

DAVID Y. IGE  
GOVERNOR OF HAWAII



**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621  
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**Testimony of  
SUZANNE D. CASE  
Chairperson**

**Before the House Committee on  
FINANCE**

**Tuesday, February 26, 2019  
11:00am  
State Capitol, Conference Room 308**

**In consideration of  
HOUSE BILL 461, HOUSE DRAFT 1  
RELATING TO SEA LEVEL RISE**

House Bill 461, House Draft 1 proposes to support and direct the Hawaii Climate Change Mitigation and Adaptation Commission to further progress towards addressing the impacts of sea level rise, to identify critical public infrastructure in impacted areas, and to provide policy direction to the legislature about how to move forward with concrete strategies for mitigation and adaptation to sea level rise. **The Department of Land and Natural Resources (Department) strongly supports this measure provided that its passage does not replace or adversely impact priorities indicated in the Executive Supplemental Budget request.**

In 2017, the Governor signed Act 32 establishing the Hawaii Climate Change Mitigation and Adaptation Commission (Climate Commission). Act 32 also established a Climate Change Mitigation and Adaptation Coordinator (Climate Coordinator) position which expires at the end of the FY19, although the Commission does not.

In the brief 18 months of its existence, the Climate Commission has had a tremendous impact on state and county policies and has established a new standard for state level action on climate change mitigation and adaptation. In its first 18 months, the Climate Commission and its Climate Coordinator have accomplished a great deal of work:

- **Adopted a cutting edge Sea Level Rise Adaptation and Mitigation Report** in accordance with Act 32, SLH, 2017. This first statewide assessment of Hawaii's vulnerability to sea level rise uses the latest science to characterize threats and risks to our coastal areas and proposes a series of recommendations for adaptation. The Climate Commission passed five of those recommendations that are specifically aimed at State and counties to tackle keystone issues surrounding sea level rise. These actions include 1) requiring real estate disclosure of sea level rise hazards, 2)

**SUZANNE D. CASE**  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

**ROBERT K. MASUDA**  
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

redirecting all new development away from beach areas, 3) advising counties to incorporate consideration of areas vulnerable to sea level rise exposure into their general and community plans, 4) encouraging agencies and non-governmental utility providers to identify and prioritize assets within areas characterized as vulnerable to sea level rise and to report back to the Climate Commission annually regarding their progress towards implementing adaptation measures, and 5) supporting legislation that funds State programs to meet goals and provide resources to assist in planning and implementation for sea level rise and related impacts. The 2019 legislative session will be a critical turning point that will potentially provide pathways in which sea level rise adaption measures can be executed at the agency level.

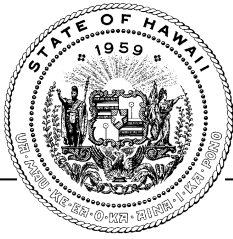
- **Identified priority areas to help reduce emissions from ground transportation.** These include a strong statement on carbon pricing, along with addressing system efficiencies through transportation and parking studies, electric vehicle (EV) infrastructure deployment through government carshare and other programs, and a PSA campaign to engage residents and visitors in the transition to clean transportation.
- **Finalized a mission statement to bind together the above priorities.** The Commission aims “[t]o promote ambitious, climate-neutral, culturally responsive strategies for climate change adaptation and mitigation in a manner that is clean, equitable and resilient.”
- **Developed a climate “brand” for Hawaii through a new website and social media presence** to inform local and global audiences of Hawaii’s climate response. The web portal launched in June helps to tie together all State efforts on Climate Change—adaptation, greenhouse gas sequestration, the greenhouse gas inventory, Hawaii Clean Energy Initiative, Sustainability initiatives, and the State Energy Office sites. The social media accounts attempt to provide insights into the Commission’s ongoing work.
- **Projected a national presence for climate response.** Hawaii works with the 20-Governor US Climate Alliance (USCA) that was formed as a response to the Federal Administration’s withdrawal from the Paris Agreement. Hawaii is involved in various working groups, including for resilience, transportation, natural and working lands, and so on. The Climate Coordinator co-chairs, along with staff from Minnesota and Washington, the transportation working group and brings lessons from other states to Hawaii.
- **Hosted a dynamic statewide First Annual Climate Conference** bringing subject matter experts together from the mainland U.S. and from Hawaii, to engage with researchers, the interested public, industry and government in an effort to help resolve the most difficult issues facing the state and set the tone for the work of the Commission in 2019.

