



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the
House Committee on Finance
Thursday, February 20, 2025 at 12:00 p.m.

By

Tao Yan, PhD

Director, Water Resources Research Center

And

Michael Bruno, Provost

University of Hawai'i at Mānoa

HB 736 HD1 – RELATING TO WASTEWATER SYSTEMS

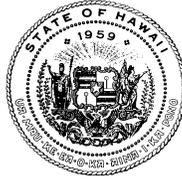
Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee:

The University of Hawai'i Water Resources Research Center (UH Mānoa WRRC) supports the intent of HB 736 HD1. This legislation proposes to establish a pilot program to evaluate and demonstrate new wastewater technologies and appropriate funding to address the critical issue of cesspool conversion in Hawai'i. The estimated total costs are \$745,325 for the three years.

The UH Mānoa WRRC is committed to implementing the pilot program should adequate funds are appropriated. UH Mānoa WRRC has extensive technical expertise in wastewater management, and has been instrumental in supporting the evaluation and demonstration of new wastewater technologies. Therefore, UH Mānoa WRRC is well-positioned to lead the technical aspects of this project, ensuring that the pilot program is executed with scientific rigor and practical effectiveness. We welcome the opportunity to take on this role and collaborate with relevant stakeholders to advance wastewater solutions in Hawai'i.

We strongly support the appropriation of funds for the UH Mānoa WRRC to establish and implement this pilot program, including necessary infrastructure, equipment, and administrative support, provided its adoption does not impact priorities as indicated in our Board of Regents Approved Budget.

Thank you for the opportunity to testify on this measure.



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

**Testimony in SUPPORT of HB0736 HD1
RELATING TO WASTEWATER SYSTEMS.**

REPRESENTATIVE KYLE T. YAMASHITA, CHAIR
HOUSE COMMITTEE ON FINANCE

February 20, 2025; 12:00 pm; Room Number: 308

1 **Fiscal Implications:** The Department of Health (“Department”) requests that this measure be
2 considered as a vehicle to provide this needed funding so long as it does not supplant the
3 priorities and requests outlined in the Governors executive budget request.

4 **Department Position:** The Department supports this measure.

5 **Department Testimony:** The Environmental Management Division Wastewater Branch
6 (EMD-WWB) provides the following testimony on behalf of the Department.

7 The Department supports this measure “to facilitate the certification of new wastewater
8 technologies in Hawaii that could reduce the costs of cesspool conversions by establishing and
9 appropriating funds for a new wastewater system technology testing pilot program within the
10 university of Hawaii water resources research center.”

11 **Offered Amendments:** None

12 Thank you for the opportunity to testify on this measure.



STATE OF HAWAII
HAWAII CLIMATE CHANGE MITIGATION & ADAPTATION
COMMISSION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Co-Chairs:
Chair, DLNR
Director, OPSD

Commissioners:
Chair, Senate AEN
Chair, Senate WTL
Chair, House EEP
Chair, House WAL
Chairperson, HTA
Chairperson, DOA
CEO, OHA
Chairperson, DHHL
Director, DBEDT
Director, DOT
Director, DOH
Chairperson, DOE
Director, C+C DPP
Director, Maui DP
Director, Hawai'i DP
Director, Kaua'i DP
The Adjutant General
Manager, CZM

**Testimony of
LEAH LARAMEE
Climate Change Coordinator on behalf of
Climate Change Mitigation and Adaptation Commission Co-Chair Mary Alice Evans and
Co-Chair Dawn N.S. Chang**

**Before the House Committee on
FINANCE**

**Thursday, February 20, 2025
12:00 PM
State Capitol, Conference Room 308 & Videoconference**

**In consideration of
HOUSE BILL 736 HOUSE DRAFT 1
RELATING TO WASTEWATER SYSTEMS**

House Bill 736 House Draft 1 establishes and appropriates funds for a three-year new wastewater system and individual wastewater system technology testing pilot program within the University of Hawaii Water Resources Research Center and requires interim and final reports to the Legislature. **The Hawai'i Climate Change Mitigation and Adaptation Commission (Commission) supports this bill provided that its passage does not replace or adversely impact priorities indicated in the Executive Budget request.**

The Hawai'i Climate Change Mitigation and Adaptation Commission consists of a multijurisdictional effort between 20 different departments, committees, and counties. Removal of cesspools for all properties within the Sea Level Rise Exposure Area (SLR-XA), is imperative to the health of nearshore waters and for members of the public accessing coastal resources. Removal may not be achievable by 2050 as directed by state law without viable alternatives for replacement. The Commission's 2022 update to the *Sea Level Rise Vulnerability and Adaptation Report* Recommended Action 6.1.1 states that the state should sponsor research and development efforts to expand affordable and actionable conversion options for shoreline property owners and options should account for SLR-XA projections of coastal erosion and associated land loss, and potential failure of sewage treatment systems due to sea level rise groundwater inundation. Cesspools in the coastal zone will be an increasing source of nonpoint source pollution as groundwater rises and coastal erosion accelerates. The *Sea Level Rise Vulnerability and Adaptation Report* Recommended Action 6.4 urges the state to expand policy directives beyond the existing income tax credits and requirement for removal by 2050. Specifically, policy must

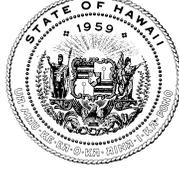
address existing cesspools in the coastal zone in relation to enforcement of existing laws and regulations and removal of unpermitted shoreline hardening.

