



DAVID Y. IGE
GOVERNOR

JOSH GREEN
LT. GOVERNOR

**STATE OF HAWAII
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS**

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CATHERINE P. AWAKUNI COLÓN
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

Testimony of the Department of Commerce and Consumer Affairs

**Before the
House Committee on Consumer Protection & Commerce
Friday, February 25, 2022
1:00 p.m.
Via Videoconference**

**On the following measure:
H.B. 1894 H.D.2 RELATING TO HUMAN REMAINS**

Chair Johanson and Members of the Committee:

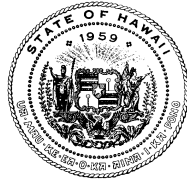
My name is Catherine P. Awakuni Colón, and I am the Director of the Department of Commerce and Consumer Affairs (“Department”). The Department offers comments on this bill.

The purpose of this bill is to accommodate the use of both traditional Native Hawaiian burial practices and environmentally-friendly burial practices by including water cremation in the treatment and disposal of human remains.

The Department is unfamiliar with the public health and environmental issues relating to the disposition of dead human bodies and as such takes no position on whether hydrolysis facilities should be made available in the state as an alternative to other methods of disposition of human remains as may be provided under existing law.

The HD2 requires the Department of Health (DOH) to establish licensing requirements, training standards, and to issue licenses to hydrolysis facilities in the State. The Department prefers and supports the language of the H.D.2 over prior iterations of this bill.

Thank you for the opportunity to testify on this bill.



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

**Testimony COMMENTING on HB1894 HD2
RELATING TO HUMAN REMAINS**

REP. AARON LING JOHANSON, CHAIR
HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

Hearing Date: 2/25/2022

Room Number: Videoconference

1 **Fiscal Implications:** None.

2 **Department Testimony:** The Department of Health (DOH) recommends striking references to
3 "licensure" for hydrolysis facilities because it is an inappropriate regulatory control and
4 duplicates or supplants county responsibilities. The preamble of this measure itself states that
5 the process does not contaminate ground water and is considered environmentally friendly, so
6 the rationale for licensure to protect human and environmental health is unclear. However, a
7 permit or certificate in lieu of a license may be required to be issued by the respective county
8 since county discharge regulations may vary. In turn, the State will will monitor the counties
9 pursuant to statute and federal regulations.

10 DOH does not license entities other than healthcare facilities and durable medical equipment
11 suppliers to ensure the health, safety, and welfare of patients; therefore, state licensing of non-
12 healthcare-related facilities establishes a new and unnecessary precedent.

13 **Offered Amendments:** The department recommends the following amendments to clarify
14 appropriate regulatory oversight and conformance with practices of the mortuary and funeral
15 home industry. Specifying commercial facilities handling human remains excludes veterinary
16 practices and the University of Hawaii John A. Burns School of Medicine that are existing users
17 of this technology.

1 § -2 ~~[Licensing; hydrolysis]~~ Hydrolysis
2 facilities operating as mortuaries or funeral
3 establishments; human remains. (a) Any commercial
4 hydrolysis facility in the State handling human remains
5 shall be subject to existing ~~[licensing]~~ requirements
6 ~~[established by the department.]~~ for funeral
7 establishments and mortuaries.

8 ~~[(b) Each operator of a hydrolysis facility in the~~
9 ~~State shall undergo training pursuant to standards~~
10 ~~established by the department and shall hold a valid~~
11 ~~license issued by the department.]~~
12

13
14 § -4 **Wastewater discharge.** ~~[Sterile wastewater~~
15 ~~shall be discharged into the sewer system as approved~~
16 ~~by the counties.]~~ Alkaline hydrolysis facilities shall
17 pretreat the wastewater effluent prior to discharge
18 pursuant to county, state, and federal regulations.
19 The wastewater shall only be discharged into a
20 municipal sewer system as approved by the counties.
21 Discharges into privately owned wastewater systems
22 shall not be allowed."

23



Hawaii Funeral & Cemetery Association, Inc.
1330 Maunakea Street, Honolulu, Hawaii 96817

Written Testimony providing comments on HB1894 HD2– Relating to Human Remains

February 23, 2022

To: Representative– Aaron Ling Johanson, Chair- COMMITTEE ON CONSUMER PROTECTION & COMMERCE
Representative – Lisa Kitagawa, Vice Chair- COMMITTEE ON CONSUMER PROTECTION & COMMERCE
Committee Members

HEARING DATE/TIME: February 25th 2022 / 1:00PM

STATEMENT FROM THE HFCA BOARD OF DIRECTORS

The Hawaii Funeral & Cemetery Association, Inc. is a Domestic Nonprofit Corporation, comprised of 12 independent Board of Directors representing 14 mortuaries and 10 cemeteries that serve the largest majority of Hawaii’s families. The HFCA is an independent association that acts in the best interest of its members and the community. The HFCA Board of Directors would like to provide comment on HB1894 HD2 in its current form.

Dear Chair Johanson, Vice Chair Kitagawa and Committee Members

My name is Jay Morford, President and Legislative Chair for the Hawaii Funeral and Cemetery Association, Inc. (“HFCA”). The HFCA would like to provide the following comments on HB1894 HD2 (“Bill”) “Relating to Human Remains”.

The HFCA believes that given the potential environmental effects of Alkaline Hydrolysis, proper regulatory oversight should be required. The HFCA fully supports individual choice for alternative forms of disposition. However, to ensure the safety of Hawaiian residents and protection of consumers, this “Bill” must provide for oversight by regulatory agency(s) over the technology, facilities, environmental impact and the operators licensing. Based on California’s Department of Health Vital Statistics, as of February, 10th 2022 there have been (ZERO) Alkaline Hydrolysis disposition permits issued by the State of California from 2014 - 2021. In previous testimony provided by the proponents the HFCA was given the impression this technology was currently being utilized in California, which appears not to be accurate. We would like to know what challenges there have been surrounding Alkaline Hydrolysis since legalized in California to help with future regulatory requirements in Hawaii. The HFCA can provide the 2014 -2021 “California Vital Data” on request.

CALIFORNIA VITAL DATA REPORT

Your custom report is displayed below

California Death Report (report generated on 02/19/2022, data last refreshed 02/10/2022)

Type of Event	Year of Death	Residence or Place of Death	State of Death	Disposition Type	Total Deaths
Death	2021	Place of Death	CA	Burial	108483
Death	2021	Place of Death	CA	Cremation	217389
Death	2021	Place of Death	CA	Alkaline Hydrolysis	0
Death	2021	Place of Death	CA	Scientific Use	3051
Death	2021	Place of Death	CA	Other/Unknown	3911

Viewing 1-5 of 5 Records

Death data is available from January 2014 through December 2021
Data last refreshed 02/10/2022

The HFCA appreciates the language that has been added to the licensure and regulations requirements. We would like to request a minor change to paragraph **§ -2 Licensing**. Prior to HB1894 HD2 moving forward we are requesting a **Proposed Amendment for HB1894 HD2**

§ -2 Licensing; hydrolysis facilities; human remains.

§ -2 **Licensing; hydrolysis facilities; human remains.** (a) Any hydrolysis facility in the State shall be subject to existing licensing requirements established by the Department of Health. (b) Prior to the issuance of an Alkaline Hydrolysis Facility Operator's license; each operator of a hydrolysis facility in the State shall undergo alkaline hydrolysis operator training pursuant to standards established by the Department of Health and hold a valid license and ~~or certificate~~ certification issued by the department." (c) Alkaline Hydrolysis Facilities shall comply with TITLE 11 DEPARTMENT OF HEALTH CHAPTER 22 MORTUARIES, CEMETERIES, EMBALMERS, UNDERTAKERS, AND MORTUARY AUTHORITIES

We would like to highlight just a few issues related alkaline hydrolysis that warrant consideration of our legislators. We respectfully request an amendment to this Bill to address these issues and ensure full regulatory oversight of this new means of disposition.

