

HOLLY M. SHIKADA, 4017
Attorney General of Hawai'i

DIANE K. TAIRA, 3761
WADE H. HARGROVE III, 7898
Department of the Attorney General, State
of Hawai'i
465 South King Street, Room 200
Honolulu, Hawai'i 96813
Telephone: (808) 587-3050

*Attorneys for Department of Health, State of
Hawai'i*

DAVID L. HENKIN, 6876
ISAAC H. MORIWAKE, 7141
KYLIE W. WAGER CRUZ, 10165
EARTHJUSTICE
850 Richards Street, Suite 400
Honolulu, Hawai'i 96813
Telephone: (808) 599-2436
dhenkin@earthjustice.org
imoriwake@earthjustice.org
kwager@earthjustice.org

Attorneys for Intervenor Sierra Club

DANA M.O. VIOLA, 6095
Corporation Counsel
JEFF A. LAU, 8577
(808) 768-5148
jlau3@honolulu.gov
Deputy Corporation Counsel
City and County of Honolulu
530 South King Street, Room 110
Honolulu, Hawai'i 96813
Facsimile: (808) 768-5105

Ella Foley Gannon (*associated as counsel*)
David K. Brown (*associated as counsel*)
MORGAN, LEWIS & BOCKIUS LLP
One Market, Spear Street Tower
San Francisco, CA 94105
Telephone: (415) 442-1000
Facsimile: (415) 442-1001
ella.gannon@morganlewis.com
david.brown@morganlewis.com

*Attorneys for Intervenor
Board of Water Supply,
City and County of Honolulu*

DEPARTMENT OF HEALTH

STATE OF HAWAII

In the Matter of the Emergency Order to
UNITED STATES NAVY

For Emergency Change-In-Service and
Defueling of 20 Underground Storage
Tanks, Red Hill Bulk Fuel Storage Facility

DOCKET NO. 21-UST-EA-02

DEPARTMENT OF HEALTH, SIERRA
CLUB, AND HONOLULU BOARD OF
WATER SUPPLY JOINT PROPOSED
FINDINGS OF FACT, CONCLUSIONS OF
LAW, AND RECOMMENDED DECISION;
CERTIFICATE OF SERVICE

DEPARTMENT OF HEALTH, SIERRA CLUB, AND HONOLULU
BOARD OF WATER SUPPLY JOINT PROPOSED FINDINGS OF FACT,
CONCLUSIONS OF LAW, AND RECOMMENDED DECISION

Pursuant to Chapter 91, Hawai‘i Revised Statutes (“H.R.S.”), and Section 11-1-22(a) of the Hawai‘i Administrative Rules (“HAR”), a contested case hearing was conducted on December 20 and 21, 2021 on the emergency order issued by the State of Hawai‘i Department of Health (“DOH”) to the United States Department of the Navy (“Navy”), Docket No. 21-UST-EA-02 (the “Emergency Order”).

The DOH, the Honolulu Board of Water Supply (“BWS”), and the Sierra Club, Hawai‘i Chapter (“Sierra Club”) hereby jointly submit the following Proposed Findings of Fact, Conclusions of Law, and Proposed Decision. To the extent any of the following Findings of Fact shall be determined to be Conclusions of Law, or any Conclusions of Law shall be determined to be Findings of Fact, they shall be deemed as such:

I. FINDINGS OF FACT

A. The Parties

1. The Navy is the owner and operator of the Red Hill Bulk Fuel Storage Facility (“Red Hill Facility”). *See* Exhibit B-1 at BWS000011.
2. The DOH is an agency of the executive branch of the government of the State of Hawai‘i, created and existing pursuant to Hawai‘i Revised Statutes Section 26-13 and Chapter 321. The DOH has authority under Hawai‘i Administrative Rules Chapter 280.1 and emergency powers under H.R.S. Chapter 342L to regulate underground storage tanks (“USTs”).
3. The BWS is the largest municipal drinking water utility in the State of Hawai‘i and is responsible for managing O‘ahu’s municipal water resources and distribution

system. *See* Written Testimony of Erwin M. Kawata (“Kawata Test.”), ¶¶ 6-7. The BWS’ mission is to provide safe, dependable and affordable water now and into the future. *Id.* at ¶ 6.

4. The Sierra Club is an organization with more than 2,700 dues-paying members who live on O‘ahu and depend on the clean drinking water from the sole source aquifer that underlies the Red Hill Facility. Declaration of Wayne Tanaka, ¶ 5. (filed Dec. 18, 2021) (“Tanaka Hearing Decl.”). The Sierra Club’s mission includes the protection of natural resources, including the purity of groundwater. *Id.* at ¶ 6.

B. History and Description of the Red Hill Bulk Fuel Storage Facility

5. The Red Hill Facility is located on the island of O‘ahu, Hawai‘i, approximately 2.5 miles northeast of Pearl Harbor. *See* Exhibit B-2 at BWS000489. It occupies approximately 144 acres of land along the western edge of the Ko‘olau Range situated on a topographic ridge that divides the Hālawā Valley and Moanalua Valley. It consists of twenty field-constructed USTs as well as pipelines and other infrastructure. *See* Kawata Test. at ¶¶ 10, 12; Exhibit B-2 at BWS000489.

6. In addition to the twenty USTs, the Red Hill Facility includes seven miles of tunnels with 29 miles of pipelines, ventilation systems with air intakes and exhaust portals, a pumphouse, control room, surge tanks, slop oil and oil recovery facilities, and a pier that can fuel ships. *See* Exhibit N6-L at N01217-22.

7. The twenty USTs were constructed during the early 1940s by mining into the ridge to create cavities for concrete tanks lined with ¼ inch steel plates welded together. *See* Exhibit D04 at 17. The USTs are constructed of concrete lined with steel, with the floor constructed out of ½ inch steel and walls constructed of ¼ inch steel. *Id.* at 18. The lower dome is surrounded by reinforced concrete that has a minimum thickness of 4 feet, except for the 20-

foot diameter flat bottom plate at the center of the lower dome which sits on top of a plug of concrete approximately 20 feet thick. *Id.* at 18, 100. The reinforced concrete surrounding the cylindrical barrel of the UST is an estimated minimum of 2.5 to 4 feet of concrete. See Exhibit D04 at 18. The entire UST system is surrounded by basalt bedrock. See Exhibit B-81 at BWS008932. The bottoms of the USTs are located approximately 100 feet above a groundwater aquifer used as a drinking source by the BWS and the Navy. See Kawata Test. at ¶ 15; Exhibit B-1 at BWS000011.

8. There is no corrosion protection on the outside surface of the steel liner of the Red Hill Facility USTs, as it was not and cannot be painted, coated, or cathodically protected. See Updated Testimony of Dr. David M. Norfleet (“Norfleet Test.”), Exh. A (“Norfleet Expert Report”) at iii-iv, 16; *see also* Evidentiary Hearing, DOH v. Navy, Dkt. No. 21-UST-EA-02 (Emergency Order), Recording 1 (“Hearing Recording 1”), 1:18:20 (DOH witness Dr. Noa Klein confirming that a destructive testing report received by the DOH demonstrates that the USTs do not meet regulatory requirements for corrosion protection).

9. The outside of the USTs, the concrete shell, and the surrounding gunite cannot be accessed and have not been repaired, maintained, or upgraded since the original construction nearly 80 years ago. See Exhibit S-20 at S000988 (“the concrete containment cannot be maintained”).

10. Each UST is approximately 250 feet tall, 100 feet in diameter, and provides a fuel storage capacity of up to 12.5 to 12.7 million gallons of jet or marine fuel. See Kawata Test. at ¶ 12; Exhibit B-81 at BWS008932; Exhibit D04 at 17 (noting that tanks have a nominal storage capacity ranging from 285,148 to 301,934 barrels each).

11. The Navy stores marine diesel (F-76) and two types of jet fuel, JP-5 and JP-8, at the Red Hill Facility USTs. *See* Exhibit B-2 at BWS000489. .

12. Two of the USTs (Tanks 1 and 19) are permanently empty and are no longer in use. *See* Declaration of James G. Meyer (“Meyer Decl.”), ¶ 19. Another four USTs are currently empty as part of the Navy’s ongoing clean, inspect, and repair program. *See id.*; Evidentiary Hearing, DOH v. Navy, Dkt. No. 21-UST-EA-02 (Emergency Order), Recording 2, 02:39:30 (“Hearing Recording 2”) (Navy witness Capt. James G. Meyer stating that “four of those are usually out of service for clean, inspect, repair or the TIRM process and so right now there are 18 minus 4, so the 14 tanks active [sic].”). The Navy generally stores fuel in 14 or 15 USTs at the Red Hill Facility, with a total capacity of over 187 million gallons of fuel. *See* Norfleet Expert Report at 3.

13. The USTs are connected to three pipelines that run for approximately 2.5 miles through an underground access tunnel to the underground pumphouse at Pearl Harbor. The fuel can be moved from the Red Hill Facility USTs to Pearl Harbor via gravity. A pumping station controls tank filling and dispenses fuel to ships and Hickman Airfield. *See* Exhibit N6-L at N01217-22.

C. O‘ahu’s Irreplaceable Sole-Source Aquifer

14. The Red Hill Facility sits directly above O‘ahu’s federally designated sole-source groundwater aquifer, the Southern O‘ahu Basal Aquifer. In 1987, the U.S. Environmental Protection Agency (“EPA”) determined that this aquifer is the “principal source of drinking water” for the island and that “[i]f contaminated, would create a significant hazard to public health.” Exhibit S-15 at S000041. The EPA further found that “[t]here is no existing alternative drinking water source, or combination of sources, which provides fifty percent or

more of the drinking water to the designated area, nor is there any demonstrated available alternative future source capable of supplying the area's drinking water needs." *Id.* The EPA identified "military ... sources" among the "main threats to the quality of the basal aquifer." *Id.*

15. The Southern O'ahu Basal Aquifer is irreplaceable. The aquifer is fresh and highly vulnerable to contamination. *See* Kawata Test. at ¶ 16; Exhibit B-4 at BWS000568. The sole source aquifer has been contaminated, and there has been significant impact on the available drinking water available for the citizens of and visitors to O'ahu. *See* Exhibit B-423 at BWS052577; Kawata Test. at ¶ 19 ("Numerous leaks from the RHBFSF USTs have been documented and sampling from under and around the RHBFSF has demonstrated the existence of petroleum contamination in the very aquifer that sustains our island's water supply.").

16. The BWS draws on the same aquifer that underlies the Red Hill Facility to supply drinking water to residents from Moanalua to Hawai'i Kai. *See* Kawata Test. at ¶ 18. Seventy-seven percent of the total island-wide water supply comes from the Southern O'ahu Basal Aquifer. *See* Exhibit B-423 at BWS052577 ("The Sole Source Aquifer is dominated by one major hydrogeologically-connected groundwater area identified by the United States Geological Survey as the 'Southern Oahu Groundwater Area.'"). This is an area that could be impacted by fuel releases from the Red Hill Facility. *Id.* at BWS052578.

17. Fuel releases from the Red Hill Facility have not yet caused any measurable impacts to the drinking water supplied by the BWS. *See* Kawata Test. at ¶ 38 ("Testing conducted to date indicates that the water served from the BWS' drinking water wells remains compliant with standards for safe drinking water."). However, the groundwater under the Red Hill Facility has been impacted by Navy operations. *Id.* at ¶ 34 ("Groundwater testing data collected by the Navy since 2005 show petroleum contamination present in the groundwater

and rocks underneath the [Red Hill Facility]”); Exhibit D16 at 5 (“[J]et fuel has likely impacted groundwater beneath the tank farm and beyond both from the 2014 release and prior releases”); Exhibit D16 at 4-5; Exhibit B-409 at BWS043460 (water samples from the Navy’s Red Hill Shaft drinking water well detecting diesel range organics as high as 140,000 micrograms per liter (µg/L)). Given that the drinking water supply and the groundwater under the Red Hill Facility come from the same aquifer (Exhibit B-423 at BWS052577), the drinking water supply could continue to be impacted in the future.

18. The environment that underlies the Red Hill Facility is a highly complex and sensitive environment. *See* Exhibit B-422 at BWS052483, BWS052495-506. While the Navy has completed some studies of the subsurface environment, the evidence in the record is not sufficient to understand the ultimate fate and transport of all the contaminants that have been, and continue to be, released from the Red Hill Facility. *See* Exhibit B-422 at BWS052507 (stating that limitations in Red Hill’s monitoring networks result in conclusions about the safety and operations at Red Hill as “premature and speculative.”); Hearing Recording 1 at 2:24:32 (DOH witness Ms. Fenix Grange testifying that there is “a lot of uncertainty ... and contradiction between ... measured data [from ground water monitoring wells] and modeled data” by the Navy); Exhibit D18 at 5-7, 17 (stating that the Navy, in its conceptual site model, continues “asserting interpretations and conclusions that lack scientific defensibility, are uncertain and non-conservative,” “dismissing or redefining important data sets,” “making blanket assertions to support specific interpretations while providing insufficient supporting data,” and “drawing conclusions from inappropriate or inconclusive tests”); *see also* Exhibit B-422 at BWS052483 (“The Navy has failed to install an adequate monitoring network to understand the location and

extent of the fuel present in the subsurface environment or to determine where this fuel has and will go.”).