Connection to sewer lines is not always feasible and septic tanks while preferred to cesspools are not a perfect alternative. New innovative wastewater treatment systems designed for Hawai'i's unique landscape that are cost effective and protect our waters are needed. This bill will provide funding to ground truth this technology.

Mahalo for the opportunity to testify in support of this measure.

JOSH GREEN, M.D.
GOVERNOR
STATE OF HAWAII
*Ke Kia'āina o ka Moku'āina 'o
Hawai'i*

SYLVIA J. LUKE
LT. GOVERNOR
STATE OF HAWAII
*Ka Hope Kia'āina o ka Moku'āina
'o Hawai'i*



KALI WATSON
CHAIRPERSON, HHC
Ka Luna Ho'okele

KATIE L. LAMBERT
DEPUTY TO THE CHAIR
Ka Hope Luna Ho'okele

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
Ka 'Oihana 'Āina Ho'opulapula Hawai'i

P. O. BOX 1879
HONOLULU, HAWAII 96805

TESTIMONY OF KALI WATSON, CHAIR
HAWAIIAN HOMES COMMISSION
BEFORE THE HOUSE COMMITTEE ON FINANCE
HEARING ON FEBRUARY 20, 2025 AT 12:00PM IN CR 308

HB 736, HD 1, RELATING TO WASTEWATER SYSTEMS

February 19, 2025

Aloha Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee:

The Department of Hawaiian Home Lands (DHHL) **supports** this bill which establishes and appropriates funds for a three-year new wastewater system and individual wastewater system technology testing pilot program within the University of Hawaii Water Resources Research Center and 2) requires interim and final reports to the Legislature.

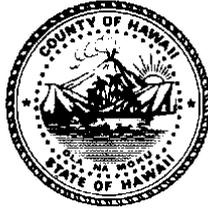
Approximately 2,500 cesspools exist on Hawaiian Home Lands. Pursuant to Act 125 (SLH 2017), these cesspools are required to be converted to a septic system or aerobic treatment unit system or connected to a sewerage system before January 1, 2050.

DHHL supports the establishment of a three-year new wastewater system and individual wastewater system technology testing pilot program within the University of Hawaii Water Resources Research Center because it will provide the opportunity to test new wastewater technology systems and review and evaluate the affordability, feasibility, and efficiency of the treatment technologies for DHHL, current lessees residing on Hawaiian Home Lands, and potential beneficiaries to understand the challenges and financial costs of cesspool conversions and wastewater technologies.

DHHL understands that there is no simple, one method fits all ahupua'a (land division) solution toward addressing the cesspool conversion and wastewater needs of the State of Hawaii and we stand ready to work collaboratively on this issue.

Thank you for your consideration of our testimony

C. Kimo Alameda, Ph.D.
Mayor



William V. Brillhante, Jr.
Managing Director

Merrick Nishimoto
Deputy Managing Director

County of Hawai'i ~ Office of the Mayor

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Phone (808) 323-4444 • Fax (808) 323-4440

TO: Rep. Kyle T. Yamashita, Chair
Rep. Jenna Takenouchi, Vice Chair
Committee on Finance

FROM: C. Kimo Alameda, Ph.D., Mayor

DATE: February 19, 2025

SUBJECT: **SUPPORT OF HB736, HD1, RELATING TO CESSPOOLS**

Aloha Chair, Vice Chair, and esteemed members of the Committee,

Mahalo for the opportunity to offer my **strong support** for House Bill 734 HD1, which establishes a pilot program within the University of Hawaii's Water Resources Research Center to test and certify new wastewater technologies. With over 80,000 cesspools discharging millions of gallons of untreated wastewater daily, Hawaii's water quality, public health, and fragile ecosystems are at risk.

This measure will facilitate the development and adoption of affordable, efficient, and innovative solutions to address cesspool pollution, benefiting homeowners and protecting our environment.

By investing in research and collaboration with experts, this bill promotes sustainable wastewater management while reducing costs for cesspool conversions. Passing HB736, HD1, will support Hawai'i's long-term environmental and public health goals.

Mahalo for your time and consideration.



