaii.edu/exhibits/show/jvd-scholarship/hawaiian-constitutional-histor>.

Waiāhole", 94 Hawaiʻi 97, 9 P.3d 409 (2000), Supreme Court of the State of Hawaii. No. 21309, https://cite.case.law/haw/94/97/

May 16, 2022

Aloha Chair Case and Members of the Water Commission;

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii is very concerned about the water crisis that has resulted from the Navy's contamination of Oahu's sole source aquifer. Hawaii's drinking water supply is already at risk due to the effects of climate change. All the more reason to ensure we take great care in protecting our aquifer from further fuel contamination, or any other source of pollution, keeping it safe for current and future generations.

As the overseer of our most precious resource, tasked with ensuring that our public trust water is appropriately used and protected from waste, we urge the Commission to act to:

- place conditions on the Navy's water use permits,
- prohibit any and all nonessential uses of water,
- ensure full transparency and disclosure of any and all reports and other information regarding the safety of our water, and
- motivate Navy and military leaders to treat the ongoing threat of catastrophic contamination of our water supply with the urgency it requires

when considering potential modifications to the Navy's Water Use Permit Applications.

No one has said it better than Ernie Lau of the BWS when he stated, "Every moment that facility contains fuel right over our aquifer is a moment too long for me because it's a threat to further damage to our resource."

The Commission's mission is to protect and manage the waters of the State of Hawaii for present and future generations. As such, we urge the Commission to impose strict restrictions and conditions, as listed above, on the Navy's continued use of our public trust water resources.

Mahalo for the opportunity to provide testimony.

Sherry Pollack
Co-founder, 350Hawaii

May 16, 2022

Aloha, Chair Case and Members of the Water Commission,

The plume and its spread across the largest source of potable water hang like a cloud of doom over the population of O'ahu. Year after year, spills have occurred since the tanks were installed, but warnings were ignored, and we were lied to by the very organization charged with protecting the US. The Navy has demonstrated its incompetence, arrogance and disregard for our people. Please, CWRM, DOH, DWS! Do what needs to be done to hold the Navy immediately accountable! Demand that all haste be made to close the facility once and for all!

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Thank you,

Deborah Ward (formerly a resident atop Red Hill)
[redacted]
Kurtistown, HI 96760

From:	ann Wright
To:	Hyatt, RaeAnn P; DLNR.CW.DLNRCWRM
Subject:	[EXTERNAL] Testimony By Colonel Ann Wright for the May 17, 2022 Commission on Water Resources Management meeting
Date:	Monday, May 16, 2022 8:01:32 AM

May 15, 2022

Commission on Water Resources Management meeting on May 17, 2022

Department of Land and Natural Resources

Honolulu, HI

Written testimony via raeann.p.hyatt@hawaii.gov and dlnr.cwrm@hawaii.gov

Testimony By Colonel Ann Wright

Thank you for the opportunity to provide testimony at the May 17, 2022 meeting of the Department of Land and Natural Resources Water Resources Management meeting.

I would like to also submit oral testimony at the zoom meeting on May 17, 2022.

I have lived on O'ahu for almost 20 years. I served 29 years in the US Army/Army Reserves and retired as a Colonel. I was also a US diplomat for 16 years and served in US Embassies in Nicaragua, Grenada, Somalia, Uzbekistan, Kyrgyzstan, Sierra Leone, Micronesia, Afghanistan and Mongolia. I resigned from the US government in 2003 in opposition to the US war on Iraq.

As we saw from the slides on Friday May 13 at the Department of Health Fuel Tank Advisory Committee hearing, the contamination plume from the Navy's Red Hill water well had spread many months earlier than the November 2021 leak. We also learned that many affected families are still suffering daily living in the homes that have petroleum sheens on water and residents have headaches, stomach aches and rashes from the "safe" water the Navy claims to have cleaned. See the JBPHH Water Contamination Support Facebook for families' stories of what they are still dealing with: https://www.facebook.com/groups/311603564169307

I also am very concerned about the amount of time the Department of Defense may take to drain the Red Hill jet fuel tanks and close the Red Hill storage facility.

It is taking DOD nine years to replace underground jet fuel tanks in Washington State! We Can't Wait that long to Close Down Red Hill !!!

According to local news media in Kitsap, Washington, it's expected to take approximately nine years to complete the six above-ground tanks project shutting down and closing 33 underground Navy fuel tanks at the US military Manchester Fuel Depot in Manchester, Washington and will cost the Department of Defense around $200 million.

It took the Department of Defense (DOD) 3 years to begin work on shutting down the tanks after the decision was made. The decision to close and remove the original 33 underground fuel storage tanks and construct six new above-ground tanks was made in 2018 but work did not begin to close down the facility until July 2021.

