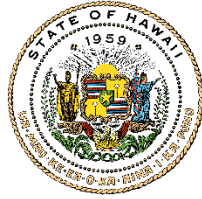


JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

P.O. BOX 621
HONOLULU, HAWAII 96809

Testimony of
DAWN N. S. CHANG
Chairperson

Before the House Committees on
ENERGY & ENVIRONMENTAL PROTECTION
and
WATER & LAND

Thursday, February 2, 2023
8:30 AM

State Capitol, VIA VIDEOCONFERENCE, Conference Room 325

In consideration of
HOUSE BILL 181
RELATING TO CESSPOOLS

House Bill 181 proposes to implement the recommendation of the Cesspool Conversion Working Group to accelerate the dates for required upgrades, conversions, or connections of priority level 1 cesspools and priority level 2 cesspools by requiring priority level 1 cesspools to be upgraded, converted, or connected before 1/1/2030, and priority level 2 cesspools to be upgraded, converted, or connected before 1/1/2035, rather than before 1/1/2050. **The Department of Land and Natural Resources (Department) supports this bill and offers the following comments.**

Cesspools can cause harm to water quality within adjacent groundwater, anchialine, and coral reef systems by introducing elevated amounts of organic nitrogen and phosphorus, pathogens, and other contaminants. Contaminants emitted from cesspools can harm aquatic ecosystems by encouraging algal blooms and can also pose a threat to human health. The Department supports the acceleration of upgrades for identified high priority cesspools that pose the greatest threat to nearshore water quality and human health (i.e., identified Priority Levels 1 and 2) to help minimize future contamination of Hawai'i's fragile aquatic areas.

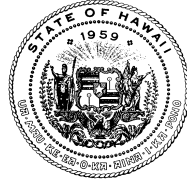
Mahalo for the opportunity to testify in support of this measure.

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

LAURA H.E. KAAKUA
FIRST DEPUTY

M. KALEO MANUEL
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES
ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS



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

In reply, please refer to:
File:

**Testimony in SUPPORT of HB0181
RELATING TO CESSPOOLS**

REPRESENTATIVE NICOLE E. LOWEN, CHAIR
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
REPRESENTATIVE LINDA ICHIYAMA, CHAIR
HOUSE COMMITTEE ON WATER & LAND
Hearing Date: 2/2/2023 Room Number: 325

1 **Fiscal Implications:** None.

2 **Department Testimony:** The Department of Health (Department) strongly supports this
3 measure. The Department concurs with the recommendation of the cesspool conversion working
4 group to accelerate the dates for required upgrades, conversion and connections to sewers for
5 cesspools located in priority 1 and 2 areas according to the University of Hawaii's 2021 Hawaii
6 cesspool hazard assessment and prioritization tool. The Department recommends that the
7 measure be amended to reference the University of Hawaii's 2022 Hawaii cesspool hazard
8 assessment and prioritization tool since it is the current version of the tool that is available.

9 Thank you for the opportunity to testify.

10 **Offered Amendments:** The Department suggests amending the bill at Page 2, Lines 20-21;
11 Page 4, Line 16; and Page 5, Line 3 to reference the University of Hawaii's 2022 Hawaii
12 cesspool hazard assessment and prioritization tool.



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 Committees on Energy & Environmental Protection and Water & Land
Thursday, February 2, 2023 at 8:30 a.m.

By

Darren T. Lerner, PhD

Director, University of Hawai'i (UH) Sea Grant College Program,
School of Ocean and Earth Science and Technology

And

Thomas Giambelluca

Director, UH Water Resources Research Center

And

Michael Bruno, Provost

University of Hawai'i at Mānoa

HB 181 – RELATING TO CESSPOOLS

Chairs Lowen and Ichiyama, Vice Chairs Cochran and Poepoe, and Members of the Committees:

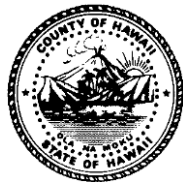
The University of Hawai'i Sea Grant College Program (Hawai'i Sea Grant) and UH Water Resources Research Center support HB 181. This bill would effectuate a primary recommendation of the Cesspool Conversion Working Group to move up upgrade and conversion timelines for Priority 1 and 2 areas, which have been found to have the most severe impacts on our state's resources.