Testimony on HB736 HD1

February 20, 2025

12:00 PM

Conference Room 308

The Climate Change and Health Working Group (CCHWG) is a cross-sector collaborative interested in strengthening climate and health resiliency in Hawai'i. CCHWG supports this measure's goal of establishing a three-year pilot program within the University of Hawai'i Water Resources Research Center (WRRC) to test new wastewater technology systems.

Testimony of the Hawai'i Climate Change and Health Working Group In Support of HB736 HD1

RELATING TO WASTEWATER SYSTEMS

Aloha Chair Kyle T. Yamashita, Vice Chair Jenna Takenouchi, and Members Committee on Finance:

The Climate Change and Health Working Group supports **HB736 HD1's** goal of establishing a three-year pilot program within the WRRC to test new wastewater technology systems; review and evaluate the affordability, feasibility, and efficiency of the treatment technologies; document, validate, and summarize the various tests, research, and outcomes of wastewater treatment works systems and individual wastewater systems; and submit the results of each test to the Hawai'i State Department of Health (DOH). This program would be instrumental in addressing the mandate of Hawai'i's Act 125 to convert all existing cesspools by 2050 in an effective and appropriate manner.

Clean nearshore waters are vital to both public health and the health of nearshore reefs and associated fisheries. Wastewater systems have the potential to pollute groundwater and nearshore waters by introducing elevated levels of contaminants such as nitrogen, phosphorus, and pathogens. Cesspools are at risk of overflow due to both sea-level rise and coastal erosion, as rising oceans also lift the contaminated groundwater and soil. These events put people in contact with infectious viruses and bacteria which can seriously harm their health. Cesspool

pathogens include hepatitis A, staphylococcus, and salmonella, as well as fecal indicators such as *E. coli* and enterococci. These pathogens put swimmers, paddlers, and beachgoers at risk of gastroenteritis, conjunctivitis, diarrhea, and skin infections. Our working group conducted a listening session at Hale Naʻau Pono in Waiʻanae on January 28th to understand health needs in the face of climate change. Community members told us that cesspools were a high priority due to cost, environmental impact, and infections from swimming in polluted water.

These concerns highlight the need to convert cesspools to another treatment system; however, the current approach of converting cesspools to septic tanks is problematic for several reasons, and cesspool owners and community members have expressed a need for a more appropriate wastewater solution than septic tanks. The primary concerns cited with septic tanks are that they are cost-prohibitive, do not treat chemical components harmful for ocean resources, and are not appropriate for space-constrained sites. Thus, there is a need for approval of alternative technologies that already exist, and the creation of the three-year pilot testing program at WRRC proposed by **HB736 HD1** is a crucial step towards achieving this goal, by allowing for the certification and implementation of such alternative technologies.

Septic tank systems do not treat the nitrogenous waste component of wastewater, and thus allow for introduction of this environmentally harmful component into our oceans and coral reefs. In addition to being a health concern, the nitrogenous waste threatens food security, as it is harmful to coral reef health, thereby reducing the abundance of our local fisheries. A 2023 Hawaiʻi-based study found that septic and cesspool pollution is a major driver of coral reef decline along the West Hawaiʻi coastline. When excess nutrients, such as nitrogen, from these wastewater systems enter nearshore waters, they stimulate the growth of algae, which can smother coral {1}.

While there is clearly a need for wastewater treatment technologies other than septic tanks, certification of such technologies currently would have to be run through the National Sanitation Foundation in Michigan. However, the price is up to \$70,000 per testing, and about \$10,000 annually for certification. This cost eventually falls upon end users in Hawaiʻi. The pilot program proposed by **HB736 HD1** would facilitate evaluation of the performance of new technologies, so that DOH can use this information for certification, greatly accelerating the adaptation of new technologies at lower costs. After this initial pilot program supported by the State, other technology companies will be able to test their products and support the program onwards.

We would like to reiterate that the climate crisis is a health crisis. We urge support for **HB736 HD1**. Thank you for the opportunity to testify.

Sincerely,

The Climate Change and Health Working Group

{1} Gove, J.M., Williams, G.J., Lecky, J. et al. *Nature* 621, 536–542 (2023).
<https://doi.org/10.1038/s41586-023-06394-w>



Feb. 18, 2025

In Support of **HB736 HD1 Relating to Wastewater Systems**
House Committee on Finance (FIN)
Hearing on Thur., Feb. 20, 2025, 12:00pm, CR308

Aloha, Chair Yamashita, Vice-Chair Takenouchi and Committee Members:

On behalf of the non-profit WAI: Wastewater Alternatives & Innovations, I am writing in **strong support of HB736**. This bill funds a three-year pilot program to test wastewater technology at the University of Hawaii Water Resources Research Center (WRRC). The goal is to introduce more efficient and affordable sanitation technologies to the state. WRRC will work in coordination with other departments at UH and the Dept. of Health to evaluate the efficiency of treatment technologies, perform tests and submit results to the Department.