Each of the six new, above ground tanks will be able to contain 5.2 million gallons of JP-5 carrier jet fuel or F-76 marine diesel fuel in 64-foot-tall, 140-foot-wide tanks constructed of welded steel columns with supported fixed cone roofs. Approximately 75 million gallons are stored at Manchester Fuel Depot now.

At that rate, it would take eighteen+ years to defuel and close Red Hill, assuming it holds 180 million gallons of fuel.

Now DOD is faced with a logistics quandary of where to put the fuel it drains from the tanks. But the self-made tardiness of DOD's decision to finally shut down the Red Hill storage tanks must not be allowed to continue to jeopardize the drinking water of Honolulu.

Site plan for US military jet fuel tanks in Darwin, Australia

DOD had made some major decisions on alternative sites for its fuel supply prior to the November 2021 Red Hill fuel leak and those decisions involved Australia.

In September 2021, Australia, UK, and the United States signed the well-publicized security pact, called "AUKUS" which allowed sharing of advanced defense technologies and providing Australian military contractors with the information on how to build nuclear-powered submarines, much to the displeasure of France that had a contract to sell diesel submarines to Australia.

Also in September 2021, the same time the AUKUS pact was signed, the US government awarded a contract for construction of a $270 million dollar project for an aviation fuel storage facility that will store 60 million gallons of jet fuel in 11 above ground storage tanks to support American military operations in the Pacific. Construction of the tank farm facility began in January 2022 and is scheduled for completion in two years.

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On Guam, with a population of 153,000 and a military population of 21,700 including families, military fuel is shipped into the large storage facilities at Guam Naval Base.

The repair of 12 fuel tanks with a storage capacity of 38 million gallons has recently been finished at Andersen Air Base on Guam.

Secretary of Defense Austin's March 7, 2022 press statement revealed that DOD is going to expand its dispersal fueling at sea capability to accommodate the removal of Red Hill from the Pacific fuel network.

Austin said, "After close consultation with senior civilian and military leaders, I have decided to de-fuel and permanently close the Red Hill bulk fuel storage facility in Hawaii. Centrally located bulk fuel storage of this magnitude likely made sense in 1943, when Red Hill was built. And Red Hill has served our armed forces well for many decades. But it makes a lot less sense now.

The distributed and dynamic nature of our force posture in the Indo-Pacific, the sophisticated threats we face, and the technology available to us demand an equally advanced and resilient fueling capability. To a large degree, we already avail ourselves of dispersed fueling at sea and

ashore, permanent and rotational. We will now expand and accelerate that strategic distribution."

However, during the Trump Administration, US Maritime Administrator Rear Admiral Mark Buzby warned Congress repeatedly that the US Merchant Marine did not have enough tankers or qualified merchant mariners to fight even a limited war.

U.S. Merchant Marine experts say the decision to close Red Hill doesn't take into account the age and status of the U.S. Military Sealift Command tanker fleet, the ships responsible for at-sea refueling of both ships and aircraft. Shipbuilding experts find it very unlikely that Austin will be able to find the funding or the shipyards need to build a fleet of merchant tankers with "equally advanced and resilient fueling capability.

In response, Congress passed an emergency measure in 2021 called the U.S. Tanker Security Program. In this bill, the United States pays both private companies like Maersk a stipend to reflag their tankers "American."
"The tanker security measure was an emergency stop-gap measure," said one MARAD official the online news blog gCaptain interviewed. "It barely meets the most basic needs of our military and in no way can replace the capabilities at Red Hill. The Secretary of Defense is either completely misinformed or delusional if he thinks otherwise."

Poor planning by the Department of Defense is no reason to continue to jeopardize the drinking water of the citizens of O'ahu. Red Hill jet fuel storage tanks must be shut down quickly ….and not in nine years!

Thank you for the opportunity to express my views.

