

DAVID Y. IGE
GOVERNOR OF
HAWAII



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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Testimony of
SUZANNE D. CASE
Chairperson

Before the Senate Committees on
WATER AND LAND
and
AGRICULTURE AND ENVIRONMENT

FRIDAY, February 7, 2020
1:35 PM
State Capitol, Conference Room 224

In support of
SENATE BILL 2162
RELATING TO SEA LEVEL RISE

Senate Bill 2162 proposes to direct the Hawaii Climate Change Mitigation and Adaptation Commission to address areas already impacted by sea level rise, identify vulnerable critical public infrastructure, create a plan for mitigation and adaptation to sea level rise, and provide policy direction to the legislature on funding and strategies to address the impacts of climate change on the state. The measure also appropriates funds. **The Department of Land and Natural Resources (Department) offers the following comments in support of this measure, provided that its passage does not replace or adversely impact priorities indicted in the Department's Executive Supplemental Budget request.**

The Hawaii Climate Change Mitigation and Adaptation Commission “recognizes the urgency of climate threats and the need to act quickly. It promotes ambitious, climate-neutral, culturally responsible strategies for climate change adaptation and mitigation in a manner that is clean, equitable and resilient.” The Commission, established by Act 32 Session Laws of Hawaii 2017 to uphold the United States’ pledges under the Paris Agreement, is the coordinating body for policies on climate change mitigation and adaptation for the state. It is a high-level multi-jurisdictional body that guides the priorities of the state’s climate response. Co-chaired by the Department and Office of Planning, it consists of 20 members—chairs of four legislative committees, and executive department heads at the county and state levels.

At its September 2018 meeting, the Climate Commission agreed to five priority recommendations for countering impacts of sea level rise, including requesting that all new development,

redevelopment, and modifications be directed away from beach areas; urging counties to incorporate the 3.2 foot sea level rise exposure area (SLR-XA) as detailed in the Hawaii Sea Level Rise Vulnerability and Adaptation Report (Hawaii Sea Level Rise Report) into their general and community plans; and bring resources to assist in planning and implementing for sea level rise and other climate related impacts.

This measure acts on the Commission's priority recommendations and is a crucial component of Hawaii's adaptation to the impacts of sea level rise. Several of these components are already being initiated as part of the Commission's "Climate Ready Hawaii" initiative.

The Department agrees with testimony (attached) submitted on this measure by Hawaii Climate Change Mitigation and Adaptation Coordinator.

Thank you for the opportunity to comment on this measure.



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

Testimony of
Anukriti Hittle
Coordinator, Hawaii Climate Change Mitigation and Adaptation Commission

Before the SENATE Committees on
WATER AND LAND
and
AGRICULTURE AND ENVIRONMENT

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Co-Chairs:
Chair, DLNR
Director, Office of Planning

Commissioners:
Chair, Senate AEN
Chair, Senate WTL
Chair, House EEP
Chair, House WTH
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

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The Hawaii Climate Change Mitigation and Adaptation Commission “recognizes the urgency of climate threats and the need to act quickly. It promotes ambitious, climate-neutral, culturally responsible strategies for climate change adaptation and mitigation in a manner that is clean, equitable and resilient.” The Commission, established by Act 32 SLH 2017 to uphold the United States’ pledges under the Paris Agreement, is the coordinating body for policies on climate change mitigation and adaptation for the state. It is a high-level multi-jurisdictional body that guides the priorities of the state’s climate response. Co-chaired by DLNR and Office of Planning, it consists of 20 members—chairs of four legislative committees, and executive department heads at the county and state levels.

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Rise Vulnerability and Adaptation Report (Hawaii Sea Level Rise Report) into their general and community plans; and bring resources to assist in planning and implementing for sea level rise and other climate related impacts.