Alkaline Hydrolysis (AH) Environmental Impacts: The amount of water required to complete the AH process of one decedent and the discharge resulting raise concerns about the potential environmental impact to our water supply. Approximately 300 gallons of water (Source: <https://www.joincake.com/blog/alkaline-hydrolysis-water-cremation-explained>) is used in this process. It has been reported the discharge into the sewer system exceeds a Level of PH 11. In areas like San Francisco, the legal limit for the water to be released in the sewer system is PH 9. The overall AH process can take up to a full day and there is approximately 20%-30% more cremated remains to return to the family after processing.

Traditional Disposition: While the HFCA strongly supports cultural traditions and providing people choices of disposition, it is still unproven that AH is cleaner process than a traditional process of cremation in a crematory or burial. In regards to embalming fluid and other chemicals, there are no studies in Hawaii that show there have been any water or ground contamination from embalmed bodies. In fact, studies to prove otherwise. Hawaii has a 65% cremation rate, much of that related to cultural preference. To our knowledge there have been no air quality studies that show crematories contribute to poor air quality. The Department of Health Clean Air Branch regulates the crematories in the State of Hawaii.

There have been groups that have questioned if alkaline hydrolysis is a respectful and dignified way to handle human remains. For example, the Catholic Conference of Ohio has contributed to the defeat of alkaline hydrolysis legislation in that state, arguing that "Dissolving bodies in a vat of chemicals and pouring the resultant liquid down the drain is not a respectful way to dispose of human remains." *Source: nolo.com/legal-encyclopedia/alkaline-hydrolysis*

Cost Effectiveness. Alkaline hydrolysis equipment is expensive; it may cost a provider between \$150,000 and \$400,000 to purchase an AH unit, depending on the size of the machine as well as the temperature and pressure at which the system can operate. (Higher temperature and greater pressure result in faster decomposition, which allows a provider to handle multiple bodies per day, if necessary.) Because the equipment costs more than traditional cremation machinery, the procedure may be more expensive for consumers. That said, the costs of burial and cremation services vary widely and AH may cost more, about the same, or less than traditional methods, depending on the provider and options you choose. For example, in Minnesota, basic alkaline hydrolysis costs about \$2,400, while the cost of direct cremation -- that is, simple cremation without an on-site ceremony -- ranges from about \$800 to more than \$4,300, depending on the provider. *Source: nolo.com/legal-encyclopedia/alkaline-hydrolysis.*

In Hawaii you can get a simple cremation for approximately \$1000.

In closing, we will restate our position that there needs to be a full discussion of regulatory agency(s) oversight over the technology, facilities, environmental impact and the operators licensing prior to moving this bill forward.

The HFCA is requesting the HFCA's amendment be added to this bill. "**§ - 2 Licensing; human remains**" be added to the bill.

Mahalo,

HFCA Board of Directors



Testimony in Support of Water Cremation / Alkaline Hydrolysis

Bill Number: HB 1894 HD2

Committee(s): CPC

Hearing Date & Time: February 25, 2022, 1 PM

Last year, a bill was introduced for a new, environmentally friendly cremation technology for the funeral industry and specifically, Native Hawaiian burials. It is called Alkaline Hydrolysis (water cremation). This bill easily made its way through the House and Senate but was stalled at the rules committee level. While this was disappointing, it told me that we had more work to do in educating our legislators and the public on the benefits of this technology. Over the summer, we provided educational briefings, received positive media attention and most recently Archbishop and “eco-warrior” Desmond Tutu chose this technology as his final disposition. A true testament of the technology.

Water cremation is a water-based dissolution process for human remains that uses alkaline chemicals, heat, agitation, and pressure, to gently accelerate natural decomposition. In 2010, the Cremation Association of North America changed its definition of cremation to include alkaline hydrolysis. (2) There are 3 byproducts of the water cremation process: liquid water, prosthetics in the body, and bone fragments or cremated remains.

The liquid is considered a sterile wastewater, with no remaining DNA and is discharged with the permission of the local wastewater treatment authority, in accordance with federal, state, and local laws.

Water cremation follows the same steps as flame cremation and the establishment and operators should be held to the same standards and certification.

Both are fully automated processes, with 3 minor differences

- 1.) The use of water and chemical (potassium hydroxide) instead of fossil fuels
- 2.) Pacemakers can be left in the body
- 3.) There is a drying process before pulverizing the sterile bone fragments

Having said this above, **I urge you to amend page 4, section b to include the word “certification” and strike the word (~~licensure~~) on line 6, as crematory operators undergo a certification process and not a licensure process.**

This technology has already been used in Hawaii for the past 15 years for veterinary purposes at the University of Hawaii. The volume of liquid is under 300 gallons per cycle. The prosthetics

are recycled by the same companies that service the flame cremation industry, and the sterile cremated remains are returned to the legal next of kin.

The environmental benefits from water cremation in comparison to current traditional flame cremation and burial practices includes the following:

- Greater than 75% reduction of carbon footprint
- No mercury emissions from dental fillings
- Uses 1/8 the amount of energy of flame-based cremation
- Battery-operated pacemakers and other medical devices do not need to be removed prior to beginning the process
- Harmful poly-carbons from catheters, breast implants, and hernia mesh are not emitted into the air or ground water

To fully understand water cremation, you must understand autoclave technology. An autoclave sterilizes doctor's and dentist's instruments after a surgical procedure. It is critical that the instruments used in surgery are sterile to irradicate the spread of potential harmful pathogens and other airborne diseases. The CDC guidelines (1) requires the sterilization process to achieve 250F for a minimum of 20 minutes to destroy any remaining pathogens that might be present. By heating to this temperature, the autoclave technology destroys the pathogens on the instruments; AND it also destroys any viral pathogens that might be in and around the airspace.

Famous institutions such as the Mayo Clinic and UCLA use water cremation equipment, which operates at 302F for a minimum of 1 hour, destroying pathogens 60,000 times greater than the CDC guidelines.

Currently, 21 states have passed legislation in support of the water cremation technology. It is legal in several provinces in Canada, Scotland, Ireland, the Netherlands, Finland, and the United Kingdom. (2) When given the option of flame or water cremation, we are seeing that 60% of cremation customers are selecting water cremation due to its gentleness and its environmentally friendly attributes.

The citizens of Hawaii deserve the opportunity to select water cremation when choosing final disposition. The Hawaiian culture is deep rooted, supports the stewardship of the environment and respects the Earth. With limited space on its islands for cemeteries and the continued threat of global warming, this technology would fit perfectly into the Hawaiian culture. I urge you to support SB2828 and the water cremation technology into law. as it will allow the citizens of Hawaii who are seeking a more cultural, gentle and environmentally friendly disposition, a greener option than burial or flame cremation.

Kindest Regards,

Dean R. Fisher

Dean R. Fisher- Funeral Director
Fisher and Associates

deanfisher5995@gmail.com

507-269-8906

1.) <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/sterilization/sterilizing-practices.html>

2.) <https://www.cremationassociation.org/page/alkalinehydrolysis>

HB-1894-HD-2

Submitted on: 2/24/2022 11:44:11 AM

Testimony for CPC on 2/25/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Kawehi Correa	Aloha Mortuary	Support	Yes

Comments:

- please amend and strike out page 4 section b lines 4-7. Water cremation should be held to the current cremation standards.

TO: HOUSE COMMITTEE ON COMMITTEE ON CONSUMER PROTECTION AND
COMMERCE

RE: HB1894 HD2 RELATING TO HUMAN REMAINS.

