



STATE OF HAWAII
DEPARTMENT OF HEALTH
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WRITTEN
TESTIMONY ONLY

**Testimony in SUPPORT of SB1232 SD2 HD1
RELATING TO WASTEWATER SYSTEMS.**

REPRESENTATIVE NICOLE E. LOWEN, CHAIR
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

March 18, 2025; 9:20 am, Room Number: 325

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.

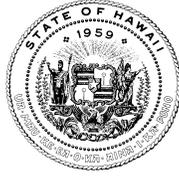
7 The Department supports this measure to establish a three-year new wastewater
8 technology testing pilot program in Hawai'i within the University of Hawai'i Water Resources
9 Research Center.

10 **Offered Amendments:** None.

11 Thank you for the opportunity to testify on 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 ENERGY & ENVIRONMENTAL PROTECTION
HEARING ON MARCH 18, 2025 AT 9:20AM IN CR 325**

SB 1232, SD 2, HD 1, RELATING TO WASTEWATER SYSTEMS

March 17, 2025

Aloha Chair Lowen, Vice Chair Perruso, and Members of the Committee:

The Department of Hawaiian Home Lands (DHHL) **supports** this bill which establishes a three-year New Wastewater Technology Testing Pilot Program within the University of Hawaii Water Resources Research Center to test and evaluate new wastewater technology systems 2) requires reports to the Legislature and 3) appropriates funds.

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 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.



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 Energy & Environmental Protection
Tuesday, March 18, 2025 at 9:20 a.m.

By

Tao Yan

Director, UH Water Resources Research Center

And

Michael Bruno, Provost

University of Hawai'i at Mānoa

SB 1232 SD2 HD1 – RELATING TO WASTEWATER SYSTEMS

Chair Lowen, Vice Chair Perruso, and Members of the Committee:

The University of Hawai'i Water Resources Research Center (WRRC) **stands in strong support of SB 1232 SD2 HD1**, which establishes a pilot program to evaluate and certify new wastewater treatment technologies in Hawai'i. This initiative is a critical step in addressing the State's cesspool conversion challenges by expanding affordable and effective treatment options.

Hawai'i's commitment to improving water quality and public health is evident in the legislative mandates requiring the transition away from cesspools. However, the currently approved replacement options pose challenges—advanced treatment units (ATUs) are highly effective but costly, while septic systems, though more affordable, have limited nutrient removal efficiency in Hawai'i's coastal environments. The lack of viable, cost-effective solutions is a major barrier to meeting the State's water quality goals and could lead to substantial investments with limited impact.

This bill leverages WRRC's expertise in wastewater research to implement a pilot program that will rigorously test and evaluate new wastewater treatment technologies. By identifying and validating solutions that are both effective and financially feasible, WRRC will provide the Hawai'i Department of Health with the necessary scientific basis for approving new, lower-cost alternatives for cesspool conversion. This research is essential to ensuring that the State's approach is data-driven, efficient, and tailored to Hawai'i's unique environmental conditions.

As the designated implementing entity, WRRC has extensive experience in wastewater research and policy development. Our previous work includes:

- The Hawai'i Cesspool Prioritization Tool, developed in collaboration with the Hawai'i Department of Health to assess cesspool risks statewide.

- A long-term wastewater outflow biomonitoring program conducted with the City and County of Honolulu, contributing critical data on wastewater impacts.
- Numerous faculty-led studies on wastewater treatment and its environmental effects, which inform local and national policy discussions.

The estimated total costs are \$745,325 for the three years.

We strongly support the appropriation of funds for 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.

Josh Green
GOVERNOR OF HAWAII



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

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Director, Kauai 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
ENERGY AND ENVIRONMENTAL PROTECTION

Tuesday, March 18, 2025
9:20 AM

State Capitol, Conference Room 325 & Videoconference

In consideration of
SENATE BILL 1232, SENATE DRAFT 2, HOUSE DRAFT 1
RELATING TO WASTEWATER SYSTEMS

Senate Bill 1232 SD2 HD1 establishes a three-year New Wastewater Technology Testing Pilot Program within the University of Hawaii Water Resources Research Center to test and evaluate new wastewater technology systems in coordination with University of Hawaii Sea Grant College Program, College of Engineering, Department of Health, Department of Hawaiian Home Lands, and the appropriate county agencies, requires reports to the Legislature and appropriates funds. **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.



To: The Honorable Representative Nicole Lowen, Chair, the Honorable Amy Perruso, Vice Chair, and Members of the Committee on Energy and Environmental Protection.

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

Re: Hearing **SB1232 SD2 HD1 RELATING TO WASTEWATER SYSTEMS**

Hearing: Tuesday, March 18, 2025, 9:20 a.m. CR325

Aloha Chair Lowen, Vice Chair Perruso, and Energy and Environmental Protection Committee Members:

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

The Hawai'i Reef and Ocean Coalition STRONGLY SUPPORTS SB1232 SD2 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 (I believe it is 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

March 14, 2025

TESTIMONY IN SUPPORT OF SB1232 SD2 HD1 RELATING TO WASTEWATER SYSTEMS

TO: Chair Nicole E. Lowen, Vice Chair Amy A. Perruso, and Members of the Committee on Energy & Environmental Protection

DATE: Tuesday, March 18, 2025 **TIME:** 9:20 AM

PLACE: Conference Room 325 & Videoconference

Aloha Chair Lowen, Vice Chair Perruso, and Members of the Committee,

On behalf of the Environmental Caucus of the Democratic Party of Hawaii, we submit this testimony in strong support of SB1232 SD2 HD1, which establishes a 3-year New Wastewater Technology Testing Pilot Program within the University of Hawaii Water Resources Research Center to test and evaluate innovative wastewater technology systems.

