

STATE OF HAWAII
DEPARTMENT OF DEFENSE
HAWAII EMERGENCY MANAGEMENT AGENCY

TESTIMONY ON SENATE BILL 2334
A BILL RELATING TO PLANNING

PRESENTATION RELATING TO
THE INCLUSION OF SEA LEVEL RISE AND OTHER
CLIMATE CHANGE HAZARDS INTO APPLICABLE PLANS
AND STRATEGIES

BY

VERN T. MIYAGI
Administrator, Hawaii Emergency Management Agency (HI-EMA)

Chairs Kim, Rhoads, Nishihara, Vice Chairs Ruderman, Gabbard, and Wakai and Members of the Committee on Water and Land

Aloha - I am Vern T. Miyagi, Administrator of Hawaii Emergency Management Agency. I am submitting comments regarding SB 2334. The Stafford Act requires states and counties to submit Hazard Mitigation Plans to FEMA at least every five years to be eligible for certain types of disaster assistance, including public assistance and hazard mitigation grant program funding after a presidentially declared disaster. These plans identify the natural hazards that affect each jurisdiction and through combined efforts of affected stakeholders (e.g. state and county planners, university professors, scientists, community organization, and others) lay out mitigation strategies and projects to reduce the long-term impacts of these hazards. HI-EMA oversees this planning with the support of the State Hazard Mitigation Forum. Sea level rise and climate change have been among the top hazards considered in the development of these hazard mitigation plans and FEMA mitigation plan guidance already requires their inclusion. Climate Change Effects are addressed in chapter 18 of the current *State of Hawaii Hazard Mitigation Plan* that has been in effect since 2013.

The recent sea level rise vulnerability/adaptation report commissioned by the state's Interagency Climate Adaptation Commission will be a major consideration in the state hazard mitigation plan update which is due in October of 2018. This report also includes potential actions that are very consistent with the intent of SB 2334 such as the incorporation of sea level rise into state and county hazard mitigation plans.

I would submit that sufficient sea level rise and climate change considerations are already required for state and county multi-hazard plans. Thank you for the opportunity to comment on Senate Bill 2334.

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GOVERNOR OF
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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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Testimony of
SUZANNE D. CASE
Chairperson

Before the Senate Committee on
GOVERNMENT OPERATIONS
and
WATER AND LAND
and
PUBLIC SAFETY, INTERNATIONAL, AND MILITARY AFFAIRS

Tuesday, January 30, 2018
3:30 PM
State Capitol, Conference Room 224

In consideration of
SENATE BILL 2334
RELATING TO PLANNING

Senate Bill 2334 proposes to require State and counties to incorporate predictions of sea level rise and other climatic change hazards and mitigation opportunities into applicable plans, strategies, and mapping, to increase our State's resiliency and ability to properly respond to natural disasters. **The Department of Land and Natural Resources (Department) offers the following comments.**

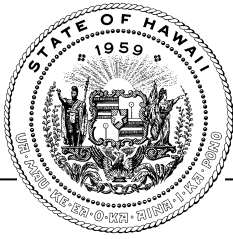
Senate Bill 2334 proposes to add a new section to Chapter 127A, Hawaii Revised Statutes, that requires agencies to incorporate findings of the Hawaii Sea Level Rise Vulnerability and Adaptation Report into their multi-hazard mitigation plans. The measure further proposes to require agencies to consider sea level rise in pre-disaster planning and post-disaster recovery strategies, incorporate sea level rise modeling into floodplain mapping, and require each County to participate in the community rating system developed by the national flood insurance program.

In December 2017, the Hawaii Climate Change Mitigation and Adaptation Commission accepted the Hawaii Sea Level Rise Vulnerability and Adaptation Report (SLR Report). Recommendation 3 of the SLR Report includes a number of potential actions that are consistent with Senate Bill 2334 such as, "Adopt Higher Flood Standards to Account for Sea Level Rise,"

“Consider Adopting V Zone Standards in the Coastal A Zone,” “Provide Technical and Financial Support to a Statewide Community Rating System Program,” “Encourage Property Owners at Risk to Coastal Flooding to Purchase Flood Insurance,” “Incorporate Sea Level Rise into State and County Hazard Mitigation Plans,” and “Develop Pre-disaster Recovery Frameworks at State and County Levels that Incorporate Opportunities to Adapt to Sea Level Rise Through Disaster Recovery.”