Accommodates the use of both traditional Native Hawaiian burial practices and environmentally-friendly burial practices by including water cremation in the treatment and disposal of human remains. Effective 7/1/2060. (HD2)

FOR HEARING ON Friday, February 25, 2022

FROM:

Kenneth R. Conklin, Ph.D.
46-255 Kahuhipa St. Apt. 1205
Kane'ohe, HI, 96744
Tel. 808.247.7942

TESTIMONY IN SUPPORT

I write this testimony as an individual knowledgeable about pre-contact native Hawaiian burial practices, and having my own plans for disposition of my remains after death. I maintain a large webpage describing the NAGPRA law in general and its applications in Hawaii, including compilations of news reports and commentaries with subpages for each year from 2003 to now. Some topics are: Mokapu, Honokahua, Bishop Museum ka'ai; Providence Museum spear rest; Kawaihae (Forbes Cave) artifacts; the Hui Malama organization; Emerson Collection at Kanupa Cave; bones uncovered during construction at Ward Center; planning for Honolulu rail project; protests against Kawaiaha'o Church for unearthing and moving cemetery burials during demolition of a meeting hall to prepare for construction of a new one. <https://tinyurl.com/yt7se>

I have great respect for many elements of the pre-contact culture, and believe that individuals today should have the right to choose whatever

method of body disposal they prefer for themselves and their families, provided it does no harm to public health and minimal harm to the environment. I have a large webpage created in 2007 which led to a 1300 word summary published in "West Hawaii Today" and drew telephoned praise from Herb Kane:

"Hawaiian Bones -- The 3 Rs -- Rites For the Dead, Rights Of the Living, and Respect for All"

<https://tinyurl.com/4xcuc5sr>

This bill is extremely clear, well-written, detailed, and magnanimous to all ethnicities. Congratulations to its author(s). I strongly support this bill and find nothing to cause misgivings. Here are some of the most important aspects that elicit my support:

This bill draws upon pre-contact native Hawaiian burial customs, and tries to convince ethnic Hawaiians that alkaline hydrolysis (water cremation) is consistent with the ancient practice of placing a corpse into an imu to cause the long-bones to be cleaned of flesh so they could be enclosed in a basket for burial.

But what makes this bill especially attractive is that there is no hint of racial separatism or exclusion. What it proposes is available to all people regardless of race.

The technique of alkaline hydrolysis is also useful as an example of how the fundamental concept in an ancient custom (bone cleaning in imu) can be updated to modern technology (alkaline hydrolysis with high heat), so that ethnic Hawaiians can feel comfortable that using the new method is consistent with the ancient method and therefore is not a desecration and will have the blessings of their ancestors.

This bill provides evidence that water cremation is not detrimental to public health, has been approved and is being used in other states, and is less damaging to the environment than cremation by fire. The information about other states shows that this method of disposal is not limited by race or ethnicity.

This bill provides a procedure for dealing with unclaimed bodies, or remains after a corpse has been used for transplantation, therapy, research, or education. Water cremation is offered as one of the methods that a donor's family or unclaimed-body administrator is authorized to choose, but choice is allowed and water cremation is not mandated.

In my own case, I am registered with the willed body program of the UH John A. Burns School of Medicine. In my medical advance directive and in my Will I have described my own preference for final disposal of my remains after they have been used for transplantation and/or teaching anatomy through dissection. This bill makes it clear that my wishes will be respected and not overruled by any government officials who might think they are implementing this legislation.

HB-1894-HD-2

Submitted on: 2/24/2022 1:37:24 AM

Testimony for CPC on 2/25/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Kimeona Kane	Individual	Support	No

Comments:

Aloha Kākou,

Kimeona Kane of Waimānalo in support of this protection of choice and practice.

Kāko‘o piha wau.

Mahalo nui,

Kimeona

HB-1894-HD-2

Submitted on: 2/24/2022 8:41:25 AM

Testimony for CPC on 2/25/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Ellen Godbey Carson	Individual	Support	No

Comments:

Please help us expand our options for final remains via this water cremation option. Thank you

HB-1894-HD-2

Submitted on: 2/24/2022 11:14:37 AM

Testimony for CPC on 2/25/2022 1:00:00 PM

Submitted By	Organization	Testifier Position	Remote Testimony Requested
Ann Chung	Individual	Support	No

Comments:

Aloha Chair & Committee Members:

I strongly support HB1894. We have buried or cremated our loved ones the same way for centuries. With the important need to protect our environment, water cremation offers an eco-friendly, cleaner, gentler alternative to flame cremation.

- Already available in 21 states in the U.S.
- Used by highly respected institutions such as the Mayo Clinic & UCLA School of Medicine
- Recently, Archbishop Desmond Tutu chose water cremation upon his passing
- Destroys pathogens, protects the operator and returns a safe byproduct to the family
- No DNA left in water or cremated remains
- 75% reduction in carbon emissions vs flame cremation
- 1/8 the energy usage than flame crematories
- Effluent goes into holding tank for treatment prior to release
- Water is sent for treatment and is easily recyclable
- No ground water contamination vs burials
- Pacemakers and Implants can be left in the remains and can be recycled.

We are actively working with DCCA & DoH and C&C of Honolulu ENV and we ask for you to consider the following amendment:

PG 4 LINE 6 – REPLACE LICENSE WITH THE WORD “CERTIFICATE” – as that is what DoH does for crematories.

From the Desk of:

Luana Alapa

2935 Farrington Ave
Ho'olehua, HI 96729
luanaalapa@gmail.com

January 15, 2022

Testimony in Support of HB1894 Hawaiian Style Burials & Alkaline Hydrolysis
Committee on Health, Human Services, & Homelessness

Aloha Honorable Chair Aaron Ling Johanson & Honorable Vice Chair Lisa Kitagawa,

I am Luana Alapa, a Native Hawaiian and graduate of the Kamehameha Schools. I am of native Hawaiian ancestry, raised in Laie, Oahu and currently residing in Ho'olehua, Hawaiian Homelands on Molokai Island. I attended the University of Hawai'i at Manoa, and received my Bachelor of Arts degree in Psychology in 1985. I was crowned Miss Hawaii in 1987, traveled the world promoting Hawaii and later became an entrepreneur owning several businesses including several retail stores and a production company specializing in fashion, entertainment events. Currently working as an insurance agent. In 2020, I was elected as the Office of Hawaiian Affairs Trustee for the Island of Molokai.

I strongly support this legislation and urge the State Legislature to pass this measure. I support this Bill for two reasons:

1. Alkaline Hydrolysis technology will allow & facilitate the effort of our Hawaiian community to bury our ohana (family) in a more 'Hawaiian' way.

The traditional Hawaiian burial practices are well known & documented. They involved the steaming of the body in an imu (earth Oven) and the removal of the long bones which were secreted away to a location known only to the family. The rest of the remains were taken to the sea.

For several generations, Hawaiians have not been able to engage in these practices because there was no technology available in Hawaii that could provide the desired results in a sanitized, safe and culturally appropriate way. This measure will bring that technology to Hawaii and raise the number of U.S. States currently benefitting from Alkaline Hydrolysis to 21 nationwide.

Hawaiians have not had any cultural option for burial since the Overthrow. Because of this, the HCC (Hawaiian Civic Clubs) sponsored legislation to gain support for a more cultural method for burial in 2012. The outcome was not what was expected and did not facilitate Hawaiian style burials. The outcome resulted in an amendment to HRS sec. 711- 11 that said.....

"§711-1108 Abuse of a corpse. (1) A person commits the offense of abuse of a corpse if, except as authorized by law, the person treats a human corpse in a way that the person knows would outrage ordinary family sensibilities.

(2) The preparation of a corpse for burial or cremation in a manner consistent with traditional Hawaiian cultural customs and practices shall not be a violation of this section.

1.

(3) The burial or cremation of a corpse prepared consistent with traditional Hawaiian cultural customs and practices shall not be a violation of this section."

The changes decriminalized Hawaiian Burial practices but did not legalize them because there was no technology to facilitate the burial process in Hawaii.

