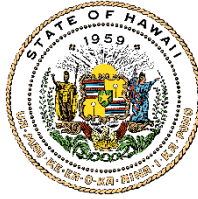


JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII
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 Committee on
ENERGY & ENVIRONMENTAL PROTECTION

Thursday, January 30, 2025
9:00 AM

State Capitol, VIA VIDEOCONFERENCE, Conference Room 325

In consideration of
HOUSE BILL 379
RELATING TO THE ENVIRONMENT

House Bill 379 proposes to require newly installed or modified individual wastewater systems that are near the shoreline, or likely to pollute groundwater, to include denitrification capacity. **The Department of Land and Natural Resources (Department) supports this bill.**

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.

A 2023 Hawai'i-based study¹ 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. Requiring denitrification capacity in wastewater systems that are near the shoreline or likely to pollute groundwater will reduce the amount of contaminants entering Hawai'i's nearshore waters and support more resilient coral reef ecosystems.

Mahalo for the opportunity to provide testimony in support of this measure.

¹ Gove, J.M., Williams, G.J., Lecky, J. *et al.* Coral reefs benefit from reduced land-sea impacts under ocean warming. *Nature* **621**, 536–542 (2023). <https://doi.org/10.1038/s41586-023-06394-w>

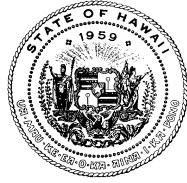
DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

RYAN K.P. KANAKA'OLE
FIRST DEPUTY

CIARA W.K. KAHAHANE
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

JOSH GREEN, M.D.
GOVERNOR OF HAWAII
KE KIA'ĀINA O KA MOKU'ĀINA 'O HAWAII



KENNETH S. FINK, MD, MGA, MPH
DIRECTOR OF HEALTH
KA LUNA HO'OKELE

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

**Testimony COMMENTING on HB0379
RELATING TO ENVIRONMENT**

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

January 30, 2025, 9:00 am, Room Number: 325

1 **Fiscal Implications:** None.

2 **Department Position:** The Department of Health ("Department") acknowledges the intent of
3 this measure and offers the following comments.

4 **Department Testimony:** The Environmental Management Division (EMD) provides the
5 following testimony on behalf of the Department.

6 The Department concurs that decreasing or eliminating pollutants and protecting
7 nearshore waters and the coral reef systems are very important. However, clarifications are
8 required to provide the basis for the "located 200 feet or less from a shoreline" setback criteria,
9 provide the basis for the "located at or below 1,500 feet above sea level" elevation criteria,
10 provide the basis of the "substrate is less than 5,000 years old" criteria, identify who will
11 determine whether the "substrate is less than 5,000 years old", and identify who will determine
12 whether the "soil has low nutrient holding capacity, low shrink and swell characteristics, and
13 very fast water permeability based on the Hawai'i soil atlas". The "2023 study published in the
14 scientific journal Nature" was not provided for the Department's review.

15 **Offered Amendments:** None

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

COUNTY COUNCIL

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Bernard P. Carvalho, Jr.
Felicia Cowden
Fern Holland
Arryl Kaneshiro



Council Services Division
4396 Rice Street, Suite 209
Lihu'e, Kaua'i, Hawai'i 96766

OFFICE OF THE COUNTY CLERK

Jade K. Fountain-Tanigawa, County Clerk
Lyndon M. Yoshioka, Deputy County Clerk

Telephone: (808) 241-4188
Facsimile: (808) 241-6349
Email: cokcouncil@kauai.gov

January 28, 2025

TESTIMONY OF ADDISON BULOSAN
COUNCILMEMBER, KAUAI COUNTY COUNCIL
ON
HB 376, RELATING TO CESSPOOLS
AND
HB 379, RELATING TO THE ENVIRONMENT
House Committee on Energy & Environmental Protection
Thursday, January 30, 2025
9:00 a.m.
Conference Room 325
Via Videoconference

Dear Chair Lowen and Members of the Committee:

Thank you for this opportunity to provide testimony in SUPPORT of HB 376, Relating to Cesspools and HB 379, Relating to the Environment. My testimony is submitted in my individual capacity as a member of the Kaua'i County Council.