Colonel Ann Wright
[redacted]
Honolulu, HI 96826
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Ann Wright
Dissent: Voices of Conscience
www.voicesofconscience.com

From: [redacted]
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] D-1
Date: Monday, May 16, 2022 11:18:36 AM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Thank you,
Harvey Arkin
Manoa

From: Greg Puppione
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Shut Down Redhill
Date: Monday, May 16, 2022 11:27:17 AM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Thank you,
Greg Puppione
Honolulu, HI

From: Lory Ono
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Navy and the water crisis
Date: Monday, May 16, 2022 11:35:27 AM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Thank you,
Lory Ono

From: Kevin Ruddell
To: DLNR.CW.DLNRCWRM
Cc: raeann.p.hyatt@hawaii.gov?subject=
Subject: [EXTERNAL] Testimony for Water Commission
Date: Monday, May 16, 2022 11:38:22 AM

Sir / Ma'am,

I am concerned about the pumping of the contaminated groundwater from the aquifer into the Hālawa stream. The water should be pumped into a location where the water could percolate back into an aquifer and be retained on the island for future use. It seems like a waste of a scarce resource (fresh water) without attempting to preserve any aspect of it on the Navy's part. The water in the aquifer belongs to the State of Hawaii and its citizens and pumping into the stream seems cruel and wasteful by the Navy of a resource that is not theirs to waste. Even if the Navy must clean or treat the water before allowing it to percolate back into the environment, at least we retain some of the water. As our island anticipates potential water shortages in the months and years ahead, I ask you to uphold your constitutional and moral obligations and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Additionally, I am concerned about the Navy's future defueling operations. No leak was ever shown in the tanks themselves. That seems to indicate that the leak(s?) are from the pipes. While the situation needs to be addressed quickly, if we force the Navy to use existing pipes without requiring the Navy to check and repair the pipes before defueling operations commence, we may cause a greater problem than the current one. I do not trust the Navy to look out for the public interest. It is not in their "wheelhouse" or in their leaders' personnel interests.

Also, a threat of penalty needs to be imposed if due to any action or inaction by the Navy, the Navy causes or permits further leaks or discovers unreported previous leaks. The penalty needs to be in the form of forced additional remediation by the Navy at Navy cost or the construction of a desalinization plant on Navy owned land or land the Navy must purchase in order to make up for the lost freshwater access. Also at Navy cost. The Navy must be held liable for any future water shortages caused by their actions and be required to remediate or provide alternate fresh water sources is the best penalty. Fining the Navy may permit the monies to go elsewhere rather than address the problem.

Respectfully,

Kevin Ruddell
Ewa Beach, HI

From: Cory Harden
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Red Hill
Date: Monday, May 16, 2022 11:41:21 AM

Aloha commissioners,
Please force the military to shut down Red Hill , clean up the contamination, and stop destroying the village in order to save it!
Mahalo,
Cory Harden, Hilo

Sent from my iPhone

From: Mari Mennel-Bell
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Water issues
Date: Monday, May 16, 2022 11:50:08 AM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Thank you,
Mari Mennel-Bell
Lauderdale-by-the-Sea Florida

From: Jennifer Valentine
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] cwrm meeting
Date: Monday, May 16, 2022 11:55:04 AM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Thank you, Jennifer Valentine

From: Alison Jean Bailes Bhattacharyya
To: Hyatt, RaeAnn P
Subject: [EXTERNAL] Testimony for the Commission on Water Resource Management
Date: Monday, May 16, 2022 11:56:15 AM

Dear Water Commissioners:

We need to ask the Commission on Water Resource Management to be proactive about drilling a replacement well for the Halawa shaft. It was accurately predicted by Ernest Lau in 2014 that Red Hill was a disaster waiting to happen. No action was taken by the Navy, the EPA, or the State DOH, despite repeated warnings, until the fuel leak happened, and now it looks like it's permanently damaged the aquifer. The Navy repeatedly insisted in numerous documents and made numerous statements that the Red Hill fuel facility was safe. Even now, residents are complaining about visible fuel in their water.

I don't think we can trust the current institutions to say whether or not the aquifer is damaged for the long term and assume that the water is no longer safe to drink and will not be for the next 100 years or however long it takes to flush the fuel.

We need to allocate funds for immediately replacing this well, and streamlining the approval process so that we can mitigate the impact of the fuel leak and secure our future water supply. The Board of Water supply should be already planning for the replacement of the Halawa well.

Alison Bhattacharyya
[redacted]
[redacted]
Honolulu, HI 96817

Sent from Mail for Windows

From: Janice Glennie
To: DLNR.CW.DLNRCWRM
Cc: Perry, Thu
Subject: [EXTERNAL] Item D-1 Navy fuel storage facility at Red Hill
Date: Monday, May 16, 2022 12:03:18 PM

Aloha Chair Case and Members of the Water Commission,

The navy's history of contamination to our aquifer has severely damaged our most precious public trust resource — and the public's trust in government, particularly the military.

As you consider potential modifications to the Navy's Water Use Permit Applications, please make sure the the Navy's use of our island's water is strictly controlled and that those restrictions are based on protection of that most precious resource and the people who depend upon it for their existence and quality of life. Anything less than full transparency and disclosure will not be acceptable or accepted. The Red Hill Bulk Fuel Storage Facility must be completely defueled and decommissioned so that the water crisis the Navy caused is pau, once and for all.