It is our understanding that the Hawaii Emergency Management Agency (HI-EMA) will consider the findings of the SLR Report in their state hazard mitigation plan update. Therefore, to the extent that the proposed measure relates to the Hawaii Emergency Management Agency’s (HIEMA) programs and operation, the Department respectfully defers to HIEMA.

Thank you for the opportunity to comment on this measure.



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Statement of
LEO R. ASUNCION
Director, Office of Planning
before the
**SENATE COMMITTEE ON GOVERNMENT OPERATIONS,
COMMITTEE ON WATER AND LAND,
COMMITTEE ON PUBLIC SAFETY, INTERGOVERNMENTAL AND MILITARY
AFFAIRS**

Tuesday, January 30, 2018
3:30 PM
State Capitol, Conference Room 224

in consideration of
SB 2334
RELATING TO PLANNING.

Chairs Kim, Rhoads and Nishihara, Vice Chairs Ruderman, Gabbard and Wakai, and Members of the Senate Committees on Government Operations, Water and Land, and Public Safety, Intergovernmental and Military Affairs.

SB 2334 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, and respectfully offers the following comments on this measure:

1. Hawaii Revised Statutes (HRS) Chapter 127A relating to Emergency Management, is to provide emergency management by the State, and to authorize the creation of local organizations for emergency management in the counties of the State. Given that planning to mitigate climate change hazards is a long-term process, the new section of "Climate change hazards and mitigation planning" that will be added to HRS Chapter 127A does not match the emergency management purpose of HRS Chapter 127A.
2. OP recommends that it may be more appropriate for "Climate change hazards and mitigation planning" to be added to HRS Chapter 226, Hawaii State Planning Act. We note that Act 286, Session Laws of Hawaii 2012, added HRS Section 226-109 "Climate change adaptation priority guidelines" to the Hawaii State Planning Act.

3. The State and counties should incorporate climate change hazards and mitigation planning to respective state functional plans, county general plans and county development or community plans. Given that climate is evolving and sea level rise projections need ongoing updates, findings of the “Hawaii Sea Level Rise Vulnerability and Adaptation Report” prepared by the Hawaii climate change mitigation and adaptation commission are initial, and would be further updated in the future.
4. Therefore, OP recommends to add new section of “Climate change hazards and mitigation planning” to HRS Chapter 226, to read as follows:

“§ 226-_____ Climate change hazards and mitigation planning; required.
The State and each county shall incorporate evaluations, predictions, and recommendations pertaining to climate hazards and mitigation into the State plan and functional plans, county general plan, and county development plan. Those plans shall incorporate or refer to findings from the “Hawaii Sea Level Rise Vulnerability and Adaptation Report” prepared by the Hawaii climate change mitigation and adaptation commission.”

Thank you for the opportunity to offer these comments.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committees on Government Operations, Water and Land, and Public Safety,
Intergovernmental, and Military Affairs
Tuesday January 30, 2018 at 3:30pm

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 – RELATING TO PLANNING

Chairs Kim, Rhoads, and Nishihara, Vice Chairs Ruderman, Gabbard, and Wakai and members of the committees:

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 Approved Supplemental Budget.

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 HAWAII
MĀLAMA I KA HONUA. *Cherish the Earth.*

SENATE COMMITTEE ON GOVERNMENT OPERATIONS

SENATE COMMITTEE ON WATER AND LAND

SENATE COMMITTEE ON PUBLIC SAFETY, INTERGOVERNMENTAL, AND MILITARY AFFAIRS

Tuesday, January 30, 2018 3:30PM Conference Room 224

In SUPPORT of SB 2334 Relating to planning

Aloha Chairs Kim, Rhoads, Nishihara, Vice Chairs Ruderman, Gabbard, Wakai, and members of the Committees,

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**, requiring that the State and counties incorporate predictions of sea level rise and other climate change hazards and mitigation opportunities into applicable plans, strategies, and mapping.