I wholeheartedly support the intent of HB 376 and HB 379, which would greatly affect the Kaua'i community.

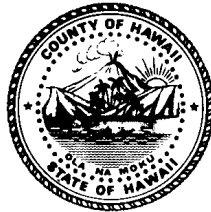
Thank you again for this opportunity to provide testimony in support of HB 376 and HB 379. Should you have any questions, please feel free to contact me or Council Services Staff at (808) 241-4188 or via email to cokcouncil@kauai.gov.

Sincerely,

ADDISON BULOSAN
Councilmember, Kaua'i County Council

AAO:dmc

HEATHER L. KIMBALL
COUNCIL CHAIR
Council District 1 (North Hilo,
Hāmākua, and portion of Waimea)



Phone: (808) 961-8828
Fax: (808) 961-8912
Email: Heather.Kimball@hawaiiicounty.gov

HAWAI'I COUNTY COUNCIL

25 Aupuni Street, Ste. 1402.
Hilo, Hawai'i 96720

March 12, 2024

House Committee on Agriculture and Environment
Honorable Representative Nicole Lowen, Chair

RE: **Support for HB 379**

Dear Chair Lowen, and Members of the Committees on Energy and Environmental Protection:

As a member of the Hawai'i County Council, I thank you for the opportunity to submit **testimony in STRONG SUPPORT of HB 379**, requiring newly installed or modified individual wastewater systems that are near the shoreline, or likely to pollute groundwater, to include denitrification capacity.

Groundbreaking research conducted in Hawaii and published in Nature clearly indicated that in nearshore areas and in porous substrates, septic systems cause the same damage to reefs as cesspools. It is critical in these areas that an extra level of treatment, particularly denitrification, be included in individual wastewater systems (IWS) to protect nearshore waters and public health. In previous years the concern about this legislation was the added cost to homeowners of adding denitrification capacity. However, the technology has developed as such that adding denitrification adds minimal or no additional cost for the IWS. Given the availability of these new systems, adding this requirement will provide substantial improvement to nearshore water quality with little impact to homeowners.

I urge that this committee support **HB379**. Thank you for the opportunity to submit this testimony. If you would like to discuss this matter further, please do not hesitate to contact me directly.

Sincerely,

HEATHER L. KIMBALL



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 **HB379 RELATING TO THE ENVIRONMENT**

Hearing: Thursday, January 30, 2025, 9:00 a.m. CR325

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

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 HB379!

In these times when corals are stressed by increasingly warmer and more acidic oceans, protecting the quality of the State's nearshore waters is important for ecosystem resilience and public health. Clean nearshore waters that are free of pollutants support coral reef systems that are critical to Hawaii's fisheries. A 2023 study published in the scientific journal Nature found that coral reefs protected from land-based pollutants, especially from wastewater pollutants, are better able to recover from ocean-warming events.

Because coral reefs are sensitive to pollution, upgrading wastewater systems to technologies that are reef safe is important. Nutrient pollution discharged from wastewater systems acts as a fertilizer that stimulates algal blooms that can smother and kill coral reefs. Wastewater systems

that are close to the shoreline have a disproportionate impact because there is less space for treatment than those farther from the coast.

Our coral reefs would benefit if wastewater systems that are close to the coast have denitrification technology (certified to meet the guidelines of the National Sanitation Foundation and American National Standards Institute standard 245 for on-site residential wastewater treatment) to reduce nutrients that cause harmful algal blooms and limit coral larvae from settling and thriving.

This bill would require newly installed or modified individual wastewater systems that are near to the shoreline (within 200 feet), or likely to pollute groundwater, include denitrification capacity.

Please pass this bill to protect our coral reefs from wastewater nutrient pollution!

Mahalo!

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



January 30, 2025

The Honorable Nicole E. Lowen, Chair

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

RE: House Bill 379, Relating to the Environment

HEARING: Thursday, January 30, 2025, at 9:00 a.m.

Aloha Chair Lowen, Vice Chair Perruso, and Members of 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 provides **comments** on House Bill 379, which requires newly installed or modified individual wastewater systems that are near the shoreline, or likely to pollute groundwater, to include denitrification capacity.