Mahalo for using your intregity to make these critical decisions.

Sincerely,
Janice Palma-glennie
Kailua-kona

From: C Keoahunui Uale Warrington
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Ola I Ka Wai
Date: Monday, May 16, 2022 12:13:05 PM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Mahalo nui,

C. Keoahunui Uale Warrington
Resident-Moanalua Valley, O'ahu

Sent from my iPhone

From: canoezoo
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Red Hill
Date: Monday, May 16, 2022 12:43:35 PM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

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Thank you,

Mary Harbold

Sent from my iPad

From: Carla
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Please Help Shut Down Red Hill
Date: Monday, May 16, 2022 12:48:42 PM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

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Thank you,

Carla Allison

Honolulu

From: HH M
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Testimony on Item D-1, May 17 2022 Meeting
Date: Monday, May 16, 2022 1:55:05 PM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

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Thank you,
Hannah Matsunaga

From: Dylan Ramos
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Written testimony for 5/17/22 Item D-1
Date: Monday, May 16, 2022 2:05:11 PM

Aloha,

There is little I can say that hasn't already been said or isn't abundantly clear for anybody aware of our water crisis, so I will simply restate for emphasis the Sierra Club of Hawai'i's perfectly reasonable request made on behalf of all people and things dependent on O'ahu's water:

As you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Mahalo,
Dylan Ramos
96816

SIERRA CLUB OF HAWAIʻI

Testimony to
COMMISION ON WATER RESOURCE MANAGEMENT

May 17, 2022 9 AM Room 132

COMMENTS on D-1:

Status Update and Recommendations from the Red Hill Permitted Interaction Group on the Scope of Work Approved at the January 7, 2022 Meeting

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Aloha Chair Case and members of the Water Commission,

The Sierra Club of Hawaiʻi, on behalf of its 20,000 members and supporters, offers the following **comments** concerning agenda item D-1, including additional recommendations to mitigate the impacts of groundwater withdrawals needed to address the current contamination crisis, and to prevent the further, potentially catastrophic contamination and waste of our primary groundwater resource.

As an initial matter, the Sierra Club does greatly appreciate the work done by the PIG and Commission staff over the past several months. Nonetheless, while much has changed since the PIG was first formed, much still remains the same. This includes: the ongoing presence of over 100 million gallons of fuel in 80-year-old, actively corroding tanks a mere 100 feet above our groundwater aquifer; the lack of information regarding the integrity of the facility, including the structural integrity of its fuel tanks, their concrete foundations, and their ability to prevent fuel from being released in the event of an earthquake, fire, human error, or combination thereof; the lack of any concrete or specific timeline as to when the Facility will be defueled; the lack of sufficient groundwater and contaminant fate and transport models to determine where the present and potential future contamination plumes may move; and the lack of a workable or proven response plan if and when another, potentially catastrophic release occurs.

Meanwhile, since the Red Hill shaft resumed pumping in late January, over half a billion gallons of water have been extracted from our aquifer and dumped into Hālawa stream, untold millions of gallons of water have been used to repeatedly “flush” the Navy’s water system for 100,000 people, and the ongoing impacts to permitted uses and public trust purposes of water within the Honolulu and Pearl Harbor Sectors may only be exacerbated due to continued contamination and probable water shortages.

As the primary trust agency tasked with protecting and managing our islands’ most precious resource, the Water Commission must use any and all tools in its disposal to mitigate the impacts to our water supply and other water use permit holders that have

and will continue to occur in order to respond to the current contamination crisis; moreover, the Commission must also do whatever it can to motivate an appropriate amount of urgency in the Navy's actions to defuel the Red Hill Facility. Accordingly, the Sierra Club respectfully urges the Commission to make the following demands of the Navy whether as conditions of its water use permits, via resolution, or other appropriate mechanism:

1) A comprehensive and quantified accounting of all water uses by the Navy water system must be provided on a monthly basis, beginning no later than July of this year;
2) Unless and until the Red Hill Bulk Fuel Storage Facility is defueled and decommissioned, our groundwater aquifer is remediated, and the current contamination crisis is deemed resolved with respect to the impacts to our water resources:
    a. No public trust water shall be used for uses by the U.S. Navy not essential to health and safety, including but not limited to landscaping, golf courses, swimming pools, car washes, or other inappropriate uses;
    b. A 24-hour hotline maintained by the Navy shall be maintained to help identify potential water waste and inappropriate uses of water from the Navy's water system, and any water waste complaints shall be addressed promptly; a monthly report of all hotline calls and detailed information regarding the Navy's response to such calls shall be provided to the Commission;
    c. All reports and information relating to the contamination status of our groundwater aquifer shall be fully disclosed to the Commission and the public; and
    d. A monthly public briefing and question-and-answer session shall be held for the public to ask questions to and receive answers from leadership from Indo-Pacific Command, Joint Base Pearl Harbor Hickam, NAVFAC, and other agencies tasked with any actions necessary to defuel the Red Hill Facility, as well as any residential property managers with management authority over properties served by the Navy's water system.