Wastewater management is a critical issue for Hawaii, given our unique island ecosystem, reliance on groundwater resources, and commitment to environmental preservation. SB1232 SD2 HD1 represents a proactive and forward-thinking step in addressing these challenges by:

- **Advancing Innovative Solutions:** The pilot program will allow for the testing and evaluation of cutting-edge wastewater technology systems, helping identify sustainable and efficient solutions tailored to Hawaii’s needs.
- **Protecting Hawaii’s Environment:** Effective wastewater management reduces the risks of pollution, protecting our streams, oceans, and ecosystems from harmful contaminants.
- **Supporting Legislative Oversight:** By requiring reports to the Legislature, the program ensures accountability and provides valuable data to guide future policy decisions.
- **Strengthening Local Expertise:** With the program housed at the University of Hawaii Water Resources Research Center, it leverages local knowledge, fosters collaboration, and promotes workforce development in the field of environmental science and engineering.

This measure also aligns Hawaii’s broader sustainability goals and positions the state as a leader in innovative wastewater management solutions. By investing in research and testing, Hawaii can ensure the long-term health of its residents and natural resources.

We respectfully urge the Committee to pass SB1232 SD2 HD1 to support these critical efforts.

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

Mahalo,

Melodie Aduja and Alan Burdick

Co-Chairs, Environmental Caucus of the Democratic Party of Hawaii

**Testimony of The Nature Conservancy
Supporting SB1232 SD2 HD1, Relating to Wastewater Systems.
Committee on Energy & Environmental Protection
March 18, 2025 at 9:20 am
Conference Room 325 and via Videoconference**

Dear Chair Lowen, Vice Chair Perruso, and Members of the Committee:

The Nature Conservancy (TNC), Hawai'i and Palmyra supports SB1232 SD2 HD1, which would establish a 3-year New Wastewater Technology Testing Pilot Program within the University of Hawai'i Water Resources Research Center to test and evaluate new wastewater technology systems in coordination with University of Hawai'i Sea Grant College Program, University of Hawai'i College of Engineering, Department of Health, Department of Hawaiian Home Lands, and appropriate county agencies. This bill also requires 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 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 (WRRC) at the University of Hawai'i at Manoa has historically provided technical support to creating advanced onsite wastewater systems. This bill would allow the WRRC 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 SB1232 SD2 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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March 18, 2025

The Honorable Nicole E. Lowen, Chair

House Committee on Energy & Environmental Protection
State Capitol, Conference Room 325 & Videoconference

RE: Senate Bill 1232, SD2, HD1, Relating to Wastewater Systems

HEARING: Tuesday, March 18, 2025, at 9:20 a.m.

Aloha Chair Lowen, Vice Chair Perusso, and Members of the Committee:

My name is Lyndsey Garcia, Director of Advocacy, testifying on behalf of the Hawai'i Association of REALTORS® ("HAR"), the voice of real estate in Hawaii and its over 10,000 members. HAR **supports** Senate Bill 1232, SD2, HD1, which establishes a 3-year New Wastewater Technology Testing Pilot Program within the University of Hawaii Water Resources Research Center to test and evaluate new wastewater technology systems. Requires reports to the Legislature. Appropriates funds. Effective 7/1/3000.

Hawai'i REALTORS® supports the goal of protecting our drinking water, streams, ground water, and ocean resources. We recognize that cesspool conversion is important to preserve our environment. There are approximately 83,000 cesspools divided into three priorities¹ across the State and to convert 83,000 cesspools by 2050, at least 3,320 cesspools would need to be converted per year. It is crucial that we properly plan and find ways to assist communities and homeowners as resources and manpower are limited, especially on the neighbor islands. Costs will vary greatly depending on resources, labor, permitting delays, property terrain, and other variables. According to the Cesspool Conversions Finance Research Report prepared for the Department of Health, "historical costs of cesspool upgrades to approved systems range widely from approximately \$9,000 to \$60,000 or more depending on the wastewater system capacity (based on bedroom count), technology, and location or site constraints."²

As such, testing and reviewing new wastewater and cesspool technology systems would be an important solution to help the State reach the goal of converting 83,000 cesspools by 2050, and to help address the large costs to convert.

Mahalo for the opportunity to testify on this measure.

¹ University of Hawai'i Sea Grant College Program. *Hawai'i Cesspool Prioritization Tool*.
<https://seagrant.soest.hawaii.edu/cesspools-tool/>

² Carollo. (January 21, 2021). *Cesspool Conversion Finance Research Report*.
<https://health.hawaii.gov/wastewater/files/2021/02/financefinalreportr.pdf>