

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. Box 3378
Honolulu, HI 96801-3378
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**Testimony COMMENTING on HB1894 HD3 SD1
RELATING TO HUMAN REMAINS**

SENATOR KARL RHOADS, CHAIR
SENATE COMMITTEE ON JUDICIARY

Hearing Date: March 31, 2022

Room Number: Video & 225

1 **Fiscal Implications:** None.

2 **Department Testimony:** The Department of Health (DOH) takes no position on the
3 authorization of water cremation of human remains so long as there are sufficient protective
4 factors to preserve environmental and human health. DOH defers to the counties for determining
5 the conditions required to connect to municipal sewer systems. The prohibition on the discharge
6 of treated effluent into cesspools and septic systems proposed by this measure is essential.

7 The Legislature may consider the issue of classification of human remains by water cremation,
8 which in some states is indistinguishable from flame cremation for purposes of record keeping,
9 and in others a new classification was created, e.g. "alkaline hydrolysis," or "other." It is unclear
10 whether existing rules authorize DOH to modify and modernize disposition of remains.

11 NOTE: Previous testimony for HB1894 stated that DOH does not license entities other than
12 healthcare facilities and durable medical equipment suppliers. This is incorrect; DOH also
13 licenses funeral homes and mortuaries, which is germane to this measure. The department
14 regrets any confusion caused by this error.

15 **Offered Amendments:** N/A.

LEGISLATIVE TESTIMONY
Senate Committee on Judiciary

HB1894 HD3 SD1 – RELATING TO HUMAN REMAINS
Thursday, March 31, 2022, 9:30am, Rm 016 & Videoconference

The Council for Native Hawaiian Advancement (CNHA) offers testimony in **SUPPORT** of HB1894, HD3 SD1, which would help to facilitate traditional Native Hawaiian burial practices, as well as environmentally friendly burial practices, by including water cremation in the treatment and disposal of human remains.

Water cremation, technically known as alkaline hydrolysis, uses a base solution of 95% water and 5% potassium hydroxide to accelerate decomposition. This process leaves the long bones in such a condition where they can be retrieved whole for wrapping and ceremony. By contrast, cremation by fire leaves the bones brittle, and they break apart easily. Thus, water cremation allows the body to be treated in a manner consistent with Hawaiian burial practices, which traditionally used an imu to achieve a similar end result.

HB1894, HD3 SD1, would help to restore our understanding of, and relationship with, traditional Hawaiian burial practices. It would also provide an alternative to existing cremation practices, which will benefit Hawaiians and non-Hawaiians alike. It is clear from previously submitted testimony that this bill is widely supported by numerous individuals and organizations.

Accordingly, the Council for Native Hawaiian Advancement urges the Committee to **PASS** HB1894, HD3 SD1. Mahalo nui loa for the opportunity to provide testimony on this measure.

Respectfully,

J. Kūhiō Lewis, CEO
Council for Native Hawaiian Advancement

TO: SENATE COMMITTEE ON JUDICIARY

RE: HB 1894, HD3, SD1 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. (SD1)

FOR HEARING ON Thursday, March 31, 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.



Testimony in Support of Water Cremation / Alkaline Hydrolysis

Bill Number: HB 1894, HD3, SD1

Committee(s): JDC

Hearing Date & Time: March 31st, 2022, 9:30 AM

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

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 a temperature of 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, I'm excited for the citizens of Hawaii to become the 22nd state. 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 this bill 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-SD-1

Submitted on: 3/29/2022 7:36:59 AM

Testimony for JDC on 3/31/2022 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Ellen Godbey Carson	Individual	Support	Written Testimony Only

Comments:

Please support this bill, Water cremation makes sense for our environment and our culture.

HB-1894-SD-1

Submitted on: 3/30/2022 9:14:19 AM

Testimony for JDC on 3/31/2022 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Kawehi Correa	Individual	Support	Written Testimony Only

Comments:

Aloha,

I support the bill as it stands. NO amendments.

Thank you,

Kawehi Correa

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

Committee on Judiciary

Date: 03/30/2022 9:30AM

Aloha Honorable Chair Mark Nakashima & Honorable Vice Scot Matayoshi,

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



**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: HB1894

Committee: JDC

Hearing Date & Time: 03/30/2022
9:30AM

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

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 Judiciary

Aloha Honorable Chair Mark Nakashima & Honorable Vice Chair Scot Matayoshi,

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 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.

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: JDC

Hearing Date & Time: 03/31/2022 9:30AM

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.

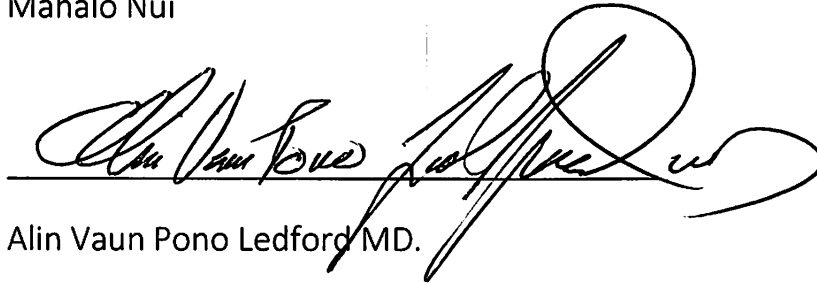
Although, most modern crematoriums have filtering systems in place to minimize emissions, regulations do not exist for the emissions and toxic pollutants that are released into the environment. As with sewage spills, these filtering systems also fail, releasing even more of the toxic pollutants in to 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 over a horizontal line. The signature is cursive and appears to read 'Alin Vaun Pono Ledford MD'. The signature is written in a fluid, connected style with some loops and flourishes.

Alin Vaun Pono Ledford MD.

Big Island Family Medicine Inc.

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TESTIMONY IN SUPPORT OF HB 1894

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.

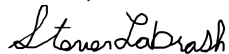
#3 I was saddened to see a large funeral corporation stand in opposition to this environmentally friendly technology. There is no more environmentally friendly technology available today than Alkaline Hydrolysis for human disposition. The corporations' position is reminiscent of the opposition the funeral 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: JDC

Hearing Date & Time: 03/31/2022 9:30 AM

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): JDC
Hearing Date & Time 03/30/22 9:30 AM

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

HB-1894-SD-1

Submitted on: 3/30/2022 9:27:41 AM

Testimony for JDC on 3/31/2022 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Pohai Ryan	Individual	Support	Written Testimony Only

Comments:

100% support bill as it stands. Effective date upon signing.

***Testimony in Support of HB 1894
Committee of Judiciary & Hawaii***

Aloha Legislators,

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



HB-1894-SD-1

Submitted on: 3/30/2022 10:50:57 AM

Testimony for JDC on 3/31/2022 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Ann Chung	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Rhoads, Vice Chair Keohokalole & Committee Members:

I STRONGLY SUPPORT HB1894 SD1 and urge you to pass the bill AS IS.

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.
- Proponents have been actively working with DCCA, DoH, and C&C of Honolulu ENV and all issues have been addressed in the SD1 version of the bill.**