The upgrade and conversion of cesspools to advanced forms of wastewater treatment is critical to avoiding outcomes that could impair Hawai'i's drinking water and ecosystem health. Bringing forward the timelines for priority level 1 and 2 areas to 2030 and 2035, respectively, would demonstrate the time-sensitive nature of cesspool upgrade and conversion. To further support the success of this measure, the state should champion workforce development and capacity expansion for the wastewater management field.

Thank you for the opportunity to testify on this measure.

Mitchell D. Roth
Mayor

Lee Lord
Managing Director



Ramzi I. Mansour
Director

Brenda Iokepa-Moses
Deputy Director

County of Hawai'i

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

345 Kekūanāo'a Street, Suite 41 · Hilo, Hawai'i 96720 · cohdem@hawaiiicounty.gov

Ph: (808) 961-8083 · Fax: (808) 961-8086

February 1, 2023

Nicole E. Lowen, Chair, and
Members of the Committee on Energy and Environmental Protection

Linda Ichiyama, Chair, and
Members of the Committee on Water and Land

Chair Lowen, Chair Ichiyama, and Committee Members,

I am a member of the Cesspool Conversion Working Group. The Department of Environmental Management supports this bill. HB 181 codifies **Priority A1** of the working group's recommendations into statute.

In Hawai'i County, where 37 percent of the cesspools in the Priority Level 1 group are located (and only 14 percent of the State's population), it is the judgment of this specialized working group that it would be otherwise impossible for residents to meet the 2050 conversion deadline without identifying cesspools in immediate need of conversion. This bill accelerates compliance with the 2050 deadline and protection of our groundwater sources and nearshore environments from the deleterious effects of cesspools.

Please refer to our report (DC175) for the importance of passing this bill:

“The working group recommends, based on greater understanding of impacts cesspools have on nearshore water quality and human health, that the deadline by which cesspools in the State must be converted should be adjusted to a staggered timeline that would accelerate the mandatory conversion date for cesspools that pose the highest risk of harming human or environmental health, as determined by the Hawai'i Cesspool Prioritization Tool and supporting water quality data. The working group further recommends the adoption of policies and mechanisms that will facilitate this acceleration and the need for an iterative process as new findings are established.”

Thank you for the opportunity to provide testimony.

Ramzi Mansour, Director



Environmental Caucus of The Democratic Party of Hawai'i

To: The Honorable Nicole E. Lowen, Chair
The Honorable Elle Cochran, Vice Chair
Committee on Energy & Environmental Protection

The Honorable Linda Ichiyama, Chair
The Honorable Mahina Poepoe, Vice Chair
Committee on Water & Land

Re: **HB 181 – RELATING TO CESSPOOLS**

Hearing: Thursday, February 2, 2023, 8:30 a.m., Conference Room 325 & Videoconference

Position: **Strong support**

Aloha, Chairs Lowen and Ichiyama, Vice Chairs Cochran and Poepoe, and Members of the Committee on Energy & Environmental Protection and Committee on Water & Land:

The Environmental Caucus of the Democratic Party of Hawai'i stands in strong support of HB 181. This measure implements the recommendation of the cesspool conversion working group to accelerate the dates for required upgrades, conversions, or connections of priority level 1 cesspools and priority level 2 cesspools by requiring priority level 1 cesspools to be upgraded, converted, or connected before 1/1/2030, and priority level 2 cesspools to be upgraded, converted, or connected before 1/1/2035, rather than before 1/1/2050.

The Democratic Party of Hawai'i Platform on the environment provides that its members are to “protect and preserve Hawai'i's environment and achieve energy sustainability, advance measures to re-establish a healthy climate and environment for humans and fellow species, including actions to urgently address climate change, and work towards 100% renewable energy goals.

We believe that all people have the right to live in a clean, healthy and safe environment. We believe that the preservation of our natural environment and its ecological well-being is essential to ensuring a safe, healthy, bountiful life for future generations in Hawai'i. We support policies that create a more sustainable society. We support the restoration, preservation, and protection of native ecosystems.

We believe in the resource management principles outlined in the Public Trust doctrine of [Article XI, Section 1 of] the Hawai'i State Constitution.” [OUR PLATFORM | DPH \(hawaiidemocrats.org\)](#)

Hawaii currently has an official goal to replace all its cesspools with better sewage treatment systems that cause less harm to the local environment and public health by 2050; however, as many as 83,000 cesspools release about 53 million gallons of untreated sewage into the islands' soil, streams and nearshore waters daily making the 2050 deadline too late to prevent substantial harm.