Mahalo nui for your consideration of this testimony.

Sincerely,

Wayne Tanaka, Director

Sierra Club of Hawai'i

From: Lorna Holmes
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Red Hill
Date: Monday, May 16, 2022 2:54:19 PM

Aloha DLNR,

Please save Oahu's water from the Navy. Their contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious resource. Now our island anticipates potential water shortages in both the immediate and distant future; the continued presence of over one hundred million gallons of fuel in Kapūkakī also threatens to poison additional billions of gallons of fresh water. We must rely upon you to prohibit any nonessential uses of water by the Navy, until they remove the threat to our water supply and our water crisis is fully resolved. So far, they have been in no hurry.

In order to get them moving, a prohibition on any Navy water uses not essential for health and safety, including landscaping, car washes, swimming pools and golf courses, would be helpful. They should also be required to make regular water use reports. We need a hotline, and set investigative procedure, for water waste complaints. The Navy must show full transparency and disclosure of all reports (and any other information) regarding the safety of our water. This must happen now, and continue until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Mahalo for your consideration,

Lorna Holmes

Honolulu 96817

From: Tlaloc Tokuda
To: Perry, Thu; DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Kick the Navy off of Red Hill and install the DOH!
Date: Monday, May 16, 2022 4:08:45 PM

The Navy lies and procrastinates, Kick them off the hill! To date, over **half a billion gallons of water** have been pumped from our aquifer and dumped into Hālawa stream, just to try to keep the Red Hill contamination plume from migrating and contaminating other drinking water wells; millions upon millions of gallons of water have likewise been used to repeatedly "flush" the Navy's drinking water system for nearly 100,000 people - many of whom are still reporting acute illness and sheens in their tapwater ; and we may never know how many additional millions of gallons of our once-pure groundwater have been rendered undrinkable by the contamination itself. Meanwhile, we all face potential water shortages and conservation mandates for the months and years ahead, thanks to the Navy's failure to prevent this foreseeable disaster, and to complete the groundwater and contaminant fate and transport models it promised to create seven years ago.

DOH should be looking after our water resources not incompetent Navy personal! As the overseer of our most precious resource, tasked with ensuring that our public trust water is appropriately used and protected from waste, the Water Commission must act to place conditions on the Navy's water use permits, to prohibit any and all nonessential uses of water, and to motivate Navy and military leaders to treat the ongoing threat of catastrophic contamination of our water supply with the urgency it requires.

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

I am a member of the Sierra Club (Hawaii) and agree with a lot of what they stand for and their policies. So though these are not my original words they are what i feel!

Mahalo for your consideration,
Tlaloc Tokuda
Kailua Kona HI 96740

PS From the early 60, to the 70s and 80s i lived around the UH

From: Kate Paine
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Testimony Red Hill
Date: Monday, May 16, 2022 4:41:31 PM

Dear Chair Case and Members of the Water Commission,

This situation is more than dire.
Hold military feet to the fire.

You, in gvmnt whose duty it is to protect our resources have let this condition go beyond healthy.

Drain and shut down and assess now.

Kate here!
Kate Paine
Coolidge St N'hood Watch.

From: Tsuyuno Amos
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Written Testimony regarding Red Hill
Date: Monday, May 16, 2022 7:15:16 PM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy--including for RIMPAC games--unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with RIMPAC, landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Thank you,

Tsuyuno Amos

From: Vikki Pahia
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Water contamination
Date: Monday, May 16, 2022 7:23:43 PM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Mahalo,

V Pahia

From: [redacted]
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] Written Testimony, D-1, for Water Commission Meeting May 17, 2022, 2 pm
Date: Monday, May 16, 2022 9:46:28 PM

Dear Chair Case and Members of the Water Commission,

The Navy's contamination of our groundwater aquifer has already led to the waste of hundreds of millions of gallons of our most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it is incumbent upon you to uphold your constitutional and moral obligations, and prohibit any nonessential uses of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis Navy has placed us in is over.

Thank you
Lois Berger

Sent from my iPad

From: dave mulinix
To: DLNR.CW.DLNRCWRM; Hyatt, RaeAnn P
Subject: [EXTERNAL] Testimony on Red Hill - Item D-1
Date: Monday, May 16, 2022 11:04:55 PM

Aloha Chair Case and Members of the Water Commission,

As the citizens of Oahu face potential water shortages in the months and years ahead due to the spills and leaks of fuel from the Red Hill fuel storage facility that continues to threaten our fresh drinking water, it is incumbent upon the commission to uphold your constitutional and moral obligations, and prohibit any use of water by the Navy until the threat to our water supply is removed, and our water crisis is fully resolved. The citizens of Oahu should not have to suffer from the Navy's disregard for public health and safety and the mismanagement of Red Hill.

Please ensure that the Navy's use of our island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses, including landscaping, car washes, swimming pools, golf courses, and all other uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, our groundwater aquifer is remediated, and the water crisis the Navy has placed us in is over.

Mahalo for your kind attention,
David Mulinix
[redacted]
Kaneohe, Hawaii 96744

From: Deshera Hancock
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] WATER COMMISSION MEET -PLEASE READ
Date: Tuesday, May 17, 2022 4:17:32 AM

Dear Chair Case and Members of the Water Commission,
The Navy's contamination of O'ahu's groundwater aquifer has already led to the waste of hundreds of millions of gallons of the island's most precious public trust resource. Just in its effort to keep its contamination plume from migrating, the Navy will have pumped and dumped into Hālawa stream over a billion gallons of water in a few months' time. And as our island anticipates potential water shortages in the months and years ahead, and as the continued presence of over one hundred million gallons of fuel in Kapūkakī threatens to render additional billions of gallons of pure, fresh water undrinkable, it **is incumbent upon you to uphold your constitutional and moral obligations**, and prohibit any nonessential uses of water by the Navy unless and until the threat to O'ahu's water supply is removed, and this water crisis is **fully resolved**.

Accordingly, as you consider potential modifications to the Navy's Water Use Permit Applications, please ensure that the Navy's use of the island's water is conditioned on a full and quantified accounting of its water uses; a prohibition on any uses not essential for health and safety, including uses associated with landscaping, car washes, swimming pools and golf courses, and any other nonessential uses; regular water use reporting requirements; the establishment of a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and **full transparency and disclosure** of any and all reports and other information regarding the safety of the water – unless and until the Red Hill Bulk Fuel Storage Facility is completely defueled and decommissioned, the groundwater aquifer is remediated, and the water crisis the Navy has placed O'ahu in is over.

Thank you,

DeShera Amaral

From: Jamie Simic
To: Hyatt, RaeAnn P
Cc: Jamie Simic
Subject: [EXTERNAL] Testify subject D1
Date: Tuesday, May 17, 2022 8:21:08 AM

Hi my name is Jamie Simic, I lived on the island from 2003to2017 2020 to 2022. I came on vacation and met my husband who is a military service member, a week before I was leaving the island and both of my children were born on the military's water line.

I have called and reported the issues that my family experienced in island since Nov and Dec regarding Hiclam/Pearl Harborand waikiki and everything in between. I tried to hand over it's handover all the documentation that I have to no avail through the Navy,Army EOC BWS and the Department of Health as well as our congressional leaders to report that water and air is severely contaminated.

My family has suffered a litany of symptoms, and no medical care in island. We were evacuated out of our home Dec 3 and went to the hotel Dec 4th. My home was severe then and until we had no choice but to leave the island. When we evacuated to the hotel the double tree Hilton Waikiki we thought we were finally safe.. only to suffer worsening symptoms and clear n evident issues with our water to the point my daughter got a chemical burn much like the ones you see posted on social media the past couple weeks, and I landed in the hospital with tachycardia rhythms in my heart. I do have a retort filled with the hotel and video documentation to validate what I am saying. I desperately tried to get any one with authority to listen and I was completely silenced and my children were being denied basic medical care as well as any testing of the air quality or water but was being told to attempt these things in my own.

The contamination has never gotten better on island from the time we arrived in 2020 until we left 2022. My children and I will suffer the impacts of being in the island and the Navy's water line. We have a long road ahead of us, but I will continue to fight for the truth and would be more than willing to share any and all information I have to help in any way that I can. I will continue to try to shed light on this issue to help ensure that no one else has to walk the road that my children and I were forced to walk on due to these leaks of Red Hill.