HAR supports the goal of protecting our drinking water, streams, ground water, and ocean resources. However, for the average homeowner, determining whether they would need denitrification capacity when installing an individual wastewater system would be very challenging under this measure. A homeowner would need to determine if their property is situated within 200 feet of a shoreline. Or, determine if their property is at or below 1,500 feet above sea level; with substrate less than 5,000 years old; and soil exhibiting low nutrient retention, minimal shrinkage and swelling, and very fast permeability, as indicated by the Hawaii Soil Atlas.

Moreover, the cost to install denitrification capacity can be thousands of dollars which may be cost-prohibitive for homeowners. We have an existing mandate to convert 83,000 cesspools in the state to a DOH approved wastewater system by 2050 which is challenging for homeowners to meet due to high costs as well as other factors. The Cesspool Conversion Working Group conducted an affordability analysis¹ 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. Costs will vary greatly depending on resources, labor, permitting delays, property terrain, and other variables. This measure will add further costs for homeowners who may need to convert to a DOH approved wastewater system that requires denitrification capacity.

Mahalo for the opportunity to provide testimony on this measure.

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>

**Testimony of The Nature Conservancy
Supporting HB 379, Relating to the Environment.
Committee on Energy and Environmental Protection
January 30, 2025, 9:00 am**

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

The Nature Conservancy (TNC), Hawai'i and Palmyra supports HB 379 which would require newly installed or modified individual wastewater systems that are near the shoreline, or likely to pollute groundwater, to include denitrification capacity.

Science conducted by TNC and partners has shown that wastewater, particularly cesspools, 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.

Cesspools 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, Maunalua, 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.

Our coral reefs are extremely sensitive to pollution. By upgrading cesspools to technologies that reduce overall non-point source pollution, we can reduce stress on our nearshore ecosystems. Importantly, wastewater systems that are close to the shoreline have a disproportionate impact on ecosystems because there is less space for treatment than those very far from the coast. These wastewater systems would benefit from having denitrification technology to reduce the flow of harmful nutrients to our coral reefs.

Mahalo for the opportunity to testify in support/opposition of HB 379.

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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Founders: Samuel A. Cooke Herbert C. Cornuelle



Date: January 29, 2025

To: Chair Lowen, Vice Chair Perruso, and members of the House Committee on Energy & Environmental Protection of the Hawai'i State Legislature

Re: HB 379, RELATING TO THE ENVIRONMENT.
Thursday January 30, 2025
VIA VIDEOCONFERENCE
Conference Room 325
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 HB 379, RELATING TO THE ENVIRONMENT.

I am testifying in Support of HB 379 relating to the environment on behalf of the Coral Reef Alliance (CORAL) and a concerned citizen of Moku o Keawe. CORAL and The Ocean Legislative Task Force advocate for cesspool conversion as part of our kuleana to care for the oceans that sustain us.

Cesspools on the shoreline are devastating our coral reefs. Travel time as short as 10min has been documented through die tracer studies from cesspool to reef. This harmful mix of human waste and other emerging contaminants, result in reef habitat loss and death.

CORAL has been working to remove cesspools across Hawaii for over ten years. We watch as communities and homeowners invest millions of dollars and countless hours to identify solutions for these outdated systems to save their reef and secure human health. With more than 80,000 cesspools across the state, contributing millions of gallons per day of raw sewage to our groundwater and ocean, cesspools pose a severe threat to coral reefs, human health, and our economy. Coral reefs are essential to shoreline protection for sea level rise, cultural practices, and community well-being.



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. 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 HB 379. Mahalo for the opportunity to testify on this important measure,

Sincerely,

A handwritten signature in black ink that reads "Erica Perez".

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



Jan., 28, 2025

In Support of **HB379 Relating to the Environment**
House Committee on Energy & Environmental Protection (EEP)
Hearing on Jan. 30, 2025, 9:00am, CR325

Aloha, Chair Lowen, Vice-Chair Peruso and Committee Members:

On behalf of the non-profit WAI: Wastewater Alternatives & Innovations, I am writing in **support of HB379**. This bill would require newly installed or modified individual wastewater systems (IWS) that are near the shoreline or likely to pollute groundwater near the coast need to include denitrification capacity. This bill is designed to reduce harm to threatened coral reefs and nearshore ecosystems.

Cesspool conversions can be costly, and we need to try to find ways to make upgrades more **affordable** while also making them **effective**. Traditional septic systems are much better than cesspools in treating harmful pathogens, but they don't treat nutrients like nitrogen as effectively as aerobic treatment units (ATU's). Fortunately, there are new passive and nature-based individual wastewater systems that cost about the same as septic systems that reduce nitrogen and other nutrients and protect coral reefs and nearshore ecosystems.

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. The people of Hawaii need this law to make sure their wastewater systems aren't polluting the groundwater or nearby surface waters. Places like Puako in Hawaii County and Ma'alaea in Maui have lost most of their coral reefs. Degraded reefs are not only bad for the environment, but they are bad for tourism, the economy and the protection of the Islands from storms, floods, hurricanes and tsunamis.

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 would require denitrification for newly installed systems near the coast and provide needed protections for our coral reefs when upgrading cesspools. Mahalo for your leadership on this issue and support of this bill.

Aloha,

Stuart Coleman

Stuart H. Coleman, Executive Director

Hawai'i State Association of Counties (HSAC)

Counties of Kaua'i, Maui, Hawai'i, and City & County of Honolulu

Website: hawaiicounties.org | Email: hsac@hawaiicounties.org



Testimony of the Hawai'i State Association of Counties

H.B. No. 379 - Support

Relating to the Environment

Committee on Energy & Environmental Protection

Thursday, January 30, 2025, 9 a.m.

The Hawai'i State Association of Counties (HSAC) is a non-profit organization that represents the collective interests of Hawai'i's four counties: Kaua'i County, Maui County, County of Hawai'i, and the City and County of Honolulu. HSAC's membership includes the elected members of each county council, who work collaboratively to advocate for policies and programs that enhance the quality of life for our residents.

HSAC strongly supports HB379, which mandates that newly installed or modified individual wastewater systems near shorelines or in areas where they are likely to pollute groundwater include denitrification capacity.

Hawai'i's nearshore waters are vital to the health of our coral reef ecosystems, fisheries, and overall environmental resilience. A 2023 study published in *Nature* underscores the importance of reducing land-based pollutants—particularly wastewater contaminants—in protecting coral reefs and improving their ability to recover from ocean-warming events. By ensuring that wastewater systems in critical areas are equipped with denitrification capacity, this measure represents a proactive step toward reducing nitrogen pollution, safeguarding our marine environment, and protecting public health.

This bill takes a targeted and science-based approach by focusing on wastewater systems within 200 feet of shorelines and those located at lower elevations with highly permeable, young volcanic substrate. These areas are particularly susceptible to nitrogen leaching, which contributes to algal overgrowth and coral degradation. By aligning wastewater treatment standards with National Sanitation Foundation and American National Standards Institute guidelines, this legislation ensures that best practices are implemented to mitigate environmental harm.

HSAC recognizes the importance of collaboration between state and county governments in addressing wastewater pollution. This measure supports ongoing efforts to modernize wastewater infrastructure, reduce cesspool reliance, and promote sustainable development. We urge the committee's favorable consideration of this bill to help preserve Hawai'i's coastal resources for future generations.

HB-379

Submitted on: 1/28/2025 3:55:23 PM

Testimony for EEP on 1/30/2025 9:00:00 AM

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

Comments:

HB379 is an important bill because standard septic tanks do not remove the nitrates that are most harmful to coral reefs. We need to use de-nitrifying systems in order to protect our nearshore environment.

HB-379

Submitted on: 1/29/2025 12:43:46 PM

Testimony for EEP on 1/30/2025 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Jacqueline S. Ambrose	Individual	Support	Written Testimony Only

Comments:

YES to - Requires newly installed or modified individual wastewater systems that are near the shoreline, or likely to pollute groundwater, to include denitrification capacity.