The Department of Health must certify the new technology systems, but the Department doesn't have sufficient resources to perform those certifications promptly and effectively. Research and studies by the WRRC testing program can facilitate and accelerate DOH's certification of new technologies. The costs are modest, and the benefits in reducing costs will be many times larger. Based on a previous program run by Dr. Roger Babcock and WRRC, the pilot program will build on existing resources and staff at WRRC and UH. Once the program is up and running again, it will generate revenues from companies that pay testing fees to get their treatment systems approved in Hawai'i. This will bring revenues to the state, be self-sustaining and help solve our cesspool crisis.

Hawaii has more than 83,000 cesspools across the state, discharging 52 million gallons of raw sewage each day into Hawaii's waters. Along with threats to public health and drinking water resources, new research shows that polluted wastewater poses significant harm to coral reefs and the near-shore environment. Many of our reefs have declined dramatically, and places like Ma'alaea have seen their reefs basically destroyed. The people of Hawaii need this law to make sure their wastewater systems aren't polluting the groundwater or nearby surface waters.

WAI is an environmental non-profit dedicated to protecting our water resources by reducing sewage pollution from cesspools. We support more innovative, affordable, and eco-friendly solutions to wastewater management. Better sanitation systems protect public health and valuable natural resources like groundwater, streams, coral reefs and coastal areas.

Hawaii is struggling with serious sewage pollution, and the state has a mandate to make sure all cesspools are converted in the next two decades. This bill will provide the necessary testing of new treatment technologies that are needed to convert cesspools across the state more efficiently and affordably. Mahalo for your leadership on this issue and support of this bill.

Aloha,

Stuart Coleman

Stuart H. Coleman, Executive Director

**Testimony of The Nature Conservancy
Supporting HB736 HD1, Relating to Wastewater Systems.
Committee on Finance
February 20, 2025 at 12:00 pm**

Dear Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee:

The Nature Conservancy (TNC), Hawai'i and Palmyra supports HB736 HD1 Establishes and appropriates funds for a three-year new wastewater system and individual wastewater system technology testing pilot program within the University of Hawaii Water Resources Research Center. The bill would also require interim and final reports to the Legislature.

Science conducted by TNC and partners has shown that wastewater are detrimental to the coral reefs which protect our coastlines and underpin our economy. Without clean coastal waters are reef ecosystems are put at even greater risk in the face of growing global stressors including climate change.

Wastewater can cause harm to water quality within adjacent groundwater, anchialine, coral reef systems and fisheries by introducing elevated amounts of organic nitrogen and phosphorus, pathogens, and other contaminants. Contaminants emitted from cesspools can harm aquatic ecosystems by encouraging excess algal and bacterial growth and can also pose a threat to human health. Our research in He'eia, Maunaloa, Olowalu, Hana and South Kohala has shown direct evidence of cesspool contamination in streams and coastal waters using a variety of bioindicators and chemical signatures.

The Water Resources Research Center (WRRRC) at the University of Hawai'i at Manoa has historically provided technical support to creating advanced onsite wastewater systems. This bill would allow the WRRRC to support new innovative technologies to be permitted in the State through advanced testing and pilot measures. New technologies could potentially offer substantial cost savings by clustering adjacent homes, or reducing the amount of excavation needed. The cost of the program would be small compared to the potential savings.

Mahalo for the opportunity to testify in support of HB736 HD1.

Guided by science, TNC is a non-profit organization dedicated to the preservation of the lands and waters upon which all life depends. The Conservancy has helped protect more than 200,000 acres of natural lands in Hawai'i and Palmyra Atoll. We manage 40,000 acres in 13 nature preserves and have supported over 50 coastal communities to help protect and restore the nearshore reefs and fisheries of the main Hawaiian Islands.

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To: The Honorable Representative Kyle Yamashita, Chair, the Honorable Jenna Takenouchi, Vice Chair, and Members of the Finance Committee.

From: Hawai'i Reef and Ocean Coalition (by Ted Bohlen)

Re: **Hearing HB736 HD1 RELATING TO WASTEWATER SYSTEMS**

Hearing: Thursday February 20, 2025 12:00 p.m.

Aloha Chair Yamashita, Vice Chair Takenouchi, and Members of the Finance Committee!

The Hawai'i Reef and Ocean Coalition (HIROC) is a group of scientists, educators, filmmakers and environmental advocates who have been working since 2017 to protect Hawaii's coral reefs and ocean.

The Hawai'i Reef and Ocean Coalition STRONGLY SUPPORTS HB736 HD1!

There are about 83,000 cesspools in Hawaii that are dumping about 50 million gallons every day into Hawaii's groundwater, drinking water, streams, and ocean and harming our coral reefs. By law (the mandate of section 342D-72, Hawaii Revised Statutes), all 83,000 cesspools must be upgraded to a system approved by the Department by 2050.