19. The subsurface environment includes various geological formations which are intermixed and form complex pathways for fluids and vapors, including released fuel and fuel constituents, to move through the subsurface and reach the aquifer below the Red Hill Facility. *See* Exhibit B-422 at BWS052488 (“The complex subsurface, characterized by a complicated network of high-speed pathways that can distribute the contaminants, does not prevent the fuel constituents from reaching the Sole Source Aquifer.”), BWS052500 (“These lavas, clinker zones, and lava tubes are found intermixed, forming complex pathways for fluids to move through the subsurface.”), BWS052502 (“Fractured, volcanic rocks have unique characteristics in that water and contaminants (liquid and vapor) travel in discrete pathways that may be highly spatially variable, fragmented, and discontinuous, and directionally dependent.”). This means that: (1) it is difficult to determine with precision where releases have traveled and will travel; and (2) there are nonetheless undeniably pathways through which releases reach the sole source aquifer. *See* Exhibit D17 at 51-56. Accordingly, the evidence in the record establishes that fuel released from the Red Hill Facility presents a risk to the groundwater underlying the Red Hill Facility and the sole source aquifer generally. *See* Exhibit B-422 at BWS052514 (“The fact that the released fuel is present in the environment and can reach the Sole Source Aquifer is apparent from an examination of rock cores removed from under the Tank Farm, evaluation of vapor sampling results, and analysis of groundwater trend data.”); Exhibit D20 at 400 (soil boring gross contamination); Exhibit D21; Exhibit D16 at 30-31.

D. Releases from the Red Hill Facility to the Environment

20. There have been numerous episodic releases from the Red Hill Facility over the past 80 years. *See* Exhibit B-81 at BWS008933; Exhibits D28-D30; Norfleet Expert Report, at 8-10; Exhibit S-22 at S001450, S001454, S001457, S001571; Exhibit S-27 at S003397 (“there are leaks during normal operation”); Exhibits B-10; B-15; B-193; B-196; B-198; B-232; B-276; B-296; B-306; B-307. Fuel releases have been a constant since the Red Hill Facility became operational in the 1940s and have continued to occur as recently as November 2021. *See* Norfleet Test. at Exh. B. It is estimated that there have been at least 76 fuel release incidents at the Red Hill Facility involving nearly 200,000 gallons of fuel. *See id.* at ¶ 10.a, Exh. B.

21. The evidence shows that it is likely that not all releases have been documented and that not all documented releases have volume estimates. Therefore, it is more likely than not that the identified 76 fuel release incidents and the nearly 200,000 gallons estimated to have been released into the environment are both underestimates of the total number of release incidents and the total volume of fuel that has been released historically from the Red Hill Facility. *See id.* at ¶ 10.a; Norfleet Expert Report at 8-9.

22. In January 2014, the Navy reported a release into the environment of approximately 27,000 gallons of fuel from Tank 5. This release occurred during the filling of Tank 5. During the filling, alarms were triggered but operators presumed the alarms were falsely activated and did not immediately react. Although the release occurred between December 12, 2013 and January 6, 2014, the Navy did not verbally report the release to the DOH until January 13, 2014. *See* Exhibits B-1; B-6. Based on this evidence, it appears that the Navy did not have in place at that time procedures to ensure timely response to and notification to the DOH of releases that could threaten the environment.

23. A few months before the Tank 5 fuel release occurred, Tank 5 had undergone and passed a tank tightness test. *See* Meyer Decl. at ¶ 20 (“Since the Navy began its Tank Tightness Testing regimen, no Red Hill Tank has failed a Tank Tightness Test.”). This demonstrates that, while tank tightness testing may show that a tank is “tight” at the time of a test, it is not necessarily predictive of future conditions that may be present. *See* Hearing Recording 2 at 03:08:58, 03:15:58 (Navy witness Capt. James G. Meyer confirming that tank tightness is only a “snapshot in time that tells you that it’s tight,” and that “the movement [of fuel] to Tank 20 was definitely to fill up the tank in order to test it” as part of the tank tightness testing process prior to the May 6 release); Norfleet Expert Report at 67; Kawata Test. at ¶ 20 (“In the course of refilling Tank 5 with JP-8 after scheduled maintenance in late 2013 and early 2014, a fuel release was discovered by the Navy.”).

24. Although the Navy asserts that the Red Hill Facility was designed to have multiple layers of protection between the fuel and the environment, vast quantities of fuel have been released over the years, including the 2014 release from Tank 5 and at least four releases in 2021. *See* Norfleet Test. at ¶ 12.a, Exh. B. These releases have adversely impacted the environment as is evidenced by detection of fuel and fuel constituents in the Navy’s drinking water supply, the groundwater under the Red Hill Facility, and the soil vapor monitoring probes in the rocks beneath the facility. *See* Kawata Test. at ¶ 19; Exhibit B-409 at BWS043460; Exhibit B-422 at BWS052514. The fuel could only reach the environment by moving through the tank, piping, or tunnel walls, and the concrete, grout, and gunite that surrounds the USTs at the Red Hill Facility. *See* Norfleet Expert Report at 3 (there are pathways for leaked fuel to reach the environment as the concrete structure provides structural support, not fluid containment). Therefore, it is found that these structural layers do not provide a meaningful

barrier between fuel released from the USTs and the environment. The only true barriers for the USTs are the corroding steel liners. The only true barriers for pipelines directly connected to the USTs and throughout the Red Hill Facility are the pipe walls themselves.

25. Over the past two years, there have been several fuel releases into the environment from the pipelines at the Red Hill Facility. Specifically, there was an active fuel release that occurred at the Red Hill Facility's Hotel Pier from March 2020 through July 2021 (*see* Exhibit B-410), a pressure surge event resulting in the release of an initially reported 1,600 gallons of jet fuel from supply piping in the lower access tunnel tanks during the refilling of Tank 20 on May 6, 2021 (*see* Exhibits B-411, B-412, B-413), a fuel release from a corrosion-induced hole in a pipeline at the Red Hill Facility's Kilo Pier on July 16, 2021 (*see* Exhibit B-414), and a release of a supposed 14,000 gallons of a mixture of fuel and water at the Red Hill Facility from the Navy's fire suppression system on November 20, 2021 (*see* Exhibit B-415).

26. The Navy has since indicated that the May 6, 2021 release was not 1,600 gallons as previously reported, but potentially more than 19,000 gallons. *See* Hearing Recording 2 at 03:13:01 to 03:13:45, Testimony of Capt. James G. Meyer (Q. "Do you see there that it says Tank 12's net volume dropped 473 barrels, bbl or barrels, over 50 seconds?" A. "Yes." Q. "Do you have any indication what happened to those 473 barrels?" A. "Yes, again that is part of the investigation. I and others have a working theory that's still under investigation that that fuel was, at least some of that was released into the lower tunnel by Tanks 18 and 20. And that is how fuel entered the A Triple F recovery system, and was pumped into A Triple F's recovery line." Q. "And just to be clear, my understanding is barrels, is 42 gallons in a barrel, is that correct?" A. "Yes." Q. "And so if we do the math it ends up being somewhere in a little bit in excess of

19,000 gallons of fuel we would be talking about there, is that correct?” A. “That’s roughly correct, yeah.”).

27. The amount of total petroleum hydrocarbons as diesel (TPH-d) present in certain samples from the Navy’s Red Hill Shaft, Red Hill Monitoring Well No. 2, and other monitoring wells currently exceed existing DOH environmental action limits (EALs) for gross contamination and drinking water toxicity, which are 500 µg/L and 400 µg/L respectively, and certain monitoring wells have exceeded those limits since 2005. *See* Kawata Test. at ¶ 36; Exhibit B-16 at BWS005977. The EAL is the amount below which the contaminants are assumed to not pose a significant threat to human health or the environment. *See* Kawata Test. at ¶ 36.

28. The amount of TPH-d present in samples taken by DOH on December 5, 2021 from the Navy’s Red Hill Shaft drinking water well indicates that the Navy’s drinking water supply was contaminated with TPH-d levels as high as 140,000 µg/L. *See* Exhibit B-409 at BWS043460. This amount of petroleum contamination is 350 times the DOH’s EAL for drinking water toxicity.

29. Accordingly, it is found that continued operation of the Red Hill Facility, as it is currently configured and operated, poses an imminent threat to human health and the environment.

E. Administrative Order of Consent

30. In September 2015, the Navy and the Defense Logistics Agency (DLA)—the owner of the fuel stored at Red Hill—entered into an administrative order of consent (AOC) with the EPA and the DOH requiring the Navy to conduct certain investigations and other work to address fuel releases from Red Hill. The AOC includes a Statement of Work (SOW) that

outlines various actions that are “necessary to address potential impacts to human health, safety and the environment ... due to historical, recent and potential future releases at the [Red Hill] Facility.” Exhibit B-81 at BWS008935; *see also id.* at BWS008936 (SOW incorporated into AOC by reference).

31. Pursuant to the AOC, the DOH retains its authority, on an emergency basis, “to take, direct, or order any and all actions necessary to protect public health, any source of drinking water or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste or constituents of such wastes, on, at, or from the [Red Hill] Facility,” under, among other things, H.R.S. Chapter 342L. *Id.* at BWS008953.

32. The AOC SOW consists of eight sections including: Section 1: Overall Program Responsibility; Section 2: Tank Inspection, Repair, Maintenance (TIRM); Section 3: Tank Upgrade Alternatives; Section 4: Release Detection/Tank Tightness Testing; Section 5: Corrosion and Metal Fatigue Practices; Section 6: Investigation and Remediation of Releases; Section 7: Groundwater Protection and Evaluation; and Section 8: Risk/Vulnerability Assessment. *See* Exhibit B-82.

33. To date, many of the deliverables required by the AOC still have not been approved by the regulators, with key Navy reports disapproved and the Navy tank upgrade proposal rejected. *See, e.g.* Exhibits B-30; B-15; B-28; Hearing Recording 1 at 1:05:03 (DOH witness Ms. Lene Ichinotsubo testifying that “in general, the regulatory agencies disapproved of the report [Destructive Testing Report] in the sense that we did not agree with Navy’s conclusion.”); *id.* at 02:15:15 (DOH witness Ms. Fenix Grange testifying that “[w]e continue to believe that these models are not sufficiently supported by data,” referring to models the Navy is

required to submit pursuant to the AOC); Exhibit D50 at 2 (“[T]he AOC schedule of deliverables has not produced well informed and near-term IRR decision . . .”); Exhibit D16 at 2 (“Characteristics of the underlying conceptual site model presented by the Navy and its consultants are not sufficiently supported by data collected at the site.”); Exhibit D18 at 2 (“Working in consultation with our SMEs [subject matter experts] in Hawaiian geology, hydrogeology, and fate and transport, we [DOH] continue to disagree with fundamental conclusions made in the 2019 CSM that minimize evidence of historic impacts to the aquifer; do not account for fast track pathways for fuel releases to groundwater; emphasize very rapid degradation of releases; and describe groundwater flow behaviors not supported by on- and off-site field data.”).

34. While the AOC process is separate and apart from this proceeding, and does not limit the DOH’s emergency powers, many of the deliverables generated as required by the AOC provide important background, data, analyses, and other information related to the Navy’s operations at the Red Hill Facility.

F. End of Life Phase of the Facility

35. The integrity of the steel liners in the Red Hill Facility USTs is critical to ensure fuel will not be released into the environment. *See* Norfleet Expert Report at 12. The backsides of the steel liners in the USTs are experiencing corrosion, as demonstrated by ten coupons that were removed from Tank 14 in 2018 as part of the Navy’s destructive testing. *See* Exhibits B-160 at BWS023596-625; B-267 at BWS031009 (“The principle [sic] problem manifesting itself now may be corrosion on the exterior of the steel liner, resulting in through plate corrosion.”); Exhibit B-170 at BWS024499, BWS024503 (“Current and previous inspection have found corroded areas in the steel liner requiring repair such as pitting holes, plate

thinning and, defective welds ... The existing steel liner is subject to external corrosion and will continue to corrode. Over time corrosion holes will develop"); Exhibit D07 at 40, 56.

36. When water is present, steel is subject to corrosion. *See* Exhibit B-267 ("Water intrusion through the concrete, and collecting behind the steel liner, has been a recognized problem since original construction."); Norfleet Expert Report at 62. Of the 10 coupons removed from Tank 14 in 2018, at least six of them were wet or damp on the exterior when extracted. *See* Exhibit B-160 at BWS023597, BWS023600, BWS023612, BWS023620; *see also* Exhibit D008 at 24, 29. Based on this evidence, it is assumed that a significant portion of the backside of the tanks' steel liners may be exposed to moisture and are therefore experiencing corrosion.

