

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 Committees on
GOVERNMENT OPERATIONS
and
WATER AND LAND

Tuesday, February 7, 2023
3:10 p.m.

State Capitol, Conference Room 225 & Videoconference

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

House Bill 993 proposes that the Office of Planning and Sustainable Development (OPSD) to develop a standardized process for state managed facilities to assess vulnerability to sea level rise and appropriates \$400,000 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 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



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

JOSH GREEN, M.D.
GOVERNOR

CHRIS J. SADAYASU
DIRECTOR

DANE K. WICKER
DEPUTY DIRECTOR

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Statement of
CHRIS J. SADAYASU
Director
Department of Business, Economic Development, and Tourism
before the
**SENATE COMMITTEE ON GOVERNMENT OPERATIONS
AND
SENATE COMMITTEE ON WATER & LAND**

Tuesday, February 7, 2023
3:10 PM
State Capitol, Conference Room 225 & Videoconference

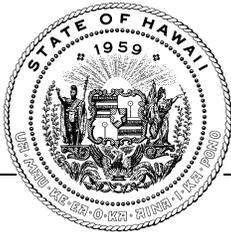
In consideration of
SB1291
RELATING TO SEA LEVEL RISE ADAPTATION.

Chairs McKelvey and Inouye, Vice Chairs Gabbard and Elefante and members of the Committee. The Department of Business, Economic Development and Tourism (DBEDT) supports SB1291 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 of \$400,000 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



**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 WATER AND LAND & GOVERNMENT OPERATIONS

Tuesday, February 7, 2023, 3:10 PM
State Capitol, Conference Room 225

in consideration of
SB 1291
RELATING TO SEA LEVEL RISE ADAPTATION

Chairs Inouye and McKelvey, Vice Chairs Elefante and Gabbard, and Members of the Senate Committee(s) on Water and Land & Government Operations:

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

SB 1291 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 OPSD, 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 Adaptation Priority Guidelines.

Thank you for the opportunity to testify on this measure.



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 Water and Land
Senate Committee on Government Operations
Tuesday, February 7, 2023 at 3:10 p.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 – RELATING TO SEA LEVEL RISE ADAPTATION

Chairs Inouye and McKelvey, Vice Chairs Elefante and Gabbard, and Members of the Committees:

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

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 working to update coastal models with more recent projections of sea level rise and to take account of other variables that impact Hawai'i's shorelines.

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.

Thank you for the opportunity to testify on this measure.



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

Co-Chairs:
Chair, DLNR
Director, OPSD

Commissioners:
Chair, Senate AEN
Chair, Senate WTL
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Chair, House WAL
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Chairperson, DOE
Director, C+C DPP
Director, Maui DP
Director, Hawaii DP
Director, Kauai 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 7, 2023
3:10 p.m.
State Capitol, Conference Room 225 & Videoconference**

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

Senate Bill 1291 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 appropriates \$400,000 for this endeavor. **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 provides the resources needed to develop a standardized vulnerability assessment tool to facilitate state agencies' implementation of appropriate sea level rise adaptation strategies. Further, it also enables agencies to enact recommended action 1.9 from the 2022 update to "conduct long-term strategic planning for maintenance, repair and replacement of critical infrastructure within the SLR-XA in advance of emergent need" by providing the assessment tool to identify priority vulnerabilities.

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



SB 1291, RELATING TO SEA LEVEL RISE ADAPTATION

FEBRUARY 7, 2023 · SENATE WATER AND LAND AND
GOVERNMENT OPERATIONS COMMITTEES ·
CHAIRS SEN. LORRAINE INOUE AND SEN. ANGUS
L.K. MCKELVEY

POSITION: Support.

RATIONALE: Imua Alliance supports SB 1291, 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.

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