

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

**JOSH GREEN, M.D.**  
GOVERNOR

**SCOTT J. GLENN**  
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Statement of  
**SCOTT GLENN, Director**

before the  
**HOUSE COMMITTEE ON WATER AND LAND**

Tuesday, February 7, 2023, 9:30 AM  
State Capitol, Conference Room 430

in consideration of  
**HB 993**  
**RELATING TO SEA LEVEL RISE ADAPTATION**

Chair Ichiyama, Vice Chair Poepoe, and Members of the Senate Committee on Water and Land, the Office of Planning and Sustainable Development (OPSD) **strongly supports HB 993**, which proposes that the OPSD develop a standardized process for state managed facilities to assess vulnerability to sea level rise, and appropriates \$400,000 for this endeavor.

Under the charges of Act 178, Session Laws of Hawaii 2021 which codified 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.

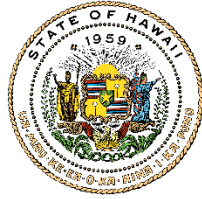
The use of a standardized approach to assessing vulnerability will facilitate improved planning to prepare and incorporate sea level rise adaptation into facilities planning and operations, and will support agencies' abilities to prioritize needs for current and future sea level rise adaptation into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

**HB 993** will ensure that the State's planning for sea level rise adaptation is moving forward in a coordinated and focused effort, and will allow the Office of Planning & Sustainable Development, in coordination with state agencies, to continue meeting the charges of Act 178, SLH 2021.

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 HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I  
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  
WATER & LAND

Tuesday, February 7, 2023  
9:30 a.m.

State Capitol, Conference Room 430 & Videoconference

In consideration of  
HOUSE BILL 993  
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*.

House Bill 993 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 comment 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  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

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Chair, DLNR  
Director, OPSD

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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**

**Tuesday, February 7, 2023  
9:30 a.m.**

**State Capitol, Conference Room 430 & Videoconference**

**In consideration of  
HOUSE BILL 993  
RELATING TO SEA LEVEL RISE ADAPTATION**

House Bill 993 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. A 2022 assessment conducted by OPSD 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 accomplished by OPSD to continue work towards understanding vulnerability to sea level rise.

The 2022 *Hawai'i Sea Level Rise Vulnerability and Adaptation Report* includes 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." 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, HB 993 also enables agencies to enact recommended action 1.9 from the report 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 standardized assessment tool to identify priority vulnerabilities.

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



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

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

Tuesday, February 7, 2023  
9:30 AM  
State Capitol, Conference Room 430 & Videoconference

In consideration of  
**HB993**  
**RELATING TO SEA LEVEL RISE ADAPTATION.**

Chair Ichiyama, Vice Chair Poepoe and members of the Committee. The Department of Business, Economic Development and Tourism (DBEDT) supports HB993 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.



## HB 993, RELATING TO SEA LEVEL RISE ADAPTATION

FEBRUARY 7, 2023 · HOUSE WATER AND LAND  
COMMITTEE · CHAIR REP. LINDA ICHIYAMA

**POSITION:** Support.

**RATIONALE:** Imua Alliance supports HB 993, 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](mailto:kris@imuaalliance.org)**



# UNIVERSITY OF HAWAII SYSTEM

## ‘ŌNAEHANA KULANUI O HAWAII

### Legislative Testimony

### Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the  
House Committee on Water and Land  
Tuesday, February 7, 2023 at 9:30 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

#### HB 993 – RELATING TO SEA LEVEL RISE ADAPTATION

Chair Ichiyama, Vice Chair Poepoe, 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 the intent of House Bill 993.**

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. In addition, this measure 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 the intent of House Bill 993.**

Thank you for the opportunity to testify on this measure.



**HB-993**

Submitted on: 2/4/2023 2:42:18 PM

Testimony for WAL on 2/7/2023 9:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Gerard Silva	Individual	Oppose	Written Testimony Only

Comments:

All Bull Shit !! You people should all be Fired!!!