In reality, the technology has been in existence in the U.S. & throughout the world for over 20 years, but it is not in Hawaii because the Funeral Industry in Hawaii has not wanted to upgrade their old technology with new technology at a cost of approximately \$200,000.00 dollars. Funeral Companies in Hawaii have only offered two choices for services: 'whole body burials' (for Christian) and Flame Cremation (for Buddhists). To this day there is no funeral service in Hawaii that can return to families the clean sterile long bones of their deceased and clean sterile water for the sea. Fortunately for Hawaiians, there is now a local Hawaiian Funeral Service Business that is making a commitment for our people. They are **Aloha Funeral Services**

2. THIS LEGISLATION HAS NO FISCAL RAMIFICATION FOR OUR STATE BUT IT HAS A HUGE BENEFIT FOR HAWAII IN THESE TIMES OF GLOBAL PANDEMICS BECAUSE IT CAN TREAT HUMAN REMAINS & STERILIZE THEM REGARDLESS OF THE CAUSE OF DEATH.

Alkaline Hydrolysis, is also a critical component of scientific research relating to contagious diseases (human & animal) and is used globally by laboratories conducting research into pandemics for this reason.

This technology can protect Hawaii from the spread of contagion in the event that Hawaii has another COVID-like problem in the future with a virus or other fatal epidemic. There is significant data on the Internet that reviews the use & development of AH technology, as well as data from research conducted by the Mayo Clinic and UCLA. Please watch these videos, they are brief & informative...

https://www.youtube.com/watch?v=G9HMKF_sFV8&t=7s
<https://www.youtube.com/watch?v=7Le7rLbkFe4>
<https://www.cnet.com/features/the-misunderstood-funeral-tech-thats-illegal-in-30-states/> <https://newrepublic.com/article/148997/fight-right-cremated-water-rise-alkaline-hydrolysis-america>

Mahalo for Supporting this Bill,

Luana Alapa

Luana Alapa, Trustee, Office of Hawaiian Affairs,
Molokai Island



Testimony in Support of Water Cremation / Alkaline Hydrolysis

Bill Number: HB 1894 HD2

Committee(s): CPC

Hearing Date & Time: February 25, 2022, 1 PM

Last year, a bill was introduced for a new, environmentally friendly cremation technology for the funeral industry and specifically, Native Hawaiian burials. It is called Alkaline Hydrolysis (water cremation). This bill easily made its way through the House and Senate but was stalled at the rules committee level. While this was disappointing, it told me that we had more work to do in educating our legislators and the public on the benefits of this technology. Over the summer, we provided educational briefings, received positive media attention and most recently Archbishop and “eco-warrior” Desmond Tutu chose this technology as his final disposition. A true testament of the technology.

Water cremation is a water-based dissolution process for human remains that uses alkaline chemicals, heat, agitation, and pressure, to gently accelerate natural decomposition. In 2010, the Cremation Association of North America changed its definition of cremation to include alkaline hydrolysis. (2) There are 3 byproducts of the water cremation process: liquid water, prosthetics in the body, and bone fragments or cremated remains.

The liquid is considered a sterile wastewater, with no remaining DNA and is discharged with the permission of the local wastewater treatment authority, in accordance with federal, state, and local laws. **I therefore urge you to amend HB1894 to state the following: “The sterile wastewater shall be discharged into the sewer system as approved by the counties.”**

Water cremation follows the same steps as flame cremation and the establishment and operators should be held to the same standards and certification.

Both are fully automated processes, with 3 minor differences

- 1.) The use of water and chemical (potassium hydroxide) instead of fossil fuels
- 2.) Pacemakers can be left in the body
- 3.) There is a drying process before pulverizing the sterile bone fragments

Having said this above, **I urge you to amend page 4, sections a and b to include the word “certification” and strike the words (~~existing licensure~~) on line 3, and (~~licensure~~) on line 6, as crematory operators undergo a certification process and not a licensure process.**

This technology has already been used in Hawaii for the past 15 years for veterinary purposes at the University of Hawaii. The volume of liquid is under 300 gallons per cycle. The prosthetics are recycled by the same companies that service the flame cremation industry, and the sterile cremated remains are returned to the legal next of kin.

The environmental benefits from water cremation in comparison to current traditional flame cremation and burial practices includes the following:

- Greater than 75% reduction of carbon footprint
- No mercury emissions from dental fillings
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To fully understand water cremation, you must understand autoclave technology. An autoclave sterilizes doctor's and dentist's instruments after a surgical procedure. It is critical that the instruments used in surgery are sterile to irradiate the spread of potential harmful pathogens and other airborne diseases. The CDC guidelines (1) requires the sterilization process to achieve 250F for a minimum of 20 minutes to destroy any remaining pathogens that might be present. By heating to this temperature, the autoclave technology destroys the pathogens on the instruments; AND it also destroys any viral pathogens that might be in and around the airspace.

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Currently, 21 states have passed legislation in support of the water cremation technology. It is legal in several provinces in Canada, Scotland, Ireland, the Netherlands, Finland, and the United Kingdom. (2) When given the option of flame or water cremation, we are seeing that 60% of cremation customers are selecting water cremation due to its gentleness and its environmentally friendly attributes.

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Kindest Regards,

Dean R. Fisher

Dean R. Fisher- Funeral Director
Fisher and Associates
deanfisher5995@gmail.com
507-269-8906

- 1.) <https://www.cdc.gov/infectioncontrol/guidelines/disinfection/sterilization/sterilizing-practices.html>
- 2.) <https://www.cremationassociation.org/page/alkalinehydrolysis>

Honorable Vice Chair Lisa Kitagawa

Phyllis Coochie Cayan
94-1429 Polani Street #V
Waipahu, HI 96797

Testimony in Support of Hawaiian Style Burials & Alkaline Hydrolysis

Aloha Legislators,

I am Phyllis Coochie Cayan. I am a Native Hawaiian, born, raised and educated in Hawaii. For many years, I have been an intermittent member of the Hawaiian Civic Club of Honolulu. I was one of the first board members of Hui Malama I Na Kupuna O Hawaii Nei, the group that is identified in federal legislation to facilitate repatriation of Hawaiian Iwi (human remains & bones) from Museums & private collections back to Hawaii.

I strongly support this legislation for the following reasons:

1. This Bill will finally address the right of Hawaii's native people (Kanaka Maoli) to have a culturally appropriate method for treatment of the remains of their family and Kupuna. In traditional times, the bodies of the deceased were steamed in an imu by the sea, and following this, the long bones which were sterilized by steam were removed & the rest of the remains were returned to the sea. (See links.)

2. For the past several years (2012-2015) members & Chapters of the Hawaiian Civic Clubs have sought a solution to the need in our community for a more traditional process for burial. Our efforts were brought to the State Legislature, but no workable solution has emerged because the traditional Imu approach is no longer feasible and the funeral industry in Hawaii has not wanted to assume the cost (\$200,000.00 per unit) for the technology to facilitate Cultural burial practices for our Hawaiian people.

3. Today there is new technology that can achieve our goal with the complete cleansing of human bones and their sterilization, and a sterile water based solution that can be safely treated as effluent or returned to the Sea. This technology is Alkaline Hydrolysis. It is now being utilized in 20 States. It is also a critical component of scientific research into contagious diseases (human & animal) and is used globally by laboratories conducting research into pandemics for this reason.

1.

4. I recommend that the Legislators read the following information on this technology because I believe that this technology can facilitate our people with culturally appropriate burials and it can protect Hawaii from the spread of contagion in the event that Hawaii has another COVID-like problem in the future with a virus or other fatal epidemic.

- https://www.youtube.com/watch?v=G9HMKF_sFV8&t=7s

- <https://www.youtube.com/watch?v=7Le7rLbkFe4>
- <https://www.cnet.com/features/the-misunderstood-funeral-tech-thats-illegal-in-30-states/>
- <https://newrepublic.com/article/148997/fight-right-cremated-water-rise-alkaline-hydrolysis-america>

Conclusion:

For many generations, Hawaiians have wanted a better, more cultural process for treatment of our Iwi Kupuna. We now have an option that not only meets our needs but can and probably will be needed in the future to protect Hawaii's residents from global pandemics which cannot be eradicated from the bodies of those who have died without further risk of contamination.

