



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**
KA 'OIHANA HO'OMOHALA PĀ'OIHANA, 'IMI WAIWAI
A HO'OMĀKA'IKĀ'I

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Statement of
CHRIS J. SADAYASU
Director
Department of Business, Economic Development, and Tourism
before the
SENATE COMMITTEE ON WAYS AND MEANS

Tuesday, February 28, 2023
10:00 AM
State Capitol, Conference Room 211 & Videoconference

In consideration of
SB1291, SD1
RELATING TO SEA LEVEL RISE ADAPTATION.

Chair Dela Cruz, Vice Chair Keith-Agaran and members of the Committee. The Department of Business, Economic Development and Tourism (DBEDT) supports SB1291, SD1, that requires the Office of Planning and Sustainable Development (OPSD) to coordinate with state agencies to develop a standardized process to assess the vulnerability of state managed facilities to sea level rise and makes an appropriation in support of this effort.

Act 178, SLH 2021 codified HRS § 225M-9 Coordination of sea level rise adaptation activities, which tasked OPSD in cooperation with state agencies to plan for and assess a range of options to mitigate the impacts of sea level rise to existing and planned facilities.

This measure provides resources to the OPSD to carry out its charge and is critical to planning for and supporting the state's resiliency to coastal hazards.

Thank you for the opportunity to testify.



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the
Senate Committee on Ways and Means
Tuesday, February 28, 2023 at 10:00 a.m.

By

Charles “Chip” Fletcher, PhD
Dean, School of Ocean and Earth Science and Technology

And

Darren T. Lerner, PhD
Director, Sea Grant College Program,
School of Ocean and Earth Science and Technology

And

Michael Bruno, Provost
University of Hawai'i at Mānoa

SB 1291 SD1 – RELATING TO SEA LEVEL RISE ADAPTATION

Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Committee:

The University of Hawai'i Sea Grant College Program (Hawai'i Sea Grant) and the Climate Resilience Collaborative (CRC) **support SB 1291 SD1.**

This measure requires the Office of Planning and Sustainable Development, in cooperation with each state agency having operational responsibilities over state facilities to: develop a standardized process to conduct vulnerability assessments for facilities at risk from sea level rise and guidance to agencies on how to conduct the vulnerability assessments for their facilities. Makes an appropriation.

Hawai'i Sea Grant's mission is to provide integrated research, extension, and education activities that increase understanding and use of ocean and coastal resources of the Hawaiian and Pacific Islands and support the informed personal, policy, and management decisions that are integral to realizing this vision. Hawai'i Sea Grant is part of a national network of 34 university-based programs associated with the National Oceanic and Atmospheric Administration (NOAA) that promote better understanding, conservation, and use of coastal resources.

CRC is a multi-investigator research project at the University of Hawai'i at Mānoa focused on sea level rise adaptation and climate resilience. CRC is updating coastal models that project the impacts of sea level rise.

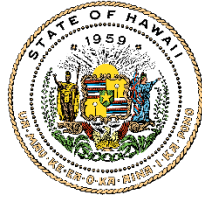
Hawai'i Sea Grant and CRC would be happy to provide updated sea level rise data and projections to the Committee or any lawmaker upon request.

Hawai'i Sea Grant and the Climate Resilience Collaborative support SB 1291 SD1.

Thank you for the opportunity to testify on this measure.

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 Senate Committee on
WAYS AND MEANS

Tuesday, February 28, 2023
10:00 a.m.

State Capitol, Conference Room 211 & Videoconference

In consideration of
SENATE BILL 1291, SENATE DRAFT 1
RELATING TO SEA LEVEL RISE ADAPTATION

Senate Bill 1291, Senate Draft 1 proposes that the Office of Planning and Sustainable Development (OPSD) develop a standardized process for state managed facilities to assess vulnerability to sea level rise and makes an appropriation for this endeavor. **The Department of Land and Natural Resources (Department) strongly supports this bill.**

An assessment conducted by OPSD pursuant to Act 178, Session Laws of Hawai'i, 2021, determined that twenty of the twenty-five state agencies with facilities management responsibilities have facilities that fall within the 3.2 ft Sea Level Rise Exposure Area (SLR-XA). The proposed measure builds on the work already accomplished by OPSD and continues state agencies' work towards understanding vulnerability to sea level rise.

The 2017 Hawai'i Sea Level Rise Vulnerability and Adaptation Report (Report) and the 2022 five-year update include recommendations to conduct *an in-depth assessment of vulnerability and evaluation of adaptation strategies for critical infrastructure throughout the State* and to *promote collaboration and accountability for adapting to sea level rise*. The Report also recommends that the State *conduct long-term strategic planning for maintenance, repair and replacement of critical infrastructure within the SLR-XA in advance of emergent need*. Senate Bill 1291, Senate Draft 1 provides the resources needed to meet the recommendations of the Report, and to develop a standardized vulnerability assessment tool to facilitate state agencies' implementation of appropriate sea level rise adaptation strategies.