Cesspool upgrades are expensive. The cost depends on site-specific conditions, but the cost to convert a cesspool to a septic system or an aerobic treatment unit system is often over \$30,000. We need to try to find ways to make upgrades more affordable to homeowners and governments.

At a time when many residents of Hawaii are struggling to make ends meet, **our State has an excellent opportunity to save cesspool owners and governments money by introducing new wastewater technologies. There are new wastewater technologies in cluster sewers, in individual wastewater systems, and in other wastewater systems that can potentially reduce the costs of cesspool upgrades substantially without harming water quality and protect coral reefs by reducing nutrients.**

The Department of Health must certify the new technology systems. The Department does not have sufficient resources and expertise to perform those certifications promptly and effectively, however.

The University of Hawaii's Water Resources Research Center (WRRC) has previously had a testing program for wastewater systems. Guidance and studies by a revived UH WRRC testing program for new technologies can facilitate and accelerate DOH's certification of new technologies. The cost of the testing program is modest (estimated at **\$745,000 over three years**) and the benefits in reducing costs will be many times larger.

The bill funds a three-year pilot program to test wastewater systems and individual wastewater systems technology at UH WRRC. UH WRRC, in coordination with other departments at UH, DOH, county agencies and others will review, document, and evaluate the affordability, feasibility, and efficiency of treatment technologies, perform tests and studies and submit results to the Department.

This bill will enable Hawaii to achieve its goal of upgrading cesspools MORE AFFORDABLY without compromising water quality.

Please pass this bill!

Mahalo!

Hawai'i Reef and Ocean Coalition (by Ted Bohlen)



Environmental Caucus of The Democratic Party of Hawai'i

February 18, 2025

TO: Chair Kyle T. Yamashita, Vice Chair Jenna Takenouchi, and Members of the Committee on Finance

Hearing Date: Thursday, February 20, 2025 **Time:** 12:00 p.m. **Place:** Conference Room 308 and Videoconference

FROM: Environmental Caucus of the Democratic Party of Hawaii

SUBJECT: Testimony in Support of HB736 HD1 - Relating to Wastewater Systems

Aloha Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee,

The Environmental Caucus of the Democratic Party of Hawaii strongly supports HB736 HD1, which establishes and appropriates funds for a three-year new wastewater system and individual wastewater system technology testing pilot program within the University of Hawai'i Water Resources Research Center. Additionally, it requires interim and final reports to the Legislature.

Key Points

- **Innovative Solutions:** This bill encourages the development and testing of new wastewater system technologies, which can lead to more efficient and effective wastewater management.
- **Environmental Protection:** Advancing wastewater technology helps protect Hawai'i's water resources and environment from contamination.
- **Interim and Final Reports:** Requiring interim and final reports ensures transparency and accountability in the implementation and outcomes of the pilot program.
- **Funding Support:** Appropriating funds for this program is crucial to its successful implementation and the advancement of wastewater technology research.

Arguments in Support

The establishment of a three-year new wastewater system and individual wastewater system technology testing pilot program within the University of Hawai'i Water Resources Research Center is essential for advancing wastewater management in Hawai'i. This bill provides the necessary support and funding to develop and test innovative technologies that can improve the efficiency and effectiveness of wastewater systems.

By investing in new wastewater system technologies, we can better protect our water resources and the environment from contamination. The interim and final reports required by this bill will

ensure that the program is implemented effectively and that the results are shared with the Legislature and the public, promoting transparency and accountability.

We commend the Committee for considering this important legislation and urge its passage. The Environmental Caucus of the Democratic Party of Hawaii stands ready to assist in any way possible to ensure the successful implementation of HB736 HD1.

Thank you for the opportunity to submit testimony in support of this bill.

Mahalo nui loa,

Melodie Aduja and Alan Burdick

Co-Chairs, Environmental Caucus Democratic Party of Hawaii



TO: House Committee on Finance
Representative Kyle T. Yamashita, Chair
Representative Jenna Takenouchi, Vice Chair

FROM: Lynn Miyahira representing Public Access to SunScreens (PASS) Coalition
DATE: Feb 20, 2025

Re: HB 736

Position: SUPPORT

The [Public Access to SunScreens](#) (PASS) Coalition is a multi-stakeholder coalition composed of public health groups, dermatologists, sunscreen manufacturers, and leading advocates for skin cancer patients. We also support efforts that protect our coral reefs.

We support this measure.

Hawaii faces a severe cesspool pollution problem, with over 83,000 cesspools discharging approximately 50 million gallons of raw sewage daily into our groundwater, streams, and oceans. This not only threatens our drinking water but also harms coral reefs that are vital to Hawaii's ecosystem and tourism economy.

Cesspool upgrades are expensive, creating significant financial challenges for both homeowners and governments. HB 736 addresses this issue by encouraging the development and adoption of innovative wastewater technologies that can reduce the costs of cesspool upgrades while maintaining high water quality standards.