This measure acts on the Commission's priority recommendations, and is a crucial component of Hawaii's adaptation to the impacts of sea level rise. Since several of these components are already being initiated as part of the Commission's "Climate Ready Hawaii" initiative, the following comments are offered to help align legislative and executive action—which is one of the main purposes of the Commission:

1. For item (1), Page 2 Line 16: instead of directing the Commission to conduct said inventory, it might be more appropriate for the Commission, in keeping with its role as a coordinating body, to bring resources to the various agencies and departments in the form of best practices, formulating guidance, and providing a coordinating structure and timeframe within which to work, and I recommend modifying the language in this part to support the Commission's role in assisting agencies and departments in this manner;
2. For item (2), Page 3 Line 1: I believe this task has already been completed with the issuance of the State's Sea Level Rise report, and recommend it be removed from this measure;
3. For item (3) Page 3 Line 5: the Commission's staff is working with partners to operationalize sea level rise exposure areas into county planning and permitting, and can provide a status update in its Annual Report to the Legislature, and it is recommended that the measure's language reflect this;
4. For item (4) Page 3 Line 9: while this measure is helpful in underscoring the need to incorporate sea level rise into various plans, the Commission is working to enhance, uniformize, and support the work of the counties, rather than be seen as "interfering" in their jurisdictions. It is therefore recommended that the current language be replaced with "Work to enhance, uniformize, and support the work of the state and county agencies in their development of sea level rise adaptation plans utilizing the sea level rise vulnerability and adaptation report";
5. For item (5) Page 3 Line 12: This task would be an outcome of the previous task, and therefore, perhaps not appropriately placed in this measure—it might be more appropriate as a "Phase 2" task, once the above tasks have been completed; and recommend this be stricken from this measure, and considered at a future time; and
6. For item (6) Page 3 Line 18: this work is considered a baseline for the tasks listed in this measure, and could be formulated into one of the white papers that will emerge from them; I recommend this be reflected in the measure's language somewhere as an output from the tasks above.

Thank you for the opportunity to offer comments in support of this measure.



STATE OF HAWAII
HAWAII CLIMATE CHANGE MITIGATION & ADAPTATION
COMMISSION
POST OFFICE BOX 621
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Testimony of
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Coordinator, Hawaii Climate Change Mitigation and Adaptation Commission

Before the SENATE Committees on
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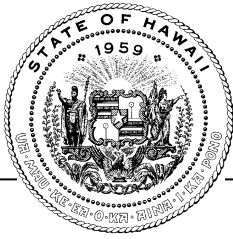
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This measure acts on the Commission’s priority recommendations, and is a crucial component of Hawaii’s adaptation to the impacts of sea level rise. Since several of these components are already being initiated as part of the Commission’s “Climate Ready Hawaii” initiative, the following comments are offered to help align legislative and executive action—which is one of the main purposes of the Commission:

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Thank you for the opportunity to offer comments in support of this measure.



OFFICE OF PLANNING STATE OF HAWAII

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DAVID Y. IGE
GOVERNOR

MARY ALICE EVANS
DIRECTOR
OFFICE OF PLANNING

Statement of
MARY ALICE EVANS
Director, Office of Planning
before the
**SENATE COMMITTEES ON WATER AND LAND & AGRICULTURE AND
ENVIRONMENT**

Friday, February 7, 2020
1:35 PM

State Capitol, Conference Room 224

in consideration of
SB 2162
RELATING TO SEA LEVEL RISE.

Chairs Kahele and Gabbard, Vice Chairs Keith-Agaran and Ruderman, and Members of the Senate Committees on Water and Land & Agriculture and Environment.

The Office of Planning (OP) appreciates the intent of SB2162, and defers to DLNR on its capacity to implement the six component programs, provided the bill does not displace executive budget priorities.