In the Report of the [Cesspool Conversion Working Group](#), nearly 14,000 of the worst Hawaii cesspools – the ones that would potentially cause the most damage based on their location – are to be removed by 2030; followed by more than 12,000 “priority two” cesspools to be removed by 2035; and the remaining “priority three” 55,000 cesspools are to be removed by the original 2050 deadline.



February 2, 2023
Page 2

“There are no benefits to human health or the environment if homeowners wait or postpone conversion until closer to the 2050 ... deadline,” the 17-member task force of scientists, public health officials, private industry representatives, elected leaders and environmental advocates wrote in a new 1,182-page report to the Legislature. [Microsoft Word - Cesspool Conversion Plan Draft Final-copy-blue wave-FINAL use this one \(hawaii.gov\)](#)

Implementing the recommendation of the cesspool conversion working group to accelerate the dates for required upgrades, conversions, or connections of priority level 1 cesspools and priority level 2 cesspools by requiring priority level 1 cesspools to be upgraded, converted, or connected before 1/1/2030, and priority level 2 cesspools to be upgraded, converted, or connected before 1/1/2035, rather than before 1/1/2050 is consistent with the state and counties' duties under the Public Trust Doctrine and the DPH Platform environmental plank on restoring, preserving, and protecting our native ecosystem.

Please support and pass this bill.

Mahalo for the opportunity to testify on this measure.

/s/ Melodie Aduja and Alan Burdick
Co-Chairs, Environmental Caucus of the Democratic Party of Hawai'i



To: The Honorable Chairs Nicole Lowen and Linda Ichiyama, the Honorable Vice Chairs Elle Cochran and Mahina Poepoe, and Members of the Committees on Energy and Environmental Protection and Water and Land.

From: Hawaii Reef and Ocean Coalition (by Ted Bohlen)

Re: **Hearing HB181 RELATING TO CESSPOOLS.**

Hearing: Thursday February 2, 2023, 8:30 a.m., room 325

Aloha Chairs Lowen and Ichiyama, Vice Chairs Cochran and Poepoe, and Members of the Committees on Energy and Environmental Protection and Water and Land:

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 HB181!

This bill is needed now because the health of Hawaii's people and quality of Hawaii's waters and aquatic life are being harmed by pollution from cesspools. Hawaii has more than eighty thousand cesspools that discharge about fifty million gallons of wastewater into the State's groundwater every day. Cesspools are antiquated, substandard systems that damage public health,

pollute drinking water, and lower water quality in streams, ground waters, nearshore marine areas, and the ocean. Cesspool pollution also harms public recreation and the precious coral reefs on which Hawaii's economy, shoreline, fisheries, and native species depend.

A cesspool conversion working group (working group) was established pursuant to Act 132 of 2018 to develop a long-range, comprehensive plan for conversion of cesspools statewide by 2050 and consider and recommend means by which the Department of Health can ensure that cesspools are converted to more environmentally-responsible waste treatment systems or connected to sewer systems.

In its final report, the working group indicated that over the past four years, it had gathered and considered new scientific and policy data, studies by wastewater experts, activities in other jurisdictions, owners' ability to pay, financing mechanisms, and the latest technologies for treating wastewater. Based on this work, the working group recommended ways to facilitate the upgrading of cesspools in Hawaii.

The working group recommended staggering the timing of upgrades of cesspools and prioritizing them based on updated information about their pollution impacts. The Hawaii cesspool hazard assessment and prioritization tool was developed for the working group and applied to determine which cesspools should be upgraded first.

Priority level 1 cesspools are those that represent the greatest contamination hazard. The report categorized 13,821 cesspools in the State as priority level 1. Priority level 2 cesspools are those cesspools that cause the next most pollution and represent a significant contamination hazard. The report categorized 12,367 cesspools in the State as priority level 2.

This bill implements the recommendation of the working group to accelerate the dates for required upgrades, conversions, or connections of priority level 1 cesspools and priority level 2 cesspools:

(1) priority level 1 cesspools to be upgraded, converted, or connected by 2030;
and

(2) priority level 2 cesspools to be upgraded, converted, or connected by 2035.

The working group recommended that the remaining cesspools categorized as priority level 3 (55,237, or approximately sixty-nine per cent of the total) not be required to upgrade until 2050, pursuant to existing law.

It makes sense to stagger the cesspool conversions, starting with the highest pollution impact first (priority 1). This will both ensure reductions in the pollution to waters and facilitate implementation of the large number of wastewater system installations.

The bill authorizes the Director of Health to grant exemptions for homeowners who show it is infeasible to upgrade, convert or connect their cesspools. Legitimate reasons it is infeasible include small lot size, steep topography, poor soils, or accessibility issues.

The working group also investigated technology issues. New technologies are being developed and may be an important part of the conversion effort.

The working group also investigated financing issues. Upgrades, conversions and connections will all be expensive. Financing from federal, State, county and private resources will be needed to alleviate the financial burden on homeowners.

This bill will begin to address Hawaii's serious cesspool pollution problem in a reasonable way. The Hawai'i Reef and Ocean Coalition **STRONGLY SUPPORTS** this bill and asks the committees to pass it.

Mahalo!

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

February 2, 2023

The Honorable Nicole E. Lowen, Chair

House Committee on Energy & Environmental Protection

The Honorable Linda Ichiyama, Chair

House Committee on Water & Land

State Capitol, Conference Room 325 & Videoconference

RE: House Bill 181, Relating to Cesspools

HEARING: Wednesday, February 2, 2023, at 8:30 a.m.

Aloha Chair Lowen, Chair Ichiyama, and Members of the Joint Committees:

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 Hawai'i and its over 11,000 members. HAR provides **comments** on House Bill 181, which implements the recommendation of the cesspool conversion working group to accelerate the dates for required upgrades, conversions, or connections of priority level 1 cesspools and priority level 2 cesspools by requiring priority level 1 cesspools to be upgraded, converted, or connected before 1/1/2030, and priority level 2 cesspools to be upgraded, converted, or connected before 1/1/2035, rather than before 1/1/2050.

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. According to the Cesspool Working Group Final Report¹, there are 13,821 cesspools categorized as Priority Level 1 and 12,367 cesspools categorized as Priority Level 2. To convert 13,821 cesspools by 2030 (7 years) over 1,974 cesspools would need to be converted per year.

While it may greatly vary depending on existing infrastructure and property location, it can take 8 to 9 months or longer for a homeowner to convert their cesspool to a Department of Health ("DOH") approved wastewater system. Steps include but are not limited to, architects drawing up site plans, civil engineers drawing up and submitting the system, DOH approval, engaging a contractor, permitting, construction and engineers getting final approval to the DOH. As such, 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.

Moreover, moving up the mandate does not solve the financial dilemma for homeowners. The Cesspool Conversion Working Group conducted an affordability

¹ Cesspool Conversion Working Group. (2022). *Final Report to the 2023 Regular Session Legislature*. State of Hawai'i Department of Health. <https://health.hawaii.gov/opppd/files/2022/12/Act-170-SLH-2019-Nov-2022.pdf>



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analysis² for homeowners. Based on the analysis, 97% of homeowners would be financially burdened by cesspool conversion costs. Equally concerning, even with a \$10,000 rebate 82% of homeowners would still be financially burdened. Most homeowners will not be able to afford to do this alone. We respectfully recommend that efforts to aid communities and homeowners with cesspool conversion focus on financial assistance in addition to wastewater infrastructure planning and development.

Thank you for your consideration of our comments. Mahalo for the opportunity to testify.

² Cesspool Conversion Working Group. (2022). *Final Report to the 2023 Regular Session Legislature*. State of Hawai'i Department of Health. <https://health.hawaii.gov/opppd/files/2022/12/Act-170-SLH-2019-Nov-2022.pdf>





Feb. 1, 2023

In Support of **HB181** Relating to Cesspools
House Committees on Energy & Environmental Protection (EEP) and Water & Land (WAL)
Hearing on Feb. 2, 8:30am, Rm. 325

Aloha, Chairs Lowen & Ichiyama, Vice-Chairs Cochran & Poepoe and Members of the Committee:

On behalf of the non-profit WAI: Wastewater Alternatives & Innovations, I am writing in **strong support of HB181**. This bill will provide accelerated conversion deadlines for cesspools in Priority 1 & 2 areas as identified by Hawai'i Cesspool Prioritization Tool. The accelerated deadlines are: Priority 1 by 2030 and Priority 2 by 2035. These earlier deadlines will ensure that cesspools posing a greater risk (higher priority) to coastal ecosystems and public health are converted sooner rather than later to help reduce sewage pollution and ensure clean water for the people of Hawaii.

Hawaii has more than 83,000 cesspools across the state, discharging 52 million gallons of raw sewage each day into Hawaii's waters. That's similar to a massive sewage spill every day! The people of Hawaii need this law to make sure their wastewater systems aren't polluting the groundwater or nearby surface waters. As a member of the State's Cesspool Conversion Working Group over the last four years, we believe that accelerating the deadlines for higher priority cesspools is essential to reduce sewage and nutrient pollution in coastal waters which impact Hawaii's reef ecosystems. In addition, converting these higher priority cesspools will also reduce the contamination of groundwater and drinking water resources as well.

WAI is dedicated to protecting our drinking water, groundwater and near-shore ecosystems by reducing sewage pollution from cesspools and failing septic systems. Our goal is to help find more innovative, affordable, and eco-friendly solutions to wastewater management. Better sanitation systems reduce sewage pollution and make properties more valuable, while also protecting our groundwater, streams and the health of our coral reefs and coastal areas.

Hawaii is struggling with serious sewage pollution problems, and the state has a mandate to make sure all cesspools are converted in the next three decades. Accelerated deadlines is the only way to help ensure that Hawaii reaches that goal by 2050, paying specific attention to converting higher priority cesspools sooner, those which have a higher impact to the environment.

This bill creates a practical and expedient phased deadline approach to start the conversion process as soon as possible, and it's the only way the state will be able to meet the mandate to convert all cesspools by 2050. Mahalo for your leadership on this issue and support of this bill.

Aloha,

Stuart Coleman

Stuart H. Coleman, Executive Director

HB-181

Submitted on: 1/31/2023 12:11:10 PM

Testimony for EEP on 2/2/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Gladys C Baisa	Individual	Support	Written Testimony Only

Comments:

Support.

HB-181

Submitted on: 1/31/2023 9:54:02 PM

Testimony for EEP on 2/2/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Theresa M Thompson	Individual	Support	Written Testimony Only

Comments:

I support HB181.

Theresa Thompson

HB-181

Submitted on: 2/1/2023 9:57:18 AM

Testimony for EEP on 2/2/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Nicolas Storie	Individual	Support	Written Testimony Only

Comments:

Aloha, Chairs Lowen & Ichiyama, Vice-Chairs Cochran & Poepoe and Members of the Committee:

I am a resident of Kaimuki and am writing in support of HB181.

As a Ph.D. student at UH-Mānoa, my central research focus is understanding the sources of coastal sewage pollution across the state. With over 83,000 cesspools across the state leaking 52 million gallons of untreated sewage each day, we face a direct risk to the health of our communities, economy, and coral reefs. The Hawaiian Islands are primarily composed of highly porous and permeable basalt with insufficient soil, and thus, there is an increased risk of untreated sewage contaminating the groundwater below; a serious issue as over 90% of the state's drinking water is derived from groundwater. Previous dye-tracer studies in Hawai'i have revealed untreated sewage from cesspools can reach coastal waters in as little as 5 hrs stressing the immediate threat to human health.

I have worked directly with communities in these priority cesspool conversion zones and the contamination of submarine groundwater discharge along the coastline is quite apparent. Using next-generation genetic sequencing tools, I have identified cesspools associated bacteria in groundwater frequently, further stressing the urgency the state must take to remedy this issue. We simply do not have the time to wait until 2050.

This bill creates a practical and expedient phased deadline approach to start the conversion process as soon as possible, and it's the only way the state will be able to meet the mandate to convert all cesspools by 2050. Mahalo for your leadership on this issue and support of this bill.

Best,

Nicolas Storie

HB-181

Submitted on: 2/1/2023 11:36:53 AM

Testimony for EEP on 2/2/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Graeme Lander	Individual	Support	Written Testimony Only

Comments:

Aloha,

As an ocean-loving surfer and freediver, I'm here to say that I'm all for accelerating the upgrade and conversion of those pesky cesspools. I mean, who wants to take a dip in a pool of poop, right? Not me, that's for sure!

The negative effects of untreated wastewater on our environment and public health are a real concern. The presence of cesspools in our community has led to declining water quality, harm to marine life, and increased health risks for those who use the ocean. That's why I'm fully supportive of implementing the recommendation of the cesspool conversion working group to upgrade priority level 1 cesspools before 1/1/2030 and priority level 2 cesspools before 1/1/2035. Let's get this show on the road!

By requiring these upgrades to happen sooner rather than later, we'll be taking a giant leap towards a cleaner and safer ocean for all to enjoy. So let's make it happen! No more excuses, no more delays, no more swimming in a sea of sewage. The ocean deserves better, and so do we!

Mahalo for your time and consideration.