This bill establishes a three-year pilot program at the University of Hawaii Water Resources Research Center to test new wastewater technologies, including cluster sewers, individual wastewater systems, and other innovative approaches. By facilitating and accelerating the Department of Health's certification process for these technologies, this program can provide cost-effective solutions that benefit homeowners, governments, and the environment.

The cost of the testing program is modest, especially when compared to the potential benefits of reducing the financial burden on residents and ensuring cleaner water for future generations. Investing in this program is a proactive step toward solving Hawaii's cesspool pollution crisis.

We urge your support for HB 736.

Mahalo you for the opportunity to testify.

Sincerely,

Lynn Miyahira
Public Access to SunScreens (PASS) Coalition



Date: February 19, 2025

To: Chair Yamashita, Vice Chair Takenouchi, and members of the Committee on Finance of the House of Representatives

Re: HB 736 HD1, RELATING TO WASTEWATER SYSTEMS.
Thursday February 20, 2025
VIA VIDEOCONFERENCE
Conference Room 308
State Capitol
415 South Beretania Street

From: Erica Perez- Program Manager and Head of Sanitation
eperez@coral.org
Coral Reef Alliance (CORAL)

Subject: Testimony in SUPPORT of HB736 HD1 Relating to Wastewater Systems-

I am testifying in Support of HB736 HD1 relating to cesspools on behalf of the Coral Reef Alliance (CORAL) and as a concerned citizen of Moku o Keawe. This bill establishes and appropriates funds for a three-year new wastewater system and individual wastewater system technology testing pilot program within the University of Hawai'i Water Resources Research Center and requires interim and final reports to the Legislature. CORAL and The Ocean Legislative Task Force advocate for cesspool conversion as part of our kuleana to care for the oceans that sustain us.

As a 2019 Cesspool Conversion working group member I have first hand experience with the challenges of Hawaii's Cesspool Conversion. CORAL has worked across the State to help identify community scale solutions for conversion for a more equitable solution that distributes costs amongst many, to lessen the costs for individual households. Cesspool upgrades are expensive. We need to try to find ways to make them affordable to homeowners and governments.

New wastewater technologies that support community size systems to individual wastewater systems, are needed and can potentially reduce the costs of cesspool upgrades substantially, without harming water quality. A testing program for new



technologies at UH Water Resources Research Center can facilitate and accelerate DOH's certification of new technologies. HB736_HD1 will establish the needed resources within DOH to address technology needs that can offer more solutions for homeowners and our Counties.

CORAL is an international coral reef conservation organization that works with communities, businesses, and governments to save coral reefs. With field offices on Maui and Hawai'i Island, and projects throughout the Main Hawaiian Islands, CORAL uses a science-based approach to improve coastal water quality. Throughout the state, CORAL's programs mitigate land-based sources of pollution, such as wastewater discharge and stormwater runoff.

Our coral reefs and oceans are vital to Hawaii's identity and future. By addressing this pressing issue, we protect ecosystems that define our islands and ensure the health of our waters for future generations. The time to act is now—our oceans cannot wait. We are a member of The Ocean Legislative Task Force, a group of over 100 individuals from diverse environmental organizations, working together to safeguard marine ecosystems. Our collective expertise allows us to craft impactful strategies to protect Hawaii's waters.

In closing, CORAL Supports HB736. Mahalo for the opportunity to testify on this important measure,

Sincerely,

Erica Perez
Program Manager and Head of Sanitation
eperez@coral.org
Coral Reef Alliance

HB-736-HD-1

Submitted on: 2/18/2025 12:07:51 PM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Douglas Perrine	Individual	Support	Written Testimony Only

Comments:

HB736 will fund vitally important research to test new wastewater treatment technologies that are urgently needed to address our cesspool crisis. Septic systems are not the answer, for multiple reasons, but there are many new technologies recently developed or in development, which could provide much better solutions to our wastewater processing needs. We need to identify these and approve the ones that work as quickly as possible. I recreate in the ocean directly downhill from my own cesspool. I would really, really, like to stop swimming in my own poo. Pleae help by passing HD736.

HB-736-HD-1

Submitted on: 2/18/2025 5:16:06 PM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Jack Kittinger, PhD	Individual	Support	Written Testimony Only

Comments: Please pass this important bill which will address a pressing issue in wastewater management and cesspool upgrades, including through technology testing via the University of Hawaii Water Resources Research Center.