OP commends the Legislature for prioritizing climate change initiatives for the State. The OP Coastal Zone Management Program (OP-CZM) has taken an active role in providing policy direction to inform planning for climate change in Hawaii including:

- Facilitating the development of Hawaii Revised Statutes (HRS) § 226-109 Climate Change Priority Guidelines, establishing climate change as an area of statewide concern (2012),
- Supporting past and current research with the University of Hawaii, identifying historical coastal erosion rates for the islands of Oahu, Maui, and Kauai, which have been used by the counties to inform shoreline setbacks in their respective jurisdictions, thus facilitating new development to be sited further from coastal hazards;
- Identification of statewide considerations for managed retreat as one of three adaptation options in response to sea level rise, as published in the report *Assessing the Feasibility and Implications of Managed Retreat Strategies for Vulnerable Coastal Areas in Hawaii* (2019); and,
- Funding research-based riparian and coastal setbacks for Hawaii County's unique coastal geology.

Additionally, the OP serves as the lead agency to coordinate overall implementation of the Hawaii ocean resources management plan (Plan) as mandated by HRS § 205A-2. The Plan is used to prioritize resolving coastal problems not adequately addressed by existing laws and rules and is currently undergoing an update slated to be finalized in Spring 2020. Upon Plan completion, 1 of the 3 focus areas will include work towards developing a statewide integrated shoreline management strategy with key partners such as the Department of Land and Natural Resources and County Planning Departments, both of whom share regulatory responsibilities in areas impacted by coastal hazards such as sea level rise.

As a lead agency with an oversight for a land-based impacts from climate change, such as sea level rise, OP looks forward to playing a key role in contributing towards the work that is being tasked to the Climate Commission in this measure.

Thank you for the opportunity to testify on this measure.



MAUI
CHAMBER OF COMMERCE
VOICE OF BUSINESS

**HEARING BEFORE THE SENATE COMMITTEE ON WATER & LAND AND THE COMMITTEE ON AGRICULTURE & ENVIRONMENT
HAWAII STATE CAPITOL, HOUSE CONFERENCE ROOM 325
FRIDAY, FEBRUARY 7, 2020 AT 1:35 P.M.**

To The Honorable Kaiali'i Kahele, Chair;
The Honorable Gilbert S.C. Keith-Agaran, Vice Chair; and
Members of the Committee on Water & Land,

To The Honorable Mike Gabbard, Chair;
The Honorable Russell E. Ruderman, Vice Chair; and
Members of the Committee on Agriculture & Environment,

TESTIMONY IN SUPPORT OF SB2162 RELATING TO SEA LEVEL RISE

Aloha, my name is Pamela Tumpap and I am the President of the Maui Chamber of Commerce, with approximately 650 members. I am writing share our support of SB2162.

While we are not experts in this area, it does not take an expert to see that sea level rise is a growing problem. Sea level rise is already affecting our beaches and shorelines for residents, hotels and resort areas, and our roadways. Also, we appreciate that the commission includes experts and representatives from the counties. Therefore, we support this bill to identify critical public infrastructure and priority areas that are vulnerable to sea level rise and design impact zone maps to develop a comprehensive and long-range plans (as short term measures like sea walls have unintended impacts for neighboring properties) and make recommendations to the State Legislature. This is vital so they can properly appropriate funding and address these critical need areas.

We appreciate the opportunity to testify on this matter and ask that this bill be passed.

Sincerely,

Pamela Tumpap

Pamela Tumpap
President

To advance and promote a healthy economic environment for business, advocating for a responsive government and quality education, while preserving Maui's unique community characteristics.



SB 2162, RELATING TO SEA LEVEL RISE

FEBRUARY 7, 2020 · SENATE AGRICULTURE AND ENVIRONMENT COMMITTEE AND SENATE WATER AND LAND COMMITTEE · CHAIRS SEN. MIKE GABBARD AND SEN. KAIALI'I KAHELE

POSITION: Support.

RATIONALE: IMUAlliance supports SB 2162, relating to sea level rise, which directs the Hawai'i Climate Change Mitigation and Adaptation Commission to address areas already impacted by sea level rise, identify vulnerable critical public infrastructure, create a plan for mitigating and adapting to sea level rise, and provide policy direction to the legislature on funding and strategies to address the impacts of climate change on the State.

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.