Thank you for hearing my story,

Jamie E Simic

From: Stanford Masui
To: DLNR.CW.DLNRCWRM
Subject: [EXTERNAL] RED HILL
Date: Tuesday, May 17, 2022 10:16:58 AM

Chair Case and members of the Commission:

1).The commission may set terms and conditions for further use of water by the Navy including:

a) disclosure of all inspection reports to date (which have been withheld from the public); and

b). Adoption of deadlines not opposed by the Navy, of the DOH most recent emergency order establishing deadlines for the submission of a de-fueling plan and actual de-fueling of Red Hill. These deadlines are critical, as every day that passes places the aquifer at risk of further contamination.

Conditions set by this commission will add weight to the DOH emergency order, and make the Commission's terms and conditions consistent with the DOH order.

2). The Commission should also require the Navy to complete the groundwater and contaminant fate and transport models it promised to create seven years ago.

The experts and Board of Water Supply reportedly are reportedly "working blind", without complete information as to the extent and location of the contamination. There has never been any publicly-available report as to whether or not the existing contamination in the aquifer itself can be removed and/or remediated. The Navy as the responsible party must use all available resources to determine the available technical options for cleaning up the aquifer.

Thank you for your consideration.

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PLEASE NOTE NEW ADDRESS AND PHONE.
FAX AND EMAIL ARE THE SAME
STANFORD H. MASUI
P.O.B. 3406
Honolulu, HI 96801 Ph. [redacted] FAX: [redacted]
LAW OFFICES OF STANFORD H. MASUI

From: pete doktor
To: Hyatt, RaeAnn P
Subject: [EXTERNAL] public testimony CWRM mtg 5/17/22
Date: Tuesday, May 17, 2022 12:11:46 PM

Aloha `Āina e Committee and Members of the Water Commission,

Our Moanalua `ohana has been stressing out since the acknowledged spill of 2014, and the impact such contaminants could have on our keiki's development. These concerns have been validated by the latest poisoning of water users from military water delivery system — and how have become worse as we watch the continued foot-dragging by the Navy.

It is imperative the CWRM as the keepers of this precious public trust do everything possible to protect us from further damage and expedite this process of removing this ticking time bomb that has already exploded and is leaking as you read this testimony. We do not know how much, but we do know that it is leaking.

We resent the extreme volume of precious wai that the military has already wasted for their damage control. We are faced with a water usage crisis while the Navy is forced to use even more due to their negligence and incompetence. Please uphold your constitutional and moral obligations, and prohibit any nonessential uses, eg golf courses, landscaping, etc of water by the Navy unless and until the threat to our water supply is removed, and our water crisis is fully resolved. We need infrastructure like a hotline and investigative procedure for water waste complaints and other enforcement mechanisms; and full transparency and disclosure of any and all reports and other information regarding the safety of our water – now through this crisis, and importantly into the future, as long as the world's worst ecological polluter — the US military, occupies our islands. As a military veteran myself, I have come to see the biggest security threat to my `ohana and our community's lives and livelihoods — not Russia or other bad actors, and that we locals must fight to defend our `āina from this unaccountable, uncontrollable Goliath that is our more imminent public health and safety risk.

Ē Mālama Pono,

Pete Doktor
Wai Ola Alliance, Veterans for Peace Hawai`i Ch. 113
Moanalua

From: Sweet-T 808
To: Hyatt, RaeAnn P
Subject: [EXTERNAL] Virtual testimony for item D-1
Date: Tuesday, May 17, 2022 12:52:25 PM

Hello. I am here as a keiki of the land. I am here as a mother and a steward of Hawai‘i Pae ‘Āina. You all do not deserve for me to greet you with "Aloha", there's is nothing you all have done to deserve that.

We thank you for having this meeting to LISTEN to us, and I pray you all really hear what we are saying, open your heart and mind, and really LISTEN what we have been saying/screaming/yelling/crying about for many years. Water is Life. No water, no life.

We all know now, more than ever, that the Navy has been polluting our lands, our oceans, our aquafer, our animals, the food we grow, and the people who live here. The heartbreaking part is not that the Navy did, and is continuing, to pollute the environment we expect nothing less than the biggest polluter/land destroyer in the world, but that DOH, EPA, USA, and all the other corrupt acronyms belonging to the USA knew as well. Interesting how the DOH changed the EAL levels of TPH from 50 ppm to 211 ppm, you do realize changing the numbers doesn't make it safe, just legal. Everything about this is A‘ole Pono!!

Now that everything is coming to light, you all are trying to keep things hush hush, as usual. Enough with all the red tape, bureaucracy, paperwork, and bs! CLEAN UP YOUR MESS, NAVY! Not just at red hill, but EVERYWHERE you have touched.

