

# OFFICE OF PLANNING STATE OF HAWAII

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DAVID Y. IGE  
GOVERNOR

LEO R. ASUNCION  
DIRECTOR  
OFFICE OF PLANNING

Statement of  
**LEO R. ASUNCION**  
Director, Office of Planning  
before the  
**SENATE COMMITTEE ON WAYS AND MEANS**

Tuesday, February 13, 2018  
10:30 AM  
State Capitol, Conference Room 211

in consideration of  
**SB 2334, SD1**  
**RELATING TO PLANNING.**

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

SB 2334 SD1 requires the State and counties to incorporate predictions of sea level rise and other climate change hazards and mitigation opportunities into applicable plans, strategies, and mapping, in order to increase the State's resiliency and ability to respond to natural disasters.

The Office of Planning (OP) supports the intent of SB 2334 SD1, and respectfully offers the following comments on this measure:

1. Page 2, lines 5-8 state: "The State and each county shall incorporate evaluations, predictions, and recommendations pertaining to climate change hazards and mitigation into their respective multi-hazard mitigation plans." The intent of this measure is to "incorporate predictions of sea level rise and other climate change hazards and mitigation opportunities into **applicable plans, strategies, and mapping...**" (p1, lines 13-15). OP recommends including respective state functional plans, county general plans and county development or community plans.
2. Section 4 is potentially vague.
  - At present, flood insurance rate maps (FIRMs) are produced at the federal level by the Federal Emergency Management Agency (FEMA) and are based on historic flooding rather than at the state or county level.
  - Page 2, line 18 references sea level rise. It is unclear which projection this measure refers to. At present, the Hawaii Sea Level Rise Vulnerability and Adaptation Report provides scenarios for 0.5 foot, 1.1 foot, 2.0 feet and 3.2 feet based on the upper end of the IPCC AR5 RCP8.5 sea level rise scenario.

- Page 2, line 19 references "a hundred-year coastal flood benchmark" which is not clearly defined. It is unclear if this is in reference to a "one hundred year flood" which is defined by the USGS as: a flood that statistically has a 1-percent chance of occurring in any given year.

Thank you for the opportunity to offer comments on this measure.



**SB2334**  
RELATING TO PLANNING  
Senate Committee on Ways and Means

February 13, 2018

10:30 a.m.

Room 211

The Office of Hawaiian Affairs (OHA) **SUPPORTS** SB2334 SD1, which would require state agencies to consider climate change hazards and mitigation in their hazard mitigation plans.

OHA has long sought to promote the resiliency and health of our islands' lands and natural and cultural resources. OHA's strategic priorities include 'Āina (Land & Water), which represents our commitment to maintain Native Hawaiians' connection to the past and a viable land base; by Native Hawaiian participation in and benefit from the responsible stewardship of Ka Pae 'Āina O Hawai'i. In line with this priority, OHA's strategic results specifically seek to preserve cultural and natural resources and historic properties.

As a member of the the Hawai'i Climate Change Mitigation and Adaptation Commission established by Act 32 (Reg. Sess. 2016), OHA currently assists with direction, facilitation, coordination and planning among state and county agencies, federal agencies, and other partners on climate change mitigation (reduction of greenhouse gases) and climate change resiliency strategies, including, but not limited to, sea level rise adaptation, water and agricultural security, and natural resource conservation. OHA understands that the impacts of climate change – such as coastal flooding and erosion and impacts to terrestrial and marine ecosystems – will affect the built and natural environment, as well as the livelihoods and food security of Native Hawaiians. Understanding the extent of these changes and their impacts and planning early adaptation and mitigation actions is essential to protecting the communities and natural resources of Ka Pae 'Āina O Hawai'i.

**OHA accordingly appreciates and supports the intent of this measure, and believes that the contemplated climate change hazard and mitigation planning will reaffirm and reinforce our efforts to ensure the resiliency and sustainable stewardship of our islands**

Accordingly, OHA urges the Committee to **PASS** SB2334 SD1. Mahalo nui for the opportunity to testify on this measure.



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

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Written Testimony Presented Before the  
Senate Committee on Ways and Means  
Tuesday, February 13, 2018 at 10:30 a.m.

By  
Charles (Chip) Fletcher  
Professor and Associate Dean  
School of Ocean and Earth Science and Technology  
And  
Michael Bruno  
Interim Vice Chancellor for Academic Affairs  
University of Hawai'i at Mānoa

### SB 2334 SD1– RELATING TO PLANNING

Chair Dela Cruz, Vice Chair Keith-Agaran, and members of the committee:

The University of Hawai'i is in favor of this legislation provided that its passage does not replace or adversely impact priorities as indicated in our BOR Supplemental Budget request.

The purpose of this act is to require the State and counties to incorporate predictions of sea level rise (SLR) and other climate change hazards and mitigation opportunities into applicable plans, strategies, and mapping, in order to increase our State's resiliency and ability to properly respond to natural disasters.

University of Hawai'i students, researchers, and faculty were integral to the modeling and mapping of the future impacts of sea level rise that formed the scientific basis for the recently released Hawai'i Sea Level Rise Vulnerability and Adaptation Report. This report identified that at *intermediate* scenarios of future sea level rise over 25,800 acres of land in Hawai'i become unusable for development, and human habitation. Over 6,500 structures, 20,000 residents, and 28 miles of major roads, in total worth over \$19 billion, will be permanently displaced before the end of the century. Higher scenarios will have increasingly devastating effects. Adapting to SLR is critically important for Hawai'i. This bill takes a strong step in that direction.