HB-736-HD-1

Submitted on: 2/18/2025 5:31:06 PM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
James McCallen	Individual	Support	Written Testimony Only

Comments:

Aloha Chair Kyle T. Yamashita, Vice Chair Jenna Takenouchi, and Members Committee on Finance:

My name is James McCallen and I am a public health professional in support of **HB736 HD1**'s goal of establishing a three-year pilot program within the WRRC to test new wastewater technology systems; review and evaluate the affordability, feasibility, and efficiency of the treatment technologies; document, validate, and summarize the various tests, research, and outcomes of wastewater treatment works systems and individual wastewater systems; and submit the results of each test to the Hawai'i State Department of Health (DOH). This program would be instrumental in addressing the mandate of Hawai'i's Act 125 to convert all existing cesspools by 2050 in an effective and appropriate manner.

Clean nearshore waters are vital to both public health and the health of nearshore reefs and associated fisheries. Wastewater systems have the potential to pollute groundwater and nearshore waters by introducing elevated levels of contaminants such as nitrogen, phosphorus, and pathogens. Cesspools are at risk of overflow due to both sea-level rise and coastal erosion, as rising oceans also lift the contaminated groundwater and soil. These events put people in contact with infectious viruses and bacteria which can seriously harm their health. Cesspool pathogens include hepatitis A, staphylococcus, and salmonella, as well as fecal indicators such as *E. coli* and enterococci. These pathogens put swimmers, paddlers, and beachgoers at risk of gastroenteritis, conjunctivitis, diarrhea, and skin infections. The Climate Change & Health Working Group recently conducted a listening session at Hale Na'au Pono in Wai'anae on January 28th to understand health needs in the face of climate change. Community members expressed that cesspools were a high priority due to cost, environmental impact, and infections from swimming in polluted water.

These concerns highlight the need to convert cesspools to another treatment system; however, the current approach of converting cesspools to septic tanks is problematic for several reasons, and cesspool owners and community members have expressed a need for a more appropriate wastewater solution than septic tanks. The primary concerns cited with septic tanks are that they are cost-prohibitive, do not treat chemical components harmful for ocean resources, and are not appropriate for space-constrained sites. Thus, there is a need for approval of alternative technologies that already exist, and the creation of the three-year pilot testing program at WRRC proposed by **HB736 HD1** is a crucial step towards achieving this goal, by allowing for the certification and implementation of such alternative technologies.

Septic tank systems do not treat the nitrogenous waste component of wastewater, and thus allow for introduction of this environmentally harmful component into our oceans and coral reefs. In addition to being a health concern, the nitrogenous waste threatens food security, as it is harmful to coral reef health, thereby reducing the abundance of our local fisheries. A 2023 Hawai‘i-based study found that septic and cesspool pollution is a major driver of coral reef decline along the West Hawai‘i coastline. When excess nutrients, such as nitrogen, from these wastewater systems enter nearshore waters, they stimulate the growth of algae, which can smother coral {1}.

While there is clearly a need for wastewater treatment technologies other than septic tanks, certification of such technologies currently would have to be run through the National Sanitation Foundation in Michigan. However, the price is up to \$70,000 per testing, and about \$10,000 annually for certification. This cost eventually falls upon end users in Hawai‘i. The pilot program proposed by **HB736 HD1** would facilitate evaluation of the performance of new technologies, so that DOH can use this information for certification, greatly accelerating the adaptation of new technologies at lower costs. After this initial pilot program supported by the State, other technology companies will be able to test their products and support the program onwards.

I would like to reiterate that the climate crisis is a health crisis. I urge support for **HB736 HD1**. Thank you for the opportunity to testify.

Sincerely,

James McCallen, MPH

{1} Gove, J.M., Williams, G.J., Lecky, J. et al. Nature 621, 536–542 (2023).
<https://doi.org/10.1038/s41586-023-06394-w>

HB-736-HD-1

Submitted on: 2/19/2025 1:03:42 AM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Emily Werner	Individual	Support	Written Testimony Only

Comments:

Good after noon Chair, Vice Chair, and fellow members of the committee,

Thank you for the opportunity to testify in strong support for HB736

My name is Emily Werner. I am a student at University of Hawaii Manoa, studying Political Science and Sustainability. I am offering my testimony as an individual, and am also a member of the Climate Change and health working group.

Cesspools in Hawaii can pose a serious health threat by contaminating drinking water, groundwater, and recreational waters with disease-causing pathogens. Hawaii has 83,000 existing sewage cesspools that inject 52 million gallons of wastewater into the ground daily.

Due to sea level rise and coastal erosion, cesspools are at risk of overflow because rising oceans also lift the contaminated groundwater and soil. Overflow is also confounded by normally occurring tides that further push pathogens into the ocean. These events put people in contact with infectious viruses and bacteria which can seriously harm their health.

Cesspool pathogens include hepatitis A, staphylococcus, and salmonella, as well as fecal indicators such as E. coli and enterococci. These pathogens put swimmers, paddlers, and beachgoers at risk of gastroenteritis, conjunctivitis, diarrhea, and skin infections. Hawaii has been shown to have a higher prevalence of methicillin-resistant Staphylococcus aureus (MRSA) compared to the national average and studies also confirm increased bacterial concentrations with rainfall and flood water discharge.