Mahalo for Supporting this Bill,


Phyllis "Coochie" Cayan

Credentials are to experience in Hawaiian culture and burial practices, and not as a spokesperson for the Hawaiian Civic Club of Honolulu, a board member of the Kupuna Hui - Ka Lei Papahi O Kekuhihewa. as the former first chairperson/member for 13 years of the O'ahu Island Burials Council, and a former SHPD History & Culture Branch Chief.

TESTIMONY IN SUPPORT OF HB 1894

Committee on Consumer Protection & Commerce
Honorable Chair Aaron Ling Johanson & Honorable Vice Lisa Kitagawa,

Steven Labrash
Director Willed Body Program
University of Hawaii
808-692-1441 (work)

My name is Steven Labrash and I am the Director of the University of Hawaii's Willed Body Program, John A. Burns School of Medicine, a position I have held since 2004. I'm a graduate of Cypress Mortuary College, a funeral director and licensed embalmer for 25+ years and I strongly support the Bill for the 4 reasons listed below.

Background: Willed Body Programs are governed under the Anatomical Gift Act. They allow people to donate their bodies after death, to be used for purposes of research and education. Our Willed Body Program is a self-enrolled program, which means 90% of our silent teachers requested and filled out their own donor forms. By filling out the donor forms themselves, there is no question as to if they wanted to be silent teachers.

Currently we have over 4,000 people in Hawaii registered to come teach with us after they die. Pre-covid, we received approximately 150-180 donated bodies per year. In 2019, we provided mentors (another name for donors) to teach gross anatomy courses at JABSOM to not only our medical students but also graduate students from Manoa. Our donors also taught advanced surgical training to over 600 medical doctors from Hawaii, USA and international. We also offer "Anatomical Reviews" to over 600 local high school students in our anatomy lab as a community service. During these reviews the students are able to handle real human organs to round out their understanding of human anatomy. We've had to temporarily close our Willed Body Program due to Covid-19 but we hope to open it up again when we are allowed to teach cadaver based classes. We honor our silent teachers in an annual Willed Body Memorial service each year and in 2020, this meant holding the service online: <https://jabsom.hawaii.edu/donors/willedbody/> (from this link you can see our donor forms, an explanation of Body donation as well as links to the last few memorial services)

#1 As the Director I am constantly looking for technologies that will have a positive impact on our medical students, the surgeons we provide advanced training for as well as the incredible donors of our willed body program. I have been aware of Alkaline Hydrolysis for over 20 years and I have always been impressed with the clean environmental process. The possibility of having an alkaline hydrolysis option for human disposition is something that can benefit our program both ethically and financially. From an ethical perspective, it will allow us to house our donors from the time they are received after death, until the time we are able to return the

cremains to the family. Financially we would save money by offering disposition directly for our silent teachers (donors).

#2 This technology is not new to Hawaii, we are already successfully using it at the university for disposition of research animals. It was put into place at the time we built the medical school and it has been successfully operating for over a decade. The unit uses water, alkaline chemicals, heat and pressure to greatly speed up the process of natural decomposition. The process leaves bone fragments and a neutralized liquid effluent that is tested for safety before being released with other wastewater.

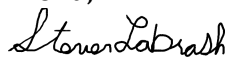
#3 I was saddened to see a large funeral corporation stand in opposition to this environmentally friendly technology. There is no more environmentally friendly technology available today than Alkaline Hydrolysis for human disposition. The corporations' position is reminiscent of the opposition the funeral industry had when the first public crematories were brought into existence over 100 years ago. When I was studying the history of funeral service, it was apparent that the opposition from the funeral industry to cremation was based on finances and not what was best for the community. They routinely vilified the technology, playing on the fears of the families and church to successfully hold off its wide acceptance for several decades. Decision makers then didn't have the benefit of technology that we do today, where we all have access to information.

<https://www.cremationassociation.org/page/alkalinehydrolysis>

#4 Covid-19 has been difficult for everyone but one of the silver linings is that as a society, we are thinking more about future pandemic issues. Alkaline Hydrolysis had its genesis due to Mad Cow Disease in the early 1990's. Over 4 million cows were killed in England to try and stop the spread of the disease and this caused the governments to look for a safer option for disposal for the slaughtered cows. Bovine spongiform encephalopathy (BSE) is a variant of Creutzfeldt-Jakob disease, a human prion disease. There was the potential for the prions to be released if the soil where the cows were buried was disturbed. Prions and spores can stay viable in soil for years making its eradication difficult.

I sincerely hope you pass this measure. Passage of this Bill will not only give the Hawaiian consumer a greener and less expensive option than the ones currently available. It will also provide Hawaii with a technology that could be of critical importance in the event of future pandemics.

Aloha,



Steven Labrash

Director Willed Body Program

University of Hawaii

808-692-1441 (work)

Testimony in Support of Hawaiian Style Burials & Water Cremation

Carmen Hulu Lindsey
52 Alokele Place
Makawao, HI 96768

Bill Number: HB 1894

Committee: CPC

Hearing Date & Time: 02/25/2022 1:00PM

Water Cremation Technology Supports Traditional Burial Practices

I am a Native Hawaiian who is proud to have lived to see the renaissance of our culture and traditional Hawaiian ways after years of suppression and near erasure. That renaissance did not happen by accident but was accomplished through years of activism and struggle by generations of Hawaiians to restore time-honored practices imparted to us by our kūpuna.

Burial practices using the traditional imu method of steaming the human remains to separate the bones from the fluids and human tissue are among the customs that have been constrained and prohibited for decades because of contemporary Hawai'i health laws. The good news is that a new technology is now available that will allow us to safely prepare the remains of our loved ones in a manner consistent with longstanding Hawaiian traditions.

Water cremation is now available in 21 states and recently Archbishop Desmond Tutu, Nobel Peace Prize winner, human rights activist, and anti-apartheid hero chose to have his remains aquamated as an environmentally friendly alternative to fire cremation.

Aquamation, also known as alkaline hydrolysis, involves liquefying the body under pressure in a mixture of potassium hydroxide and water. The process is the same as that which occurs naturally when a body is buried, though at an accelerated rate.

A bill to legalize this new technology as an alternative to existing cremation practices is now being considered by the Hawai'i State Legislature. Kawehi Correa of Aloha Mortuary is an advocate of water cremation who has been on a quest to educate the mortuary industry, the Hawaiian community, and the general public of the advantages of water cremation as a means of honoring Hawaiians' traditional cultural practice of preparing a deceased loved one for their final resting place. Ms. Correa and other Hawaiian practitioners will be continuing their efforts in the 2022 legislative session.

The advantages of water cremation over flame cremation are significant. Compared to traditional flame cremation, water cremation uses one eighth of the energy and delivers 75%

fewer carbon emissions. It returns clean, sterile, long bones to families, and the water-based solution used in the process of alkaline hydrolysis will not contaminate the ground or sea.

Today, laboratories around the world are using alkaline hydrolysis in their research into highly contagious diseases and as an effective means of destroying prions, the infectious agents responsible for several neurodegenerative diseases in humans and animals. After two years of living in the shadow of COVID-19, what better time to embrace processes that protect public health and stop the spread of dangerous human-derived pathogens?

Change is always daunting and burial rites are matters that touch at the core of who we are and how we choose to express our final farewell to our loved ones who have passed on. This is an intensely personal and emotional matter and it reassuring to know that water cremation may soon be available as a way to honor and abide by our traditional values and beliefs, not only in life but also in death.

As the late Dr. George Kanahale reminded us, this technology will allow us to “enjoy the look back into the future.” It is time for us to use contemporary technology to preserve all that we cherish in our culture, including the traditions that help us manage our departure as well as the departure of our loved ones from our earthly world. I look forward to seeing water cremation become available as another means to prepare the remains of our loved ones for their final resting place consistent with our Hawaiian traditions.

Ken Ordenstein Funerals

“Grief shared is grief diminished” Rabbi Earl Grollman

Testimony in Support of Bill HB 1894
Committee(s): CPC
Hearing Date & Time: 02/25/22 1:00PM

Re: Water Cremation/Alkaline Hydrolysis

Aloha

My name is Ken Ordenstein. My family, the Ordensteins, have been in funeral service in Hawaii for nearly 160 years. My great, great, grandfather, Manual Silva was famed for his artisanship on Queen Emma's casket. My great grandfathers disinterred Saint Damien and sent his remains back to Belgium. I represent our families' fifth generation of service, my daughter, also working in the profession, is generation six.

I was president of Ordenstein's Hawaiian Memorial Park Mortuary Corporation, Williams Funeral Service established in 1859, Windward Crematory, and the Center for Pre-arranged Funeral Planning among other positions involving Valley of the Temples Memorial Park and Mortuary, Maui's Nakamura Mortuary and Crematory, Maui Memorial Park, and Homelani and Kona Memorial Park on the Big Island. I served as president of the Hawaii Funeral Directors' Association and sat on the Policy Board of the National Funeral Directors' Association.

In June of 2015 I had the privilege of witnessing Governor David Ige sign a Bill for an Act to amend the law so that the treatment of a corpse in a manner consistent with traditional Hawaiian cultural customs and practices shall not constitute the abuse of a corpse within the penal code. Mahealani Cypher, former president of the Oahu Council of Hawaiian Civic Clubs and current member of the Koolaupoko Hawaiian Civic Club and others worked so hard and spearheaded the effort

“This measure makes it very clear that the most sacred traditions are allowed to be exercised by our Native Hawaiian community,” the Governor said at the signing ceremony that day in his office. “It needs to be crystal clear that our laws make it OK for anyone wanting to exercise traditional burial practices to do so.” The question then becomes how do we do this?

Water Cremation also known as Alkaline Hydrolysis provides an answer and I support the introduction of Alkaline Hydrolysis Technology. This technology gives us the means to fulfill the promise of the bill the governor signed over six years ago.

I like the name water cremation. In cremation by fire, a body is placed in a special chamber. Heat, air, and fuel, usually diesel or natural gas are applied until combustions occurs. The body is converted to heat and light energy, carbon gasses and solids. Heat and carbon gases are expelled through the crematory stack and the carbon solids, the bones, are left in the chamber. The bones are brittle and break apart easily as they are swept from the cremation chamber. These bones and bone fragments are put into a processor that makes the bones unrecognizable as human remains. That is what we call ashes or cremated remains.

Like cremation by fire, with water cremation, a body is placed in a special chamber. This one made of steel. Heat, water, pressure (the container is sealed) and a BASIC solution like lye fill the chamber. In a few hours, the body is converted to what it mostly is, water, and carbon solids, the bones. In this process the bones are not brittle.

For traditional practices, the long bones can be retrieved whole for wrapping and ceremony, or the bones can be put into a processor like cremation by fire. An article in Reuters about the bill Governor Ige signed into law in 2015 calls the custom of retrieving the bones, wrapping, and burying them a “clean burial”.

Alkaline Hydrolysis provides an environmentally cleaner process. The carbon footprint of the technology is smaller using about one twelfth to one eighth the energy of cremation by fire with none of the carbon and heat emissions. Water use is relatively small, and the water left over from this process can be sent down the drain into our current wastewater system. You have expert testimony on the process and its light footprint. In this context it can be considered a clean and green technology.

In summary this process answers the only relevant question arising from the bill Governor Ige signed over six years ago. Water cremation answers the question and provides a clean, and green choice to care for our dead whether Hawaiian or not. Mahalo Nui for your kind attention.

Respectfully,

A handwritten signature in black ink, appearing to read "K. Ordenstein", with a long horizontal flourish extending to the right.

Kenneth Ordenstein

kenordensteinfunerals.com

K.W. Ordenstein L.L.C. 45-1029A Waialele Rd. Kaneohe, Hawaii 96744 Phone: (808) 254-6222

Testimony of Paula Aila in SUPPORT of HB1894 Hawaiian Style Burials & Alkaline
Hydrolysis Technology

Committee on Consumer Protection & Commerce

Date: 02/25/2022 1:00 PM

Aloha Honorable Chair Aaron Ling Johanson & Honorable Vice Lisa Kitagawa,

I am Paula Aila, a Native Hawaiian raised in the Waimanalo homestead community. I am a graduate of St. Andrew's Priory and received a BA-Communications Degree from the University of Hawaii, Manoa.

In general, I am an advocate for choices in life including end of life options. After much research about the Alkaline Hydrolysis decomposition burial method, it appears this offers an alternative to end of life burial options.

The Alkaline Hydrolysis concept dates to 1888 in Middlesex, England with the patent of the first alkaline hydrolysis machine by Amos Herbert Hobson and was used to dispose of animal carcasses. Overtime this method has progressed to include humans.

“The process is straightforward. Bodies are placed in a machine containing a chemical mixture of water and alkali. The mixture is then heated and cycled. Over the course of hours, the body is accelerated through its natural decomposition process, resulting in a residual liquid made up of amino acids, peptides, salt, soap and bones—the last of which is broken down into white ash.” (Panecasio, 2020)

The Alkaline Hydrolysis process, as described, feels less intrusive and calming for me personally due to the use of water vs. the more accepted flame-based process we are accustomed to. It also provides me with another choice to plan for my burial. These are just a few of the reasons that I strongly support passage of this measure.



Paula Aila



E. Pohai Ryan

150 Hamakua Drive PMB#824

Kailua, Hawaii 96734

pohaikaua@gmail.com 808-230-3654

Testimony in **SUPPORT OF HB 1894**

Committee of Consumer Protection & Commerce

Aloha Honorable Chair Aaron Ling Johanson & Honorable Vice Chair Lisa Kitagawa,

I am submitting this testimony in SUPPORT of Alkaline Hydrolysis, a technology that can & should be available to Hawaii's consumers, including Hawaiians, who want a clean, modern and culturally appropriate alternative to Cremation or Full body burials.

I am Pohai Ryan. I was born & raised n Hawaii on Molokai. I am a 1980 graduate of Kamehameha Schools and attended and received a degree in political science from Whittier College. I have served as a State of Hawaii Senator from Kailua Hawai'i . For years I have been a member of the Hawaiian Civic Clubs, and was the President of the King Kamehameha Civic Club.

In 2012 the Hawaiian Civic Clubs took action to support the right of Hawaiian to engage in 'Hawaiian Style Burial' practices that were not "recognized" in the State of Hawaii. In Traditional times, Hawaiians utilized a process that steamed the flesh tissue & sinews from the body of the deceased, removed the clean long bones and put the remaining fluid and solid material into the Sea. Long bones were returned to the family (ohana) to be secreted away on land. In the case of the Alii & high bloods, , the bones were often taken to sacred burial caves, whose exact location was unknown to others. Such caves are known to exist on the summits of Mountains, including Maunakea. There is significant data on Hawaiian historic burial practices and the treatment of human remains including the works of ES. Craighill Handy, & Mary Kawena Pukui, see he Polunesian Family System in Ka'u, p. 151 and Samuel Kamakau, see Ka Poe Kahiko, The People of Old, p.38.

As a result of three years of effort, the State Legislature passed an Amendment to HRS Sec 171-1108 in 2015. The new language stated ...” (2) The preparation of a corpse for burial or cremation in a manner consistent with traditional Hawaiian cultural customs and practices shall not be a violation of this section (3) The burial or cremation of a corpse prepared consistent with traditional Hawaiian cultural customs and practices shall not be a violation of this section.” This outcome made clear that traditional Hawaiian burial practices could not be considered a criminal misdemeanor in Hawaii, but it did not facilitate Hawaiian Style Burials which require a process steam clean the ones and reduce remains to water for the Sea.

Today, we do have a choice for a traditional burial practices, through the use and application of Alkaline Hydrolysis, also known as Aquamation. This process uses steam to thoroughly clean human bones and also results in clean & sterile water which can be released into the Sea. This process has been legally approved in 20 States and is currently being utilized by laboratories worldwide who are researching fatal diseases and in need of technology to protect the public and medical researchers from contamination.

For many generations, our people, Kanaka Maoli, have been prevented from engaging in our cultural and traditional burial practices because of State laws have prevented us from steaming our dead in a burial who are preparing for the possibility imu by the sea, and retrieving the cleaned long bones for burial on the Aina (land). All these years, funeral processes licensed in Hawaii only provided for Asian & Christian burial processes. Its time for a change, its time for Hawaii to have the benefit of technology that serves not only Hawaiian cultural needs but those of our public, medical researchers & those who are preparing for the possibility of another global pandemic in Hawaii.

Mahalo for supporting thus Bill,

Pohai Ryan

Pohai Ryan

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Dr. Alin "Pono" Ledford. M.D., Big Island Family Medicine Inc

607 Ponahawai Street, Suite #207 Hilo Hawaii , 96720

January 10, 2022

Bill Number: HB 1894

Committee: CPC

Hearing Date & Time: 02/25/2022 1:00 PM

Aloha Legislators,

My name is Alin Vaun Pono Ledford, I am a native Hawaiian physician born and raised on the windward side of Oahu. Graduate of Castle High school in Kanehoe, BYU-Hawaii in Laie and the John A. Bruns School of Medicine at Manoa, June 2004. Currently practicing medicine in Hilo, Hawaii.

My family, Ida K. Woosley has been in the funeral business for over 40 years here in Hawaii.

I strongly support this Bill because it will give Hawaiian consumers a culturally appropriate alternative to funeral services for their loved ones & family which is more affordable, and because it will bring to Hawaii a new technology that will be of critical importance to our State if, when another global pandemic arises.

- I. A new technology that addresses Hawaiian cultural needs and Hawaii's need for protection from global pandemics

Alkaline Hydrolysis (Water Cremation) was a concept that was brought up over 30 years ago as how it would relate to native Hawaiian burial, because it causes little destruction of the bones. Water Cremation has been used in Hawaii for many years for pet cremations in veterinarian clinics water cremation is a natural process in which body decomposes. it speeds up this natural process by using heat, water,

alkaline reagent, increased pressure and gentle agitation. The process occurs by placing the body in a pressure vessel with potassium hydroxide (KHO) and sealed. Water is then pumped in and heat increased to 302 degrees F. and the pressure increased. An agitator gently circulates the water and KHO that effectively breaks down the remains into a nutrient rich fluid containing amino acids, peptides, sugars, salts, porous white bones made of calcium phosphate. The resulting fluid is completely sterile, destroying all pathogens including bacteria, viruses, and prions, with a pH is 11, the same pH as milk of magnesia. The fluid can then safely be disposed of via the drain.

For Hawaiians, this means that our loved one's bones can then be given back to us native Hawaiians so that we can care for them in our traditional way. Others, can have their loved one's bones turned into ash and given back to them in the same manner as they do in flame-based cremation. The nutrient dense disease-free fluid could also be given back to the families to be used in their family garden as a fertilizer, completing the circle of life.

We can all agree that human waste in the form of feces, urine, blood, and other bodily fluids are contaminated with disease and toxins such as bacteria, viruses (including COVID-19 and its many mutated forms), medications etc. These deadly bio-hazards are simply flushed down the toilet or washed down the drain and sent to the wastewater treatment plants. In fact, the current practice in the morgue during an autopsy or at the mortuary during the embalming process, is to drain the blood and other bodily fluids directly down the drain.

None of these toxic disease-ridden human waste products are treated or regulated as they leave our toilets, hospitals or funeral homes as they make their way to our local wastewater treatment facilities where they are finally treated. As we all know living here in Hawaii, there are many sewage spills. These sewage spills pollute and destroy our rivers, beaches and reefs with human waste, feces, urine, blood, other bodily fluids, bacteria, viruses and other toxic chemicals. All of these are pollutants that we pour down the drain or flush down the toilet. Yet the fluid from the Water Cremation process is sterile, disease free and has no harmful chemicals.

Water Cremation is sometimes referred to as a green cremation because as it uses less than one fourth the energy as a flame-based cremation and the process does not release any harmful chemicals or toxins into the air. As Hawaii is the leader of safe green and renewable energy. Water Cremation is safer than flame-based cremation, and fits perfectly in Hawaii's goals of keeping our people and our lands safe.

II. Why the Funeral Industry in Hawaii needs alternatives to flame based Cremation

Flame based cremation produces harmful toxins, pollutants and carcinogens, into the air including carbon monoxide, nitrogen oxide, sulfur oxide, hydrogen chloride, hydrogen fluoride and mercury. The mercury that is released into the air and settles into soil and waterways in the area surrounding the crematorium. When humans and animals come in contact with the contaminated soil and water it is absorbed into our bodies and stored in the adipose tissue. Other compounds such as acetones, benzenes and furans are emitted and react with hydrogen chloride and hydrogen fluoride forming polychlorinated dibenzodioxins and polychlorinated dibenzofurans, these carcinogens. These pollutants and carcinogens that are aerosolized from the crematorium exhaust into the air can cause short- and long-term health problems. Mercury emissions alone create exposure risks that can have devastating effects on body systems. It can also have detrimental effects on an unborn child. It can also cause cancers, decrease our immune system etc. Water Cremation does NOT do these things.

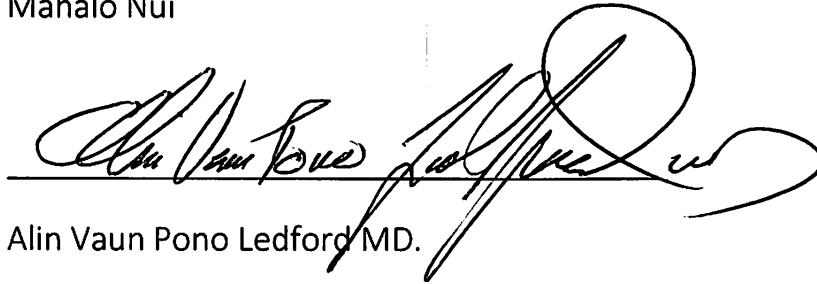
Although, most modern crematoriums have filtering systems in place to minimize emissions, regulations do not exist for the emissions and toxic pollutants that are released into the environment. As with sewage spills, these filtering systems also fail, releasing even more of the toxic pollutants in to our environment. In the event of an AH system failures, the waste is contained. The approximately 300 gallons is contained to sealed, self-contained vessels in a single room. Clean-up is simple and contained to the unit and room. There are no risks to the air or environment with a Water Cremation system failure. So, there is no risk of toxins being released into the air or environment by aerosolization, leakage or spillage

Conclusion:

As our beautiful Hawaii continues to grow in population, we have less and less clean spaces and limited resources. There are more and more pollutants and toxins from many different industries due to overcrowding. More people, more waste. Our current way of disposing of waste will eventually destroy our beautiful Hawaii. Water Cremation is ideal for Hawaii. It is a green form of taking care of our loved ones who have passed. It has no harmful effects on our environment. It uses far fewer fossil fuels and energy, leaving a significantly smaller carbon foot print. Most importantly, it satisfies Native Hawaii burial customs and traditions.

We need a better way, a safer way, a more culturally sensitive way, a greener way to save our Hawaii. Water Cremation is the way. I have listed below several references for your use & information.

Mahalo Nui

A handwritten signature in black ink, written in a cursive style. The signature appears to read "Alin Vaun Pono Ledford MD". The signature is written over a horizontal line.

Alin Vaun Pono Ledford MD.

Big Island Family Medicine Inc.

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**TESTIMONY OF: HINALEIMOANA K.K. WONG-KALU
IN SUPPORT OF
HAWAIIAN STYLE BURIALS & ALKALINE
HYDROLYSIS TECHNOLOGY**

Aloha esteemed Legislators of Hawai‘i,

My name is Hinaleimoana K.K. Wong-Kalu, better known in the Hawaiian community as Kumu Hina.