37. The Navy relies on the USTs' surrounding concrete to act as a barrier to protect the steel liner from corrosion. While concrete can provide some protection from corrosion, this protection is minimized when the steel and the concrete are not in intimate contact. Of the ten coupons extracted from Tank 14 in 2018, eight were found to have at least some separation (void space) between the concrete and the steel liner. *See* Exhibit D08 at 24, 29; Exhibit B-160 at BWS023595-618. Based on this evidence, there is likely a separation between the concrete and the steel liners on significant areas of all the USTs currently in use at the Red Hill Facility.

38. The primary fuel release prevention method used at the Red Hill Facility is the TIRM process. This is a three-part process: (1) tanks are inspected with non-destructive technologies; (2) holes are drilled, tested for gas, and repaired; and (3) patch plates are welded on, inspected, and tested for integrity. During the maintenance, portions of the interior tank steel liner are also recoated to attempt to prevent internal corrosion from occurring on the inside of

each UST. The other mitigation measures implemented at the Red Hill Facility, such as tank tightness testing, groundwater monitoring, and vapor monitoring, are designed to detect releases after they happen and do not prevent releases from occurring. *See* Norfleet Expert Report at 12-17.

39. The only way to ensure the integrity of the steel liners is through a vigorous and thoroughly reliable inspection and repair program. *See* Norfleet Test. at ¶ 12.b (“[T]he Navy’s only option for preventing future releases is to identify and repair areas of each UST where the corrosion is present before it breaches the internal surface of the steel liner”). Conducting reliable American Petroleum Institute (API) 653 inspections, an aboveground storage tank inspection process the Navy has modified to use for testing the integrity of the Red Hill Facility USTs, is critical to the safe operation of the Red Hill Facility. *See* Norfleet Expert Report at 12-13.

40. Under API 653, the maximum allowable interval for inspections is 10 years. *See* Exhibit B-6 at BWS001329. Although the Navy has a policy that each UST should be inspected every 10 years unless the corrosion rate is such that an API 653 inspector recommends it can be inspected in 20 years (*id.*), the record shows that the USTs that have been inspected have often exceeded the 20-year target interval in between inspections. *See* Exhibit D10 at 230-31; Exhibit D12; Exhibit B-30 at BWS007575. Over half the USTs that are currently used to store fuel (8 of 14) are overdue for an inspection, with the longest duration being 40 years for Tank 11. *See* Exhibit D12; Hearing Recording 1 at 1:26:25 (DOH witness Ms. Lene Ichinotsubo testifying that “those are the tanks [tanks 3, 4, 7, 8, 9, 10, 11, and 12] that have not, that are active and have not been inspected in over 20 years”). Several Red Hill Facility USTs have never undergone an API 653 inspection. *Compare* Norfleet Expert Report at 13 (as of

December 2020 “the Navy ha[d] failed to present API 653 inspection records for Tanks 1, 3, 4, 9, 11, 12, 18, or 19”) *with* Exhibit D10 at 230-31 (demonstrating that Tanks 3, 4, 9, 11 and 12 have not been inspected in over 20 years).

41. An inspection program is only reliable if it can detect any and all areas that are vulnerable to corrosion and effectively repair these areas prior to a through hole developing in the steel liner or a failure occurring at a weld. *See* Norfleet Expert Report at 12.

42. The Navy uses non-destructive examination (NDE) methodologies to indirectly inspect the backside of the Red Hill Facility USTs’ steel liners. The inspections are conducted primarily by individuals manually inspecting the interior surface of a tank with a hand-held sensor. The inspections rely heavily on the skill of the operator and the accuracy of the hand-held scanners. At the Red Hill Facility, this requires individuals to manually scan large surface areas which are roughly 30% larger than the size of a football field. The inspectors are required to move a hand-held scanner over the surface of the USTs while monitoring a computer screen to note possible defects. The inspectors do this task while working off a suspended scaffolding while the USTs are illuminated by artificial lights. *See* Norfleet Expert Report at 13. Given the scale of the tanks and the conditions under which the inspections occur, these methods are inherently unreliable.

43. As part of the AOC process, the Navy was required to assess the effectiveness of its NDE methods. Through this process, Tank 14 underwent an NDE inspection to ascertain the then-existing conditions of the USTs. Ten coupons were removed and sent to a laboratory for testing to see if the NDE methods were valid. Of the ten coupons, four of the readings were found to be either false positives (i.e., indicated repairs where no repairs were needed) or false negatives (i.e., indicated no repairs where repairs were needed). *See* Hearing

Recording 1 at 01:05:42 (DOH witness Ms. Lene Ichinotsubo agreeing that “of the 10 coupons, 2 were false positives if you will, and 2 were false negatives.”). Based on this data, the Navy’s NDE process is determined to be unreliable and cannot accurately identify areas where repairs are needed to prevent leaks. *See* Exhibit B-30 at BWS007573. This creates a significant risk to human health and the environment.

44. The Navy interpreted the destructive testing results as indicative of a sound tank inspection process. The DOH and the EPA disagreed and found that the Navy’s destructive testing did not validate the Navy’s TIRM process and directed the Navy to take further actions. *See* Exhibit B-30. The inadequacy of the Navy’s TIRM process is so apparent that the regulators and the Navy have all agreed to invoke AOC Section 5.4, which is only to be implemented “[i]f the Parties determine that the results of the previous deliverables in this Section [AOC Section 5 - Corrosion and Metal Fatigue Practices] indicate the need for evaluation and implementation of potential changes in practices to control corrosion or metal fatigue.” *See* Exhibit B-82 at BWS008976. If so, the Navy must take action “for the purpose of developing appropriate modification to the scopes of work and timelines in Section 2 [Tank Inspection, Repair, and Maintenance] and/or Section 3 [Tank Upgrade Alternatives]” and AOC “deliverables shall be modified or added ... to address any needs for further evaluation, development, or implementation of practices to control corrosion or metal fatigue.” *Id.* These further actions have not yet been completed, and the tank inspection process in use now is the same as that which was found to be inadequate by the regulatory agencies. At this time, the Navy has not demonstrated that it can reliably identify areas on the Red Hill Facility USTs that need repair.

45. The amount of corrosion that the Navy has had to repair following an inspection has increased over time. Inspections have uncovered large areas where corrosion is significantly weakening the backside of steel liners in the USTs. In such cases, the Navy has had to remove and replace large areas of plates. *See* Exhibit B-297 at BWS031345 (noting that an inspection completed on Tank 13 in 2017 or 2018 found large areas of backside corrosion requiring the replacement of an area of greater than 2 square feet in each location). Although the Navy's intention is not to allow areas to corrode to failure, such failures have occurred and are anticipated to continue to occur under the Navy's current inspection, maintenance, and repair programs.

46. Based on the evidence presented, it is likely the USTs that have not been inspected have the same defects and corrosion. *See, e.g.,* Norfleet Expert Report at 17-26. Those defects and corrosion have not been repaired and therefore make the USTs vulnerable to fuel releases.

47. Tank tightness testing is not an inspection and repair methodology. It is a leak detection method, not a leak prevention method. Hearing Recording 2 at 03:15:50 (Navy witness Capt. James G. Meyer testifying that, "[t]ank tightness testing is a method that is used to measure the mass within the tank"). Additionally, tank tightness testing measures conditions found at the tank only at the moment the test is done and does not measure or predict the future condition of the tank. Hearing Recording 2 at 02:37:40 (Navy witness Capt. James G. Meyer testifying that, "[i]t gives you, **at that time the test was done**, the minimum detection leak rate") (emphasis added). Tank tightness testing also can detect leaks to only a certain minimum level. *See* Exhibit N-2D at 9, tbl. 2-1. For the Red Hill Facility USTs, the leak detection level for semi-annual tank tightness testing is at or above 0.5 gallons per hour (gph). *Id.* Moreover, movement

of fuel to facilitate tank tightness testing has resulted in fuel releases from the Red Hill Facility. Hearing Recording 2 at 03:08:58, Testimony of James G. Meyer (Q. “So going back to the May 6 release, didn’t that occur as part of a tank tightness testing process that was underway?” A. “I don’t think it’s fair to characterize it as part of a tank tightness testing process.... The facility was moving fuel around in order to fill the tanks to ensure a good tank tightness testing.” Q. “Right, so the fuel that was being moved around was part of the tank tightness testing process? Is that correct?” A. “Yes, the movement to Tank 20 was definitely to fill up the tank in order to test it. A follow-on movement of fuel, I cannot say for certain what that reason was for.”).

48. The pipelines are inspected daily by roving patrols and inspected and certified by an API 570 standard. The pipelines are not required to have secondary containment given that they can be visually inspected in the lower access tunnel. Despite these inspections, leaks from pipelines have occurred in the past and will occur in the future. *See* Norfleet Expert Report at tbl. 8. There was an active fuel release from a pipeline that occurred at the Red Hill Facility’s Hotel Pier from March 2020 through July 2021 (*see* Exhibit B-410), a pressure surge event resulting in a reported release of 1,600 gallons of jet fuel from supply piping in the lower access tunnel tanks during the refilling of Tank 20 on May 6, 2021 that the Navy has since stated could have been as much as 19,000 gallons (*see* Hearing Recording 2 at 03:13:01 to 03:13:45; Exhibits B-411, B-412, B-413), a fuel release from a corrosion-induced hole in a pipeline at the Red Hill Facility’s Kilo Pier on July 16, 2021 (*see* Exhibit B-414), and a release of a supposed 14,000 gallons of a mixture of fuel and water at the Red Hill Facility from the Navy’s fire suppression system on November 20, 2021 (*see* Exhibit B-415).

49. As the facility is currently constructed, operated, and maintained, future releases of fuel are inevitable because the Navy is currently conducting an integrity management

strategy that will not prevent future releases. Norfleet Test. at ¶ 12.b; Norfleet Expert Report at iii, 12-61.

G. Environmental Monitoring and Modeling

50. Because the Navy's TIRM practices are neither accurate nor reliable enough to prevent fuel releases, the Navy largely relies upon reactionary forms of release detection and monitoring to attempt to identify and mitigate fuel released during sudden, acute release events. Systems that merely detect fuel releases from the Red Hill facility after they have occurred and monitor the damage these leaks inflict upon O'ahu's irreplaceable sole-source aquifer do not prevent fuel releases from entering into the drinking water supply.

51. The Navy's existing monitoring well network consists of 15 single-screen monitoring wells and two multilevel monitoring wells within the Red Hill Facility boundary, and one deep monitor well and two multilevel monitoring wells located outside the facility boundary. *See* Exhibit B-421a at BWS043676. Of these wells, there are currently only three, two-inch diameter groundwater monitoring wells installed within the 450 feet footprint of the Red Hill USTs. *See* Exhibit D51 at 22; Exhibit B-422 at BWS052507. The sparsity of the groundwater monitoring network does not provide sufficient information about the overall conditions of the groundwater underlying the Red Hill Facility or the location of the petroleum contamination released from the Red Hill Facility into the environment. *See* Exhibit B-422 at BWS052487 (“[T]he Navy has failed to install an adequate monitoring network to understand the location and extent of the fuel present in the subsurface environment or to determine where this fuel has and will go”).

52. Due to the inadequacy of the Navy's monitoring well network, the Navy must rely upon modeling to attempt to estimate the flow of groundwater in the vicinity of the

Red Hill Facility as well as the fate and transport of fuel released therefrom. The Navy's deliverables under Sections 6 and 7 of the AOC, relating to the investigation and remediation of releases and groundwater modeling, remain unapproved. Hearing Recording 1 at 02:15:15 (DOH witness Ms. Fenix Grange discussing Navy AOC deliverables and stating "[w]e continue to believe that these models are not sufficiently supported by data."). Although the Navy believes its models indicate that when the Red Hill Shaft is pumping, groundwater beneath the tanks of the Red Hill Facility is "captured" by the Red Hill Shaft (*see* Declaration of Sherri R. Eng ("Eng Decl."), ¶ 18), the testimony the Navy proffered is not credible as these models ignore available data and "lack scientific defensibility." *See* Hearing Recording 1 at 03:12:02 (DOH witness Ms. Fenix Grange discussing the Navy's modeling and stating that "important data sets are getting dismissed, their [the Navy's] assertions ... support specific interpretations ... for example, the holding capacity numbers ... and also drawing [*sic*] conclusions from inappropriate tests"); Exhibit D18 at 17.

53. No work was completed on a Contaminant Fate and Transport (CF&T) model prior to the November 20, 2021 release, although development of a CF&T model is a priority in the current incident response. *See* Hearing Recording 1 at 2:56:33 (DOH witness Ms. Fenix Grange stating that "[t]he fate and transport model is due from the Navy to the Regulatory Agencies six months after the approval of the groundwater modeling report, however, the deliverable for the groundwater model has not been approved and the concerns that we have [with that model]...have not yet been resolved."), 2:58:18 ("In fact in the emergency response, that's [a CF&T model is] high on the agenda for the incident response team now."). CF&T modeling is important because "spilled fuel moves very differently [than water] and can move very quickly...Groundwater models... can't tell you what's going to happen on the order of days

or weeks.” *Id.* at 2:57:14. The Navy is unable to predict the rapid movement of fuel from past and future releases once the fuel reaches the environment surrounding the UST system.

54. The Navy estimates of rates of natural source zone depletion—how quickly petroleum will break down once released into the environment surrounding the UST system—are unrealistically high and are not supported by available data. *See* Exhibit D18 at 6; Hearing Recording 1 at 2:55:36 (DOH witness Ms. Fenix Grange stating “RHMW03...one of the wells in the middle of the tank farm, that had a reported release there was more than twenty years ago, and yet there’s elevated temperatures indicating that contamination is still present and degradation is ongoing. So that is not in agreement with the rates of degradation presented by the Navy.”). The Navy therefore underestimates the time scale on which past releases are continuing to impact the groundwater and drinking water sources near the Red Hill Facility, the cumulative impact of multiple releases occurring over the span of years or decades, and threats posed by future releases.

55. The Navy also confirmed that it does not have a permanent water treatment system to address either recent fuel releases or future fuel releases. *See* Hearing Recording 2 at 03:04:19, Testimony of James G. Meyer (Q. “And do you have a permanent water treatment system in place?” A. “No, we do not.” Q. “And the temporary water treatment system, you are working on putting that in place? Is that accurate?” A. “That is correct.” Q. “But it is not fully up and operational yet?” A: “Not yet”). Accordingly, it is found that the Navy cannot accurately characterize or adequately remediate the contamination from the Red Hill Facility.

H. Risks Associated with Facility

56. The DOH has recognized that the Red Hill's facility "storage of up to 187 million gallons of fuel, 100 feet above a drinking water resource, is inherently dangerous." Exhibit S-23 at S001629. The Navy has also recognized this risk. *See* Exhibit B-145 at BWS023203 ("[P]otential pollution of the Red Hill potable water aquifer that lies less than 100' under the Red Hill tanks is real."); Exhibit S-27 at S003367 ("an uncontrolled massive fuel release from the Red Hill fuel storage and distribution facility would cause irreparable damage to the drinking water source below the site;" "the cost of clean up would be prohibitive, long term, and may not be completely successful").

57. In connection with the work required under AOC Section 8, the Navy hired ABS Consulting to conduct a multi-phase quantitative risk and vulnerability assessment (QRVA). Phase 1 of the QRVA assessed the risk of both "[a]cute release scenarios," which "involve sudden, scenario-specific, one-time fuel releases," and "[c]hronic release scenarios," which involve "generally undetected, potential continuous fuel releases from the [Facility]." Exhibit B-15 at BWS005019. The Navy designed this quantitative risk and vulnerability assessment to provide an "in-depth, rigorous, and repeatable approach to assessing risk." Exhibit S-32 at S003958.

58. The QRVA found that: (1) there is a greater than 27 percent probability of an acute sudden release of between 1,000 and 30,000 gallons of fuel from the Red Hill Facility each year (Exhibit B-15 at BWS005021); (2) there is a greater than 34 percent chance of a sudden release of more than 120,000 gallons of fuel from the Red Hill Facility within the next 100 years (*id.* at BWS005022); and (3) the expected volume of chronic, undetected fuel releases from the Red Hill Facility is 5,806 gallons per year (*id.* at BWS005023). *See also* Norfleet

Expert Report at iii (“That leaks have and will occur from these USTs is reflected throughout the documented history of the [Red Hill Facility] and is consistent with the Navy’s own risk assessment”).

59. In unrebutted testimony, Professor Laurence Thomas Ramsey calculated the likelihood of acute releases over periods of time longer than one year. The probability of a leak between 1,000 and 30,000 gallons occurring over the next five years is 80.1%, occurring over the next ten years is 96.0%, and occurring over the next twenty years is 99.8%. Declaration of Laurence Thomas Ramsey (“Ramsey Decl.”), ¶¶ 9-11. In addition, the probability of a leak greater than 30,000 gallons occurring over the next ten years is 17.7% and over the next twenty years is 32.2%. *Id.* at ¶¶ 12-13. The probability of a leak greater than 120,000 gallons occurring over the next one hundred years is 34.1%. *Id.* at ¶ 14.

60. Regardless of whether fuel releases from the Red Hill Facility are deemed “acute” or “chronic,” the Navy’s QRVA acknowledges that they “could potentially impact public water table safety.” Exhibit B-15 at BWS005019.

61. The Navy’s QRVA significantly underestimates the risk of future fuel releases from the Red Hill Facility system pipelines. *See* Norfleet Test. at ¶ 12.c. Pipe failure rates utilized in Navy risk assessments are not consistent with data published by the oil and gas industry. *Id.* In addition, the Navy has likely underestimated the overall risk of sudden and chronic future fuel releases from the Red Hill Facility. *See* Norfleet Expert Report at 50. Moreover, the QRVA assumes that each tank “undergoes a major API 653 inspection once every 20 years.” Exhibit B-15 at BWS005065; *see id.* at BWS005242. As discussed above, however, eight of the 14 currently operating tanks have not been inspected pursuant to the API 653 standard in more than two decades. *See* Exhibit D10 at 230-31; Exhibit B-30 at BWS007575.

Finally, to date, the Navy has completed only Phase 1 of its risk assessment, which ignores risks from earthquakes, fires, floods, and other external events. *See* Exhibit B-15 at BWS005019. Consideration of these risks in future phases will only increase the estimated risk of releases from the Red Hill Facility. Hearing Recording 1 at 05:45:29 to 05:46:25, Testimony of Dr. David M. Norfleet.

62. The evidence further shows that the Navy is incapable of monitoring whether leaks are occurring, determining how much fuel is released into the environment when leaks occur, and/or determining where detected leaks are coming from.

63. For example, the Navy initially estimated the May 6, 2021 release from the transfer of fuel between Red Hill tanks at approximately 1,000 gallons (Exhibit S-34 at S004083). Four months later, the Navy revised its estimate upward to 1,618 gallons (Exhibit B-412 at BWS043583) and claimed that it successfully recovered all but 38 gallons of fuel (*id.* at BWS043587). The Navy now hypothesizes—but does not know—that the May 6, 2021 incident is the source of the massive November 20, 2021 release of jet fuel that contaminated the Navy’s water supply system. *See* Declaration of James B. Balocki (“Balocki Decl.”), ¶ 14; Meyer Decl. ¶ 14; Hearing Recording 2 at 02:34:25 to 02:34:51, 02:52:57 to 02:53:25, 03:13:01 to 03:13:45. If the Navy’s working theory is correct, then clearly the Navy was unable to account for far more than the reported 38 gallons of fuel in the more than half year since the May 6, 2021 release. *See* Hearing Recording 2 at 03:13:01 to 03:13:45 (Navy witness Capt. James G. Meyer admitting that the May 6, 2021 release was potentially more than 19,000 gallons).

64. For the November 20, 2021 spill, the Navy initially stated that approximately 14,000 gallons of a mix of water and fuel were released in the drain line from the fire suppression system in the tunnel downhill of the Red Hill Facility and claimed that all

14,000 gallons “was contained in the lower tunnel and [was] recovered and transferred to an above ground storage tank as of midday” on November 21, 2021. *See* Exhibit D29. Assuming that the release from the fire suppression system was the cause of the massive contamination of the Navy’s water supply system—and the Navy still has not definitively identified the source of the jet fuel that poisoned its water system—then obviously the Navy was wrong when, on November 21, 2021, it claimed to have recovered all the jet fuel that spilled the day before. *See* Balocki Decl. ¶ 14; Hearing Recording 2 at 02:32:53 to 02:34:15; Exhibit N-1A at N00008 (ordering investigation to “calculate the quantity of fuel that may have been released into the environment”).

65. Moreover, if the May 6, 2021 spill is, in fact, the source of the catastrophic fuel release on November 20, 2021, the Navy does not know how it got into the fire suppression system in the first place. The “firefighting system, and its collection lines, is not connected to the Red Hill Facility fuel lines or tanks” (Meyer Decl. ¶ 13) and is not supposed to have fuel in it in the first place (Hearing Recording 2 at 02:34:20 to 02:34:24, 02:34:52 to 02:35:03, 03:19:50 to 03:21:54). While the Navy has a “working theory under investigation” as to how massive amounts of fuel got into the fire suppression system, its investigation is ongoing. *See* Meyer Decl. ¶ 14; Exhibit N-1A at N00008 (ordering investigation to “determine the facts and circumstances regarding what caused both incidents”); Exhibit N-1B at N00010 (report currently due January 14, 2021); Hearing Recording 2 at 01:39:50 to 01:40:16 (Navy witness Assistant Secretary of the Navy James B. Balocki testifying that the current January 14, 2022 deadline to complete an investigation may be extended).

66. As Navy witness Captain James G. Meyer testified, the history of leaks from the Red Hill Facility confirms that the Navy is unable to prevent accidental releases.

Hearing Recording 2 at 03:30:09 to 03:32:46. Captain Meyer further testified that it takes at least a day, and can take many days, to defuel a single tank from the Red Hill Facility. Hearing Recording 2 at 03:29:11 to 03:29:36. Accordingly, if one waits until the next massive release from the Red Hill Facility begins to remove the threat to O‘ahu’s sole source aquifer, it will be too late.

I. Harm to Human Health and the Environment

67. Laboratory test results provided by the Navy indicate that, prior to the November 20, 2021 fuel release into the environment, petroleum constituents have been detected in Red Hill Shaft as high as 490 µg/L in 2020 and in Red Hill Shaft as high as 540 µg/L in August 2021 and in Red Hill Monitoring Wells 16 and 19 as high as 380 µg/L in fall 2021. *See* Exhibit B-419 at BWS043618; Exhibit B-420 at BWS043654, 60.

68. Even prior to the November 20, 2021 fuel release, Navy operations at the Red Hill Facility have adversely impacted the groundwater under the facility. *See* Kawata Test. at ¶¶ 19 (“Numerous leaks from the RHBFSF USTs have been documented and sampling from under and around the RHBFSF has demonstrated the existence of petroleum contamination in the very aquifer that sustains our island’s water supply.”), 34 (“Groundwater testing data collected by the Navy since 2005 show petroleum contamination present in the groundwater and rocks underneath the [Red Hill Facility].”); Exhibit D16 at 5 (“Jet fuel has likely impacted groundwater beneath the tank farm and beyond both from the 2014 release and prior releases.”); Exhibit S-20 at S000988 (“Previous environmental Site Investigations (Sis) at the Facility showed that past inadvertent releases have contaminated the fractured basalt, basal groundwater, and soil vapor beneath the Facility with petroleum hydrocarbons”); *see also id.* at S000993 (“Previous investigations ... indicated that past inadvertent releases of [petroleum, oils and

lubricants] have reached the basal aquifer”); Exhibit S-30 (documenting leak from Tank 6 of unknown quantity of jet fuel in 2002, which may have contaminated groundwater). As long as fuel remains in the Red Hill USTs, both acute and chronic fuel releases will continue, adding to the past contamination of the groundwater beneath the facility.

69. About a week following the November 20, 2021 fuel release into the environment, residents at military housing noticed fuel smells in their water. *See* Exhibits S-3, S-13 & S-14; Declaration of Kevin T. Aubart (“Aubart Decl.”) ¶¶ 1-3; Declaration of Kimberly Charters (“Charters Decl.”) ¶¶ 1, 5-9; Declaration of Carly Lintner (“Lintner Decl.”) ¶¶ 1, 3-4; Hearing Recording 2, 00:28:27, (Sierra Club witness Mr. Kevin T. Aubart confirming that he smelled jet fuel in his water on November 28); *id.* at 00:39:53 (Sierra Club witness Ms. Kimberly Charters stating that “it just smelled like a gas station basically in my kitchen.”).

70. On November 29, 2021, DOH issued a press release advising all “Navy water system users [to] avoid using the water for drinking, cooking or oral hygiene,” including “consumption by pets.” Exhibit S-3 at S000012. DOH further advised “Navy water system users who detect a fuel-like odor from their water [to] avoid using the water for drinking, cooking, bathing, dishwashing, laundry or oral hygiene (brushing teeth, etc.).” *Id.* The DOH consistently repeated those warnings in press releases over subsequent days. *See* Exhibits S-4, S-5.

71. Also on November 29, 2021, the Navy issued a much more limited advisory, which was directed to only Joint Base Pearl Harbor-Hickam military housing residents, rather than all Navy water system users, recommending “avoiding ingestion” of water coming from the tap only “[i]f chemical or petroleum odors are present.” Exhibit N-7O at N06620; *see also* Exhibit N-7P at N06622. On the same day, Navy Captain Erik Spitzer, the commander of

Joint Base Pearl Harbor-Hickam sent a message to residents in the military housing communities saying that he and his staff were still drinking the water, giving the false sense the water was safe. *See* Exhibit N-7P at N06623; Exhibit S-39; Hearing Recording 2 at 01:55:43 to 01:56:14 (Navy witness Assistant Secretary of the Navy James B. Balocki testifying, “I do recall at least one indication by a member of the staff that indicated that they were drinking the water. That was later retracted but that was stated.”).

72. The Navy waited until December 3, 2021—five days after the DOH’s November 29, 2021 notification—to advise all of the nearly 93,000 Navy water system users, including area schools, child development centers, and all residents serviced by the system, to stop using the water for drinking, cooking, bathing, and laundry. *See* Balocki Decl. ¶ 7.

73. In the meantime, men, women, and children whose homes received contaminated water from the Navy’s water system had suffered stomachaches, vomiting, nausea, diarrhea, skin rashes, sore throats, burning eyes, headaches, and difficulty breathing, including illnesses requiring emergency medical attention. *See* Aubart Decl. ¶¶ 4-7; Charters Decl. ¶¶ 3-4, 8; Lintner Decl. ¶¶ 2-6, 9; Hearing Recording 2, 00:32:38 (Sierra Club witness Mr. Kevin T. Aubart stating that “we were experiencing I think like nausea, stomachaches, headaches, reoccurring headaches, fatigue, and skin irritations. And then my wife had used the water to clean one of her eyes, and she got kinda film in front of her eyes after a few days”); *id.* at 00:46:53, 00:49:10 (Sierra Club witness Ms. Kimberly Charters stating that her family was experiencing “stomach bloat, visible stomach bloat, really painful. I also had a burning sensation, my husband also had a burning sensation ... we both felt pretty nauseous ... but we both felt like we were pretty sick, like we were gonna vomit all evening. And when we had to flush our systems of the water, that is when my migraines really started and I had terrible headaches for

days on end. So headaches and stomach aches both,” and that her “nose was burning all on the bridge of my nose, and then my headache started and I had a migraine for about 5 days”); *id.* at 00:20:13-00:20:48 (Sierra Club witness Ms. Carly Lintner stating that “[m]y son developed a rash” and that after using the water “everybody’s stomach hurt. The next day we all kinda reconvened and everyone still felt the exact same way, everyone still felt sick.”); Exhibits S-13; S-14; S-36; S-39. Pets that drank the water have gotten ill or died. *See* Charters Decl. at ¶¶ 2, 8; Lintner Decl. at ¶¶ 2, 9; Hearing Recording 2, 00:22:17 (Sierra Club witness Ms. Carly Lintner stating that her dog “was just kinda refusing his water bowl, he would walk up to it, kinda like go around it, look at me, and walk away from it ... seeing him refuse water was super strange ... After that he was puking a bit for some time, he was pretty sick and he’s finally eating and drinking normally now, but it was pretty bad.”); *id.* at 00:32:38 (Sierra Club witness Mr. Kevin T. Aubart stating that “our dog too had stomach aches and throwing up a little bit.”); *id.* at 00:39:53 (Sierra Club witness Ms. Kimberly Chambers stating that “My golden retriever started throwing up I would say around November 23. He was acting extremely lethargic, he wasn’t drinking the water as much”); Exhibit S-36; Exhibit S-39.

74. Notwithstanding the Navy’s belated advisory for residents on its water system to avoid ingesting the contaminated water coming out of their taps, exposures to contaminated water, and the attendant impacts to public health continue. Hearing Recording 2, 00:34:36 (Sierra Club witness stating that “so we are still feeling some of those symptoms, even after the 28, and even in the last couple days we didn’t realizing that we were still using some of the stuff that may have been contaminated”); *id.* at 00:48:54 (Sierra Club witness stating that “both me and my husband went to the medical screenings and we went to vet services that were put together by the Army by their community center, so my husband and I both went into our

medical screenings just to get checked out, I was still having my migraines. And then we also saw the vet.”); Hearing Recording 2 at 05:03:50 to 05:04:27 (Navy witness Capt. Michael McGinnis noting that a patient presenting symptoms consistent with exposure to petroleum product sought treatment within the 24 hours prior to his testimony); Hearing Recording 1 at 04:31:21 to 04:31:55 (DOH witness Dr. Diana Felton noting reports of continuing public exposure to contaminated water and that not all people harmed by exposure to contaminated water will seek treatment and be accounted for).

75. The Navy and joint medical force is assessing the medical symptoms associated with over 5,000 screening and medical evaluations of personnel seeking medical help for exposure to petroleum and other potential contaminants of concern as of December 16, 2021. Declaration of Captain Michael B. McGinnis (“McGinnis Decl.”), ¶ 19. The symptoms that have been presented—including, but not limited to, nausea, vomiting, headaches, skin irritation, and rashes—are consistent with exposure to petroleum-based product. *Id.*; Hearing Recording 1 at 04:19:40 (DOH witness Dr. Diana Felton testifying that, “We received over 650 calls to the Department of Health with complaints of symptoms all that line up with the health symptoms described earlier.”).

76. The Navy does not know the full extent of the health effects of the contamination. *See* Hearing Recording 2 at 04:50:02 (Navy witness Capt. Michael McGinnis confirming that very little is known about the human health effects caused by JP-5, JP-8, or Jet A fuels), 04:51:40 (Navy witness Capt. Michael McGinnis confirming that the Navy is not considering the effects of chronic exposure to petroleum detections in the Navy’s drinking water); Hearing Recording 1 at 04:18:22 (DOH witness Dr. Diana Felton stating that “Jet fuels,

like JP-5 for example, can have over 1,000 individual [chemical] constituents and for most of those constituents there's very little to no information about the long term health impacts.”).

77. Laboratory test results and reports from samples taken from the Navy's Red Hill Shaft drinking water well on December 5, 2021, after it was contaminated following the November 20, 2021 fuel release, show TPH-d levels as high as 140,000 µg/L and TPH-g levels as high as 20,000 µg/L. *See* Exhibit B-409 at BWS043460. The TPH-d level is 350 times the DOH's EAL for drinking water toxicity, which is 400 µg/L. *See* Exhibit S-4 at S000014. The DOH's EAL for drinking water toxicity is 300 µg/L for TPH-g. *See* Exhibit B-16 at BWS005977.

78. The Navy shut down its Red Hill Shaft in response to the drinking water contamination. *See* Eng Decl. at ¶ 3. The Navy recognizes that by shutting down Red Hill Shaft, other drinking water wells, including BWS' Hālawā Shaft, could draw in contaminated groundwater. *See* Hearing Recording 2 at 04:25:11 (Navy witness Ms. Sherri Eng confirming that if the BWS had not shut off its Hālawā Shaft, the contaminated groundwater under the Red Hill Facility would go “towards the west” towards the BWS' Hālawā Shaft).

79. The Navy shut down its 'Aiea-Hālawā Shaft in response to the drinking water contamination. *See* Eng Decl. at ¶ 10. The Navy detected TPH-d in its 'Aiea-Hālawā Shaft well and nearby distribution system in December 2021. *See* Exhibit N-3A; Exhibit N-3B. Although the Navy suggests that the contamination in its water distribution system may have originated from Red Hill Shaft (Eng Decl. at ¶¶ 10-13), the Navy acknowledges that TPH-d was also detected in samples taken directly from its 'Aiea-Hālawā Shaft. *See* Hearing Recording 2 at 04:12:30. The Navy reported to DOH that diesel fuel levels in samples from the Navy's water

distribution system at its ‘Aiea Hālawā shaft were more than double the state-approved levels for drinking water. *See* Exhibit S-5 at S000016.

80. The Navy personnel on the ground acknowledge that the water contamination is a crisis. *See* McGinnis Decl. at ¶ 2 (Commander, U.S. Pacific Fleet established “Joint Crisis Action Team” to address public health threat from November 20, 2021, fuel release); Balocki Decl. ¶ 12 (same); Hearing Recording 2 at 03:01:11 (Navy witness Capt. James G. Meyer testifying that “Yes, it is a crisis anytime we affect our service members.” Q. “And you believe it is crisis that is still continuing today?” A. “Yes, we have not fully resolved everything that has occurred.”); *id.* at 05:07:20 to 05:08:17 (Capt. McGinnis confirming that the contamination is a public health crisis and is one of the larger medical responses in his long time experience with the Navy).

J. The Navy’s Response To The November 20, 2021 Fuel Release

81. On December 3, 2021, DOH provided to the Navy guidelines for safely flushing contaminated water from its water system. *See* Exhibit S-40 at S-044428. Because the Navy failed to follow the guidelines, on December 4, 2021, DOH instructed the Navy to cease unauthorized flushing activity. *Id.* The Navy ignored DOH’s instructions and continued to flush contaminated water from its water system without authorization, prompting an emergency enforcement action by DOH pursuant to H.R.S. Chapter 342D-10 on December 8, 2021.

82. On December 7, 2021, the day after the DOH issued the Emergency Order, the Secretary of the Navy issued a memorandum directing: (1) “[t]he cessation of all operations at the Red Hill [USTs] until the investigation into the cause of the incident into the cause of the incident is complete;” (2) “[t]he continuing isolation of the Red Hill and Halawa wells which [the Navy] operate[s], until the water distribution main and all affected homes and

buildings have been flushed and can be supplied with potable water that meets EPA drinking water standards;” (3) “[e]valuation acquisition of a drinking water treatment system or systems at the Red Hill Shaft to ensure the distribution of drinking water conforms to standards prescribed by the Safe Drinking Water Act and applicable regulations and to minimize the movement of any contaminant plume;” (4) consultation with an “independent third party to assess operations and system integrity of the Red Hill Underground Storage Tank Facility to determine design and operational deficiencies that may impact the environment and to develop a work plan and implementation schedule” to make identified repairs and changes in operations; and (5) approval of “a final work plan and implementation schedule” and performance of work and changes in operations that the Navy determines are necessary. *See* Exhibit N-1C at N00011 (“December 7 Order”); Balocki Decl. at ¶ 16.

83. By its terms, the December 7 Order reserves to the Navy the exclusive authority to decide what corrective actions, if any, will be implemented at the Red Hill Facility. The December 7 Order does not give DOH any role in approving proposed corrective actions or, even, in providing input.

84. The Secretary of the Navy can unilaterally revoke the December 7 Order at any time. Hearing Recording 2 at 02:14:04 to 02:14:20 (Navy witness Assistant Secretary of the Navy James B. Balocki testifying that “Q. So the Secretary could rescind this order next week if there is a need to tap into the Red Hill tanks? A. Precisely.”).

K. The Emergency Order Does Not Implicate National Security

85. The Navy holds a significant percentage of its fuel at the Red Hill Facility, designated for national security defense efforts in the Indo-Pacific region. *See* Balocki Decl. at ¶ 21.

86. The Navy's claim that ordering the defueling of the Red Hill USTs would implicate national security concerns is not credible. Nothing in the Emergency Order precludes the Navy from maintaining fuel elsewhere on O'ahu or some other location. Moreover, while the Emergency Order requires the Navy to prepare for defueling "as expeditiously as possible," it does not require the Navy to move the fuel until there is a safe, appropriate location to receive it. Emergency Order at 4.

87. At the hearing, Acting Principal Deputy Assistant Secretary of the Navy (Energy, Installations and Environment) James B. Balocki affirmed that, pursuant to the Secretary of the Navy's December 7 Order, if the Navy's review leads it to conclude that it is necessary to defuel one or more of the Red Hill USTs, that could and would be accomplished, proving that defueling is both feasible and consistent with national security. Hearing Recording 2 at 01:27:25 to 01:28:04 (Navy witness Assistant Secretary of the Navy James B. Balocki testifying that "Q. "Will the Navy, pursuant to the Secretary's memo or otherwise, defuel the Red Hill tanks?" A. "Paragraph 4 directs a workplan to address defects and operations or material findings. If, as a part of those findings, it's indicated that defueling on or more tanks should be necessary, the Department will take that action. Yes, sir."); *id.* at 02:00:00 to 02:00:37 (Assistant Secretary James B. Balocki stating that "If findings are made in the workplan and it requires the defueling of one or more tanks, that action will be taken.")

88. Congress recently passed the National Defense Authorization Act for Fiscal Year 2022 with overwhelming bipartisan support (a vote of 89-10 in the Senate and 363-70 in the House of Representatives). *See* "Majority of U.S. Senate backs \$770 billion defense bill," CNBC, December 15, 2021, <https://www.cnbc.com/2021/12/15/majority-of-us-senate-backs-770-billion-defense-bill.html>. Section 318(d) of that legislation, which is now headed to

President Biden’s desk, requires the Navy to evaluate alternatives to continued operation of the Red Hill Facility. *See* Exhibit S-11 at S000031-32. Congress not only does not share the Navy’s belief that storing hundreds of millions of gallons of fuel in leaky, World War II-era tanks above O‘ahu’s primary source of drinking water is vital for national security, but does not even agree that the fuel needs to be stored in Hawai‘i at all. *See id.* at S000032 (requiring the Navy to consider “at least three locations outside of the State of Hawai‘i”); *see also* Exhibit S-12 at S000035.

89. In the face of leaky tanks and other risks involving fuel storage tanks outside Hawai‘i, the Navy has acted to replace underground storage tanks with above-ground tanks. *See, e.g.*, Exhibit S-37 at S004110-12 (Point Loma, California); Exhibit S-38 at S004415 (Naval Base Kitsap, Washington State). The Navy recognized the “need to replace underground and aboveground fuel storage tanks that are 60-80 years old” at Point Loma, noting the “environmental contamination” at Point Loma and the increased “risk of significant fuel leaks into this ecologically sensitive site.” Exhibit S-37 at S004112. Similarly, at Kitsap Naval Base, the Navy determined that “six of the existing USTs have an increased risk of potential failure and/or product loss in the event of an earthquake.” Exhibit S-38 at S004419. There is no reason to believe that safer, above-ground tanks could not replace the Red Hill USTs.

L. Procedural History

90. On December 6, 2021, the DOH issued the Emergency Order to the Navy. The Emergency Order requires the Navy to (1) to “[i]mmediately suspend operations including, but not limited to, fuel transfers at the Bulk Fuel Storage Tanks at the Facility. Respondent shall, however, maintain environmental controls, release detection and release response protocols, and compliance with applicable regulations,” (2) “[t]ake immediate steps to install a drinking water

treatment system or systems at Red Hill Shaft to ensure distribution of drinking water conforms to the standards prescribed by the Safe Drinking Water Act and applicable regulations and minimize movement of the contaminant plume(s). The treatment system(s) shall be reviewed and approved by the Department prior to installation and shall be installed as expeditiously as practicable,” (3) “[w]ithin 30 days of receipt of this EO, submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess the Facility operations and system integrity to safely defuel the Bulk Fuel Storage Tank. Upon the Department’s approval of the assessment, workplan and implementation schedule, conduct necessary repairs and make necessary changes in operations to address any deficiencies identified in the assessment and workplan. Corrective actions shall be performed as expeditiously as possible,” (4) “[w]ithin 30 days of completion of required corrective actions under Item 3, defuel the Bulk Fuel Storage Tanks at the Facility. Any refueling shall be subject to a determination by the Department that it is protective of human health and the environment,” and (5) “[w]ithin 30 days of the receipt of the EO submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess operations and system integrity of the Facility to determine design and operational deficiencies that may impact the environment and develop recommendations for corrective action. Submit the assessment, proposed work and recommendations for corrective action to the Department with an implementation schedule. Upon the Department’s approval, perform work and implement corrective actions. Corrective actions shall be performed as expeditiously as possible.” Emergency Order at 4.

91. By letter dated December 7, 2021, the Navy informed the DOH of its intent to contest the Emergency Order. Dkt. 2.

92. The Emergency Order noticed a contested case hearing pursuant to Hawai‘i Revised Statutes Chapter 91 and Hawai‘i Administrative Rules Chapter 11-1 and made clear that at the hearing additional obligations necessary to protect public health and the environment may be imposed. *See* Emergency Order at 4-5.

93. On December 13, 2021 the Sierra Club timely filed a Motion to Intervene in the hearing. *See* Sierra Club’s Motion to Intervene (Dkt. 10).

94. On December 14, 2021, the BWS also timely moved to intervene in the hearing. *See* Motion for Leave to Intervene of Honolulu Board of Water Supply (Dkt. 16).

95. On December 18, 2021, Hearings Officer David Day granted the motions to intervene filed by the Sierra Club and BWS, admitting them as parties to the contested case hearing. *See* Entry Order Granting (1) Sierra Club’s Motion to Intervene Filed December 13, 2021; and (2) Motion for Leave to Intervene of Honolulu Board of Water Supply (Dkt. 33).

96. The evidentiary hearing was held on December 20, 2021 via Zoom, with closing arguments held December 21, 2021.

97. All of the parties’ written testimony and exhibits submitted in this testimony were admitted into the record and have been considered as part of this proceeding. The parties and the Hearings Officer had the opportunity to cross-examine each witness that presented testimony, and the oral testimony presented at the hearing has also been evaluated and considered.

II. CONCLUSIONS OF LAW

A. Standing

1. The DOH issued the Emergency Order which is contested by the Navy in this contested case. The DOH has not rescinded or modified the Emergency Order. Each order

in the Emergency Order is authorized under H.R.S. Chapter 342L and the DOH has a direct interest in affirming its enforcement.

2. The BWS has demonstrated an interest in the outcome of the enforcement of the DOH's Emergency Order. *Mottl v. Miyahira*, 95 Haw. 381, 389 (2001) (requiring personal interest in outcome of controversy to establish standing); *see Kawata Test.* at ¶ 18 (“The basal aquifer beneath the [Red Hill facility] is the groundwater resource from which the BWS provides drinking water to residents and visitors from Moanalua to Hawaii Kai.”). The BWS has a public trust responsibility to protect the water resources that it manages and to preserve the rights of present and future generations in the waters of the State. *Id.* at ¶ 8. As a direct result of the Navy's past fuel releases into the environment, the BWS has devoted considerable time and resources to addressing damage to O'ahu's sole source groundwater aquifer. *Id.* at ¶ 22.

3. The Sierra Club has demonstrated an interest in the outcome of the enforcement of the DOH's Emergency Order. Dkt. 3 at 8. The Sierra Club is a non-profit organization that has a stated purpose of protecting the public interest by means of environmental-protection advocacy. Declaration of Wayne Tanaka ¶¶ 1-7 (filed Dec. 13, 2021). Sierra Club is “the largest public interest environmental membership organization” in Hawai'i, has not only participated in a contested case hearing, litigation and other advocacy related to the Red Hill Facility, but other matters where Sierra Club has sought to protect its members' and the public's right to a clean environment in Hawai'i. *Id.* ¶ 3; *see also id.* ¶¶ 4-5, 7; *see, e.g., In re Application of Maui Elec. Co., Ltd. (MECO)*, 141 Hawai'i 249, 408 P.3d 1 (2017).

4. The BWS and the Sierra Club have interests that have either been injured or have interests that are likely to be threatened by continued operations at the Red Hill Facility. *See Sierra Club v. Dep't of Transportation*, 115 Haw. 299, 329 (2007) (A threatened injury

under the traditional injury-in-fact test may be shown based on direct personal interests in the site of a project coupled with concerns of actual injury should the project go forward without adequate environmental review); Kawata Test. at ¶¶ 23, 30-31, 39; Tanaka Hearing Decl. ¶¶ 5-9.

B. Protection of Human Health and the Environment

5. Given the excessive number of fuel releases, the Navy's inability to demonstrate that it can maintain and repair the Red Hill UST system in manner that will prevent such releases in the future, the inevitability of future fuel releases from the Red Hill Facility, the uncertainty regarding where already released fuel is located, coupled with the evidence that released fuel has reached the groundwater and the drinking water and the critical nature of the sole-source aquifer located under the Red Hill Facility, and the clear impacts to human health from fuel releases, it is concluded that, as the Red Hill Facility is currently configured and operated, Navy operations at the Red Hill Facility are not protective of human health and the environment.

C. The DOH Has the Statutory Authority and the Duty to Issue the Emergency Order

6. Hawai'i Revised Statutes Section 342L-9(a) grants the DOH certain "emergency powers" to protect human health and the environment:

Notwithstanding any other law to the contrary, if the governor or the director determines that an imminent peril to human health and safety or the environment is or will be caused by:

- (1) A release;
- (2) Any action taken in response to a release from an underground storage tank or tank system; or
- (3) The installation or operation of an underground storage tank or tank system;

that requires immediate action, the governor or the director, without a public hearing, may order any person causing or contributing to the peril

to immediately reduce or stop the release or activity, and may take any and all other actions as may be necessary. The order shall fix a place and time, not later than twenty-four hours thereafter, for a hearing to be held before the director.

7. The Legislature did not limit the DOH's exercise of its emergency powers under H.R.S. § 342L-9(a) to only situations where harm to human health and safety or the environment is imminent. The plain language of the statute states that what must be imminent is "peril," which is "exposure to the risk of being injured, destroyed, or lost," not present harm to human health and safety or the environment. See <https://www.merriam-webster.com/dictionary/peril> (definition of "peril").

8. To argue against the applicability of H.R.S. § 342L-9(a), the Navy cites the United States Supreme Court's decision in *Meghrig v. Kfc W.*, 516 U.S. 479 (1996), which interprets the Resource Conservation and Recovery Act ("RCRA") provision that "permits a private party to bring suit only upon a showing that the solid or hazardous waste at issue 'may present an imminent and substantial endangerment to health or the environment.'" *Id.* at 485 (quoting 42 U.S.C. § 6972(a)(1)(B)). Even if the Supreme Court's interpretation of this RCRA provision, whose terms differ from H.R.S. § 342L-9(a), was relevant, it does not support a different understanding of H.R.S. § 342L-9(a)'s scope. In *Meghrig*, the Supreme Court cited with approval a Ninth Circuit case that held that the "imminent endangerment" language in RCRA "implies that there must be a threat which is present **now**, although the impact of the threat may not be felt until later." *Id.* at 486 (quoting *Price v. United States Navy*, 39 F.3d 1011, 1019 (9th Cir. 1994) (emphasis in original); see also *Price*, 39 F. 3d at 1019 ("[A] finding that an activity may present an imminent and substantial harm does not require actual harm. Courts have also consistently held that 'endangerment' means a threatened or potential harm and does not require proof of actual harm.") (citations omitted). The Supreme Court concluded that the

“imminent endangerment” language in RCRA’s citizen suit provision “was designed to provide a remedy that ameliorates present or *obviates the risk of future ‘imminent’ harms.*” *Meghrig*, 516 U.S. at 486 (emphasis added).

9. Unlike RCRA’s citizen suit provision, H.R.S. § 342L-9 is not limited to only situations where “a threat is present *now.*” *Meghrig*, 516 U.S. at 486 (quoting *Price*, 39 F.3d at 1019 (emphasis in original)). The Hawai‘i Legislature granted broader authority to the DOH, authorizing the DOH’s use of emergency powers whenever “imminent peril to human health and safety or the environment *is or will be caused by,*” *inter alia*, a release or operation of an underground storage tank system. H.R.S. § 342L-9(a) (emphasis added). Thus, the DOH is authorized to use its emergency powers under H.R.S. § 342L-9 in situations where the DOH determines there will be an imminent threat.

10. The legislative history confirms that the Legislature intended to confer on the DOH very broad emergency powers to protect the public and environment from the threats posed by underground storage tanks. In enacting H.R.S. § 342L-9, the Legislature stated that DOH’s emergency powers are intended to “address *any improper management of solid and hazardous waste* because the impact on our ground and surface water poses a serious threat to public health and safety.” 1995 Hawai‘i Senate Journal, Standing Committee Report No. 1193, at 1276 (emphasis added).

D. The Navy’s Red Hill Facility is Subject to Hawai‘i State Law

11. RCRA requires all federal agencies, including the Navy, to comply with all Hawai‘i “requirements, both substantive and procedural ..., respecting underground storage tanks in the same manner, and to the same extent, as any person is subject to such requirements,” including, “but ... not limited to, all administrative orders and all civil and administrative

penalties and fines, regardless of whether such penalties or fines are punitive or coercive in nature or are imposed for isolated, intermittent, or continuing violations.” 42 U.S.C. § 6991f(a).

12. RCRA’s express waiver of sovereign immunity subjects the Navy to the same substantive and procedural requirements as any person under state laws regulating USTs. *See id.* (“The United States hereby expressly waives any immunity otherwise applicable to the United States with respect to any such substantive or procedural requirement (including, but not limited to, any injunctive relief, administrative order or civil or administrative penalty or fine referred to in the preceding sentence, or reasonable service charge).”).

13. As such, the Navy’s Red Hill facility is subject to federal law, as well as Hawai‘i State law, statutes, and regulations. The Navy must comply with the Emergency Order.

E. The AOC Does Not Preclude Issuance of the Emergency Order

14. The AOC does not, as the Navy argues, preclude the DOH from exercising its “emergency powers” under H.R.S. § 342L-9. Pursuant to the paragraph 18(a) of the AOC, the DOH retains its authority “to take, direct, or order any and all actions necessary to protect public health, any source of drinking water or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste or constituents of such wastes, on, at, or from the [Red Hill] Facility, including but not limited to ***the right to bring enforcement actions under ... HRS*** chapters 340E, 342D and ***342L***.” Exhibit B-81 at BWS008953-54 (emphasis added).

15. Under limited circumstances, the AOC requires the DOH, before taking any enforcement action, first to make “good faith efforts to address the issue through a modification to this AOC and, if necessary, through the [AOC’s] Dispute Resolution process.” *Id.* at BWS008954. This requirement applies only if (1) the DOH seeks to take action “in

relation to any activity within the scope of this AOC” and (2) the DOH’s enforcement action is not “required on an emergency basis.” *Id.*

16. The parties to the AOC did not limit all enforcement actions that the DOH might take with respect to the Red Hill Facility. Rather, the requirements to seek modification to the AOC and, if necessary, engage in dispute resolution apply only to enforcement actions that relate to the subset of activities that fall “within the [AOC’s] scope.” *Id.* AOC paragraph 18(a) does not impose any limitation on the DOH’s ability to immediately take enforcement action with respect to other activities at the Red Hill Facility that fall outside the AOC’s scope.

17. Activities that fall “within the [AOC’s] scope” include only those activities that are specifically listed in the AOC itself, including those activities required pursuant to the SOW (Exhibit B-82), which is incorporated into the AOC by reference. *See* Exhibit B-81 at BWS008936 (¶ 6(a)).

18. The following provisions of the Emergency Order relate to activities that fall outside the AOC’s scope:

- Item 1, which orders the Navy to “[i]mmediately suspend operations including, but not limited to, fuel transfers at the Bulk Fuel Storage Tanks at the Facility.”
- Item 2, which orders the Navy to “[t]ake immediate steps to install a drinking water treatment system or systems at Red Hill Shaft to ensure distribution of drinking water conforms to the standards prescribed by the Safe Drinking Water Act and applicable regulations and minimize movement of the contaminant plume(s),” and to install the treatment

system “as expeditiously as practicable” following the DOH’s review and approval.

- Item 3, which orders the Navy to “submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess the Facility operations and system integrity to safely defuel the Bulk Fuel Storage Tanks;” to “conduct necessary repairs and make necessary changes in operations to address any deficiencies [the DOH] identifie[s] in the assessment and workplan;” and to perform “[c]orrective actions ... as expeditiously as possible.”
- Item 4, which orders the Navy to “defuel the Bulk Fuel Storage Tanks at the Facility” “[w]ithin 30 days of completion of required corrective actions under Item 3,” and subjects “[a]ny refueling ... to a determination by [the DOH] that it is protective of human health and the environment.”

Emergency Order at 4.

19. Because the foregoing provisions of the Emergency Order do not relate “to any activity within the [AOC’s] scope,” AOC paragraph 18(a)’s limitations on the DOH’s ability to immediately take enforcement actions do not apply to Items 1 through 4 of the Emergency Order. *See* Exhibit B-81 at BWS008954.

20. In addition, as noted above, AOC paragraph 18(a)’s limitations on the DOH’s ability to immediately take enforcement action that is “required on an emergency basis.” *Id.* While the AOC does not define the term “emergency,” it expressly reserves the DOH’s authority to take enforcement actions pursuant to three Hawai‘i statutes—H.R.S. chapters 340E, 342D and 342L—that do. Two of those statutes—H.R.S. chapters 342D and 342L—use the term

“emergency powers” and define the circumstances under which the DOH is authorized to exercise those powers. H.R.S. §§ 342D-10, 342L-9. Under both statutes, the Legislature authorized DOH to exercise its “emergency powers” whenever the DOH “determines that an imminent peril to the public health and safety *is or will be caused by*” regulated activities. H.R.S. §§ 342D-10(a), 342L-9(a) (emphasis added).¹

21. When the DOH exercises “emergency powers” to bring an enforcement action under H.R.S. § 342L-9, it is, by definition, acting “on an emergency basis.” Accordingly, because DOH is authorized under H.R.S. § 342L-9(a) to exercise its emergency powers, it may bring its enforcement action immediately. AOC paragraph 18(a)’s limitations on the DOH’s ability immediately to take enforcement action do not apply to any of the provisions of the Emergency Order, including Item 5.

F. Operations at the Red Hill Facility are Causing and Will Cause Imminent Peril to Human Health and the Environment

22. The DOH has the authority to “order any person causing or contributing to the peril to immediately reduce or stop the release or activity, and may take any and all other actions as may be necessary.” H.R.S. § 342L-9(a).

23. Under H.R.S. § Section 342L-9, the November 20, 2021 fuel release and resulting drinking water contamination is causing an imminent peril to human health and the environment, given that:

¹ H.R.S. Chapter 340E grants similar emergency powers to address “imminent hazards,” authorizing DOH to “take such actions necessary to protect the health of the public” whenever DOH “learn[s] that a contaminant is present in *or is likely to enter* a public water system or an underground source of drinking water and may present an imminent and substantial danger to the public.” H.R.S. § 340E-4 (emphasis added).

a. The Navy reported a release of a supposed 14,000 gallons of a mixture of fuel and water from the fire suppression system at the Red Hill Facility from the Navy's fire suppression system on November 20, 2021. *See* Exhibit B-415.

b. As a result of the fuel release into the environment on November 20, 2021, residents of O'ahu began to experience health concerns including skin irritation, digestive problems, sore throats, and headaches, among many other symptoms, and exposure to contaminated water and the attendant impacts to public health impacts continue to this day. *See, e.g.,* Lintner Decl. at ¶¶ 2-3; Aubart Decl. at ¶ 6; Charters Decl. at ¶¶ 3-4; Hearing Recording 2, 00:32:38 (Sierra Club witness Mr. Kevin T. Aubart stating that "we were experiencing I think like nausea, stomachaches, headaches, reoccurring headaches, fatigue, and skin irritations. And then my wife had used the water to clean one of her eyes, and she got kinda film in front of her eyes after a few days"); *id.* at 00:46:53, 00:49:10 (Sierra Club witness Ms. Kimberly Charters stating that her family was experiencing stomach bloat, visible stomach bloating, nausea, migraines, headaches, and nose burning); *id.* at 00:20:13-00:20:48 (Sierra Club witness Ms. Carly Lintner stating that her son developed a rash using the water); Hearing Recording 2 at 05:03:50 to 05:04:27 (Navy witness Capt. Michael McGinnis noting that a patient presenting symptoms consistent with exposure to petroleum product sought treatment within the 24 hours prior to his testimony).

c. As a result of the fuel release into the environment on November 20, 2021, the Navy is currently assessing the medical symptoms of over 5,000 individuals. McGinnis Decl. at ¶ 19. The symptoms that have been presented are consistent with exposure to a petroleum product, including nausea, vomiting, headaches, skin irritation, and rashes. *Id.*

d. As a result of the fuel release into the environment on November 20, 2021, as of December 11, 2021, the Navy relocated approximately 1,741 families away from the contaminated water resources. *See* Exhibit B-416. The Army has evacuated additional personnel and their families in response to the water contamination from the Red Hill facility. *See* Exhibits S-8 to S-10 (Army memoranda authorizing “Evacuation of Personnel, Dependents, and Employees Impacted by Water Contamination”); Aubart Decl. ¶¶ 1, 8; Charters Decl. ¶¶ 1, 13-15, 18; Lintner Decl. ¶¶ 1, 7-8.

e. As a result of the fuel release into the environment on November 20, 2021, the Navy’s Red Hill Shaft water well remains contaminated and cannot be turned on for operation due to the contamination. Hearing Recording 2, 3:01:11 (Navy Witness Capt. James G. Meyer stating, “we have not fully resolved everything that has occurred and so while we have managed and there is currently no further issues that are occurring we are recovering from what has had occurred.”).

f. As a result of the fuel release into the environment on November 20, 2021, the BWS shut off three of its well stations that are in close proximity to the Red Hill facility. Kawata Test. at ¶ 39.

g. As a result of the fuel release into the environment on November 20, 2021, laboratory test results and reports from samples taken from the Navy’s Red Hill Shaft on December 5, 2021 show TPH-d levels as high as 140,000 µg/L in the Navy’s Red Hill Shaft, exceeding the DOH EAL for drinking water toxicity of 400 µg/L by orders of magnitude. *See* Exhibit B-409 at BWS043460.

24. Under H.R.S. § 342L-9, continued operations at the Red Hill Facility are causing and, as long as fuel remains in the Red Hill UST system, will continue to cause an imminent peril to human health and the environment, given that:

a. The Red Hill facility has a long history of fuel releases, including 76 documented fuel release incidents involving nearly 200,000 gallons of product. *See* Norfleet Test. at ¶ 12.a, Exh. B.

b. As a result of the way the Red Hill Facility is currently constructed, operated, and maintained, the groundwater under the Red Hill Facility has been, and will continue to be, impacted by Navy operations. *Kawata Test.* at ¶ 34 (“Groundwater testing data collected by the Navy since 2005 show petroleum contamination present in the groundwater and rocks underneath the [Red Hill facility].”); Exhibit D16 at 5 (“Jet fuel has likely impacted groundwater beneath the tank farm and beyond both from the 2014 release and prior releases.”); Exhibit B-409 at BWS043460 (water samples from the Navy’s Red Hill Shaft drinking water well detecting diesel range organics as high as 140,000 micrograms per liter (µg/L)).

c. As a result of the way the Red Hill Facility is currently constructed, operated, and maintained, future releases of fuel are inevitable because the Navy cannot prevent them. *Norfleet Test.* at ¶ 10.b; *Norfleet Expert Report* at iii, 12-61; *Hearing Recording 2* at 03:30:09 to 03:32:46. Based on the Navy’s own QRVA, which understates actual risk, the probability of a leak between 1,000 and 30,000 gallons occurring over the next year is 27.6%, occurring over the next five years is 80.1%, occurring over the next ten years is 96.0%, and occurring over the next twenty years is 99.8%. *Ramsey Decl.*, ¶¶ 8-11. In addition, the probability of a leak greater than 30,000 gallons over the next ten years is 17.7% and over the

next twenty years is 32.2%. *Id.* at ¶¶ 12-13. The probability of a leak greater than 120,000 gallons over the next one hundred years is 34.1%. *Id.* at ¶ 14.

d. As a result of the way the Red Hill Facility is currently constructed, operated, and maintained, the Navy cannot accurately characterize or adequately remediate the contamination from the Red Hill Facility. The Navy lacks an adequate monitoring well network, (*see* Exhibit B-422 at BWS052487), groundwater model (*see* Hearing Recording 1 at 03:12:02), and permanent water treatment system (*see* Hearing Recording 2 at 03:04:19) to address future fuel releases.

25. Item 1 of the Emergency Order requires the Navy to “[i]mmediately suspend operations including, but not limited to, fuel transfers at the Bulk Fuel Storage Tanks at the Facility. Respondent shall, however, maintain environmental controls, release detection and release response protocols, and compliance with applicable regulations.” Emergency Order at 4. These actions are necessary to reduce or stop the imminent peril caused by continuing operations at the Red Hill Facility as currently configured and operated.

26. Item 2 of the Emergency Order requires the Navy to “[t]ake immediate steps to install a drinking water treatment system or systems at Red Hill Shaft to ensure distribution of drinking water conforms to the standards prescribed by the Safe Drinking Water Act and applicable regulations and minimize movement of the contaminant plume(s). The treatment system(s) shall be reviewed and approved by the Department prior to installation and shall be installed as expeditiously as practicable.” *Id.* These actions are necessary to reduce or stop the imminent peril caused by the November 20, 2021 fuel release into the environment and continuing operations at the Red Hill Facility as currently configured and operated.

27. Item 3 of the Emergency Order requires the Navy to “[w]ithin 30 days of the receipt of the EO submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess operations and system integrity of the Facility to determine design and operational deficiencies that may impact the environment and develop recommendations for corrective action to the Department with an implementation schedule. Upon the Department’s approval, perform work and implement correct actions. Corrective actions shall be performed as expeditiously as possible.” *Id.* These actions are necessary to reduce or stop the imminent peril caused by any continuing operations at the Red Hill Facility as currently configured and operated.

28. Item 4 of the Emergency Order requires the Navy to “[w]ithin 30 days of completion of required corrective actions under Item 3, defuel the Bulk Fuel Storage Tanks at the Facility. Any refueling shall be subject to a determination by the Department that it is protective of human health and the environment.” *Id.* These actions are necessary to reduce or stop the imminent peril caused by continuing operations at the Red Hill Facility as currently configured and operated.

29. Item 5 of the Emergency Order requires the Navy to, “[w]ithin 30 days of receipt of this EO submit a workplan and implementation schedule, prepared by a qualified independent third party approved by the Department, to assess operations and system integrity of the Facility to determine design and operational deficiencies that may impact the environment and develop recommendations for corrective action. Submit the assessment, proposed work and recommendations for corrective action to the Department with an implementation schedule. Upon the Department’s approval, perform work and implement corrective actions. Corrective actions shall be performed as expeditiously as possible.” *Id.* These actions are necessary to

reduce or stop the imminent peril caused by continuing operations at the Red Hill Facility as currently configured and operated.

30. Whether the release of 14,000 gallons of jet-fuel contamination into O‘ahu’s aquifer came from “pipelines at or near the Red Hill facility,” as the Navy’s working hypothesis assumes, or “from the Bulk Fuel Storage Tanks themselves” has no bearing on whether the DOH is authorized to take prompt, critical action to protect public health and the environment. Navy’s Opp. to Motions to Intervene at 3. H.R.S. Chapter 342L broadly defines “underground storage tank” and “tank system” to include “an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any.” H.R.S. § 342L-1; *see also* HAR § 11-280.1-12 (definition of “underground storage tank”).

31. For the same reason, the Navy’s Hotel and Kilo Piers, which have recently discharged fuel into the environment, are parts of the Red Hill Facility. *See* H.R.S. § 342L-1; HAR § 11-280.1-12

32. The Navy’s argument that the Secretary of the Navy’s December 7 Order already requires many of these actions ignores the facts that (1) the Secretary can unilaterally revoke his order at any time and (2) the DOH oversight is necessary to ensure the required actions are carried out in a manner that adequately protects human health and safety and the environment. Hearing Recording 2 at 02:14:04 to 02:14:20 (Navy witness Assistant Secretary of the Navy James B. Balocki testifying that “Q. So the Secretary could rescind this order next week if there is a need to tap into the Red Hill tanks? A. Precisely.”). Accordingly, an order from DOH is necessary.

33. The Emergency Order recognizes that the threat of imminent harm from the Red Hill Facility cannot be removed overnight; it will take time to defuel the Red Hill

Facility. Accordingly, the Emergency Order provides thirty days for the Navy to “submit a workplan and implementation schedule,” allows additional time for any necessary corrective actions to be performed expeditiously, and then allows yet more time for the Navy to “defuel the Bulk Fuel Storage Tanks at the Facility.” *Id.* Given that it will necessarily take many months to defuel the Red Hill USTs, the DOH cannot delay action until the next catastrophic fuel release from the Red Hill Facility strikes. The “improper management” of fuel at the Red Hill Facility “poses a serious threat to public health and safety,” demanding immediate action to comply with the Legislature’s intent in enacting H.R.S. § 342L-9. 1995 Hawai‘i Senate Journal, Standing Committee Report No. 1193, at 1276.

34. No one can say with absolute certainty when another leak from the Red Hill Facility will contaminate our groundwater. But the peril is both real and imminent. The single most important precautionary measure that can be taken to address the imminent peril is to defuel the tanks that lie perched over O‘ahu’s sole source drinking water aquifer.

G. Hawai‘i’s Constitutional Public Trust Doctrine Mandates Immediate and Full Implementation of the Emergency Order

35. Article XI, section 1 of the Hawai‘i Constitution mandates that “the State and its political subdivisions shall conserve and protect Hawaii’s natural beauty and all natural resources, including . . . water,” “[f]or the benefit of present and future generations,” and “shall 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.” Haw. Const. art. XI, § 1. Moreover, “[a]ll public natural resources are held in trust by the State for the benefit of the people.” *Id.* Article XI, section 7 similarly provides that “[t]he State has an obligation to protect, control and regulate the use of Hawaii’s water resources for the benefit of its people.” Haw. Const. art. XI, § 7. Article XI, sections 1 and 7 “adopt the public trust doctrine as a

fundamental principle of constitutional law in Hawai‘i.” *In re Waiāhole Ditch Combined Contested Case Hr’g*, 94 Hawai‘i 97, 132, 9 P.3d 409, 444 (2000) (“*Waiāhole*”).

36. The DOH is responsible for fulfilling the State’s public trust obligations. *See Kelly v. 1250 Oceanside Partners*, 111 Hawai‘i 205, 231, 140 P.3d 985, 1011 (2006) (noting DOH’s public trust duties under the Hawai‘i Constitution). The public trust applies to “all water resources,” including “ground water,” “without exception or distinction.” *Waiāhole*, 94 Hawai‘i at 133, 9 P.3d at 445. Safeguarding water resources pursuant to the public trust necessarily includes the duty and authority to conserve and protect water quality. *See Kauai Springs, Inc. v. Planning Comm’n of Cnty. of Kauai*, 133 Hawai‘i 141, 172, 324 P.3d 951, 982 (2014) (“The public trust is, therefore, the duty and authority to maintain the purity and flow of our waters for future generations.”); *see also Kelly*, 111 Hawai‘i at 231, 140 P.3d at 1011 (noting that the DOH is “guardian of the water quality in this state”).

37. “The State’s constitutional public trust obligations exist independent of any statutory mandate and must be fulfilled regardless of whether they coincide with any other legal duty.” *Ching v. Case*, 145 Hawai‘i 148, 178, 449 P.3d 1146, 1176 (2019). The “basic premise” of the public trust is “that the state has certain powers and duties which it cannot legislatively abdicate.” *Waiāhole*, 94 Hawai‘i at 130-31, 9 P.3d at 442-43. Thus, agency statutory duties “do not override the public trust doctrine or render it superfluous;” rather, “the doctrine continues to inform the [statute]’s interpretation, define its permissible ‘outer limits,’ and justify its existence.” *Id.* at 133, 9 P.3d at 445. Even where the Legislature has conferred discretion upon a state agency, such discretion is “circumscribed by the public trust doctrine.” *Kelly*, 111 Hawai‘i at 230, 140 P.3d at 1010.

38. The public trust places upon state agencies “a fiduciary duty analogous to the common law duty of a trustee.” *Ching*, 145 Hawai‘i at 170, 449 P.3d at 1168. “The most basic aspect of the State’s public trust duties is the obligation to protect and maintain the trust property and regulate its use,” which includes an “obligation to reasonably monitor the trust property to ensure it is not harmed.” *Id.* at 170, 177, 449 P.3d at 1168, 1175 (quotation marks omitted). “As trustee, the State must take an active role in preserving trust property and may not passively allow it to fall into ruin.” *Id.* at 177, 449 P.3d at 1175.

39. Under the public trust, the DOH “must take the initiative in considering, protecting, and advancing public rights in the resource at every stage of the planning and decisionmaking process.” *Waiāhole*, 94 Hawai‘i at 143, 9 P.3d at 455.

40. The public trust also incorporates the precautionary principle, *i.e.*, “where there are present or potential threats of serious damage, lack of full scientific certainty should not be a basis for postponing effective measures to prevent environmental degradation.” *Id.* at 154, 9 P.3d at 466. “[W]here uncertainty exists, a trustee’s duty to protect the resource mitigates in favor of choosing presumptions that also protect the resource.” *Id.* (citations omitted).

41. The DOH’s statutory discretion in issuing, implementing, and enforcing the Emergency Order is circumscribed and must be informed by its constitutional public trust duties. Under the facts and circumstances of this case, the Emergency Order is necessary to fulfill the DOH’s public trust obligations.

42. The Navy has played up uncertainties about exactly when or how the next fuel leak will poison O‘ahu’s drinking water supply. The precautionary principle, however, mandates that, “where there are present or potential threats of serious damage, lack of full scientific certainty should not be a basis for postponing effective measures to prevent

environmental degradation.” *Waiāhole*, 94 Hawai‘i at 154, 9 P.3d at 466. “[W]here uncertainty exists, a trustee’s duty to protect the resource mitigates in favor of choosing presumptions that also protect the resource.” *Id.* The only way to remove the threat of catastrophic harm from the Red Hill Facility is to require the Navy promptly to defuel the tanks, as the Emergency Order requires.

H. The Emergency Order Is Necessary to Protect the Public’s Constitutional Right to a Clean and Healthful Environment

43. Article XI, section 9 of the Hawai‘i Constitution recognizes that “[e]ach person has the right to a clean and healthful environment, as defined by laws relating to environmental quality, including control of pollution and conservation, protection and enhancement of natural resources.” Haw. Const. art. XI, § 9. Moreover, “[a]ny person may enforce this right against any party, public or private, through appropriate legal proceedings, subject to reasonable limitations and regulation as provided by law.” *Id.*

44. Article XI, section 9 has “both a substantive and procedural component”:

First, it recognizes a substantive right “to a clean and healthful environment,” with the content of that right to be established not by judicial decisions but rather “as defined by laws relating to environmental quality.” Second, it provides for the enforcement of that right by “any person” against “any party, public or private, through appropriate legal proceedings, subject to reasonable limitations and regulation as provided by law.”

Cnty. of Hawai‘i v. Ala Loop Homeowners, 123 Hawai‘i 391, 409, 235 P.3d 1103, 1121 (2010) (“*Ala Loop*”).

45. The public’s substantive rights to a “clean and healthful environment” pursuant to article XI, section 9 of the Hawai‘i Constitution are defined by H.R.S. § 342L-9, which confers broad emergency powers on the DOH to protect the public from “imminent peril

to human health and safety or the environment” that “is or will be caused by” a UST. H.R.S. § 342L-9(a).

46. Under the facts and circumstances of this case, taking any action short of immediate and full implementation of the Emergency Order would infringe upon the public’s right to a clean and healthful environment. *Cf. Cape-France Enterprises v. Estate of Peed*, 305 Mont. 513, 519-20, 29 P.3d 1011, 1016-17 (2001) (under analogous constitutional provisions guaranteeing the “right to a clean and healthful environment,” the Montana Supreme Court affirmed the trial court’s rescission of a contract between two private parties for a land sale, where forcing the sale would have bound the seller to “drill a well on its property in the face of substantial evidence that doing so *may cause* significant degradation of uncontaminated aquifers and pose serious public health risks,” and holding that “mandat[ing] specific performance of the contract . . . would not only . . . require a private party to violate the Constitution—a remedy that no court can provide—but . . . would involve the state itself in violating the public’s . . . fundamental rights to a clean and healthful environment”) (emphasis added).²

III. RECOMMENDED DECISION

1. Based upon the Findings of Fact and Conclusions of Law set forth above, the Hearings Officer proposes and recommends that the DOH issue and enforce the Emergency Order as written and without exception.

² The Montana constitutional provisions on which the court based its rulings provide that: “[a]ll persons are born free and have certain inalienable rights[,] . . . includ[ing] the right to a *clean and healthful environment*,” Mont. Const. art. II, § 3 (emphasis added), and “[t]he state and each person shall maintain and improve a clean and healthful environment in Montana for present and future generations.” Mont. Const. art. IX, § 1.

DATED: Honolulu, Hawai‘i, December 23, 2021.

By /s/ Wade H. Hargrove III
WADE H. HARGROVE III
Deputy Attorney General

Attorney for Department of Health

By /s/ David L. Henkin
DAVID L. HENKIN
EARTHJUSTICE

Attorney for Intervenor
Sierra Club

By /s/ Jeff A. Lau
JEFF A. LAU
Deputy Corporation Counsel
DANA M.O. VIOLA
Corporation Counsel

Attorney for Intervenor
Board of Water Supply,
City and County of Honolulu

HOLLY M. SHIKADA, 4017
Attorney General of Hawai'i

DIANE K. TAIRA, 3761
WADE H. HARGROVE III, 7898
Department of the Attorney General, State of Hawai'i
465 South King Street, Room 200
Honolulu, Hawai'i 96813
Telephone: (808) 587-3050

Attorneys for Department of Health, State of Hawai'i

DEPARTMENT OF HEALTH

STATE OF HAWAII

In the Matter of the Emergency Order to
UNITED STATES NAVY

For Emergency Change-In-Service and
Defueling of 20 Underground Storage
Tanks, Red Hill Bulk Fuel Storage Facility

DOCKET NO. 21-UST-EA-02

CERTIFICATE OF SERVICE

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on **December 23, 2021**, a copy of the foregoing DEPARTMENT OF HEALTH, SIERRA CLUB, AND HONOLULU BOARD OF WATER SUPPLY JOINT PROPOSED FINDINGS OF FACT, CONCLUSIONS OF LAW, AND RECOMMENDED DECISION will be served electronically on the below-identified party, via electronic mail (email) to the following attorneys of record for Respondent at the following email addresses:

Craig D. Jensen, Esq. - craig.d.jensen.civ@us.navy.mil
Marnie E. Riddle, Esq. - marnie.e.riddle.civ@us.navy.mil
Jonathan C. McKay, Esq. - jonathan.c.mckay.civ@us.navy.mil

Attorneys for Respondent, United States Department of the Navy

DATED: Honolulu, Hawaii, **December 23, 2021**

/s/ Wade H. Hargrove III
WADE H. HARGROVE III
Deputy Attorney General

Attorney for Defendant
HAWAII DEPARTMENT OF HEALTH