Furthermore, according to research conducted by Michael B. Gerrard from Columbia Law School, modern-day slavery tends to increase after natural disasters or conflicts where large numbers of

people are displaced from their homes. In the decades to come, says Gerrard, **climate change will very likely lead to a significant increase in the number of people who are displaced and, thus vulnerable, to human trafficking.** While the Paris Climate Agreement of 2015 established objectives to limit global temperature increases and several international agreements are aimed at combating modern-day slavery, it is highly uncertain whether they will be adequate to cope with the scale of the problem that is likely to occur as a result of climate change.

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.

Therefore, our state should take steps to protect Hawai'i's coastal areas, including by identifying vulnerable public infrastructure and creating plans for mitigating and adapting to the imminent and existential threat of sea level rise. For the sake of our keiki, we cannot afford to wait to solidify strategies to preserve our island home for generations to come.

SB-2162

Submitted on: 2/4/2020 6:24:41 PM

Testimony for WTL on 2/7/2020 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Benton Kealii Pang, Ph.D.	Individual	Support	No

Comments:

SB-2162

Submitted on: 2/5/2020 8:22:11 AM

Testimony for WTL on 2/7/2020 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
James Pratt	Individual	Support	No

Comments:

SB-2162

Submitted on: 2/5/2020 10:47:02 AM

Testimony for WTL on 2/7/2020 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Lucas McSweeney	Individual	Support	No

Comments:

SB-2162

Submitted on: 2/5/2020 10:53:39 AM

Testimony for WTL on 2/7/2020 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
pat gegen	Individual	Support	No

Comments:

Council Chair
Alice L. Lee

Vice-Chair
Keani N.W. Rawlins-Fernandez

Presiding Officer Pro Tempore
Tasha Kama

Councilmembers
Riki Hokama
Kelly Takaya King
Michael J. Molina
Tamara Paltin
Shane M. Sinenci
Yuki Lei K. Sugimura



Director of Council Services
Traci N. T. Fujita, Esq.

COUNTY COUNCIL
COUNTY OF MAUI
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.MauiCounty.us

February 5, 2020

TO: The Honorable Kaiali'i Kahele, Chair
Senate Committee on Water and Land

The Honorable Mike Gabbard, Chair
Senate Committee on Agriculture and Environment

FROM: Kelly Takaya King
Councilmember

SUBJECT: **HEARING OF FEBRUARY 7, 2020; TESTIMONY IN SUPPORT OF SB 2162, RELATING TO SEA LEVEL RISE**

Thank you for the opportunity to testify in **support** of this important measure. The purpose of this measure is to direct the Hawaii Climate Change Mitigation and Adaptation Commission to address sea level rise, identify vulnerable critical public infrastructure, create a mitigation and adaptation plan, and provide policy direction to the legislature on funding and strategies to address the impacts of climate change.

This measure is in the Maui County Council's Legislative Package. I offer this testimony in my capacity as an individual member of the Maui County Council.

I support this measure for the following reasons:

1. In December 2019 Maui County Council passed a resolution entitled "ACKNOWLEDGING A CLIMATE EMERGENCY AND COMMITTING TO AN IMMEDIATE JUST TRANSITION AND EMERGENCY MOBILIZATION EFFORT TO RESTORE A SAFE CLIMATE."
2. My office is aware that under high-emission scenarios, a sea-level rise exceeding 8 feet by 2100 is a possible prediction and the 3.2 feet of sea-level rise projected this century across the State could result in over 3,000 acres of land experiencing chronic flooding, erosion, and high waves.
3. Across the County of Maui, as many as 300 structures are predicted to be compromised or lost with a sea-level rise of 3.2 feet, including hotels, shopping malls, and small businesses with potential economic losses calculated at \$3.2 billion.
4. The State of Hawaii has an opportunity to be a global leader in Climate Action.

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

SB-2162

Submitted on: 2/5/2020 10:51:55 AM

Testimony for WTL on 2/7/2020 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
sienna	Individual	Support	No

Comments: