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DEPARTMENT OF LAND AND NATURAL RESOURCES  
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HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

Testimony of  
RYAN K.P. KANAKA'OLE  
Acting Chairperson

Before the Senate Committees on  
WATER, LAND, CULTURE AND THE ARTS  
and  
AGRICULTURE AND ENVIRONMENT



Wednesday, February 11, 2026  
1:00 PM  
State Capitol, Conference Room 224

In consideration of  
SENATE BILL 237  
RELATING TO ADAPTATION PATHWAYS PLANNING

Senate Bill 237 proposes to expand the authority of the State and counties to develop adaptation pathways plans to modify and relocate infrastructure away from critically threatened areas to locations outside sea level rise and coastal flooding exposure areas. **The Department of Land and Natural Resources strongly supports this bill.**

A 2012 study by University of Hawai'i researchers for the United States Geological Survey found that over 13 miles of public beaches have already been lost to beach erosion and construction of coastal armoring including seawalls and revetments. The 2017 Hawai'i Sea Level Rise Adaptation and Mitigation Report identifies that at least 25,800 acres of land are in the sea level rise exposure area at a projected 3.2 feet of sea level rise. This includes the flooding of 38 miles of major roads, 6,500 structures, and 550 cultural sites, and the displacement of approximately 19,800 people. This bill enables state and county agencies with land management responsibility in the coastal zone to work with property owners at a regional scale to identify appropriate adaptation measures and environmental and structural triggers for action for structures and communities threatened by sea level rise.

Long-term observational data from local tide gauge stations show that sea level is rising around Hawai'i. Beach loss and threats to shorefront development will increase exponentially in coming decades with coastal erosion and flooding exacerbated by sea level rise if adaptation measures are not proactively implemented. As outlined in the 2022 5-Year Update to the Hawai'i Sea Level

Rise Vulnerability and Adaptation Report, peer-reviewed scientific literature and government and multinational reports increasingly point to three to four feet of sea level rise by 2100 as a mid-range scenario for Hawai'i.

Current models indicate that Hawai'i and other tropical Pacific sites will experience sea level rise that is 16% to 20% higher than the global average<sup>1</sup>. These predictions make it imperative to act now.

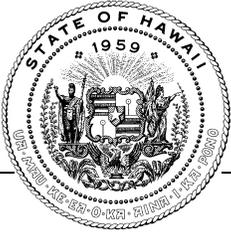
Adapting to sea level rise and associated coastal hazards is a multi-faceted endeavor. State and county agencies currently use known tools, such as beach and dune restoration, temporary shoreline armoring, and flood mitigation such as elevating buildings to address threats on an ad hoc, parcel-by-parcel basis. Senate Bill 237 would build on previous and ongoing efforts to conduct proactive and coordinated planning to prepare for increasing coastal erosion, flooding other associated coastal hazards with a location-specific suite of adaptation measures. Furthermore, Senate Bill 237 addresses the following priority action areas from the 2017 and 2022 Hawai'i Sea Level Rise Vulnerability and Adaptation Reports:

- Facilitate interagency coordination for holistic adaptation planning (e.g., comprehensive consideration and planning for natural resources, roads, communities; and improved communications between government agencies);
- Conserve and adapt Native Hawaiian cultural resources and sites;
- Integrate equity and justice considerations to vulnerability assessments and adaptation planning and actions;
- Address and stop the loss of shoreline access;
- Integrate economic valuation and ecosystem co-benefits of natural coastal resources into planning and actions;
- Make managed retreat a viable option and identify funding mechanisms for adaptation; and
- Implement phased adaptation to sea level rise.

Mahalo for the opportunity to comment on this measure.

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<sup>1</sup> Sweet, W.V., B.D. Hamlington, R.E. Kopp, C.P. Weaver, P.L. Barnard, D. Bekaert, W. Brooks, M. Craghan, G. Dusek, T. Frederikse, G. Garner, A.S. Genz, J.P. Krasting, E. Larour, D. Marcy, J.J. Marra, J. Obeysekera, M. Osler, M. Pendleton, D. Roman, L. Schmied, W. Veatch, K.D. White, and C. Zuzak, [2022: Global and Regional Sea Level Rise Scenarios for the United States: Updated Mean Projections and Extreme Water Level Probabilities Along U.S. Coastlines](#). NOAA Technical Report NOS 01. National Oceanic and Atmospheric Administration, National Ocean Service, Silver Spring, MD.



**STATE OF HAWAII  
OFFICE OF PLANNING  
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Statement of  
**MARY ALICE EVANS, Director**

before the  
**SENATE COMMITTEES ON WATER, LAND, CULTURE AND THE ARTS &  
AGRICULTURE AND ENVIRONMENT**

Wednesday, February 11, 2026, 1:00 PM  
State Capitol, Conference Room 415

in consideration of  
**SB 237**  
**RELATING TO ADAPTATION PATHWAYS PLANNING.**

Chairs Lee and Gabbard, Vice Chairs Inouye and Richards, and Members of the Senate Committees on Water, Land, Culture and the Arts & Agriculture and Environment:

The purpose of SB 237 is to appropriate funds to the Department of Land and Natural Resources to develop adaptation pathway plans to facilitate natural resource conservation and reduce the loss of public and private infrastructure to damage associated with sea level rise and flooding.

The Office of Planning and Sustainable Development (OPSD) **appreciates the intent** of this bill as it complements current OPSD efforts to address coastal hazards and adaptation planning. In accordance with HRS§225M-2(b)(9) and HRS§225M-9, the OPSD Coastal Zone Management Program (CZM) is engaging in activities to further understand, support and coordinate adaptation efforts across the state.

- **Regional Shoreline Management**: OPSD has developed a proposed methodology for identifying shoreline regions and subregions for adaptation planning and management purposes. A regional scale approach to adaptation planning would facilitate a more comprehensive understanding of our coastlines, and the cumulative impacts of individual coastal adaptation strategies.
- **Coastal Adaptation Strategies**: Analyze the existing challenges and opportunities to the adaptive response to climate change induced coastal hazards including sea level rise, erosion, and flooding. Increase understanding of the range of adaptation strategies appropriate for the State, including the use of adaptation pathways.
- **Pilot Projects & Implementation**: Through a subaward from the University of Hawai'i's Sea Grant, Pili Nā Moku project, OPSD CZM will be piloting the regional shoreline management strategy (ie. identifying shoreline regions and subregions; working with communities to develop a regional scale adaptation plan) within three moku across the state.

SB 237 RELATING TO ADAPTATION PATHWAYS PLANNING – SUPPORT  
Office of Planning and Sustainable Development  
February 11, 2026

The tasks outlined in SB 237 would complement the OPSD CZM's work in developing, coordinating and implementing coastal adaptation planning.

Thank you for the opportunity to testify on this measure.



To: The Honorable Chairs Senators Chris Lee and Mike Gabbard, the Honorable Vice Chairs Lorraine Inouye and Herbert M. "Tim" Richards III, and Members of the Water, Land, Culture and the Arts and Agriculture and Environment Committees.

From: Hawai'i Reef and Ocean Coalition (by Ted Bohlen)

Re: **Hearing SB237 RELATING TO ADAPTATION PATHWAYS PLANNING.**

Hearing: Wednesday February 11, 2026, 1:00 p.m., room 224

Aloha Chairs Lee and Gabbard, Vice Chairs Inouye and Richards, and Members of the Water, Land, Culture and the Arts and Agriculture and Environment Committees!

The Hawai'i Reef and Ocean Coalition (HIROC) is a group of scientists, educators, filmmakers and environmental advocates who have been working since 2017 to protect Hawaii's coral reefs and ocean.

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**The Hawai'i Reef and Ocean Coalition STRONGLY SUPPORTS SB237!**

**Sea level rise is coming!** Our communities need to plan now on how, where, and when to pull back from the shoreline and inundation zone, particularly for critical infrastructure that serves public needs. Long term adaptation pathways planning will conserve natural resources, limit damage to public and private facilities, and reduce costs to taxpayers. Failing to plan in this context is planning to fail.

This bill would expand the authority of the State and counties to develop adaptation pathways plans to modify and relocate infrastructure away from critically threatened areas to locations outside sea level rise and coastal flooding exposure areas.

Please pass this bill!

Mahalo!

Hawai'i Reef and Ocean Coalition (by Ted Bohlen)



**SanHi**

GOVERNMENT STRATEGIES

A LIMITED LIABILITY LAW PARTNERSHIP

DATE: February 10, 2026

TO: Senator Chris Lee  
Chair, Committee on Water, Land, Culture & the Arts

Senator Mike Gabbard  
Chair, Committee on Agriculture & Environment

FROM: Mihoko Ito / Chris Delaunay  
SanHi Government Strategies LLP

RE: **S.B. 237 – Relating to Adaptation Pathways Planning**  
**Hearing Date: Wednesday, February 11, 2026 at 1:00 PM**  
**Conference Room 224**

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Aloha Chair Lee, Chair Gabbard and Members of the Joint Committees:

The Kahana Bay Steering Committee (KBSC) submits this testimony in **opposition** to S.B. 237, which expands the authority of the State and counties to develop adaptation pathways plans to modify and relocate infrastructure away from critically threatened areas to locations outside sea level rise and coastal flooding exposure areas.

KBSC is a group of nine condominium properties and one residential shoreline parcel at Kahana Bay on Maui that are actively working together to address severe and ongoing beach erosion. In 2017, KBSC members formed the Kahana Bay Steering Committee to develop, plan, implement and fund a regional erosion mitigation project. Kahana Bay's regional mitigation plan efforts have stalled due to lack of government agreement on a solution, and the continuing erosion and wave impacts are threatening structures and infrastructure and affecting public shoreline use.

While KBSC supports proactive planning to address sea level rise and coastal erosion, S.B. 237 as currently drafted raises serious concerns from the standpoint of private property housing and community preservation. In particular, we are concerned the bill overly prioritizes managed retreat as the anticipated end goal, rather than establishing preservation of existing shoreline communities as a primary public policy objective.

This policy orientation is deeply concerning. Shoreline communities are not temporary or expendable. They represent major concentrations of housing, a significant tax base, and significant public and private infrastructure investment. By embedding regulatory planning that anticipates eventual displacement, S.B. 237 signals to property owners that shoreline communities are destined for

abandonment, regardless of potential regional mitigation or ecosystem restoration wherever feasible.

We believe that public policy should instead represent a rebalanced framework that prioritizes preservation where feasible, with managed retreat used only when no reasonable alternative exists. This would be consistent with the 2019 managed retreat study done by the Office of Planning and Sustainable Development, which also concluded managed retreat should be employed as a last resort. Prioritizing managed retreat will destabilize already susceptible shoreline communities and create an economic decline that would occur long before physical conditions actually require retreat. S.B. 237 authorizes regional-scale adaptation planning, but fails to meaningfully require strategies that could preserve communities, including regional shoreline mitigation strategies like groin projects, sand replenishment, and sediment management. To the extent that this bill may ultimately require the removal of lawful property uses or abandonment of existing infrastructure, it must also address regulatory strategies to address constitutional takings concerns.

Given these concerns, we would suggest that this bill be amended at a minimum to:

- 1) Prioritize the preservation of existing lawful development and infrastructure wherever reasonably feasible through regional mitigation strategies and environmental restoration, using managed retreat as a last resort only when no other feasible alternatives exist.
- 2) Redefine “adaptation pathways” through a hierarchy that addresses strategies including:
  - (a) Preservation in place through engineering and nature-based solutions;
  - (b) Accommodation through elevation, floodproofing, and design adaptation;
  - (c) Regional mitigation strategies; and
  - (d) Managed retreat only when preservation and accommodation are no longer feasible.
- 3) Require a regional mitigation analysis before managed retreat to evaluate and prioritize regional strategies designed to preserve existing development.
- 4) Allow managed retreat strategies to only advance where the planning authority makes specific written findings that other mitigation strategies are not reasonably feasible.
- 5) Add property rights protections by requiring any shoreline adaptation plan that contemplates removal, relocation, or abandonment of existing lawful development to include an analysis of potential regulatory takings impacts and compensation mechanisms.

For these reasons, we respectfully oppose S.B. 237 unless it is amended to address these concerns. Mahalo 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

**LATE**

Testimony Presented Before the  
Senate Committee on Water, Land, Culture and the Arts  
and  
Senate Committee Agriculture and Environment  
Wednesday, February 11, 2026 at 1:00 p.m.

By  
Charles "Chip" Fletcher, PhD  
Interim Dean  
School of Ocean and Earth Science and Technology  
and  
Darren Lerner, PhD  
Director, Sea Grant College Program  
and  
Vassilis L. Syrmos, PhD  
Provost  
University of Hawai'i at Mānoa

#### SB 237 – RELATING TO ADAPTATION PATHWAYS PLANNING

Chairs Lee and Gabbard, Vice Chairs Inouye and Richards, 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 Senate Bill 237**, which expands the authority of the State and counties to develop adaptation pathways plans to modify and relocate infrastructure away from critically threatened areas to locations outside sea level rise and coastal flooding exposure areas and appropriates funds.

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 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.

The research that goes into identifying Hawai'i's exposure to sea level rise has been developed by the University of Hawai'i, School of Ocean and Earth Science and

Technology. In order to develop comprehensive adaptation strategies to address these sea level threats, the HCCMAC needs ongoing financial support from the State to implement adaptation plans and strategies. CRC and Hawaii Sea Grant are available to provide updated sea level rise data and projections and examples of relevant adaptation to the Committee or any lawmaker upon request.

CRC and Hawai'i Sea Grant support Senate Bill 237. Thank you for the opportunity to testify on this measure.