House Bill 461, House Draft 1 would allow the Climate Coordinator to continue to support the Climate Commission going forward, specifically:

- (1) Conduct a thorough inventory of critical public infrastructure, existing or planned, both man-made and natural, and determine if the infrastructure is in or near an area that is vulnerable to the impacts of sea level rise, and analyze predicted impacts of sea level rise to identified vulnerable infrastructure;
- (2) Identify priority areas throughout the State that will be subject to high rates of coastal erosion and sea level rise, including public infrastructure and private properties;
- (3) Design and propose sea level rise impact zone maps to be adopted by the legislature and provide a guidepost for future sea level rise adaptation policies;
- (4) Work with state and county agencies to develop sea level rise adaptation plans in accordance with the Sea Level Rise Vulnerability and Adaptation Report; and
- (5) Make specific recommendations to the legislature for policies that may be adopted for managed retreat, relocation of infrastructure, or mitigation measures to minimize the impacts of sea level rise for public infrastructure and private properties, including information regarding how these recommendations may be funded and consideration of sea level rise policies implemented in other states and nations.

If the Legislature provides the Climate Commission with adequate resources, it can utilize its strong expertise and deep climate networks that it has formed with state, county, federal, and international entities involved in climate change mitigation and adaptation, to assist local agencies and departments with the onerous task of properly assessing climate change vulnerability and prioritization of efforts to implement appropriate climate mitigation and adaptation measures to improve long-term resiliency.

Thank you for the opportunity to comment on this measure.



# OFFICE OF PLANNING STATE OF HAWAII

DAVID Y. IGE  
GOVERNOR

DIRECTOR  
OFFICE OF PLANNING

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Statement of  
**LEO R. ASUNCION**  
Planning Program Administrator, Office of Planning  
before the  
**HOUSE COMMITTEE ON FINANCE**  
Tuesday, February 26, 2019  
12:30 PM  
State Capitol, Conference Room 308

in consideration of  
**HB 461, HD 1**  
**RELATING TO SEA LEVEL RISE.**

Chair Luke, Vice Chair Cullen, and Members of the House Committee on Finance.

The Office of Planning (OP) offers the following comments to HB 461, HD1, which directs the Hawaii Climate Change Mitigation and Adaptation Commission (Climate Commission) to investigate managed retreat options for critical public infrastructure in impacted sea level rise areas.

The OP Coastal Zone Management Program (OP CZM) recently published its Final report on *Assessing the Feasibility and Implications of Managed Retreat Strategies for Vulnerable Coastal Areas*, which is available on the OP website ([www.planning.hawaii.gov](http://www.planning.hawaii.gov)). The Final Report includes an assessment of the feasibility of retreating critical public infrastructure, which may be pertinent to any analysis contemplated by HB 461, HD 1. OP CZM is committed to furthering the managed retreat analysis and working collaboratively with agency and stakeholder partners, including the Climate Commission.

Thank you for the opportunity to comment on this matter.

Council Chair  
Kelly T. King

Vice-Chair  
Keani N.W. Rawlins-Fernandez

Presiding Officer Pro Tempore  
Tasha Kama

Councilmembers  
Riki Hokama  
Alice L. Lee  
Michael J. Molina  
Tamara Paltin  
Shane M. Sinenci  
Yuki Lei K. Sugimura



Director of Council Services  
Maria E. Zielinski

**COUNTY COUNCIL**  
COUNTY OF MAUI  
200 S. HIGH STREET  
WAILUKU, MAUI, HAWAII 96793  
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February 25, 2019

TO: The Honorable Sylvia Luke, Chair  
House Committee on Finance

FROM: Kelly T. King  
Council Chair

Handwritten signature of Kelly T. King in black ink.

SUBJECT: **HEARING OF FEBRUARY 26, 2019; TESTIMONY IN SUPPORT OF HB 461, HD1, RELATING TO SEA LEVEL RISE**

Thank you for the opportunity to testify in **support** of this important measure. The purpose of this bill is to support and direct the Hawaii Climate Change Mitigation and Adaptation Commission to further progress toward addressing the impacts of sea-level rise, to identify critical public infrastructure in impacted areas, and to provide policy direction to the Legislature on strategies for mitigation and adaptation to sea-level rise.

The Maui County Council has not had the opportunity to take a formal position on this measure. Therefore, I am providing this testimony in my capacity as an individual member of the Maui County Council.

I support this measure for the following reasons:

1. The State of Hawaii, the only state in the United States composed entirely of islands, is especially vulnerable to impacts of sea-level rise, with approximately 750 miles of coastline and extensive development in low-lying areas.
2. Hawaii is already experiencing the impacts of climate change, including rising sea levels, extreme tides, accelerated coastal erosion, and stronger, more frequent storms.
3. Even with decisive actions to reduce greenhouse-gas emissions, many of the impacts of climate change are inescapable, and must be adapted to.