You do realize, according to international law, Hawai'i is under a "belligerent and illegal occupation by the U.S. Military and the United States of America." So basically you all have been committing war crimes since 1893! Well, WE ARE FED UP AND DONE WITH YOU ALL AND YOUR BS! It's time to clean up, pack up, and pay up.

Speaking of paying up, we, the residents of Oahu shouldn't have to pay the extra added expenses the Navy has caused. Meaning our water and electric bills are rising, thanks to the Navy. Many of us have purchased water filters, repiped our homes, new appliances that touched water, new water heaters, ANYTHING that the tainted water has touched.

Let's add tourism to the mix as well! Tell the puppet Governor to Shut Hawai'i down from tourism and from people moving here! They are contributing to our water supply lessening and creating a housing shortage for those that are trying to move away from the Navy water system, which is in turn causing others to be homeless.

The Navy's illegal occupation and leaking fuel tanks have not only caused harm to our finances, it has caused physical/mental/emotional problems as well. No amount of money can and will give us clean drinking water in our aquafer ever again! No thanks to the Navy! DOH, EPA, Federal government and the United States all share this responsibility and need to do what's right. Not what is in the best interest of "National Security".

This is Hawai'i!! Not America!! People over profits and most definitely over the egotistical and greedy excuse of "National Security". We didn't need the military or the United States back then, and we certainly don't need you all now. The only part we need is for you to clean up and get out! You all are nothing but a parasite to these lands and it needs to stop!! That is

all.

CWRM Meeting: May 17, 2022

To: Commission On Water Resource Management
From: Dr. Rebekah Garrison, Hawai‘i Peace and Justice

Good afternoon Commission,

My name is Rebekah Garrison and I am a member of the O‘ahu Water Protectors and the Shut Down Red Hill Coalition. I would like to begin by thanking the Commission On Water Resource Management for prioritizing the protection of the island’s most precious resource–clean, unpolluted drinking water. I would also like to thank the Permitted Interaction Group for all of your hard work prepping for today’s meeting. And, lastly, I would like to personally thank Deputy Director Kaleo Manuel for continuing to support and emphasize the importance of public commentary and engagement here and in other arenas, because as you all know, the public does not trust the military and their so-called leadership with respect to Kapūkaki, also widely known as Red Hill.

As protectors of wai, held in trust for all of us–the public–each of you have been bestowed a tremendous kuleana. This commitment, or rather, sacred duty made by all members of the Commision includes a willingness to remain steadfast, despite pressure to the contrary by any entity, to keep O‘ahu’s sole-source aquifer safe. By extension, you also have a kuleana to enforce regulation when agencies of the U.S. Federal Government, such as the U.S. military, causes harm to this island’s unique ecosystem and way of life. As an agency of the U.S. Federal Government, the U.S. Navy has breached Hawai‘i’s public trust in many ways. Be it lie after lie or release after release, the U.S. military in general and, U.S. Navy specifically, has been excised from our–the public’s trust–and we encourage the Commission to follow our lead. According to the State Water Code, “the people of the State are beneficiaries and have a right to have the waters protected for their use” (Hawaii Revised Statute [HRS], Ch. 174-C). Consider for a moment and as you all reflect later, that as an agency of the U.S. Federal Government, falling beyond the purview of Hawai‘i’s State Water Code, the U.S. military is not a beneficiary of this public trust, but rather, an envoy of roving agents lacking commitment to the island’s and peoples’ best interest. To this end, one legal option the Commission may consider pursuing is mandating the U.S. military abide by a different set of water use laws, regulations, and permits than “...the people of the State…”.

As noted by the Permitted Interaction Group, “The fuel releases at the Red Hill Bulk Fuel Storage Facility require the Commission to exercise its full authority and fiduciary responsibility to protect O‘ahu’s most important drinking water source from further contamination”. And, we, the people who call O‘ahu home and have no plans to bounce back to the continent agree.

Made abundantly clear these last few months and throughout the longue durée of the military’s presence in the Hawaiian archipelago, as an agency that thrives by virtue of its agents’ nomadism and therefore lack of commitment to any single location at any given time, we call on the Commission to create enforcement staff to:

1. Enforce the U.S. military match all civilian water conservation regulation, including prohibiting water use for landscaping, golf courses, car washes, and other nonessential purposes unless and until the aquifer is remediated and no longer under threat.

2. Hold the navy's use permits to conditions of shutting down the entire Red Hill Bulk Fuel Storage Facility and cleaning of the aquifer.
3. The Commission not bifurcate water quality and quantity issues and hear them together under the authority of the Commission.
4. Enforce the Department of Health to attend Commission meetings.

Thank you for the opportunity to provide public testimony.

Sincerely,

Rebekah Garrison
Hawai‘i Peace and Justice