Mahalo for the opportunity to testify in strong 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
HAWAII CLIMATE CHANGE MITIGATION & ADAPTATION
COMMISSION
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Director, Hawai'i DP
Director, Kaua'i DP
The Adjutant General
Manager, CZM

**Testimony of
Leah Laramée
Coordinator, Hawai'i Climate Change Mitigation and Adaptation Commission**

**Before the Senate Committees on
WATER AND LAND AND GOVERNMENT OPERATIONS**

**Tuesday, February 28, 2023
10:00 AM**

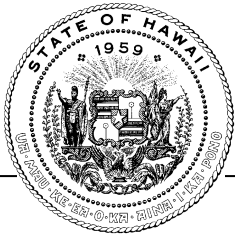
State Capitol, Conference Room 211 & Videoconference

**In consideration of
SENATE BILL 1291 SENATE DRAFT 1
RELATING TO SEA LEVEL RISE ADAPTATION**

Senate Bill 1291 SD1 requires the Office of Planning and Sustainable Development, in cooperation with each state agency having operational responsibilities over state facilities to develop a standardized process to conduct vulnerability assessments for facilities at risk from sea level rise and guidance to agencies on how to conduct the vulnerability assessments for their facilities. Makes an appropriation. **The Climate Change Mitigation and Adaptation Commission (Commission) supports this bill.**

The Hawai'i Climate Change Mitigation and Adaptation Commission consists of a multi-jurisdictional effort between 20 different departments, committees, and counties. An assessment conducted by OPSD pursuant to Act 178, Session Laws of Hawaii, 2021 determined that 20 of the 25 state agencies with facilities management responsibilities have facilities that fall within the 3.2 ft Sea Level Rise Exposure Area (SLR-XA). The proposed measure builds on the work already accomplished by OPSD and continues state agencies' work towards understanding vulnerability to sea level rise.

The *Hawai'i Sea Level Rise Vulnerability and Adaptation Report*, updated in 2022, recommends conducting an "in-depth assessment of vulnerability and evaluation of adaptation strategies for critical infrastructure throughout the State" and to "promote collaboration and accountability for adapting to sea level rise." This bill allocates funds to develop a vulnerability assessment tool to facilitate state agencies' implementation of appropriate sea level rise adaptation strategies. By identifying vulnerabilities it also enables agencies to enact Recommended Action 1.9 to "conduct long-term strategic planning for maintenance, repair and replacement of critical infrastructure within the SLR-XA in advance of emergent need." Mahalo for the opportunity to testify in support of this measure.



**STATE OF HAWAII
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT**

JOSH GREEN, M.D.
GOVERNOR

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Statement of
SCOTT GLENN, Director

before the
SENATE COMMITTEE ON WAYS AND MEANS

Tuesday, February 28, 2023, 10:00AM
State Capitol, Conference Room 211

in consideration of
SB 1291 SD1
RELATING TO SEA LEVEL RISE ADAPTATION

Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Senate Committee on Ways and Means:

The Office of Planning and Sustainable Development (OPSD) **strongly supports SB 1291 SD1**, which proposes that the OPSD develop a standardized process for state managed facilities to assess vulnerability to sea level rise and appropriates funds for this endeavor.

Pursuant to Act 178, Session Laws of Hawaii 2021, which codified Hawaii Revised Statutes (HRS) § 225M-9 Coordination of sea level rise adaptation activities, the OPSD conducted a sea level rise exposure assessment, which identified that out of 25 agencies with facilities management responsibilities, 20 agencies have facilities that fall within the 3.2 ft Sea Level Rise Exposure Area (SLR-XA). The development of a standardized procedure for assessing the vulnerability of state managed facilities to sea level rise will ensure a coordinated statewide effort to building climate resiliency and ensures that sea level rise planning and adaptation implementation is carried out in a consistent and comprehensive way across agencies and capital planning projects.

The use of a standardized approach to assessing vulnerability will facilitate improved planning to prepare and incorporate sea level rise adaptation into facilities planning and operations, and will support agencies' abilities to prioritize needs for current and future sea level rise adaptation into capital improvement requests. The OPSD is actively engaging and consulting with agencies with facilities management responsibilities and will continue to collaborate during the development of a standardized vulnerability assessment process.

SB1291 SD1 will (i) ensure that the State's planning for sea level rise adaptation is moving forward in a coordinated and focused effort, (ii) allow the Office of Planning & Sustainable Development, in coordination with state agencies, to continue meeting the charges of Act 178, SLH 2021, and (iii) further progress in meeting HRS § 226-109 Climate Change Priority Guidelines.

Thank you for the opportunity to testify on this measure.



**Environmental Caucus of
The Democratic Party of Hawai'i**

To: The Honorable Donovan M. Dela Cruz, Chair
The Honorable Gilbert S.C. Keith-Agaran, Vice Chair
Members of the Committee on Ways and Means

Re: **SB 1291, SD1 – RELATING TO SEA LEVEL RISE ADAPTATION**

Hearing: Tuesday, February 28, 2023, 10:00 a.m., Conference Room 211 & Videoconference

Position: **Strong support**

Aloha, Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Committee on Ways and Means:

The Environmental Caucus of the Democratic Party of Hawai'i with its 7,500 voting enrolled members stands in strong support of SB 1291, SD1. This measure would require the Office of Planning and Sustainable Development, in cooperation with each state agency having operational responsibilities over state facilities to develop a standardized process to conduct vulnerability assessments for facilities at risk from sea level rise and guidance to agencies on how to conduct the vulnerability assessments for their facilities.

The Democratic Party of Hawai'i Platform plank 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 \(hawaiidemocrats.org\)](https://www.hawaiidemocrats.org)

Requiring the Office of Planning and Sustainable Development, in cooperation with each state agency having operational responsibilities over state facilities to develop a standardized process to conduct vulnerability assessments for facilities at risk from sea level rise and guidance to agencies on how to conduct the vulnerability assessments for their facilities is consistent with the state and counties' duties under the Public Trust Doctrine under Article XI, Section 1, of the Hawaii State Constitution, and the DPH Platform environmental plank to take actions to urgently address climate change. 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



Aloha Committee Members,

My name is Arwen Revere and I am a high school student from Kailua. Today, I am representing the student-run environmental organization Wild Kids. We are testifying in strong support of SB1291. Climate change and sea level rise pose significant, dangerous, and imminent threats to the state's social and economic well-being, public safety, nature and environments, cultural resources, property, infrastructure, and government functions. The impacts of sea level rise, including coastal erosion, high tide flooding, and annual high wave flooding, are already impacting many low-lying coastal areas, many of which are low-income, and are predicted to increase in extent and severity in the coming decades.

To successfully adapt to climate change and sea level rise, state agencies having operational responsibilities over facilities owned and managed by the state must plan, coordinate, and act to assure Hawai'i's sustainable and resilient future and mitigate against societal or economic disruptions caused by climate impacts.

Please pass this vital legislation and help protect our planet for future generations.

Thank you for hearing our testimony,
Arwen Revere on behalf of Wild Kids



SB 1291, SD1, RELATING TO SEA LEVEL RISE ADAPTATION

FEBRUARY 28, 2023 · SENATE WAYS AND
COMMITTEE · CHAIR SEN. DONOVAN DELA CRUZ

POSITION: Support.

RATIONALE: Imua Alliance supports SB 1291, SD1, relating to sea level rise adaptation, which requires the Office of Planning and Sustainable Development, in cooperation with each state agency having operational responsibilities over state facilities to: develop a standardized process to conduct vulnerability assessments for facilities at risk from sea level rise and guidance to agencies on how to conduct the vulnerability assessments for their facilities.

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 engaging in the long-term planning needed to coordinate climate change adaptation. **Site-specific vulnerability assessments conducted on state facilities will empower government agencies to understand the exposure of state infrastructure and prioritize capital improvement projects that strengthen climate resilience.** For the sake of our keiki, we cannot afford to wait to solidify strategies to preserve our island home for generations to come.

Kris Coffield · Executive Director, Imua Alliance · (808) 679-7454 · kris@imuaalliance.org

SB-1291-SD-1

Submitted on: 2/25/2023 4:36:05 PM

Testimony for WAM on 2/28/2023 10:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Will Caron	Individual	Support	Written Testimony Only

Comments:

Climate change and sea level rise pose significant; dangerous, and imminent threats to the state's social and economic wellbeing, public safety, nature and environments, cultural resources, property, infrastructure, and government functions. Chronic impacts of sea level rise, including coastal erosion, high tide flooding, and annual high wave flooding, are already impacting many low-lying coastal areas and are predicted to increase in extent and severity in the coming decades.

To successfully adapt to climate change and sea level rise, state agencies having operational responsibilities over facilities owned and managed by the state must plan, coordinate, and act to assure Hawai'i's sustainable and resilient future and mitigate against societal or economic disruptions caused by climate impacts. Please support this bill.