My community holds regard for me as a Kumu Hula, Hawaiian practitioner, and one of the longest serving former chairpersons for the O‘ahu Island Burial Council, an advocate for environmental and human rights issues impacting Hawaii, and Hawaiian and other indigenous peoples of the Pacific Region and globally.

For many years Hawaiians have tried to facilitate the burials of their ohana (family) in a manner that is culturally appropriate. The Hawaiian Civic Clubs initiated an effort in 2012 and in 2015, but the outcome was not what was targeted nor hoped for.

In traditional times, the bodies of those who had passed, including the Ali‘i, were set into an Imu (underground earth oven) so that the flesh and tissue could be stripped from the long bones and secreted away to a private place on land, and the remaining water based residue, returned to the sea. The process is described by Handy & Pukui in the following manner....

“A relative tended the corps, removing the decaying flesh and organs by hand, to clean completely (ho‘okele) the bones. This was a labor of love, for a devoted relative. The flesh refuse (pela) was thrown into the sea The cleaned bones were Made into a lite compact bundle, tied with sennit cords, and borne to a place of concealment. It was carried on the back of a Kahu (guardian) who went along in the

night so that no one would know where they were placed. for the ali'I, it was a cave that was known only to his kahu. But generally, the bones were taken to a place Identified with the aumakua of the family, because the uhane is with the aumakua."

See The Polynesian Family System in Ka'u, Hawaii Handy & Pukui, (Hawaii Mutual Publishing, 1998 at p. 151.

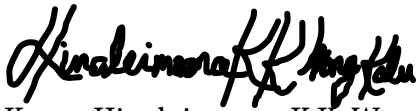
Hawaiians have not been able to engage in this practice for generations, but now with the advent of new & clean technology, we can once again follow our traditions and return our iwi kupuna (bones of the ancestor) to the aina in a culturally appropriate way that is clean, sterile and safe.

What is most interesting and beneficial about this technology, (referred to as Alkaline Hydrolysis, (also known as Green Cremation, Aquamation) is that it has many potential benefits for our State and others who are not Hawaiian because it has the ability to thoroughly sterilize bodily remains. Consequently, the science research labs throughout the US & globally, researching pathogens & and other dangerous and contagious diseases, can be assured that the byproducts & waste from their labs are sterile & safe.

There is significant data on this available on the Internet, including data from UCLA and Mayo Clinic.

I strongly urge passage of this measure. It resolves a long standing problem for Hawaii's' Native people and increases our States capacity to address evolving health & safety threats that are likely to continue because of global travel.

Mahalo for your consideration. I place my faith and trust in your decision making.
Aloha

A handwritten signature in black ink, appearing to read 'K.K. Wong-Kalu'. The signature is stylized and cursive.

Kumu Hialeimoana K.K. Wong-Kalu (808) 225-4123

Mililani B. Trask
P.O. Box 6377,
Hilo, Hawaii, 96720

Testimony in Support of Alkaline Hydrolysis/ Water Cremation

Bill Number: HB 1894

Committee: CPC

Hearing Date & Time: 02/25/2022 1:00 PM

Aloha Legislators:

I am a Hawaiian Attorney, a past OHA Trustee, and a strong advocate for Hawaii & Hawaiians. I strongly support this Bill because it addresses and facilitates traditional Hawaiian practices, and provides a cleaner, greener, and more responsible alternative to 'Flame Cremation' which discharges toxic chemical into the air as well as the soil.

A few days before Christmas, Civil Beat published the following article which I submitted. IT sets for the my mana'o.

Community Voice – by Mililani B. Trask

Water Cremation Is A Culturally Appropriate Way To Leave This Planet

Alkaline hydrolysis allows for the practice of traditional rites. Let's make it Hawaii law.

Death is writ large over the landscape of our minds and hearts these past two years as we have had to grapple with the hundreds of thousands of deaths from Covid-19. Loss of life has also marked the long and painful history of these islands since colonization and the illegal overthrow.

The Navy's current intransigence and disrespect for the people of Hawaii in refusing to shut down Red Hill even as families see and smell poisoned water coming out of their faucets is just the latest chapter in the disgraceful history of the militarization of these islands.

Hawaiians have dealt with the burden of what has been done to us in large part by drawing on the strength of our cultural traditions. Yet the very protocols around death that have sustained Hawaiians in their times of loss have not been available to us.

The law says the observance of Hawaiian customs is protected. However, the practices of 150 years ago have run up against contemporary health and environmental regulations.

So, for many years now Hawaiians have not been able to bury their loved ones and preserve the iwi in accordance with ancient practices. We have had only two options: the full body burial preferred by Christians, or flame cremation, preferred especially by Asian Buddhists.

These options do not give Hawaiians the desired outcome: clean, sterilized long bones that can be placed with reverence in a land crypt or burial cave.

The old way of steaming the dead body in an imu (earth oven) yielded this outcome. Not so flame cremation, where bits of sinew and flesh might still be attached to the bones, causing it to smell and attract rodents.

But today we have the technology to allow for the practice of traditional rites and it is called alkaline hydrolysis — or, as it is commonly referred to, water cremation. The technology is already in use in Hawaii by veterinarians and at the University of Hawaii Research Lab at Manoa.

Water cremation has been legalized in 21 states in this country and is in use in other developed countries. The reason is as simple as its urgent and profound: It is sterile, clean and green. Alkaline hydrolysis does not discharge toxic elements into the atmosphere. So, unlike the flame crematoriums, operators do not need to install a filter to capture air-borne toxic elements. As we wring our hands over the climate crisis and the build-up of carbon emissions that is hurtling the planet to disaster, there is real value in the fact that water cremation offers a 75% reduction in the carbon footprint compared to the flame process and uses a fraction — literally one-eighth — of the energy of a typical crematorium.

Pacemakers and implants do not have to be removed prior to water cremation. They are left behind and can be recycled. Mercury from dental fillings is not vaporized and released into the atmosphere: It is contained and recycled. These are real gifts to the environment.

Bereaved families that choose water cremation can take comfort in the fact that they are helping to malama aina by saving land and avoiding the cost of funeral plots or crypts and other burial accessories that have sprung up around the funeral industry over time.

Alkaline hydrolysis does not discharge toxic elements into the atmosphere.

The final remains the family receives are free of pathogens and disease — something that is especially important as we live through this pandemic and think about others yet to come. This green approach to disposition of the body is far preferable to the groundwater and atmospheric contamination that happens, but is not often talked about, with embalming or flame cremation.

It's time for Hawaii to make alkaline hydrolysis/water cremation an option for everyone wishing to ensure a green and culturally appropriate exit from our beleaguered planet for themselves or for their loved ones. The bill to make water cremation available in Hawaii will be introduced again in the legislative session in 2022.

There is absolutely no reason why it should not pass and be enacted into law. We deserve to have it as an option for how we leave this Earth.

Aloha,



Mililani B. Trask

Testimony in Support of HB 1894
Committee of Health, Human Services, & Homelessness

Aloha Chair Aaron Ling Johanson & Vice Chair Lisa Kitagawa,

I am Piliialoha Lee Loy. I am a Native Hawaiian, a graduate of the Kamehameha Schools and a member of the Hawaiian Civic Club of Honolulu since the 1970s. I taught at Aliamanu Middle School for 46 years and served as a trustee of the Hawaii State Employees' Retirement System Board of 24 years.

In 2012 members of the Hawaiian Civic Clubs moved to have State facilitate "Hawaiian Style Burials. This legislation would allow for an alternative that will enable families to receive the clean sterile long bones in clean sterile water..

This process is used in 20 states of the Union and the John A. Burns School of Medicine Willing Body Program last session requested legislation for Aquamation. Passing this legislation will provide Hawaiians and hawaii's consumers a clean affordable technology that is culturally appropriate and environmentally responsible disposition option.

Mahalo for supporting this Bill.

Piliialoha E. Lee Loy

Piliialoha E. Lee Loy

Jan. 13, 2022