This bill, which provides the legislative mandate needed to implement recommendations from the "Hawai'i Sea Level Rise Vulnerability and Adaptation Report"¹ (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.

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

¹ https://climateadaptation.hawaii.gov/wp-content/uploads/2017/12/SLR-Report_Dec2017.pdf

community stakeholders in making decisions about land use in the event that a major 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.

Thank you for the opportunity to testify in support of SB 2334.

SB-2334

Submitted on: 1/28/2018 10:59:59 PM

Testimony for GVO on 1/30/2018 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Rachel L. Kailianu	Ho`omana Pono, LLC	Support	Yes

Comments:

SB-2334

Submitted on: 1/29/2018 9:56:19 AM

Testimony for GVO on 1/30/2018 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Benton Kealii Pang, Ph.D.	Hawaiian Civic Club of Honolulu	Support	No

Comments:

SB-2334

Submitted on: 1/29/2018 8:37:21 AM

Testimony for GVO on 1/30/2018 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joan Gannon	West Hawaii CHC	Support	No

Comments:

Adding new development where we expect it to be inundated with sea water is a waste of tax payer money.

SB-2334

Submitted on: 1/27/2018 7:27:07 AM

Testimony for GVO on 1/30/2018 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Shyla Moon		Support	No

Comments:

Could you please include boat harbors as a high priority. There's a great need to incorporate climate and planning around the ocean. Thanks for bringing this up.

SB-2334

Submitted on: 1/27/2018 11:46:23 AM

Testimony for GVO on 1/30/2018 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez-Alvarez		Support	No

Comments:

SB-2334

Submitted on: 1/27/2018 4:47:20 PM

Testimony for GVO on 1/30/2018 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Richard Reed		Support	No

Comments:

With the documented increase in the rate of raising sea level this is an important bill. Adding new development where we expect it to be inundated is a waste of taxpayers money and hazardous to life. This bill would be even more important if at the end of Sec. 4 a line was added to the effect of, "State funds shall not be used inside that hundred year zone for any new development."

SB-2334

Submitted on: 1/28/2018 1:22:40 PM

Testimony for GVO on 1/30/2018 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Catherine Courtney		Support	No

Comments:

I fully support SB 2334. I respectfully request that additional language be included to begin to bridge the gap between hazard mitigation plans and other state and county plans. This language would indicate that climate change hazards incorporated into multi-hazard mitigation plans should be made available and incorporated into other state and county planning processes, such as general plans, community plans, functional plans, and capital improvement programs. Thank you Senators, for taking such quick action on the recommendations in the SLR Report..

SB-2334

Submitted on: 1/29/2018 9:06:20 AM

Testimony for GVO on 1/30/2018 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Phil Barnes		Support	No

Comments:

This is a prudent step to mitigate future government obligations as the sea level rises.

SB-2334

Submitted on: 1/29/2018 12:46:58 PM

Testimony for GVO on 1/30/2018 3:30:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
		Support	No

Comments:

Chairs Kim, Rhoads and Nishihara and members of the Committee on Government Operations, Water and Land, and Public Safety, Intergovernmental, and Military Affairs:

I **STRONGLY SUPPORT** the intent of this bill to have our State and County agencies start to incorporate information current and future predicting sea level rise and the inherent implications upon our infrastructure within the potentially affected areas.

Upon my own review of the "Hawaii Sea Level Rise Vulnerability and Adaptation Report" prepared by the Hawaii climate change mitigation and adaptation commission and utilizing the Sea Level Rise Viewer, it has become apparent that the community in which I live will become severely impacted with both our coastal highway and amenities, e.g. recreational fields/parks, being so severely affected by the maximum sea level rise quantified as to either be unpassable for most for the year or underwater and unusable for our community members. In fact, in the extreme situation, I find that two houses/properties, belonging to cousins will be underwater or severely impacted on a regular basis causing those properties to be unusable.

Without the State and City starting to address future impacts and taking steps now to mitigate these predictions, we will see future generations not being able to more readily be able to mitigate these foreseen circumstances in a coordinated, logical and methodical manner.

Therefore, I **strongly support** this bill being adopted to start the process of utilizing information that is currently available to PLAN our future more cohesively.

Mahalo,

Cynthia K.L. Rezentes