The dangerous pathogens from cesspools also threaten our food system. Coral reefs and marine ecosystems are damaged from the toxic pollutants coming from cesspools. Marine animals and plants that rely on healthy reefs for food and shelter.

Cesspools are a human and environmental health crisis that threaten the wellbeing of our communities and future generations. This bill takes a crucial step towards safe solutions that are unique to the problems the Hawaiian Islands face. This bill increases affordability of cesspool conversion, which is imperative to solving this urgent problem. I urge you to pass HB736 and help to ensure a future where everyone has access to clean and safe environments.

Thank you for your time and consideration.

-Emily Werner

HB-736-HD-1

Submitted on: 2/19/2025 8:47:56 AM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Betsy Scolnik	Individual	Support	Written Testimony Only

Comments:

STRONGLY SUPPORT

HB-736-HD-1

Submitted on: 2/19/2025 9:02:26 AM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Lavern Sparks	Individual	Support	Written Testimony Only

Comments:

Please support this Bill and help Make our Island inhabitable for our kuture generations. Your vote will show that you care about cleaning up our sewage and making Hawai'i safe and livable.

HB-736-HD-1

Submitted on: 2/19/2025 9:09:59 AM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Younghee Overly	Individual	Support	Written Testimony Only

Comments:

Thank you for hearing HB736. Please pass this measure so we can have transparency around wastewater management.

HB-736-HD-1

Submitted on: 2/19/2025 11:04:25 AM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Jay Henderson	Individual	Support	Written Testimony Only

Comments:

I live in Ala Moana area and support this bill because it

Supports Affordable Cesspool Upgrades: Establishes a three-year pilot program at the University of Hawaii Water Resources Research Center (UH WRRC) to test new wastewater technologies, aiming to reduce cesspool conversion costs while protecting water quality.

Promotes Innovation and Efficiency: Facilitates the certification of cutting-edge wastewater systems for individual homes, multi-unit dwellings, and entire communities, potentially offering more cost-effective solutions than traditional systems.

Collaborative Approach: Requires UH WRRC to coordinate with the UH Sea Grant College Program, College of Engineering, Department of Health, Department of Hawaiian Home Lands, and county agencies to evaluate affordability, feasibility, and efficiency of new treatment technologies.

Ensures Accountability and Transparency: Mandates annual interim reports and a final report to the legislature by 2028, providing detailed evaluations of tested technologies and recommendations for future wastewater management solutions.

HB-736-HD-1

Submitted on: 2/19/2025 11:52:37 AM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Michael Becker	Individual	Support	Written Testimony Only

Comments:

Support

HB-736-HD-1

Submitted on: 2/19/2025 1:05:40 PM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Arlene Twomey	Individual	Support	Written Testimony Only

Comments:

I support HB736 because it

Supports Affordable Cesspool Upgrades: Establishes a three-year pilot program at the University of Hawai‘i Water Resources Research Center (UH WRRC) to test new wastewater technologies, aiming to reduce cesspool conversion costs while protecting water quality.

Promotes Innovation and Efficiency: Facilitates the certification of cutting-edge wastewater systems for individual homes, multi-unit dwellings, and entire communities, potentially offering more cost-effective solutions than traditional systems.

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HB-736-HD-1

Submitted on: 2/19/2025 3:06:01 PM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Lisa H. Gibson	Individual	Support	Written Testimony Only

Comments:

Strong support

HB-736-HD-1

Submitted on: 2/19/2025 4:23:25 PM

Testimony for FIN on 2/20/2025 12:00:00 PM

Submitted By	Organization	Testifier Position	Testify
robin knox	Individual	Support	Written Testimony Only

Comments:

My name is Robin Knox and I strongly support HB736 HD!. My support is based on my expertise as a Qualified Environmental Professional certified in Water Quality Practice by the Global Environmental Health and Safety Credentialing Board. The current discharges from cesspools are an imminent threat to water quality of groundwater, streams, and ocean water and to both environmental and public health. The traditional technologies currently approved by DOH, primarily replacing cesspools with septic tank systems, is not effective in mitigating the untreated sewage discharges from cesspools from either a water quality or logistical feasibility standpoint. Alternative technologies exist, and are being developed everyday, that provide greater degree of waste treatment, are more cost-effective, and requiring less invasive ground disturbing activity than septic tanks. Supporting DOH in vetting alternative technologies is essential to protecting Hawai'i's water quality and reaching the goal of cesspool elimination by 2050. Approving alternative technologies that are more cost effective and logistiically feasible will provide greater pollutant reduction and improved water quality in the shortest time frame possible. As an added bonus, embracing new technologies will be a form of economic development for Hawai'i's environmental and engineering businesses and result in exportable expertise that can continue to support our economy long after our cesspools are eliminated.