SLR is a slowly developing disaster that exerts chronic stress on our soci-economic fabric. Planning to adapt to SLR by leveraging post-event opportunities is an internationally recognized planning tool that is being considered in many coastal communities. In the long run, it will benefit Hawai'i's economy in multiple ways: enhancing tourism, public access to the ocean, open space, and the environmental network along our shoreline. All of which are goals of the Hawai'i Coastal Zone Management Program.



SIERRA CLUB OF HAWAI'I  
MĀLAMA I KA HONUA. *Cherish the Earth.*

**SENATE COMMITTEE ON WAYS AND MEANS**

Tuesday, February 13, 2018 10:30AM Conference Room 211

**In SUPPORT of SB 2334 SD1** Relating to planning

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Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and members of the Committee,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i, a member of the Common Good Coalition, **supports SB 2334 SD1**, which provides the legislative mandate needed to implement recommendations from the "Hawai'i Sea Level Rise Vulnerability and Adaptation Report<sup>1</sup>" (the Report) prepared by the Hawai'i Climate Change Mitigation and Adaptation Committee, especially those recommendations dealing with climate change hazards and mitigation in an era of sea level rise, increased frequency and intensity of storm events, and other climate change impacts.

Senate Draft 1 incorporates the amendment suggested by the Office of Planning, which broadens the scope of the bill to apply at all levels of planning within the State, not just emergency management and hazard mitigation plans. Accordingly, we consider SD1 to be an improvement over the original bill.

Recommendation 3.7, **Develop pre-disaster recovery frameworks at state and county levels that incorporate opportunities to adapt to sea level rise through disaster recovery, is especially relevant.**

As stated in the Report,

"Disasters can provide opportunities to adapt to sea level rise. Pre-disaster recovery strategies can support managed retreat and other adaptation strategies by engaging community stakeholders in making decisions about land use in the event that a major

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<sup>1</sup> [Hawai'i Sea Level Rise Vulnerability and Adaptation Report \(2017\)](#)

hazard event, such as a hurricane or tsunami, occurs. Using pre- disaster planning and post-disaster recovery as opportunities for implementation of sea level rise adaptation is as advantageous as it is cost effective and reduces repetitive losses.”

Such engagement of communities in pre-disaster recovery planning also serves to promote a visioning process to guide future managed retreat actions which sea level rise may trigger even in the absence of major disasters.

Federal floodplain maps are based on historic data and do not incorporate sea level rise projections. SECTION 4 of this bill would require that floodplain mapping supported by state or county funding include modeling which takes sea level rise into account. This will promote more realistic identification of flood hazards than provided by federal floodplain maps.

In summary, we **strongly support SB 2334 SD1** and encourage its passage.

Mahalo for the opportunity to testify on this important issue.

**SB-2334-SD-1**

Submitted on: 2/12/2018 8:23:07 AM

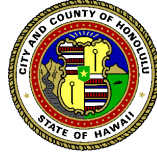
Testimony for WAM on 2/13/2018 10:30:00 AM

| <b>Submitted By</b> | <b>Organization</b>        | <b>Testifier Position</b> | <b>Present at Hearing</b> |
|---------------------|----------------------------|---------------------------|---------------------------|
| Melodie Aduja       | OCC Legislative Priorities | Support                   | No                        |

Comments:

OFFICE OF CLIMATE CHANGE, SUSTAINABILITY AND RESILIENCY  
**CITY AND COUNTY OF HONOLULU**

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KIRK CALDWELL  
MAYOR

JOSHUA W. STANBRO  
EXECUTIVE DIRECTOR &  
CHIEF RESILIENCE OFFICER

TUESDAY, FEBRUARY, 13, 2018 10:30AM

STATE OF HAWAII  
COMMITTEE ON WAYS AND MEANS

**TESTIMONY ON SENATE BILL 2334 SD1  
A BILL RELATING TO CLIMATE CHANGE**

BY,

JOSHUA STANBRO  
EXECUTIVE DIRECTOR AND CHIEF RESILIENCY OFFICER  
OFFICE OF CLIMATE CHANGE, SUSTAINABILITY AND RESILIENCY

Dear Chair Dela Cruz and Committee Members:

The City and County of Honolulu Office of Climate Change, Sustainability and Resiliency **supports the intent** of Senate Bill 2334 SD1, which mandates the integration of climate change considerations in state and county planning efforts, including the Multi-Hazard Pre-Disaster Mitigation Plan.

The City has already begun to include sea level rise and other climate change considerations into its long range policy plans. We have also been requesting that climate change impacts be defined for major land use proposals. The City also established via City Charter our permanent Office of Climate Change, Sustainability and Resiliency which has quickly built capacity to coordinate policies and departmental action to plan for and address climate change impacts.

While we support the concept of proactive actions such as modeling for mapping purposes and participation in the community rating system called for in this bill, we are concerned that this Bill mandates city actions without funding to carry them out. These are not one-time costs, but reflect an ongoing commitment. These activities are not currently in the City's budget and we request that Senate Bill No. 2334 SD1 include permanent funding to assist the City and other counties in this work.

Thank you for the opportunity to testify.



**SB-2334-SD-1**

Submitted on: 2/11/2018 9:45:04 PM

Testimony for WAM on 2/13/2018 10:30:00 AM

| <b>Submitted By</b> | <b>Organization</b> | <b>Testifier Position</b> | <b>Present at Hearing</b> |
|---------------------|---------------------|---------------------------|---------------------------|
| Cory Harden         |                     | Support                   | No                        |

Comments:

Aloha legislators,

Please support planning ahead to keep down the social and financial costs of sudden and slow-motion disasters.

mahalo,

Cory Harden, Hilo