For the foregoing reasons, I **support** this measure.



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

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Testimony Presented Before the  
House Committee on Finance  
Tuesday, February 26, 2019 at 12:30 p.m.

By

Charles (Chip) Fletcher  
Professor and Associate Dean  
School of Ocean and Earth Science and Technology  
Vice Chair, Honolulu Climate Change Commission

And

Makena Coffman  
Professor, Urban and Regional Planning  
Director, Institute for Sustainability and Resilience  
Chair, Honolulu Climate Change Commission

And

Michael Bruno, PhD  
Vice Chancellor for Research and Interim Vice Chancellor for Academic Affairs  
University of Hawai'i at Mānoa

### HB 461 HD1 – RELATING TO SEA LEVEL RISE

Chair Luke, Vice Chair Cullen and Members of the Committee:

My name is Charles (Chip) Fletcher and I thank you for the opportunity to submit testimony in support of HB 461 HD1 on behalf of the University of Hawai'i at Mānoa (UHM). This measure is to support and direct the Hawai'i climate change mitigation and adaptation commission to make further progress towards addressing the impacts of sea level rise, to identify critical public infrastructure in impacted areas, and to provide policy direction to the legislature about how to move forward with concrete strategies for mitigation and adaptation to sea level rise.

Since its formation in 2017, the Hawai'i Climate Change Mitigation and Adaptation Commission (HCCAC) has played a transformational role in building community recognition of the impacts of global warming in Hawai'i. The release of their seminal Hawai'i Sea Level Rise Vulnerability and Adaption report catalyzed mayors on Maui, O'ahu, Kaua'i, and Hawai'i Island to recognize the urgency of developing plans to improve community resiliency in the face of rising ocean waters.

Dr. Makena Coffman and I serve as the Chair and Vice-Chair, respectively, on the City and County of Honolulu Climate Change Commission (HCCC). We want to acknowledge that staff of HCCAC have made a special point of communicating and integrating their plans and activities with members of HCCC. This effort extends to other members of the UHM campus as well. Together the two commissions have been able to participate jointly in special planning groups, public events, and to otherwise increase their achievements by the leveraging created by state staff. As this bill makes clear, there is a tremendous amount of work still to be done and it will take all of us working collaboratively to maintain and enhance public health and safety in the face of a changing climate.



## HB 461, HD 1, RELATING TO SEA LEVEL RISE

FEBRUARY 26, 2019 · HOUSE FINANCE  
COMMITTEE · CHAIR REP. SYLVIA LUKE

**POSITION:** Support.

**RATIONALE:** IMUAlliance supports HB 461, HD 1, relating to sea level rise, which requires the Hawaii Climate Change Mitigation and Adaptation Commission to conduct certain activities to address the impacts of sea level rise and report to the Legislature before the 2021 Regular Session.

According to a report produced by the Hawai'i Climate Change Mitigation and Adaptation Commission, global sea levels could rise more than three feet by 2100, with more recent projections showing this occurring as early as 2060. In turn, over the next 30 to 70 years, approximately 6,500 structures and 19,800 people statewide will be exposed to chronic flooding. Additionally, an estimated \$19 billion in economic loss would result from chronic flooding of land and structures located in exposure areas. Finally, approximately 38 miles of coastal roads and 550 cultural sites would be chronically flooded, on top of the 13 miles of beaches that have already been lost on Kaua'i, O'ahu, and Maui to erosion fronting shoreline armoring, like seawalls.

As we work to reduce carbon emissions and stave off the worst consequences of climate change, we must begin preparing for the adverse impact of sea level rise on our shores. We are now quantifying the speed at which we must act. We cannot continue to develop the 25,800-acre statewide sea level rise exposure area—one-third of which is designated for urban use—without risking massive structural damage and, potentially, great loss of life.

**HB-461-HD-1**

Submitted on: 2/25/2019 11:20:01 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Melodie Aduja	O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i	Support	No

Comments:



**HB-461-HD-1**

Submitted on: 2/25/2019 11:25:32 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Elizabeth Leyshon	Individual	Support	No

Comments:

**HB-461-HD-1**

Submitted on: 2/25/2019 11:45:59 AM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Andrea Quinn	Individual	Support	No

Comments:

Dear Honorable Committee Members:

Please support HB461. Hawaii's valuable coastlines are eroding due to rising sea levels which, at 3mm/year, is unprecedented in the geologic record.

Thank you for the opportunity to present my testimony.

Sincerely,

Andrea Quinn

Kihei

**HB-461-HD-1**

Submitted on: 2/25/2019 12:12:06 PM

Testimony for FIN on 2/26/2019 12:30:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Philip Fernandez	Individual	Support	No

Comments: